Draft
(For Official Use Only)

GOVERNMENT OF PAKISTAN
PLANNING COMMISSION



Three Year Development Programme 2001-04

Islamabad
February 26, 2001

C-10688
VIQAR AHMED
Lahore

Draft 17th May 20
For Official Use Only

GOVERNMENT OF PAKISTAN
PLANNING COMMISSION

Three Year Development Programme 2001-04



4190
Acc 11709

Islamabad
February 26, 2001

CONTENTS

		Page No.
Summary		(iii)
	Part-I	
	Economic Framework and Governance	
Chapter		
1.	Strategic Directions for 2001-2004	3
2.	Macroeconomic Framework for Revival of Growth	15
3.	Balance of Payments	39
4.	Fiscal and Monetary Policy and Capital Market	49
5.	Governance and Civil Society	61
6.	A Strategy for Debt Reduction and Management	73
7.	Privatization	79
	Part-II	
	Productivity, Technology and Production	
8.	Employment Policy	85
9.	Education and Training	107
10.	Science and Technology	119
11.	Information Technology	129
12.	Manufacturing and Minerals	141
13.	Agriculture, Livestock and Fisheries	159
	Part-III	
	Physical Infrastructure	
14.	Water Resources Development	181
15.	Energy Development	195
16.	Transport and Communications	217
17.	Physical Planning and Housing	239
	Part-IV	
	Social Infrastructure	
18.	Health and Nutrition	247
19.	Population and Development	259
20.	Gender and Development	265
21.	Environment and Development	279
	Part-V	
	Public and Private Sector Investment	
22.	Investment Programme 2001-04	293

Three Year Development Programme 2001-04

SUMMARY

The Three Year Development Programme 2001-04 mainly aims at the revival of the economy and regeneration of the growth process, productivity enhancement, employing the unemployed and poverty reduction. GDP has been projected to grow on average at 5 per cent per annum during the Programme period.

2. The driving force behind the macroeconomic framework for 2001-2004 is to focus policy and resources on lifting the economy by its own bootstraps. Its successful implementation will reinforce national economic independence by eliminating the need to access extra-ordinary external resources (including those from the IMF) and by boosting up national morale in general and business confidence in particular. It will lay down the basis for sustained economic growth by reducing fiscal deficit from 5.2 percent of GDP in 2000-01 to 3.0 per cent in 2003-04. This will be accomplished by increasing revenue rather than reducing development expenditure. Revenues will go up by about Rs. 100 billion each year beyond the base year target of Rs. 585 billion. Development expenditure has been planned to rise from 3.3 per cent of GDP (Rs.115 billion) to 4.1 per cent of GDP (Rs. 193 billion) The external account deficit will go down from 2.0 percent of GDP in 2000-01 ($ 1.2 billion) to 0.8 percent in 2003.04 ($ 0.65 billion). Trade deficit will be reduced from $ 1.3 billion to $ 0.6 billion, which will require a steady export growth of 10 per cent per annum. External and internal debt levels will be stabilised through accelerated privatization, by securing improved terms with the creditors, and by cutting down unnecessary current expenditure A gas-led energy development strategy is being put in place to reduce the country's dependence on imported fuels.

3. The national saving rate is envisaged to increase from 13.5 percent of GDP in 2001 to 16.2 percent in 2004, which will help in reducing dependence on external resources. The 2001-04 macroeconomic framework calls for strong fiscal adjustment while the balance of payments takes into account a possible funding arrangement with the IMF including rescheduling in the context of its Poverty Reduction and Growth Facility (the PRGF). However, if the $ 4 billion programme of privatization proceeds as planned and direct purchases in the market continue at the present level, a fall-back position exists with regard to the balance of payments.

4. The emphasis on maintaining realistic growth and stable prices (average annual inflation rate of 5.2 per cent) will help reduce poverty by increasing income per capita from Rs.24,359 ($ 420) to Rs.26,941 ($ 465) in constant 2001 prices. Increasing the investment rate from 15.5 percent to 17.0 per cent will create 2.5 million new jobs, the best means of reducing poverty and empowering people.

5. In accordance with the policy objectives embodied in the 2001-04 macro-framework, the development expenditure would grow at about 19 per cent per annum. Out of a three-year total of Rs. 492 billion, Rs. 294 will be utilised by the Federal Ministries, Rs. 25 billion has been allocated for Special Areas and Special Programmes

and Rs. 173 billion has been kept for the provinces. The allocations take into account the requirements of on-going schemes and yet attempt to provide space for the new schemes.

6. The new initiatives of poverty reduction and information technology claim 18 per cent of the budgetary outlays, transport and communication gets 14.5 per cent, energy 12 per cent and water resources 11 per cent. Most important, the Federal Government would be launching major projects in the provinces. Thus work will start on the Greater Karachi Water Supply Expansion Project and the Right Bank Outfall Drain in Sind, the Quetta Water Supply/Sanitation Project and the Mekran Coastal Highway in Balochistan, Gomal Zam Dam in the NWFP and Barrages Modernization and Channels Lining Projects in the Punjab.

7. To achieve the agriculture growth target of 4 per cent per annum, availability of improved seeds, fertilizers, credit and other inputs especially water to farmers will be ensured. Measures will be undertaken to reform irrigation and drainage system for increasing water availability though conservation and better management. Fifty per cent of additional water would be utilized for increasing cropping intensity. Work will start on major storage/carry-over dams within the Programme period. Legal safeguards against adulteration of critical inputs will be provided and research activities strengthened to evolve disease resistant and high yielding crop varieties. Special wheat, oil seed and pulses promotion programmes will be initiated to broaden the agricultural base and to reduce import of these items. Reform of agrarian structure will move in the direction of corporate farming.

8. Manufacturing sector is expected to grow at the rate of 5.9 per cent per annum, with the large scale manufacturing growth fixed at 6.2 per cent. The sector would be strengthened with export orientation. Emphasis would be on development of small and medium enterprises (SMEs). This growth would materialize through improvement in industrial productivity, which is essential for revitalization of growth and exports. Productivity will be improved by the formation of cluster-based technology parks embodying research and development, technology up-gradation and human resource development, especially improvement in management and policy environment. Tariff rationalization and export orientation are also expected to improve total productivity as these are expected to result in specialization in accordance with the comparative advantage through inter-sectoral transfers. To meet the changing industrial and technological requirements particularly ISO-9000 series certification and pollution control, the proposed strategy during 2001-04 will have major focus on the formation of a technology triangle between Government, private sector and S&T and R&D institutions.

9. Over the next three years, it has been planned to increase gas production from 2722 MMCFD in 2000-01 to 3200 MMCFD in 2003-04. Electricity generation has been planned to increase by 14.4 per cent, increasing the installed capacity from 17710 MW in 2000-01 to 19052 MW in 2003-04, showing an average annual increase of 4.6 per cent.

10. Services sector as a whole is planned to grow at an average rate of 5.1 per cent per annum. The main contributors of value addition in this sector are transport & communications and trade. A new contribution to value added in services is expected from information technology which would, on the one hand, expand employment and, on the other hand, enhance productivity and efficiency of the existing services.

11. During 2001-04, human development will advance side by side with economic growth and development. The

percentage of population unable to secure minimum necessary 2150 calories per day will be brought down from 30 to 25 per cent and the human poverty index will improve from 44 to 35 per cent. In education, the most important target is to significantly enhance female literacy rate from 39 to 47 per cent, primary school enrolment from 83 to 94 per cent, elementary school enrolment from 57 to 66 per cent and secondary enrolment from 35 to 45 per cent. The number of scientists and engineering per thousand population will be raised from 116 to 295 and the proportion of GDP allocated to research and development will be doubled.

12. Life expectancy will gain by one year and population without access to health services will decline from 35 to 30 per cent. Mother and child will receive the focus they deserve. Malnutrition of children under 5 will decline from 39 to 35 per cent, infant mortality rate will decline from 81 to 75 per thousand live births, maternal mortality rate from 350 to 300 per 100,000 live births. Incidence of low birth weight babies will be reduced from 25 to 20 per cent through programmes of targetted food distribution and using parent-teacher links. Environmental targets include reducing population without access to safe water from 37 to 34 per cent and population without access of clean air from 50 to 40 per cent. This will be approached by increasing investment in water supply system and by initiating a crash programme of legislation and enforcement to control emission in hot spots such as Karachi, Lahore, Rawalpindi, Hyderabad, Multan and Faisalabad.

13. Last but not the least, 75 per cent of the reform in civil services, judiciary, police, local governance, education as well as economic and financial governance will be implemented by 2001-04. The governance issues are multi-dimensional yet their resolution does not require significant financial resources. On the contrary, good governance if implemented with the sincerity of purpose and conviction, would lead to huge savings of public funds. Poor governance basically leads to inefficient utilization and distribution of resources, and the purpose of good economic management is always focussed on maximization of returns and reduction of cost. Not only that good governance leads to economic gains but also increases public satisfaction as well as give its civil society a sense of participation. It also reduces distribution cost of social and economic services. In the context of Pakistan, which has been suffering from inefficient and corrupt practices of the past, declining rates of growth in the economy, rising unemployment and acute shortage of internal and external finances, the best hope lies in institutional reform and restructuring of the existing system of governance.

14. In 2004, Pakistan will be a growing economy and a stable and investor-friendly polity with improved socio-economic indicators and governance, looking forward to a relatively prosperous future.

PART I

Economic Framework and Governance

CHAPTER 1

STRATEGIC DIRECTIONS FOR 2001-2004

A New Development Agenda

Since October 1999, the new Government of General Pervez Musharraf has pursued a comprehensive agenda of ***economic stabilization and reform***, announced first as a 7-point programme on October 17, 1999 and then a more detailed economic revival package in December. The determination to carry out bold structural and institutional reform was articulated further on May 25, 2000. The result of this dogged determination to engineer and manage change has been the return of economic growth in 1999-2000. Although the fiscal deficit at 5.2 per cent of GDP turned out to be significantly higher than the targeted 3.3 per cent, the economy registered a growth rate of 4.5 per cent, propelled by a vibrant agriculture.

1.2. These are only the initial gains of what is emerging as a new development agenda, the strategic elements of which were provided in the announcement on October 17, 1999. These are: (a) rebuild national confidence and morale; (b) strengthen federation, remove inter-provincial disharmony and restore national cohesion; (c) revive economy and restore investor confidence; (d) ensure law and order and dispense speedy justice; (e) de-politicize state institutions; (f) devolution of power to the grassroots level; and (g) ensure swift and across the board accountability.

1.3. In the short run, the ***revival of the economy*** took precedence over other objectives. The basic objective for the economy was declared as ensuring that all economic policies positively impact on the common man. A number of initiatives were announced on December 15, 1999 to build the confidence of resident Pakistanis, Overseas Pakistanis and foreign investors. They were promised stability and continuity of policy, transparency of decision making and accountability for non-transparent decisions. Government functionaries would be selected on merit and continue only on the basis of performance. Importantly, an apology was offered at the highest level for the decision of freezing foreign currency accounts in May 1998 held largely by expatriate Pakistanis. Steps were also taken to move towards a resolution of the pricing policy issues of Independent Power Producers, largely foreign investors. The thorny HUBCO tariff issue has also been resolved.

1.4. Specific measures were announced to effectively ***reduce the twin deficits, fiscal and the current account***. In addition to cutting wasteful expenditure, measures were instituted to broaden the tax base by imposing tax on agriculture income, application of General Sales Tax at all stages, launching the survey to document the

economy and by implementing an extremely successful Tax Amnesty Scheme. A commitment was given that no schemes to whiten black money would be announced in future. To improve the external accounts, a clear cut commitment was made for export promotion and reduction of external debt by earmarking the proceeds of privatization for this purpose.

1.5. On May 25, 2000 further measures were announced for ***efficient and good governance*** in all federal and provincial departments, ministries, autonomous and semi-autonomous corporations. These were considered essential for the implementation of the economic revival programme. The major steps included rightsizing by surrendering 30,000 unnecessary posts and setting up of a Committee on Civil Service Reforms, quality enhancement, strengthening of Public Service Commission and the reform of the Establishment Division and Central Board of Revenue. To improve law and order, work was started on police reforms.

1.6. National integration would be achieved through ***a balanced and just approach towards all provinces***. This would enclose equitable distribution of resources, funds and employment opportunities. A new National Finance Commission has already been set up to work out a just formula for the federal-provincial resource distribution. Provincial Finance Commissions will also be set up to apportion resources between the provinces and the local governments. Indus River System Authority (IRSA) has been reconstituted for equitable distribution of water.

Empowering the People

1.7 The centre-piece of the new development agenda is the most ambitious reform process in the nation's history to empower the people of Pakistan. On August 14, 2000, the final shape of the ***Democratic Local Government Plan 2000*** was unveiled. The proposed Local Government Plan with its proposed 105-110 District governments from August 14, 2001 integrates the rural with the urban local governments on the one hand, and the bureaucracy with the local governments on the other, into one coherent structure in which the district administration is answerable to the elected chief executive of the district. Citizen monitoring by elected representatives, the civil society's involvement with development, and a system of effective checks and balances, completes the hard core of the political structure and system of the Local Government.

1.8. The administrative set-up will be rationalized by defining lines of responsibility clearly, and providing protection against political interference and transfers on non-professional grounds. To ensure coherent development and adequate provision of services, the administration and the police will work under the elected head of the district. However, to safeguard against abuse of authority, effective checks and balances are an integral part of the Local Government Plan.

1.9. In consonance with the bottom-up methodology and participatory development, the formal planning system will begin at the union council level for both urban and rural areas. Informally, the citizen community boards and the village councils will identify

local development priorities to the Union Councilors. Municipal and development needs will be communicated to the Tehsil and District levels respectively. The Tehsil and the District administration and planning officers will prioritise development initiatives based on locally identified priorities commensurate with financial capacity. The development inventory will become part of the Tehsil and District budgets and the respective councils will be responsible for passing these budgets. In addition to this, the union councils, with expanded and strengthened capacity for revenue generation and implementation, will be empowered to initiate development schemes. The schemes targeted for development by the union councils will also be communicated to the Tehsil and District levels to complete the integrated planning picture of the district.

1.10. The ownership/ development incentive framework will cater to those schemes and initiatives for which communities are willing to contribute. This will constitute a separate planning and finance system designed to promote local resource generation for new projects and maintenance of existing infrastructure and services.

Rapid Economic Revival

1.11. The domestic constraints to higher economic growth have hardened during past years of mismanagement and the emerging external constraints reflecting a high foreign debt burden and its associated debt service obligations have to be overcome or softened by pursuing the new development agenda to ensure a rapid revival and acceleration of economic growth. This is the best known method to reduce poverty and achieving a vibrant self-reliant economy. The key to higher growth is increased investment and improved productivity. Strengthening of investment and growth process is required to transform agriculture into a dynamic and high growing sector with emphasis on self-sufficiency on wheat, edible oil and pulses, creation of a broad-based manufacturing structure oriented towards export promotion and with main focus on small and medium enterprise, quantum jump in information technology and software development and priority exploration and development of oil and gas.

1.12 The three year macroeconomic framework envisages an average GDP growth rate of 5.0 per cent, implying acceleration of growth from 4.5 per cent in 2000-01 to 5.5 per cent in 2003-2004. Investment requirements for even this modest effort are high, going up from 15.5 per cent of GDP in the base year to 17.0 per cent in the terminal year. Keeping in view the increasingly privatized structure of the economy, nearly 1.2 per cent of this incremental investment will have to come from private sector and about 0.3 per cent from the public sector. Mobilization of savings for the incremental investment is an even more daunting task, but one necessary to give meaning to the objective of self-reliant growth. In 2000-01, national savings were 13.5 per cent in an investment rate of 15.5 percent. By the terminal year of the three year perspective, the national saving rate will have to increase to 16.2 per cent of GDP with only 0.8 percent of foreign savings. To raise the saving efforts, a wide ranging strategy is being put in place. The most important component of this strategy is

to reduce fiscal deficit to around 3.0 per cent of GDP by 2003-2004, based largely on a rising tax/GDP ratio. Measures are already in place to change the tax culture and to expand the tax base. The process will be reinforced by fiscal autonomy being envisaged under Local Government Plan 2000. As a result of the reforms and policy changes introduced by the Government, corporate sector is expected to plough back significant savings into new investment. Household savings will be encouraged by a climate of low inflation and positive real returns. Monetary expansion will be kept in line with nominal GDP growth at 11 percent per annum. The current account deficit will be brought down from 2.0 per cent of the GDP in the base year to 0.8 per cent in 2004.

1.13 The key features of macroeconomic framework for the next three years are presented in Table 1.1.

Table 1.1
Macroeconomic Road Map

	2000-01 (Prov. Estimates)	2003-04 Targets
Growth Rates (%)		
GDP	4.5	5.5
Agriculture	3.4	4.4
Manufacturing	5.4	6.5
Others	5.5	6.2
% of GDP		
Total Investment	15.5	17.0
Fixed Investment	13.9	15.4
Public	5.4	5.7
(Budget)	(3.3)	(4.1)
Private	8.5	9.7
National Savings/Investment (%)	87.1	95.3
External Sector		
Trade Balance (Million $)	-1353	-584
Exports (% average increase in 3 Years)	--	10.0
Imports ((% average increase in 3 Years)	--	6.8
Current Account Balance (% of GDP)	-2.0	-0.8
Fiscal & Monetary Sector		
Fiscal Deficit (% of GDP)	5.3	3.0
Rate of Inflation (%)	6.0	5.0
Money Supply [M_2] (%)	11.50	11.3

Poverty Reduction

1.14. In Pakistan's experience, the growth-poverty relation has been demonstrately clear: Higher growth has been associated with declining poverty. The implementation of structural adjustment programmes since 1988, in the belief that the bitter medicine of macroeconomic adjustment would ultimately put the country on the path to prosperity, has in reality led to an increasing poverty, declining human development indices and slowdown of economic growth. The proportion of people living in poverty, based on daily calorific requirements appears to have increased from 17.4 per cent in 1987-88 to 22.4 per cent in 1992-93 and further to around 30 per cent by some recent estimates.

1.15 Economic growth is essential for poverty reduction. It must, however, be accompanied by measures that ensure its benefits reach all segments of the population. Beyond broad-based growth,

social development goals in the next three years will take into account both economic and social dimensions of well being, namely: (a) creating a broad enabling environment to combat poverty and promote pro-poor economic growth; (b) investing in and maintaining needed physical infrastructure, including infrastructure targeted for low-income communities; (c) promoting access to basic social services for all, including health, reproductive health and family planning services, education and sanitation, adopting special measures to reach women and children; (d) promoting decentralization and an increased role for local authorities in the eradication of poverty; (e) securing sustainable livelihoods for the poor, including access to productive assets such as credit by developing microcredit institutions; (f) advancing gender equality and equity, including the economic, legal empowerment of women; (g) ensuring sustainable food security in low-income households and the right to food; (h) regenerating the natural resource base on which the poor depend; (i) promoting good governance through national capacity building; (j) providing social protection for vulnerable people; (k) promoting information and education for the poor people concerning their rights, using appropriate and accessible methods (outreach services, media, handbooks etc); (l) ensuring directly from social security programmes; (m) obtaining all types of training and education, formal and non-formal; (n) ensuring the provision of necessary health care to all with emphasis on the development of primary health care; (o) organizing self-help groups and cooperatives in order to obtain equal access to economic opportunities through employment or self-employment; (p) participating in all community activities; (q) having access to credit, marketing facilities, and appropriate technology; and (r) enjoying adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications.

1.16. The Social Action Programme (SAPP-I) launched in 1992-93 had this end in view. It made considerable headway in increasing the level of expenditure in SAP sub-sectors from 1.7 per cent of GDP in 1992-93 to 2.3 per cent in 1997-98 and in increasing access to basic social services. With the implementation of SAPP-II from 1998-99 it is expected that social indicators will improve further. There is also a clearer recognition that poverty has a woman's face. Gender, therefore, will be a key issue in SAP.

1.17. Integrated Small Public Works Programme (ISPWP) for poverty alleviation has been launched by the government with the main goal of creating employment opportunities and provision of essential infrastructure in rural areas and low-income urban areas. This goal is planned to be achieved by undertaking projects like farm to market roads, rehabilitation of water supply schemes, repair and resurfacing of small rural roads, pavement of streets, drains and storm channels in villages, sewerage and garbage collection schemes, lining of water courses/channels and desilting of canals, etc. A large allocation of Rs. 65.3 billion has been made for ISPWP, 92 per cent of which is for the provinces, 40 per cent for farm to market roads and 10 per cent for schemes for women.

1.18. Microfinance has a proven track record the world over of meeting the demands and needs of the poor at the grassroots level. In addition to existing windows in the public and private sectors, the Government has established a new 'Khushali Bank' to do business with established community organizations and NGOs, which are involved in micro credit activities and promote the establishment of new community organizations which can sustain credit operations and promote saving habits among the poor.

1.19. The system of Zakat has recently been improved considerably and further improvements in distribution and uses will be brought about in the next three years. The Zakat Programme presently transfers about Rs.500 per month to about 2 million families entitled to Zakat – elderly, widows and orphans. The Food Support Programme for the poorest sections of the population has also been started to distribute another Rs.500 per month to another 1.2 million families.

Revitalizing Agriculture

1.20 The main objectives of agricultural development during the next three years will be to achieve self-reliance in key agricultural commodities, ensure food security, improve crops, livestock and fisheries productivity and promote sustainable development. There is a sound basis on which to proceed. The record wheat harvest in the winter of 1999 is expected to set the pattern for the future growth of the agriculture sector.

1.21. As the impressive growth in 1999-2000 indicates, agriculture will continue to be a dominant sector of the economy. There is a yield gap of 30-50 per cent between average and progressive farmers. This unrealized potential will be tapped through proper policy measures and efficient farm management practices. The input and output prices for crops will continue to be rationalized. The marketing system of agricultural produce will be streamlined and infrastructure, especially farm-to-market roads, improved. Research programmes have not been adequately funded. It is imperative that research, extension, and education must be strengthened and technical capability of agricultural graduates enhanced in order to bring about perceptible improvement in agriculture, especially for the small and medium farmers.

1.22. Water is becoming a limiting factor on increasing area and cropping intensity. The next three years will witness the initiation of work on new reservoirs, besides redoubling conservation efforts and instilling better management practices.

1.23. The livestock sub-sector contributes about 44 per cent of the agricultural value added, and 11.5 per cent to the GDP. There is considerable potential to increase productivity in terms of meat and milk, through provision of adequate quantities of fodder and feed, genetic improvement, disease control and scientific management. There is vast scope for the establishment of feed lots for fattening of cattle and lamb for increasing meat production. The fisheries sub-sector also needs special attention. In the case of marine fisheries, the area between 12-35 nautical miles is underexploited due to lack of suitable

fishing boats. Overshrimping is adversely affecting the shrimp resources. Production of inland fisheries can be enhanced through better management practices, intensive farming, and further development of aquaculture facilities.

Quantum Jump in Information Technology (IT)

1.24. Development of information technology and software has been chosen as an area of priority focus. To make an institutionalized beginning for effective coordination, an Information and Telecommunication Technology Division has been created under the Ministry of Science and Technology for policy cohesion.

1.25. Regulatory framework and relevant charges in laws are being drafted and introduced at the same time. This will ensure that the incentives being offered have the intended effect. In the coming three years, the Government aims to vigorously pursue the concepts of electronic government, electronic commerce, electronic business, and electronic medicine in order to maximise efficiency in public and private sectors. The production of software engineers, computer scientists, technicians, etc. coupled with the telecommunication infrastructure, would be enhanced significantly. It is also planned to substantially increase the earnings of foreign exchange from the export of software, IT professionals and technicians. Software exports are projected to rise from the present level of about $ 30 million to $ 150 million in 2003-2004.

1.26. In addition to the formulation of IT Policy, an IT Action Plan has also been prepared which provides a framework for implementation of the IT Policy. This framework includes the priority areas, specific projects that can be conceptualized, formulated, assessed, prioritized and implemented. A system of monitoring, surveying and compiling statistics on the extent and growth of the IT sector is being devised to provide reliable data for planning and evaluation purposes and to set up performance indicators. To ensure that the objectives are achieved consistently and that suitable midcourse corrections can be incorporated in a timely manner, a mechanism will be set up involving the government, private sector, academia and other stakeholders to coordinate and implement the policy and provide strategic oversight over the longer term.

Priority Exploration and Development of Oil and Gas

1.27. Oil import bill is as high as one-third of total imports. To reduce this dependence, it is important that exploration and development of oil and gas be the driver of growth in the energy sector. It has already been designed to lead the way to attract foreign direct investment and boost up the privatisation effort. The share of oil in overall energy profile is targetted to decrease from 39.6 per cent to 36.6 per cent during the next three years due to substitution of natural gas for the imported oil. Furnace oil will be replaced by natural gas in power generation and CNG use will be expanded.

1.28. Slow indigenous growth in production of oil and gas is due to low level

of investment in exploration and development. The government is redefining its role and disinvesting its interest in existing ventures. This requires the establishment of an independent, efficient and autonomous regulatory authority. Petroleum Regulatory Board is being constituted for this purpose. Similarly, the Gas Regulatory Authority has been established. Further, a new 100 per cent government-owned holding company is to be made functional to separate government ownership and regulatory functions in different joint ventures regarding exploration and development activities. Furthermore, the privatization of fuel sector entities viz SNGPL, SSGCL, OGDCL, etc. is expected to be completed during the financial year 2001-2002.

1.29. Supplementing indigenous development by import of natural gas is inevitable within the medium term and a firm commitment is needed soon to take appropriate steps in this direction. This would also result in payment of annual fee to government in case the gas is supplied to the neighbouring country through Pakistan.

1.30. The de-regulation of import of POL products is underway and the government has initiated various actions in this regard, with a phased programme being put in place. An investment of Rs.12.9 billion is envisaged to be undertaken during the next three years through budget. Major investments are, however, expelled to be undertaken outside the budget and by the private sector.

A Leap Forward in Small and Medium Enterprise

1.31. The experience of many developing countries suggests that growth in employment is higher in small and medium-sized enterprises (SMEs) and in self-employment. In these countries informal sector activities are often the leading source of employment opportunities for people with limited access to formal sector wage employment, in particular for women. They provide a productive outlet for the entrepreneurial spirit of individuals and assist in the dispersion of business activity throughout the economy. Small-scale industries and self-employment schemes are highly labour-intensive and efficient users of capital. In Pakistan small and medium-scale enterprises account for three fourth of the total manufacturing establishments. However, SMEs account for a disproportionately low share of both employment and value added, the latter growing at an annual rate of 8.4 per cent in the past and 5.3 per cent recently.

1.32. For the development of the small and medium enterprises, a number of specific measures and programmes will be pursued during the next three years. Private sector will facilitate growth of light engineering SMEs, including clusters/ incubators such as service/technology parks and business incubators. Industrial Support Centres will be established at growth points for small-scale industry. The Centres will provide advisory services to potential entrepreneurs, including feasibility studies. A dedicated credit fund for labour-intensive, small-scale self-employment units will be created at the federal and provincial levels through the National Credit Plan. For the

training of small entrepreneurs, enterprise development institutes will be set up, one each in the provinces and at the federal level. Small and Medium Enterprise Development Authority (SMEDA) has been established as an autonomous corporate body, which will act as the key resource for the SMEs. In the light of the experience gained so far, its functioning will be streamlined and made more focused.

Self Reliance

1.33. The movement towards the goal of self reliance depends on a fuller appreciation of the opportunities offered and constraints placed by globalisation. These include the ability to participate in the rapidly expanding world trade, shift of comparative advantage from traditional manufacturing to knowledge based industries, private capital flows far exceeding official flows leaving little room for policy errors, greater quality consciousness of the consumers, shift of competitive advantage from assembly lines to decentralised production by teams or networks and shorter product life cycles. The linch-pin of the self-reliance strategy will be to achieve an export growth rate significantly higher than the import growth rate. Lower import growth, however, will not imply the export-defeating containment of imports. Import substitution will largely confine to agriculture and POL. The main objectives of agricultural development during the next three years will be to achieve self-sufficiency in the production of wheat, edible oils, tea and milk. Increased reliance on gas will help reduce the oil import bill.

1.34. With a view to reducing dependence on foreign resources in a major way, 95.3 per cent of investment has been envisaged to be financed from national savings by 2003-2004. The overall savings target implies a marginal rate of national savings of about 31.0 per cent. The projected financing of investment is given in the Table 1.2

Table 1.2
Financing of Investment
(% of Investment)

	2000-2001	2003-04
Total	100	100
a) National Savings	87.2	95.0
Government Saving	-0.4	15.1
Non Govt. Saving	87.6	79.9
Household	77.2	70.6
Others*	10.4	9.3
b) Foreign Savings	12.8	4.9

* Includes private corporate sector & Public Sector Corporations.

1.35. To improve savings rate, a wide-ranging strategy is proposed. First, budgetary discipline should lead to revenue surplus, which would be used for financing the public investment. Secondly, structural and policy reforms would enable the public corporations to generate savings to meet a part of their investment outlay. Thirdly, Local Government 2000 Plan would generate additional resources not only for meeting their current expenditure but also the development expenditure on such items as the purchase of durable goods, major repairs and maintenance and construction works. Fourthly, the reforms and policy changes initiated by the government would encourage corporate sector to channelize a

larger proportion of its savings to new investments. Fifthly, the policy of ensuring positive returns on national savings schemes, introduction of attractive investment instruments by public and private sector, new pension funds and lower rate of inflation would encourage the household sector to enhance its savings and channelize them for investment in the formal sector.

1.36. It is envisaged that the requirements for external capital inflows will decline. While the project aid is anticipated to increase, food aid is likely to fall. The net flows of private long-term capital (including private foreign investment) are estimated to increase. There will be a reduction of debt-creating sources of financing and an increase in non-debt creating sources like the foreign direct investment.

1.37. On the whole, the Three Year Development Programme 2001-04 seeks to maintain economic stability by containing fiscal and current account deficits and inflation, revive and accelerate economic growth, contain the increase in poverty and achieve increasing self reliance. It will be the first significant step towards enhancing the human development status of the country (Annex-1.1).

Annex 1.1

Medium Term Goals, Targets and Instrument Matrix

Goal		Instruments to Accomplish Goal, (Policy, Sectoral Focus, Reform)	Variable	Actual	Targets		
				2001	2002	2003	2004
A.	Substantial Income Growth	Open economy; Human Development through Education; Health; Nutrition; higher Science & Technology Capacity (S&T); deeper Information Technology (IT) capacity and infrastructure (connectivity); Implement Energy Policy primarily based on natural gas and clean coal technology.	• Per capita income in 2000-01 prices thousand Rs.	24	25	26	27
			• Population growth rate per annum.	2.17	2.05	1.93	1.82
B.	Reduce Food Poverty	Agriculture; water; salt water drainage, shared growth to reduce income inequality; Education; Research (i.e. S&T; and IT); Energy adequacy	Percent of population unable to meet basic food requirement 2150 calories/day	30	29	27	25
C.	Reduce Human Poverty (Basic Needs: Opportunity Capability)	Education; Health; nutrition; S&T; IT; Rural infrastructure; shared growth to reduce income inequality; social safety net: old age pensions.	• Human Poverty Index (%)	44	42	39	35
			• Life expectancy at birth (years)	62.9	63.4	63.9	64.4
			• Population without access to health services (%).	45	38	30	25
D.	Reduce malnourishment for under 5 children	Targeted food distribution program with deep involvement of communities; NGOs Using teacher – parent links to expand awareness.	• Malnutrition of children under 5 (%)	39	37	36	35
				90	80	72	65
			• Infant Mortality Rate (per 1000 live births)	400	380	350	300
			• Maternal Mortality Rate (per 100,000 live births).	25	23	21	20
			• Incidence of Low Birth weight babies (%)				
E.	Increase Adult Literacy and Pre-College Education	Education; IT (Distance Education); Expansion of teachers, schools, teacher training.	• Adult literacy rate	52	55	58	61
			• Female literacy rate	39	41	44	47
			• Male literacy rate	64	67	70	73
			• Primary	83	86	90	94
			• Elementary	57	60	63	66
			• Secondary	35	38	41	45
F.	Enhance Pakistan's Scientific Capability and Enrollment in Higher Education.	Crash Program to develop S&T capacity. Concurrently, increased allocation to R&D	Number of scientists and engineers				
			• S&T (Million pop)	4150	4338	4500	4700
			• R&D (Million pop)	116	140	200	295
			• Enrolment in Higher Education	2.5	2.6	2.8	3.0
			• Proportion of GDP allocated to Research & Development	0.2	0.3	0.4	0.5
G.	Increased clean water for all Citizens	Investments in Water Supply System; strict enforcement of emission control laws; Enhancing institutional capacity to monitor compliance and enforce.	• Population without Access to Safe Water (%).	37	36	35	34
H.	Improved clean air for all Citizens	Crash Program of Legislation and enforcement to control emissions of SO_2, NO_x, PM$_{10}$ in hot spots which are Karachi, Lahore, Rawalpindi, Faisalabad, Hyderabad, Multan. Natural gas and clean coal energy policy	• Population without Access to clean air (%)	50	48	45	40
I.	Rule of Law	Civil Service Reform, Judicial Reform; Police Reform; Implementing Local Government devolution, Education.	• Significantly mainstream the Reforms i.e. implement current program.	20%	35%	60%	75%

CHAPTER 2

MACROECONOMIC FRAMEWORK FOR REVIVAL OF GROWTH

During 2001-04, policy and resources have to focus on lifting the economy by its own bootstraps and structural deformities. This is precisely the driving force behind the macro economic framework outlined here. It aims at achieving realistic growth and stable prices.

Structural Issues

2.2 The current macroeconomic framework is confronted with a critical set of issues. Deceleration in the rate of economic growth to 4.4% during 1990s compared to 6.1% during the 1980s, stagnation of large scale manufacturing sector (4.6% growth during 1990s as compared to 8.2% during the 1980s) largely due to erosion in protection following import liberalization, and low overall productivity levels- $1290 in 1998 compared to $8868 for Malaysia and $11209 for Korea – stand out as stark realities. Rising cost of petroleum, electricity and gas especially for industrial uses took their toll. The fuel index in the Wholesale Price Index (WPI) rose from 100 in 1990-91 to 273 in 1999-2000. compared to the overall WPI, which rose to 230.6. Low level of Government expenditure on development programme (PSDP at 3.3 % of GDP in 2000-01 as compared to 7.5 % of GDP in 1991-92) and low level of investment, especially in the backdrop of required investment on account of the accumulated backlog of physical and social infrastructure development, provide a poor base for growth. Investment is around 15% of GDP compared to Malaysia (32.0 %), Korea (35.0 %) and Thailand (35.0%). Low investment has led to rising unemployment in the face of a high rate of growth of population.

2.3. Low saving rates have necessitated resort to foreign borrowing for financing investment expenditures, which in turn accumulated foreign debt and deteriorated level of self-reliance. During 1990s, national saving averaged 13.6% of GDP and financed 75% of total investment. Inelastic revenue generation has resulted from narrowly based tax structure, coupled with the tenacious trend of evasion and avoidance of taxation. Continuously growing government expenditure is dominated by mounting debt servicing and defence expenditure leaving insignificant resources for the genuine requirements of a growing economy. Large fiscal deficits resulting from imbalance between government expenditure and revenue along with losses of public sector enterprises and heavy resort to borrowings lead to further accumulation of public debt and containment of development expenditure. Serious liquidity crises have been caused by problems of non-performing loans, non-recovery of stuck up loans from the defaulters, cumbersome legal infrastructure. A high interest rate structure makes capital formation expensive and erodes the competitiveness of exports. Worst of all, foreign debt service payments grew very rapidly to $2848 million in 1997-98 as against $1504 million in 1990-91. Debt service payments amounted to $3015 million in 1999-2000. In the absence of debt rescheduling from January 1, 2001 external debt service payments falling due will be $2895 million in 2000-01, $2815 million in 2001-02, $2704 million in 2002-03 and $3104 million in 2003-04. Lastly, flows of workers' remittances dwindled following the loss of confidence on account of freezing of foreign currency accounts. The remittances amounted to $983 million in

1999-2000 as against the average flow of $1512 million during 1991-98 .

2.4. In addition to these issues, there are constraints from international environment in pursuance of the WTO obligations assumed by Pakistan, namely: (a) no industrial promotion through subsidization (overt or covert) and protection; and (b) globalisation leading to tough competition in export market and calling for improvement in productivity and quality.

The Strategy for Improvement

2.5. The thrust of future economic policy should be to transform the existing slow growth and financially constrained economy to a higher growth and relatively self-reliant economy. Thus the broad elements of the strategy during the next three years would be:

(a) Strengthening of investment and growth process by (i) transformation of agriculture into a dynamic and high-yield sector with emphasis on self sufficiency in respect of wheat, edible oils and pulses; and (ii) creation of a broad based manufacturing structure oriented towards export promotion; (iii) Human Resource Development, besides promotion of science and technology and R & D activities for enhancement of agricultural and industrial productivity; and (iv) addressing the distributional concerns.

(b) Since there is a trade-off between technology improvement and employment opportunities, the issue needs to be resolved carefully. Special efforts would be made in this connection to promote small and medium enterprises (SMEs) for employment generation, keeping the input (specially energy) prices at a reasonable level to maintain the productive competitiveness and profitability and maintenance of the existing infrastructure and adequate addition of good quality infrastructure.

(c) Investment will be increasingly financed out of national savings, both private and public, to ensure that growth is self-sustained and self-reliant Structural problems will be addressed by broadening the tax base through documentation of the economy, reducing multiplicity of taxes, improving elasticity of federal and provincial and local government taxes, periodical review of taxation laws to make these compatible with the requirement of the economy, stepping up the resource mobilization efforts of the provinces and the district level administration, rationalization of Government expenditure i.e. bringing the current expenditure to a critical minimum level and adequate flow of funds for the development projects as per priority sectors and application of GST throughout country. The market-oriented monetary policy will be improved through the development of financial markets by strengthening the accountability mechanism and adopting modern techniques of prudential regulations. Attention will be paid to strengthening and consolidation of existing financial institutions for recovery of stuck up loans and for adequate availability of bank credit to the private sector. A broad-based reform programme will be pursued to develop the capital market through the recently strengthened Securities and Exchange Commission.

(d) Rationalization of the tariff structure will continue to reduce anti-export bias in the trade regime. The high degree of concentration of exports, both commodity-wise and market-wise will be broken. Maximum advantage will be taken of the new environment generated by WTO in the fields of liberalized agricultural trade, textile and clothing sectors. Adequate preparation will be made to comply with new laws and rules governing TRIPS and TRIMS and to benefit from the newly-opened area of services sector. Reduction in dependence on debt-creating sources of financing, generation of resources to meet the fast-growing foreign debt servicing payments and attracting workers' remittances in the face of loss of confidence on account of freezing foreign currency accounts will

(e) figure prominently in the strategy to improve the macroeconomic framework.

External Debt Management

2.6. Over time Pakistan's external debt has assumed an alarming proportion and has now become a major burden on national resources. Total external debt long term, short medium term which was $25.3 billion in 1994-95 increased to $28.7 billion in 1997-98 and stood at $32.7 billion on 30th June 2000. As a ratio to GDP, external debt has increased from 41.8 per cent in 1994-95 to 56.2 per cent in 2000-01. Servicing of external debt is consuming 23.3 per cent of export earnings and over 30 per cent of foreign exchange earnings. Increasing debt servicing is reducing net transfers to finance development programme.

2.7. The large volume of debt and its servicing warrants a comprehensive debt management strategy. The strategy will include both long and short-term measures. The short-term measures will focus on generating foreign exchange to service immediate debt payment obligations while long-term measures will focus on reducing addition to the magnitude of external debt. To earn and save foreign exchange to service debt obligations, exports will be increased and imports reduced. For reducing volume of debt, reliance on debt creating sources of finance will be reduced and effective measures taken to attract other sources of finance such as direct foreign investment. Other elements of the strategy include the pursuance of prudent exchange rate policy, supportive monetary and fiscal policies and use of proceeds from privatization for debt retirement. Needless to say the economy growing at a faster rate will generate savings, reduce saving–investment gap, hence reliance on external resources.

Growth, Savings and Investment

2.8. The growth process in a market-based economy has its own momentum. Given the existing physical and social infrastructure and policies already in practice, the recent past replicates itself in near future. Based on the past growth trends, the GDP, without additional effort, is likely to grow at a rate of around 5.0 per cent in the coming years (provided no extraordinary setback hits the economy, internal or external). This base-line growth rate can be enhanced with additional effort.

2.9. Considering the current and emerging constraints and the possible efforts, the feasible growth rate for the coming three years expected at this time is between 4.6 – 5.5 per cent per annum. Thus, for the period as a whole, the target GDP growth on average would be 5.0 per cent per annum. Roughly one percentage point of total growth is expected to come through enhanced utilization of the existing capacity and allocative efficiency to be made possible by market orientation of the economy.

2.10. Key quantitative targets for the Three Year Programme in the area of growth are reported in Table 2.1, with details at Annex 2.1.

Table 2.1
Growth Targets

	1999-2000	2000-01 (Provisional)	Average (2001-04) (Targets)
Growth (%)			
GDP (fc)	4.46	4.5	5.0
Agriculture	5.54	3.4	4.0
Manufacturing	1.57	5.4	5.9
Large scale	-0.7	5.7	6.2
Others	4.85	5.5	5.8
Real Per Capita GNP (mp)*	3.87	2.5	3.4
Inflation (GDP deflator)	6.0	6.0	5.2

*Based on currently assessed population growth rate of 2.1 per cent.

2.11. The envisaged growth in agriculture encompasses the target of attaining self-

sufficiency in the production of wheat and sugar and increasing self-sufficiency in edible oil in order to largely eliminate food imports. The target for manufacturing sector envisages reviving the sector so that it contributes about 16.0 per cent of GDP by 2003-04. The agriculture sector would, however, contribute 25.0 per cent of GDP in 2003-04. Raising the GDP growth from base line 4.0 per cent to 5.0 per cent during coming three years would mean employment generation of 2.5 million during 2001-04.

2.12. **Agriculture:** To ensure that the targets are met availability of improved seeds, fertilizers, credit and other inputs especially water to farmers will be ensured by: (a) increasing the present level of 200 thousand tonnes of certified seed to 300 thousand tonnes in 2003-04; (b) increasing fertilizer off take at the rate of 5.0 per cent from 3037 thousand NT in 2000-01 to 3520 NT in 2003-04; (c) undertaking measures to reform irrigation and drainage system for increasing water availability from 134.77 MAF in 2000-01 to 134.88 MAF in 2003-04. Fifty per cent of additional water would be utilized for increasing cropping intensity and the rest for irrigating additional 0.3 million hectare of cropped area; (d) agriculture credit provision (both for development and production purposes) for the period have been estimated at Rs 526.0 billion; and (e) providing legal safeguards against adulteration of critical inputs such as fertilizer, pesticides and seeds. Research activities will be strengthened to evolve disease resistant and high yielding crop varieties and special wheat, oil seed and pulses promotion programmes will be initiated to broaden the agricultural base and to reduce imports of these items. Projected production of some major agricultural items and targets for three years are shown at Annex 2.2 and 2.3.

2.13. **Manufacturing** sector, having a share of 15.4 per cent in GDP (2000-01), remained depressed during the last few years. Since industrialization plays a crucial role in modernizing the economy and improving the balance of payments, the manufacturing sector would be strengthened with export orientation. Emphasis would be on development of small and medium enterprises (SMEs). **Small-scale manufacturing** sector is expected to grow at a rate of 5.5 per cent. Large-scale manufacturing is projected to grow at an annual rate of 6.0 per cent. Projected industrial production is given at Annex 2.4. This growth would be materialized through improvement in industrial productivity, which is a must for revitalization of growth and exports. To improve productivity, emphasis will be laid on **formation of cluster-based technology parks** embodying research and development, technology up-gradation and human resource development, especially improvement in management and policy environment. In this regard, National Productivity Council will be accorded the pivotal role for the productivity enhancement through its institutional strengthening. Tariff rationalization and export orientation are also expected to improve total productivity as these are expected to result in specialization in accordance with the comparative advantage through inter-sectoral transfers. Moreover, to meet the changing industrial and technological requirements particularly ISO-9000 series certification and pollution control, the proposed strategy during 2001-04 will have major focus on **formation of technology triangle involving Government, private sector and S&T and R&D institutions**. This will need developing workable linkages between PCSIR and industries, enabling PCSIR to achieve collaboration and accreditation of International Standard Organizations to meet the international standards, coordinating activities of public sector R & D organizations, educational institutions and private sector labs to avoid duplication of activities, developing human resources and encouraging contract research with clear cut project targets based on commercial criteria rather than permanent recruitment of scientific staff and absence of the

accountability. Tariff rates and general sales tax on imported machinery will also be reduced.

2.14. The **Construction** sector is projected to grow by 6.3 per cent. Besides normal programmes of constructing residential and non-residential buildings, roads, streets, bridges and tunnels, railway tracks, telecommunication lines, power lines and gas, water and sewerage lines, additional impetus to growth will emanate from the construction of highways, motorways and air ports.

2.15. **Power** being the critical factor in overall development, would continue to be a priority sector. Over the next three years, it has been planned to increase gas production from 2722 MMCFD in 2000-01 to 3200 MMCFD in 2003-04. **Electricity** generation has been planned to increase by 14.4 per cent, increasing the installed capacity from 17710 MW in 2000-01 to 19052 MW in 2003-04, showing an average annual increase of 4.6 per cent. Thus energy generation would reach 77.266 Gwh by 2003-04. As a result, the **electricity and gas** sector would grow by 5.6 per cent.

2.16. **Services sectors** as a whole are planned to grow at an average rate of 5.1 per cent per annum. The main contributors of value addition in this sector are transport & communications and trade. The **transport and communications** sector accounts for 10.6 per cent of GDP and is forecast to grow at the rate of 5.1 per cent. Value addition in this sector would come from road transport and air services, telecommunication, postal services, broadcasting and telecasting services. The growth in this sector also depends on improvement in railways operational structure. The **trade** sector, having a 15.0 per cent of share in GDP, depends on the level of activity in agriculture and manufacturing sectors and import of goods. Based on the annual growth of 4.0 per cent in agricultural sector, 6.0 per cent in the manufacturing sector and 6.7 per cent in imports, the trade sector is projected to grow by 5.1 per cent. A new contribution to value added in services is expected from information technology which would, on the one hand, expand employment and, on the other hand, enhance productivity efficiency of the existing services.

2.17. **Investment Requirements:** To sustain a GDP growth of 5.0 per cent per annum the investment level will have to be raised from 15.5 per cent to 17.0 per cent of GDP[1]. In absolute terms this will imply gross fixed capital at Rs 1933.3 billion at current prices. The total investment is estimated at Rs 2140.4 billion. Thus, the total investment would increase from 15.5 per cent of GDP in 2000-01 to 17.0 per cent of GDP in 2003-04. To support higher levels of investment, the ratio of fixed investment to GDP would be raised from 13.9 per cent in 2000-01 to 15.4 per cent in 2003-04. For this purpose, the level of private and public sector investment would be raised from 8.5 and 5.4 per cent of GDP in 2000-01 to 9.5 and 5.8 per cent of GDP in 2003-04, respectively. Hence, public and private investment would grow on average at 12.7 per cent and 15.7 per cent per annum over the Programme period. **Total resources** are projected to grow by 10.4 per cent annually. Since total investment would grow by 13.9 per cent annually, the **consumption** would grow at the rate of 9.7 per cent per year only. The investment requirements for the three year period are given in Table 2.2 and the details are given at Annex 2.5 and Annex 2.6.

Table 2.2
Investment by Public and Private Sectors

(% of GDP)

	2000-01	2003-04	Three Year Average
Total Investment	**15.5**	**17.0**	**16.5**
Fixed Investment	13.9	15.4	14.9
Public Investment	5.4	5.9	5.6
Budgeted	3.3	4.1	3.8
Non-Budgeted	2.1	1.8	1.8
Private investment	8.5	9.5	9.3

[1] The investment requirements have been worked out through a growth equation relating change in output in current year.

2.18 **Financing of Investment:** Since the overriding concern of the entire economic programme in the coming years would be to move towards self-reliance, as large as 92.7 per cent investment has been envisaged to be financed from national savings, leaving only 7.3 per cent for foreign savings. The overall savings target implies marginal rate of national savings of 30.7 per cent over the period. The financing for the three years is given in the Table 2.3

Table 2.3
Financing of Investment

(% of GDP)

	2000-01	2003-04	Three Year average
Total Investment	15.5	17.0	16.5
National Savings	13.5	16.2	15.3
Public Savings	0.9	2.2	1.9
General Government	-0.4	0.8	0.5
Public Corporations	1.3	1.4	1.4
Private Savings	12.2	13.7	13.1
Foreign Savings	2.0	0.8	1.2

2.19. This would imply reduction in **dependency ratio** from 27.2 per cent during the Eighth Plan to 7.2 per cent during the Three Year Programme.

2.20. Raising national saving rate from 13.5 to 16.2 percent is an uphill task But this is a compulsion. To improve savings, a wide-ranging strategy is required. Firstly, budgetary discipline should lead to revenue surplus, which would be used for partly financing the public investment. Secondly, structural and policy reforms would enable the public corporations to generate savings to meet a part of their investment outlay. Thirdly, local government would generate additional resources not only for meeting their current expenditure but also the development expenditure on such items as the purchase of durable goods, major repairs and maintenance and construction works. Fourthly, the reforms and policy changes initiated by the Government would encourage corporate sector to channelize a larger proportion of its savings to new investments. Fifthly, the policy of ensuring positive returns on national savings schemes, introduction of attractive investment instruments by public and private sector and lower rate of inflation would encourage the household sector to enhance its savings and channelize them for investment in the formal sector.

Private Investment

2.21. As shown in Table 2.2, the **Private investment** would rise from 8.5 per cent of GDP to 9.5 per cent. As such, Government policy to de-regulate and liberalize investment processes would be vigorously pursued. Without disturbing market friendly environment, concerns of equity would also be addressed through poverty reduction programmes. Another area of intervention would be long gestation work relating to physical and social infrastructure, where the private sector is still reluctant to invest e.g. programme for balanced social development (social action programme, special education and social welfare, women development, etc.) and programmes for rural infrastructure and less developed regions. These areas have to be developed at accelerated pace in order to cope with the requirements of the development of other sectors of the economy and also to overcome the bottlenecks to growth. These include: (a) all areas where private sector is willing to invest would be open to them on the basis of a level playing field. No special incentives would be given to public sector in these areas; (b) where private sector investment can be invoked through public participation, it should be seriously attempted. The general principle would be a residual and vacuum-filling role for public investment. Public sector should concentrate on improving the enabling environment; (c) policies would be put in place to attract private foreign investment in areas yielding tangible output

and having maximum backward and forward linkages especially in export-led industries. Board of Investment (BOI) would formulate a detailed policy package to facilitate the broadening of these areas; and (d) the rights of the consumers have to be protected adequately by appropriate regulatory framework. The process of creation of Regulatory Authorities has already started. Every effort would be made to simplify the procedures and remove bottlenecks in the regulatory framework. The regulatory authorities, therefore, would be created on modern lines with adequate and appropriate expertise.

2.22. **Foreign Investment**: Pakistan received $4391.9 million worth of foreign investment including $3181.6 million as foreign direct investment (FDI) and $1210.3 million as portfolio investment during 1993-98.The FDI flows, however, declined thereafter due to economic sanctions imposed in June 1998. As a result, the foreign private investment amounted to $499.6 million in 1998-99 and $543.4 million in 1999-2000. With the expected decline in official foreign assistance, it is assumed that during the Programme the inflow of foreign assistance would on average be US $600 million per annum. The target for Foreign Direct Investment (FDI) has been placed at $1800 million. Government would take necessary measures to ensure that FDI flows to areas consistent with the overall investment policy especially in export-led industries. Preference would be given to export-oriented and value added industries, electronics and engineering goods industries. Investment in transport and communications sector will also be given preference on Build Own Operate (BOO) and Build Own Transfer (BOT) basis.

2.23. Actual flow of foreign investment will, however, depend on the initiatives and priorities of private entrepreneurship and strength of macroeconomic fundamentals. In order to make the private sector a dynamic partner in development the macroeconomic policies would have to be made conducive to improve the environment for investment.

Public Investment Programme:

2.24. During the three-year period, total public sector outlay, at current prices, is estimated at Rs 755 billion of which Rs 492.1 billion is proposed to be financed from the budget and Rs 263 billion by corporations outside the budget. The position is summarized in Table 2.4. The sectoral allocations of the Three Year Public Investment Programme are shown in Annex 2.11.

Table 2.4
Three Year Public Investment Programme 2001-2004
(At Current Prices)

(Billion Rupees)

	Budget	Non-Budget	Total
Federal Ministries	293.65	-	293.65
Special Areas	24.85	-	24.85
Special Programmes	0.37	-	0.37
Provinces	173.13	-	173.13
Corporations	-	263.0	263.00
Total	492.00	263.0	755.00

2.25. The funds for the provincial development programmes used to be largely provided by the Federal Government until 1990-91. However, with the National Finance Commission's Award in March 1991, the share of the Provinces in the divisible pool has increased substantially. In the three year programme the provincial governments are proposed to be provided Rs. 173.13 billion, out of which 59.59 billion would be for Poverty Alleviation.

2.26. During three year period, Energy Sector will receive highest priority with an allocation of Rs. 215.8 billion followed by Transport and Communications (Rs.150.05 billion). Social Action Programme (Rs.65 billion) Water Resources Sector (Rs.45 billion) and Science and Information Technology (Rs.26.9 billion).

2.27. The Three Year Development Programme places emphasis on the role of public sector corporations in the capital formation. In order to achieve the objective of self-reliance, these corporations will finance the entire programme from self-arranged resources comprising self-financing and local and foreign borrowing.

Fiscal Scenario

2.28. The Three Year Programme 2000-04 aims at synchronizing current revenues and current expenditure.

2.29 The revenues during the three year period are expected to increase from 16.7 percent of GDP in 2000-01 to 18.6 percent by the terminal year of the Programme (2003- 04).

2.30. The current expenditure is expected to decrease from 18.8 percent of GDP in 2000-01 to 17.6 percent in the terminal year. The Public Investment Programme financed from budget is expected to increase from Rs 115.4 billion in 2000-01 to Rs 193.0 billion in 2003-04, showing an annual average growth rate of 18.7 percent. As a proportion of GDP, it is expected to increase from 3.3 percent of GDP in 2000-01 to 4.1 percent in 2003-04 or 3.8 percent during the period. The increase is being necessitated by large social expenditure.

2.31. The above revenue and expenditure configuration will enable to reduce overall fiscal deficit from 5.3 percent of the GDP in 2000-01 to 3.0 percent by the end of the period (2003-04). Details may be seen at Annex 2.7.

Monetary and Credit Policy:

2.32. The Three Year Programme will adhere to a tight monetary policy within reasonable limits while making adequate credit available to the private sector for productive purposes. This goal will be achieved by (a) increasing foreign exchange reserves to cover the imports for minimum of three months, (b) controlling the growth of the money supply in a manner compatible with the growth of nominal GNP; (c) continuing the policy of liberalizing interest rates in order to improve the efficiency of resource allocation; and (d) ensuring consistency among macroeconomic targets of growth, inflation, monetary and external accounts with better coordination of fiscal, monetary and exchange rate policies.

2.33. Several measures have already been initiated to this effect, including restructuring and reorganization of DFIs and State Bank of Pakistan; through merger of NDFC with IDBP, FBC with SBP and focusing on the financing needs of small and medium enterprises and business, the SBFC and RDFC will be merged to form a new entity. Two major Nationalized Banks viz HBL and United Bank will be privatized during the Programme period through a combination of sale to strategic investor and flotation of shares in the Stock Market. The Government will divest its shares in the MCB and Allied Bank. Legal infrastructure will be strengthened through improving banking laws and regulations. Measures have been taken to enhance bank's commercial orientation and upgrade the banking supervision system. The government has already established the Micro Finance Bank (Khushali Bank). Reforms of National Savings Scheme have been launched in an effort to reduce financial market segmentation, encourage the deepening of the capital market and reduce the cost of borrowing. Institutional investors have been barred from purchasing NSS instruments and interest rates on these schemes have been reduced by an average of 5.5 percentage points since May 1999. Drive against non-performing loans have yielded about Rs 22 billion equal to 11 percent of outstanding stocks of non performing loans. Corporate and Industrial Restructuring Corporation (CIRC) has been established for the purpose of acquiring non-performing assets of the banks and DFIs as well as for rehabilitating or liquidating them.

2.34. By the end of 2002-04 monetary expansion is projected at 11.25 percent during the three year period. Annual average growth is projected as 10.90 percent. Table 2.5 below shows the target of monetary expansion during the Programme.

Table 2.5
Monetary Expansion

(Billion Rupees)

	Credit Plan 2000-01 (B.mark)	PROJECTIONS 2001-02	2002-03	2003-04
Govt. Sector	-2.2	39.2	32.8	45.8
Budgt.Support	-2.2	29.2	22.8	30.8
Others	0.0	10.0	10.0	15.0
Non-Govt. Sector	89.2	133.6	151.7	170.0
Private Sector*	85.2	128.6	146.7	165.0
Others	4.0	5.0	5.0	5.0
Others	60.1	-6.7	-1.0	-2.3
Monetary Exp.	**147.1**	**166.1**	**183.5**	**213.4**
Growth Rate(%)	10.50	10.73	10.71	11.25
Stocks	**1547.7**	**1713.8**	**1897.3**	**2110.8**

*Includes Private Sector Commercial Enterprises (PSCEs).

Balance of Payments

2.35. **Trade Balance:** Over the next three years the deficit in trade balance is expected to decline from $1353 million in 2000-01 to $584 million in 2003-2004. This would be made possible by exports growing at a faster rate than imports. The increase in exports is predicated on increased production of cotton and rice as well as revival of the manufacturing sector, improvement in quality and competitiveness of value added products and adherence to the delivery schedule. The exports are thus projected to increase on average by 10.0 per cent. Imports are projected to increase on average by 6.8 per cent. The show growth in imports envisaged in view of large import substitution in such commodities as wheat, edible oil and crude oil and its products and a fall in their prices.

2.36. **Invisibles Balance:** Prospects of invisibles balance would be governed mainly by the behaviour of the workers remittances and other purchases. Stable oil prices leading to higher wage levels in the Middle East and prudent exchange rate policy would ensure larger flow of remittances through the banking channels. The workers remittances are, therefore, expected to increase from $1200 million in 2000-01 to $1350 million in 2003-4. The invisibles balance is expected to decline from a surplus of $139 million in 2000-01 to a deficit of $61 million in 2003-04.

2.37. **Current Account Balance:** With a deficit of $584 million in trade account and $61 million in the invisibles account the current account deficit is expected to decline form $1214 million in 2000-01 to $645 million in 2003-04. As a 1.9 per cent of GDP, the current account deficit is anticipated to decline from 2.0 per cent in 2000-01 to 0.8 per cent in 2003-04.

2.38. **External Debt Rescheduling:** Faced with low level of foreign exchange reserves after the imposition of sanctions and fall in private transfers/capital Pakistan approached Paris Club for re-scheduling of its bilateral debt. The Paris Club members in January 1999 agreed to reschedule debt amounting to $3.3 billion payable during the period from 1st January 1999 to 31st December 2000 including arrears as of December 31, 1998 for the loans contracted upto December 30, 1997 having maturity of loan for one year. The ODA consolidated debt is payable over a period of twenty years including grace of 10 years. Commercial consolidated debt is payable over a period of 18 years including grace of 3 years.

2.39. With the standby Agreement with the Fund is in place in December 2000, Pakistan approached the Paris Clubs for re-scheduling of its bilateral debt in January 2001. A total of $ 1752 million of bilateral debt has been rescheduled, including $ 780 million in arrears as of October 30, 2000 and $ 972 million in current maturities. This will relieve Pakistan of immediate burden of debt servicing and will also give time to consolidate the structural adjustment Programme that will provide the foundation for future sustained growth.

2.40. Capital requirements which comprise of the current account deficit, amortization and the reserves built up are anticipated to decline from $ 3730 million in 2000-01 to $ 2985 million in 2003-04. The financing of these requirements would be made through official long-term capital, private long-term capital, multilateral institutions, relief from rescheduling and other short-term borrowings etc. It is envisaged that the project aid will increase from $985 million in 2000-01 to $1557 million in 20003-04. The private long-term capital (net) which includes foreign direct investment and portfolio investment is anticipated to rise from $615 million in 2000-01 to $723 million in 2003-04. The gap will be financed through inflows from multilateral institutions, relief from rescheduling and other short-term borrowings which are projected to decline from $2130 million in 2000-01 to $705 million in 2003-04. The cash foreign exchange reserves are projected to increase from $2110 million (equivalent to 10.3 weeks of imports) in 2000-01 to $3570 million (equivalent to 14.3 weeks of imports) in 2003-04. Detail of exports and imports are given at Annex 2.8 and 2.9. Detail of BOP is given at Annex 2.10.

Pension Reforms

2.41 The issue of pension fund reforms is important for mobilizing long term saving instruments and for providing a sense of financial security to the workers in their old age after a life time of hard work. A task Force on Pension Reforms has been set up to review and identify weaknesses and bottlenecks in the existing system. The task force will design a National Pension Policy applicable to both the public and private sectors. It will examine the possibility of integration of financial institutions in its administration and formulating an investment strategy. In order to ensure proper maintenance of record including a full record with the workers themselves, accounts need to be maintained on an individual basis. With this end in view, the Programme objective is into provide Social Safety to the employees after retirement and that there would be a simplified procedures for processing of pension cases and disbursement pension.

Privatization:

2.42. During early 1970s Pakistan nationalized many businesses and enlarged the areas where the private sector was prevented from competing. In Addition to a number of important industrial enterprises, the Government owned and operated services in banking, energy, communications, infrastructure and transport. The experiment proved to be a failure. Politicians and other decision-makers used the public entities to further their political objectives, which affected their operations and profitability. Staff and managers were often appointed for political reasons and prices of many goods and services were kept artificially low. Cross-subsidies and pricing inefficiencies were widespread. Many enterprises were kept afloat solely because of coerced lending from state-owned banks, budgetary subsidies, monopolistic practices or implicit government gurantees.

2.43. Recognizing these difficulties, the Government began to reverse the nationalization strategy in the late 1970s. However, the size of the public sector continued to grow all through the 1980s. During 1990-97, 92 enterprises were privatized wholly or partially. Later the pace of Privatization slowed down as the effort shifted from industrial transactions, to larger transactions in the telecommunications, energy, transport, and banking sectors, with large and national repercussions.

2.44. **Objectives and Approach:** The main objectives of the Privatization programme of the present Government are to attract good management and investment, promote market-based prices and competition, reduce fiscal subsidies, retire

debt, reduce opportunities for corruption, improve health and safety; and broaden capital ownership. To implement the programme, the Federal Government strengthened the Privatization Commission, which endeavours to structure the divestitures appropriately; design good contracts, and establish transparent and appropriate bidding procedures. Starting comprehensive public awareness programme is in progress to better explain to the public the reasons for privatization and the process by which this occurs.

The 2001-04 Privatization Programme

2.45. The Government's Privatization programme envisages divestiture of Government holdings in banking and finance, oil and gas, telecommunications, energy, transport, and industrial sector. Early transactions include telecommunications, industrial enterprises, and minority shares or assets of selected banks and oil companies. Following the restructuring of some major enterprises, later transactions would include most enterprises in the banking, oil and gas sectors. At the same time, transactions in the power and insurance sectors would be initiated.

2.46. The entire Privatisation programme is expected to realize over US $4 billion for the Government. In addition, there are likely to be fiscal savings from not having to bail out some loss-making enterprises and banks,. Moreover, to the extent the privatized companies make higher profits, higher taxes would also strengthen the fiscal position. However, the greatest boost to economic development will come from higher production and improved services that would be realised from better management, fresh injections of capital, and effective regulation.

2.47. Most of the planned transactions involve an auction or a strategic sale, under which management control would pass to pre-qualified investors. However, in many instances the Government plans to sell a minority share either through the capital market in an open public offer or through block sale of shares (private placement). Such transaction has the added benefit to developing capital markets and increasing the ownership base.

2.48. To show its strong commitment to the Privatisation effort, the Government, in October 2000, promulgated an Ordinance aimed at strengthening the Privatisation Commission establishing its clear legal authority, increasing its accountability and independence, and providing greater public support for the process. The Ordinance also mandated that 90 percent of Privatisation proceeds would be used for debt retirement and 10 percent for poverty alleviation programme on which the present Government is focussing great attention.

Annex 2.1

GROSS DOMESTIC PRODUCT

(At 2000-01 Billion Rupees)

Items	2000-01 (Benchmark)	2003-04	2001-04 ACGR(%)
COMMDITY PRODUCING SECTORS	**1593.5**	**1840.5**	**4.9**
AGRICULTURE	**833.4**	**936.1**	**4.0**
Major Crops	319.2	358.7	4.0
Minor Crops	128.0	144.5	4.1
Livestocks	364.8	408.4	3.8
Fishing	19.2	22.2	4.9
Forestry	2.2	2.4	3.0
INDUSTRY	**760.2**	**904.4**	**6.0**
Mining & Quarrying	18.5	21.5	5.3
Manufacturing	**499.2**	**595.0**	**6.0**
Large Scale	355.0	425.7	6.2
Small Scale	144.2	169.3	5.5
Construction	108.8	130.5	6.3
Electricity & Gas Distriution	133.7	157.3	5.6
SERVICES SECTORS	**1642.6**	**1909.2**	**5.1**
Transport,Storage & Communication	342.1	397.2	5.1
Wholesale & Retail Trade	486.5	564.9	5.1
Financial Insti.& Insurance	108.0	129.0	6.1
Ownership of Dwellings	150.3	175.4	5.3
Public Admn. & Defence	257.2	281.0	3.0
Other Services	298.4	361.7	6.6
GDP-fc	**3236.1**	**3749.7**	**5.0**
(Growth Rate %)	(4.5)	(5.5)	

Annex 2.2

AGRICULTURAL PRODUCTION PROJECTIONS

(000 Tonnes)

Items	Benchmark 2000-01	Projections 2003-04
A. Crops		
Foodgrains	**27,255**	**33,206**
Wheat	20,000	24,000
Rice	**4,700**	**6,186**
Basmati	1,764	2,182
Others	2,936	4,004
Maize	1,900	2,315
Others	655	705
Cash Crops	**45,876**	**58,600**
Cotton (Lint)	1,769	2,488
(Million Bales)*	(10.4)	(14.6)
Sugarcane	44,000	56,000
Tobacco	107	112
Pulses	**1,047**	**1,479**
Gram	772	1,094
Others	275	385
Oilseeds	**4,605**	**7,333**
i. Traditional	**4,157**	**6,189**
Cottonseed	3,538	4,976
Rape and Mustard	227	503
Canola	192	409
Others	200	301
ii. Non-traditional (Sunflower, Soybean & Safflower)	**448**	**1,144**
Vegetables	**6,895**	**8,756**
Potato	1,965	2,374
Onion	1,430	1,698
Others	3,500	4,684
Fruits	**6,900**	**9,462**
B. Livestock Products		
Milk	26,284	32,653
Meat	**2,009**	**2,317**
Beef	1,005	1,146
Mutton	663	805
Poultry	342	366
Eggs (Million Nos.)	8,900	10,186
C. Fish Production	**704**	**1,000**
Marine	507	718
Inland	197	282

* Million bales each of 375 lbs.

Annex 2.3

TARGETS FOR CROP PRODUCTION

(000 Tonnes)

Crops	2000-01 Benchmark	2001-02	2002-03	2003-04	Annual Growth Rate (%)
Foodgrains	27,255	29,101	30,210	33,206	6.8
Wheat	20,000	21,252	22,017	24,000	6.3
Rice	4,700	5,149	5,326	6,186	9.6
Basmati	1,764	1,893	1,937	2,182	7.3
Others	2,936	3,256	3,389	4,004	10.9
Maize	1,900	2,029	2,153	2,315	6.8
Others	655	671	714	705	2.5
Cash Crops	45,876	49,770	52,252	58,600	8.5
Cotton (Lint)	1,769	1,982	2,079	2,488	12.0
(Million Bales)*	(10.4)	(11.6)	(13.0)	(14.6)	12.0
Sugarcane	44,000	47,679	50,063	56,000	8.4
Tobacco	107	109	110	112	1.6
Pulses	1,047	1,175	1,262	1,479	12.2
Gram	772	867	935	1,094	12.3
Others	275	308	326	385	11.9
Oilseeds	4,605	5,348	5,788	7,333	16.8
i. Traditional	4,157	4,735	5,040	6,188	14.2
Cottonseed	3,538	3,963	4,154	4,976	12.0
Rape & Mustard	227	296	320	503	30.3
Canola	192	247	304	409	28.7
Others	200	229	262	301	14.5
ii. Non-traditional (Sunflower, soybean & Safflower)	448	612	748	1,144	36.7
Vegetables	6,895	7,464	8,075	8,756	8.3
Potato	1,965	2,093	2,166	2,374	6.5
Onion	1,430	1,514	1,566	1,698	5.9
Other Vegetables	3,500	3,857	4,343	4,684	10.2
Fruits	6,900	7,666	8,517	9,462	11.1

* Million bales each of 375 lbs.

Annex 2.4

Industrial Production Targets for Three Year Programme (2000-03), (2010) & (2015)

Items	Units	1999-2000	2001-2004 (Projections)	ANNUAL GROWTH RATE %
		1	2	3
TEXTILES				
COTTON YARN	Million Kgs.	1671	1990	6
COTTON CLOTH (MILL SECTOR)	Mill.Sq.Mtrs	319	380	6
GARMENTS	Million Pieces	650	989	15
KNITWEAR/HOSIERY	Million Pieces	400	691	20
LEATHER PRODUCTS				
LEATHER (UPPER)	'000' SQ. MTR.	9785	11070	4
LEATHER (SOLE)	M. T.	124	132	2
LEATHER (FOOTWEAR)	'000' PAIRS	24116	27363	4
AGROBASED				
VEGETABLE GHEE/OIL	'000' M.T.	922	1129	7
SUGAR	'000' M.T.	2429	3295	11
WRITING AND PRINTING PAPER	'000' M.T.	97	116	6
PAPER & BOARD	'000' M.T.	427	483	4
FERTILIZERS				
NITROGENEOUS FERTILIZER	'000' N.T.	1842	2200	6
PHOSPHATIC FERTILIZER	'000' N.T.	86	138	17
CHEMICALS				
SODA ASH	'000' M.T.	249	282	4
CAUSTIC SODA	'000' M.T	141	159	4
PAINTS & VARNISHES (LIQUID)	000 LTR.	20714	22899	3
PAINTS & VARNISHES (SOLID)	M.T.	7277	8045	3
NON-METALLIC MINERAL PRODUCTS				
GLASS SHEETS	'000' SQ.MTR.	6250	7051	4
CEMENT	'000' M.T.	9314	11298	7
PETROLEUM PRODUCTS				
MOTOR SPIRITS	'000' Litres	1375918	1791680	9
HIGH SPEED DIESEL	'000' Litres	1695629	2294015	11
FURNACE OIL/LIGHT DIESEL OIL	'000' Litres	2175548	2763465	8
JET FUEL	'000' Litres	1043070	1328254	8
KEROSENE OIL	'000' Litres	357707	476108	10
STEEL (PAKISTAN STEEL)				
PIG IRON	'000' NOS	1107	1281	5
BILLETS	'000' NOS	345	511	14
H.R/C.R.SHEETS/PLATES	'000' NOS	707	818	5
GALVANIZED SHEETS	'000' NOS	59	93	16
AUTOMOBILES				
TRUCKS	NOS	977	1387	12
BUSES	NOS	1508	1958	9
LCVs	NOS	5122	6651	9
CARS/JEEPS	NOS	31352	47682	15
AGRICULTURE TRACTORS	NOS	34909	42765	7
TWO/THREE WHEELERS	NOS	94881	144302	15

Annex 2.4

Industrial Production Targets for Three Year Programme (2000-03), (2010) & (2015)

I t e m s	Units	1999-2000	2001-2004 (Projections)	ANNUAL GROWTH RATE %
		1	2	3
ENGINEERING				
AIRCONDITIONER	'000' NOS	48	71	14
REFRIGERATOR	'000' NOS	213	299	12
DEEPFREEZER	'000' NOS	140	202	13
T.V.SETS	'000' NOS	121	298	35
BICYCLES	'000' NOS	534	673	8
ELECTRIC FANS	'000' NOS	680	981	13
TRANSFORMERS	'000' NOS	13	36	40
SWITCHGEAR	NOS	56888	72662	9
CONDUCTORS	M.T.	16000	30506	24
GENERATOR SETS	NOS	30000	50555	19
ELECTRIC SUPPLY METERS	NOS	898817	953832	2
MINIATURE CIRCUIT BREAKERS	NOS	30000	46827	16

Annex-2.5

RESOURCES AND USES
(At 2000-01 Prices)
(Billion Rs)

	2000-01	2003-04	3 Years Totals 2001-04	Annual Growth (%)
GDP (fc)	3236.1	3749.7	10689.1	5.0
Indirect Taxes (Net)	284.9	342.1	963.5	6.3
GDP (MP)	3521.0	4091.8	11652.6	5.1
Net Factor Income from abroad	-49.1	-21.0	-95.7	-24.6
GNP (MP)	3471.9	4070.8	11556.9	5.4
Per capita GNP (Rs)	**24334**	**26919**		3.4
External Resource Inflow (Net)	70.4	34.4	141.9	-21.3
Total Resources/Uses	3542.4	4105.1	11698.8	5.0
Total Consumption	2994.9	3409.4	9773.4	4.4
Total Investment	**547.4**	**695.8**	**1925.4**	8.3
Fixed Investment	489.3	630.3	1738.9	8.8
Public	190.1	241.6	655.2	8.3
Budgeted	115.4	165.9	442.0	12.9
Non-Budgeted	74.7	75.6	213.3	0.4
Private	299.3	388.7	1083.7	9.1
Changes in Stocks	58.1	65.5	186.4	4.1
National Savings	**477.0**	**661.4**	**1783.5**	11.5
Public Savings	31.7	90.0	221.4	41.6
Government	-14.1	32.7	58.3	-232.5
Corporations	45.8	57.3	163.1	7.8
Private Savings	445.3	571.4	1562.1	8.7
			Average	
AS % of GDP (MP)				
Investment	15.5	17.0	16.5	
Fixed Investment	13.9	15.4	14.9	
Public	5.4	5.9	5.6	
Budgeted	3.3	4.1	3.8	
Non-budgeted	2.1	1.8	1.8	
Private	8.5	9.5	9.3	
External Resources	2.0	0.8	1.2	
Domestic Savings	14.9	16.7	16.1	
National Savings	13.5	16.2	15.3	
Public Savings	0.9	2.2	1.9	
Government	-0.4	0.8	0.5	
Corporations	1.3	1.4	1.4	
Private Savings	12.6	14.0	13.4	
Inflation rate (CPI, %)	6.0	5.0	5.2	

Annex-2.6

RESOURCES AND USES
(At Current Prices)
(Billion Rs)

	2000-01	2003-04	3 Years Totals 2001-04	Annual Growth (%)
GDP (fc)	3236.1	4361.4	11869.9	10.5
Indirect Taxes (Net)	284.9	397.9	1070.4	11.8
GDP (MP)	3521.0	4759.3	12940.3	10.6
Net Factor Income from abroad	-49.1	-31.6	-119.8	-13.6
GNP (MP)	3471.9	4727.7	12820.5	10.8
Per capita GNP (Rs)	**24334**	**31264**		8.7
External Resource Inflow (Net)	70.4	40.0	156.1	-17.2
Total Resources/Uses	3542.4	4767.7	12976.6	10.4
Total Consumption	2994.9	3958.4	10836.2	9.7
Total Investment	**547.4**	**809.3**	**2140.4**	13.9
Fixed Investment	489.3	733.1	1933.3	14.4
Public	190.1	281.0	729.9	13.9
Budgeted	115.4	193.0	492.0	18.7
Non-Budgeted	74.7	88.0	237.9	5.6
Private	299.3	452.1	1203.4	14.7
Changes in Stocks	58.1	76.1	207.0	9.4
National Savings	**477.0**	**769.3**	**1984.3**	17.3
Public Savings	31.7	104.7	245.9	48.9
Government	-14.1	38.1	64.7	-239.3
Corporations	45.8	66.6	181.2	13.3
Private Savings	445.3	664.6	1738.4	14.3
			Average	
AS % of GDP (MP)				
Investment	15.5	17.0	16.5	
Fixed Investment	13.9	15.4	14.9	
Public	5.4	5.9	5.6	
Budgeted	3.3	4.1	3.8	
Non-budgeted	2.1	1.8	1.8	
Private	8.5	9.5	9.3	
External Resources	2.0	0.8	1.2	
Domestic Savings	14.9	16.8	16.3	
National Savings	13.5	16.2	15.3	
Public Savings	0.9	2.2	1.9	
Government	-0.4	0.8	0.5	
Corporations	1.3	1.4	1.4	
Private Savings	12.6	14.0	13.4	
Inflation rate (CPI, %)	6.0	5.0	5.2	

Annex-2.7

CONSOLIDATED BUDGET : PROJECTIONS FOR 2001-01 TO 2003-4

	2000-01 Benchmark	Projections (Current Billions Rs)		
		2001-02	2002-03	2003-04
Total Revenues	**585.2**	**684.5**	**781.1**	**885.2**
Tax Revenues	487.7	556.2	639.5	728.2
Non-tax Revenues	97.5	128.3	141.6	157.1
Total Expenditures	**779.1**	**855.5**	**935.5**	**1030.6**
Current Expenditures	663.7	719.5	772.5	837.6
Defence	157.5	163.3	171.7	180.9
Interest Payments	239.0	268.4	279.0	299.8
All Others	267.7	287.8	321.9	356.9
Development Expenditures	115.4	136.0	163.0	193.0
Fiscal Deficit	185.7 @	171.0	154.4	145.4
Financing:				
Domestic Borrowings	54.8	72.9	56.9	79.6
External Borrowings (net)	130.9	98.1	97.5	65.8
GDP market prices	3521	3889	4292	4759
Memorandum items:				
As % of GDP				
Tax Revenues	13.9	14.3	14.9	15.3
Non-tax Revenues	2.8	3.3	3.3	3.3
Total Expenditures	22.1	22.0	21.8	21.7
Current Expenditures	18.8	18.5	18.0	17.6
Development Expenditures	3.3	3.5	3.8	4.1
Fiscal Deficit	5.2	4.4	3.6	3.0

@ Adjusted for Rs(-) 8.2 billion for net lending to PSEs, etc.

Annex 2.8

EXPORTS

($ million)

Commodities	2000-01 Benchmark	2001-02	2002-03	2003-04	ACGR %
I. Primary Commodities	**735**	**781**	**845**	**905**	**7.2**
Raw Cotton	127.0	126.0	135	142.0	**3.8**
Volume (Mln Bales)	0.77	0.72	0.74	0.76	**-0.5**
Price (Cents/Lb)	44.2	46.4	48.7	50.2	**4.3**
Total Rice	**608**	**655**	**710**	**763**	**7.9**
Basmati Rice	343	371	404	438	**8.5**
Volume (000 MT)	659	685	713	742	**4.0**
Price ($/MT)	520	542	567	590	**4.3**
Other Rice	265	284	306	325	**7.0**
Volume (000 MT)	1351	1392	1433	1475	**3.0**
Price ($/MT)	196	204	214	220	**4.0**
II. Cotton based Manufactures	**5792**	**6394**	**7068**	**7819**	**10.5**
Yarn	1223	1298	1376	1456	**6.0**
Volume (Mln Kgs)	572	601	631	662	**5.0**
Price ($/Kg)	2.14	2.16	2.18	2.20	**0.9**
Cloth	1226	1310	1403	1502	**7.0**
Volume (Mln Sq. Meter)	1748	1844	1946	2053	**5.5**
Price ($/Sq Meter)	0.70	0.71	0.72	0.73	**1.5**
Readymade Garments	887	976	1073	1181	**10.0**
Tents and Canvas	60	65	70	76	**8.0**
Hosiery	1012	1154	1315	1499	**14.0**
Made ups (incl.towels & Bedwear)	1384	1592	1830	2105	**15.0**
III. Other Traditionals	**1129**	**1233**	**1347**	**1472**	**9.2**
Fish and Fish Preparations	150	162	175	189	**8.0**
Leather	189	202	216	232	**7.0**
Carpets	296	326	358	394	**10.0**
Synthetic Textiles	494	543	598	658	**10.0**
IV. All Others	**1877**	**2079**	**2275**	**2493**	**9.9**
Total (Gross)	**9533**	**10487**	**11535**	**12688**	**10.0**
Total (fob)	**9300**	**10231**	**11254**	**12379**	**10.0**

Annex 2.9

IMPORTS

($ Million)

Commodities	2000-01 Benchmark	2001-02	2002-03	2003-04	ACGR %
Edible Oils	**431**	**463**	**508**	**551**	**8.5**
Palm Oil	324	347	382	416	**8.7**
Volume (000 MT)	890	935	986	1040	**5.3**
Price ($/MT)	364	371	387	400	**3.2**
Soyabean Oil	107	116	126	135	**8.1**
Volume (000 MT)	250	263	277	291	**5.2**
Price ($/MT)	428	441	455	464	**2.7**
POL	**3751**	**3569**	**2852**	**3616**	**-1.2**
Crude Oil	1771	1739	1692	1680	**-1.7**
Volume (Million barrel)	60.00	66.90	66.90	70	**5.3**
Price ($/barrel)	29.52	26.0	25.3	24.0	**-6.7**
POL Products	1980	1830	1879	1936	**-0.7**
Volume (Million MT)	10.40	10.90	11.50	12.10	**5.2**
Price ($/MT)	190.4	167.9	163.4	160.0	**-5.6**
Fertilizers	**107**	**123**	**138**	**157**	**13.6**
Volume (000 MT)	604	664	731	805	**10.0**
Price ($/MT)	177	185	189	195	**3.3**
Capital Goods (Value)	2785	2938	3100	3270	**5.5**
All Others	4538	5305	5917	6536	**12.9**
Total (c&f)	**11612**	**12398**	**13234**	**14130**	**6.8**
Total (fob)	**10653**	**11374**	**12141**	**12963**	**6.8**

Annex 2.10

BALANCE OF PAYMENTS

($ Million)

Items	2001 benchmark	2002 Projection	2003 Projection	2004 Projection
TRADE BALANCE	**-1353**	**-1143**	**-887**	**-584**
Exports (fob)	9300	10231	11254	12379
Imports (fob)	10653	11374	12141	12963
INVISIBLES BALANCE	**139**	**128**	**-35**	**-61**
Services (net)	-2945	-2959	-2934	-2891
Invisibles Receipts	1590	1745	1865	1980
Invisibles Payments	4535	4704	4799	4871
Freight & Insurance	959	1024	1093	1167
Public & Guaranteed Debt	1130	1300	1250	1160
Others	2446	2380	2456	2544
Private Transfers	3084	3087	2899	2830
Remittances	1200	1250	1300	1350
F.C.A.(Resident Pakistanis)	234	89	0	0
Others	1650	1748	1599	1480
CURRENT ACCOUNT BALANCE	**-1214**	**-1015**	**-922**	**-645**
As percent of GDP	2.0	1.55	1.3	0.84
Reserve position (End period)	2110	2629	3117	3570
Weeks of imports	10.3	12.0	13.4	14.3
Capital requirements	3730	3049	2864	2985
Current Account Deficit	1214	1015	922	645
Amortization	1764	1515	1454	1887
Reserves Buildup	752	519	488	453
Financing	3730	3049	2864	2985
Official L. T. Capital(project Aid)	985	1130	1685	1557
Private long term Capital (Net)	615	649	685	723
Others *	2130	1270	494	705

* To be financed through Multilateral Institutions,relief from Re-scheduling and other short term borrowings

Annex 2.11

PUBLIC INVESTMENT PROGRAMME 2001-04

Summary of the Budgetary Programme

(Million Rupees)

Sl No	Sectors/Executing Agencies	PSDP 2001-02		PSDP 2002-03		PSDP 2003-04		Total 3 Year Plan	
		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10
A	FEDERAL GOVT. (By Sectors)	79707.8	31984.0	97432.2	38665.7	116515.0	50608.4	293655.0	121258.1
1	Agriculture	1014.2	264.6	1311.8	266.5	1674.0	335.8	4000.0	866.9
2	Industry	526.1	383.6	581.0	403.0	525.0	415.8	1632.1	1202.4
3	Minerals	50.0	12.0	80.0	19.2	109.0	28.0	239.0	59.2
4	Water	14016.4	8830.0	18370.7	11647.0	20729.0	12645.0	53116.1	33122.0
5	Energy	19052.9	13732.9	22992.9	16072.9	29479.3	20981.3	71525.1	50787.1
	(a) Power	15827.9	13669.9	18706.0	16010.0	24121.3	20911.3	58655.2	50591.2
	(WAPDA)	15658.9	13658.9	18501.0	16001.0	23899.3	20899.3	58059.2	50559.2
	(b) Fuel	3225.0	63.0	4286.9	62.9	5358.0	70.0	12869.9	195.9
6	Transport and Communications	22090.0	3808.0	27225.0	5136.2	32910.0	9979.4	82225.0	18923.6
	(NHA)	16986.6	1402.0	21085.3	2549.3	25592.8	7724.1	63664.7	11675.4
7	Physical Planning and Housing	2944.6	435.0	3218.9	315.0	3290.0	428.0	9453.5	1178.0
8	Education and Training	1452.8	139.9	1950.4	135.0	2527.7	158.0	5930.9	432.9
9	Information Tech. & Science (Poverty Alleviation/HRD)	7266.1	502.2	8830.0	124.0	10222.0	185.0	26318.1	811.2
10	Health and Nutrition	3867.4	90.0	4433.1	140.0	5206.0	160.0	13506.5	390.0
11	Rural Development	2969.3	2494.2	3385.3	2843.7	3877.0	3256.7	10231.6	8594.5
12	Mass Media	211.8	72.6	250.0	143.0	305.0	155.0	766.8	370.6
13	Culture, Sports, Tourism & Youth	183.0	0.0	243.0	0.0	273.0	0.0	699.0	0.0
14	Manpower and Employment	54.0	0.0	105.0	78.0	180.0	135.0	339.0	213.0
15	Women Development	65.0	0.0	75.0	0.0	85.0	0.0	225.0	0.0
16	Population Welfare	2600.0	450.0	3200.0	575.0	3700.0	793.0	9500.0	1818.0
17	Social Welfare	115.0	0.0	155.1	0.0	175.0	0.0	445.1	0.0
18	Research, Statistics & Planning	893.1	558.4	648.1	536.5	868.0	720.4	2409.2	1815.3
19	Environment	336.1	210.6	376.9	230.7	380.0	232.0	1093.0	673.3
B	SPECIAL AREAS	6663.2	540.0	8292.8	665.0	9890.0	791.0	24846.0	1996.0
	(Poverty Alleviation)	1260.0	0.0	1323.0	0.0	1389.0	0.0	3972.0	0.0
C	SPECIAL PROGRAMMES	100.0	0.0	120.0	0.0	150.0	0.0	370.0	0.0
	Total (Federal)	86471.0	32524.0	105845.0	39330.7	126555.0	51399.4	318871.0	123254.1
D	PROVINCES	49529.0	13870.0	57155.0	16300.0	66445.0	18930.0	173129.0	49100.0
	(Poverty Alleviation)	18900.0	0.0	19845.0	0.0	20837.0	0.0	59582.0	0.0
	Total (3 Years Budgetary PSDP)	136000.0	46394.0	163000.0	55630.7	193000.0	70329.4	492000.0	172354.1
	(Poverty Alleviation)	20160.0	0.0	21168.0	0.0	22226.0	0.0	63554.0	0.0

CHAPTER 3

BALANCE OF PAYMENTS

Balance of payments projections for the next three years have been made keeping in view the long run objective of reducing the external debt as well as constraints imposed by the external and internal factors. The internal factors include shortage of exportable surplus, lack of diversification of exports, faulty import substitution, changing behavior of workers' remittances, acceleration in interest payments and unfavourable terms of trade. The external factors are falling commodity prices due to global recession and limited access to foreign markets due to protectionist policies of the developed countries.

3.2. During the last one and a half year, particularly in the budget and trade policy for 2000–01, the Government has announced various measures to ensure achievement of reduction in the current account deficit, thus reducing dependence on external resources. Measures to boost agricultural production and revive the industrial sector will generate exportable surplus and reduce import requirements (particularly of wheat and edible oil) and thus will improve the trade balance. Increased domestic savings will reduce the external financing requirements, thus improving the current account balance. Similarly rebuilding confidence through stability and continuity in economic policies will encourage foreign investment, which will relieve pressure on the capital account.

OBJECTIVES

3.3. The plan objectives over the next three years are following:-

- Rationalization of the tariff structure and reduction of export bias in the trade regime.
- Breaking of high degree of concentration of exports, both commodity-wise and market-wise.
- Maintenance of a stable exchange rate as well as interest rate structure to ensure international competitiveness of exports.
- Preparation to comply with new laws and rules governing TRIPs and TRIMs and benefiting from the newly opened services sector.
- Reducing dependence on debt-creating sources of financing and generation of resources to meet the fast-growing foreign debt servicing payments.
- Attracting workers' remittances in the face of loss of confidence on account of freezing foreign currency accounts.
- In quantitative terms.
- Export on average will increase by 10.0 percent
- Import on average will increase by 6.8 percent
- Current account deficit will be reduced to 0.8 percent of GDP.

STRATEGY AND ITS ELEMENTS

3.4. Trade and balance of payments projections the Plan have been prepared in the light of the trade policy 2000-01 (which will remain operative over the next three years), national objective of self-reliance, emerging global trends in trade and the institutional setting defined by the World Trade Organization (WTO). The strategy of the Plan is export-led growth; exports would lead growth not only in the external sector but also in the economy as a whole. To

support this strategy exports would be diversified, exportable surplus generated, and efficiency and quality standards of the export sector increased. To boost exports, trade regime would be rationalized and a policy of stable exchange rate pursued. Efforts would be made to take advantage of the new environment generated by WTO in the fields of liberalized trade in agricultural, textile and clothing sectors as well the newly opened area of services sector.

3.5 **Diversification of Exports**: One of the persistent problems of our exports is the lack of diversification, both commodity-wise and market-wise. For years, cotton and cotton-based products have been contributing almost 60 per cent of total merchandise exports. This has kept the export regime highly vulnerable to the production of cotton crop. This will be replaced by more diversified and less vulnerable pattern of exports. Flowers, fresh and dried fruits, juices, vegetables, jewellery, marble and stones, computer software, cutlery, handicrafts, and engineering goods have bright prospects in the world market Exports of such non-traditional items will be increased through special emphasis. This could be done by way of creating Association of Exporters in the private sector.

3.6 **Trade Liberalization:** Over the medium run, efforts would be made to capture gains from a liberalized trade regime. Pakistan has already dismantled barriers to trade. Maximum tariff has been reduced to 35% and number of slabs to five. Maximum tariff rate will be further reduced to 30 % from July 2001 and then to 25 % from January 2003 . Similarly number of slabs will be reduced to four in January 2003 . The trade regime will be further liberalized by reduction in the number of items covered under anti-dumping measurers to a minimum or their complete elimination with the promulgation of anti dumping law in the country. The liberalized trade regime will expose the domestic industry to competition, improve its efficiency and will help increase exports of these industries.

3.7 **Exchange Rate:** With the removal of unofficial trading band in the interbank in July 2000, the process of liberalization of exchange rate regime has come to an end. Henceforth exchange rate would be determined by the market forces. However, necessary policy measures would be taken to ensure the competitiveness of exports by maintaining stable exchange rate. Determination of exchange rate by the market forces will reduce the premium between the official and kerb rate. This will discourage the existence/ emergence of multiple exchange rate system.

3.8 **Generating Exportable Surplus:** Productivity in the commodity producing sectors (i.e agriculture and industry) will be maximized to attain a larger exportable surplus. In agriculture there is a large scope for improving yield per hectare, which will be obtained through the application of modern technology and price incentives, thus inducing farmers to enhance production, particularly of wheat, cotton and edible oils. With the deregulation and privatization of the sick industrial units, activity in the manufacturing sector will revive. Capacity utilization in the manufacturing sector will be increased through provision of capital loans on easy terms for export oriented units, particularly for BMR/ new projects.

3.9 **Efficiency and Quality/ Standard:** The linchpin of the new WTO based trade system is competition. To remain an active participant in the world market, Pakistan will have to improve its competitiveness which is a composite of high quality/ standard and cost effectiveness. Although the imports have been liberalized, yet not much has been done in the area of improving technology and achieving efficiency. The private sector will be assisted in restructuring production processes to gain efficiency and improve productivity. It will also be facilitated to

attain ISO 9000 certification for quality production. Awareness of issues on a variety of subjects, like Pakistan's interest and objectives in the context of WTO, child labour and environment (ISO 14000) will be enhanced through seminars, publication of informative material etc.

3.10 **Enabling and Facilitation Measures:** Apart from sector specific export promotion incentives, many enabling and facilitation measures have been announced. Enabling measures include revamping of Duty Drawback Scheme, revision of Exports Finance Scheme, replacement of Export Guarantee Scheme and establishment of Market Development Fund. Facilitation measures focus on improvement and re-designation of the role of Export Promotion Bureau and involving foreign missions in trade promotion activities.

3.11 **Market Access:** Increasing market share of existing exports and finding new markets for the non-traditional items of exports is of vital importance for increasing exports over the coming years. Thus efforts will be made to penetrate into the markets of China, South Africa, Western Africa, Middle East, Central Asia and Australia. This will help in diluting the risk of market dependence on USA, Europe, and Japan which often makes our exports vulnerable to their commercial pollicies and political tendencies. To find markets for new commodities lobbyists or promoters from overseas may be hired on performance and profit sharing basis. Furthermore, delegations of exporters would be sent periodically to the prospective buyer countries. A permanent institution may be established in the Minister of Commerce to settle the issues emerging from WTO.

3.12 **Direct Foreign Investment**: Direct foreign investment will play a crucial role in the external sector. It will partially replace foreign aid, and thereby reduce debt servicing liability and will also be a source of technology transfer from abroad. Attracting direct foreign investment will be a great challenge. It is, however, hoped that with the conclusion of agreement with the Fund confidence of the investors will be restored in the economic policies of the Government and as a consequence direct foreign investment will start flowing in the country.

3.13 **Services Sector**: Service industry including tourism/computer software has great potential under WTO to earn foreign exchange for financing the trade deficit. Development of this industry will increase export of invisible services. Trade in services will help in facilitating technology transfers, better employment opportunities, increase in income on invisible items of exports, and development of infrastructure. The importance of this industry has increased manifold as the workers' remittances, which have been a significant source to finance the trade deficit in the past, have shown stagnation at a level of around $1.4 billion. Therefore, efforts will have to be made for the development of other services like tourism, transport and communications, construction and professional services so that this industry flourishes with high quality and standard to face international competition when General Agreement on Trade in Services (GATS) achieves the status of free global trade without any trade barriers in this sector.

3.14 **External Debt Management:** Over time Pakistan's external debt has assumed an alarming proportion and has now become a major burden on national resources. The large volume of debt and its servicing warrants a comprehensive debt management strategy. The strategy will include both long and short term measures. The short term measures will focus on generating foreign exchange to service immediate debt payment obligations while long term measures will focus on reducing addition to the magnitude of external debt. To earn and save foreign exchange to service debt obligations, exports will be increased and imports reduced. For reducing volume of debt, reliance on debt creating sources of

finance will be reduced and effective measures taken to attract other sources of finance such as direct foreign investment. Other elements of the strategy include the pursuance of prudent exchange rate policy, supportive monetary and fiscal policies and use of proceeds from privatization for debt retirement. Needless to say the economy growing at a faster rate will generate saving, reduce saving-investment gap, hence reliance on external resources.

MEDIUM TERM PROJECTIONS

3.15 **Trade Balance:** The trade balance is expected to fall from $ 1353 million during 2000-01 to $ 584 million during 2003-04. This would be made possible by exports growing at a faster rate than imports. The increase in exports is predicated on increased production of cotton and rice as well as revival of the manufacturing sector, improvement in quality and competitiveness of value added products and adherence to the delivery schedule. The exports are thus projected to increase, on average, by 10 percent. The imports are projected to increase, on average, by 6.8 percent. This reduction in imports envisages large import substitution in such commodities as wheat, edible oil and crude oil and its products. Judicious policy actions would be taken in the agriculture sector to achieve the objectives of generating exportable surplus and import substitution.

3.16. **Exports Prospects:** The merchandise exports are projected to increase by 10.0 percent in nominal dollar terms per year comprising 7.2 percent growth in exports of primary commodities and 10.5 percent for cotton based manufactures. Annex 3.1 provides the details on exports for the period 2001-04.

3.17. The projections of raw cotton export are based on growth in domestic production and prospects for expansion in the production and export of cotton based products. These cotton related goods are subject to fierce competition in the international market. Cotton production remains vulnerable to pest attack and other natural vagaries. Hence, there is a dire need to develop a high yielding and pest resistant cotton crop with more extensive application of bio-technology. Assuming normal conditions during the Plan, the cotton production has been projected to increase from 10.4 million bales in 2000-01 to 14.6 million bales by 2003-04. The exports of cotton are estimated to remain constant around 0.75 million bales during the Plan period. However, the total foreign exchange earnings from raw cotton are expected at $142 million by the terminal year of the Plan.

3.18. Rice export has not increased significantly over the period. This is because of comparatively inferior product quality, delay in delivery and lower prices paid to the growers. The foreign buyers, therefore, shifted their demand to other rice exporting countries like India. Government has provided the incentives like the support price of rice to growers to enhance the production and ensure the quality improvement. Rice exporters can get some benefits from the opening up of rice markets in Japan and South Korea under the new world trade system. However, America and Thailand would be larger beneficiaries in view of the taste and quality of their product. On this basis, it is assumed that basmati rice exports will rise by 4.0 percent per year in volume terms and 8.5 percent in value terms. The export of other varieties of rice is expected to grow by 3.0 percent per year in volume terms and by 7.0 percent per year in value terms.

3.19. Pakistan's exports are mostly concentrated in the textile sector. The exports of cotton based manufactures account for about 60 percent of the total exports. Quick exports diversification is needed before the integration of this sector into WTO. Under the Agreement on Textile and Clothing (ATC), restriction on the exports will come to an end by the year 2005 in four successive stages. These restrictions were built in the erstwhile Multi-Fibre Arrangement(MFA) which will be phased out under the Agreement. So far,

33 percent has been phased out by the end of 1998 and during 2002 further 18 percent will be phased out by the Economic Union and USA. Before the quotas are fully phased out, Pakistan must avail of this opportunity by increasing its textile exports (like yarn, cloth and made ups) to these markets. This will call for quality/standard products produced at a comparative advantage over our close competitors India & Bangladesh. The weak point of the agreement is the provision of the antidumping safeguard which has empowered the importing countries to take unilateral action to curb the textile imports. Pakistan faced this challenge in 1997-98 when EC imposed the duties on our export of bed linen and grey cloth under the allegation of dumping. USA imposed unilateral quota restrictions on Pakistani exports of combed cotton yarn in 1998. Pakistan requested the dispute settlement body (DSB) of WTO in April 2000 for lifting the quota but the issue remained un resolved till the end of year 2000. Thus, there is a dire need to explore adequate resources, both manpower as well as financial, to defend such an ugly situation.

3.20. It is projected that the cotton textile exports during the Plan will grow by 10.5 percent in nominal dollar terms to be contributed largely by cloth, hosiery, ready made garments and made-ups. The exports of the other traditional goods are envisaged to increase by 9.2 percent in nominal dollar terms. This may be attributed to the larger exports of synthetic textiles and fish & fish preparation. The exports of carpets and leather are likely to be affected due to the Human Right clause of WTO about bonded/child labour and environmental issue (ISO 14000).

3.21. A Textile Vision is being prepared for meeting the challenges to be faced by the textile sector after the expiry of the Multi Fiber Arrangement.

IMPORT TRENDS

3.22. Imports are forecast to grow by 6.8 percent per annum in nominal dollar terms. It has been planned to contain the imports through a greater reliance on indigenous materials for development of manufacturing sector because it has strongly been felt that the dream of correcting the balance of payments can only be realized through the implementation of bold and long term measures to stretch back the import regime. The details on imports are provided in Annex 3.2.

3.23. The potential for increasing the domestic production of oil seeds has always remained high. Domestic production of traditional as well as non-traditional oilseeds is projected to grow by 16.8 percent per annum and by the end of Plan the country would still be importing the edible oils around 1.33 million tonnes to meet the demand of increasing population.

3.24. Crude oil imports are likely to decline by 1.7 percent per annum mainly due to decline in prices. Imports of petroleum products are also expected to fall by about one percent per annum in value term due to fall in prices. However, the quantum of both crude oil and POL products is projected to increase in view of the increasing domestic consumption.

3.25. Fertilizers import is projected to increase from 604 thousand tonnes in 2000-01 to 805 thousand tonnes in 2003-04. Total foreign exchange spending on import of fertilizers is estimated to be around $ 157 million by the final year of the Plan. However, it is expected that the imports of fertilizers will gradually start declining when the domestic production is enhanced with the increased capacity utilization of some existing plants and coming into operation of some new units as well.

3.26. Capital Goods imports are projected to increase by 5.5 per cent per annum in view of revival in the economic activities in the

country. The imports of capital goods and raw material for capital goods are thus anticipated to grow at a relatively higher rate, almost consistent with the growth rate for capital formation.

3.27. **Invisibles Balance**: Prospects for invisibles balance would be governed mainly by the behaviour of the workers' remittances and direct purchases by the State Bank of Pakistan. . With the expected increase in oil prices leading to higher wages in the Middle East and prudent exchange rate policy minimizing the differential between official and kerb rate would ensure larger flow of remittances through the banking channel. The workers' remittances are, therefore, expected to increase from $1200 million during 2000-01 to $1350 million during 2003-04. It is hoped that direct purchases by the State Bank are reduced over time and ultimately discontinued. The invisibles balance is expected to decline from a surplus of $139 million in 2000-01 to a deficit of $61 million in 2003-04.

3.28 **Current Account Balance:** With the deficit of $ 584 million on trade account and $ 61 million on the invisibles account the current account balance is projected to decline from $1214 million during 2000-01 to $645 million during 2003-04. In terms of GDP, the current account deficit would decline from 2.0 percent during 2000-01 to 0.8 percent during 2003-04.

3.29. **Capital Requirements and Financing:** The capital requirements over the next three years will comprise of current account deficit, amortization and desired level of cash exchange reserves. The amortization is projected to increase from $1764 million during 2000-01 to $1887 million during 2003-04. The level of foreign exchange reserve is assumed to grow from $2110 million to $3570 million. Given the declining current account balance, the total capital requirements are expected to decline from $3730 million to $2985 million. The financing of these requirements would be made through official long term capital, private long term capital, multilateral institutions, relief from re-scheduling and other short term borrowings etc. It is envisaged that the project aid will increase from $985 million in 2000-01 to $1557 million in 2003-04. The private long term capital (net) which includes foreign direct investment and portfolio investment is anticipated to rise from $615 million in 2000-01 to $723 million in 2003-04. The gap will be financed through inflows from multilateral institutions, relief from re-scheduling and other short term borrowings which are projected to decline from $2130 million in 2000-01 to $705 million in 2003-04. Annex 3.3 provides the balance of payments position for the Plan period.

Annex 3.1

EXPORTS

$ million

Commodities	2000-01	2001-02	2002-03	2003-04	ACGR %
	Benchmark				
I. Primary Commodities	**735**	**781**	**845**	**905**	**7.2**
Raw Cotton	127.0	126.0	135	142.0	**3.8**
Volume (Mln Bales)	0.77	0.72	0.74	0.76	**-0.5**
Price (Cents/Lb)	44.2	46.4	48.7	50.2	**4.3**
Total Rice	**608**	**655**	**710**	**763**	**7.9**
Basmati Rice	343	371	404	438	**8.5**
Volume (000 MT)	659	685	713	742	**4.0**
Price ($/MT)	520	542	567	590	**4.3**
Other Rice	265	284	306	325	**7.0**
Volume (000 MT)	1351	1392	1433	1475	**3.0**
Price ($/MT)	196	204	214	220	**4.0**
II. Cotton based Manufactures	**5792**	**6394**	**7068**	**7819**	**10.5**
Yarn	1223	1298	1376	1456	**6.0**
Volume (Mln Kgs)	572	601	631	662	**5.0**
Price ($/Kg)	2.14	2.16	2.18	2.20	**0.9**
Cloth	1226	1310	1403	1502	**7.0**
Volume (Mln Sq. Meter)	1748	1844	1946	2053	**5.5**
Price ($/Sq Meter)	0.70	0.71	0.72	0.73	**1.5**
Readymade Garments	887	976	1073	1181	**10.0**
Tents and Canvas	60	65	70	76	**8.0**
Hosiery	1012	1154	1315	1499	**14.0**
Made ups (incl.towels & Bedwear)	1384	1592	1830	2105	**15.0**
III. Other Traditionals	**1129**	**1233**	**1347**	**1472**	**9.2**
Fish and Fish Preparations	150	162	175	189	**8.0**
Leather	189	202	216	232	**7.0**
Carpets	296	326	358	394	**10.0**
Synthetic Textiles	494	543	598	658	**10.0**
IV. All Others	**1877**	**2079**	**2275**	**2493**	**9.9**
Total (Gross)	**9533**	**10487**	**11535**	**12688**	**10.0**
Total (fob)	**9300**	**10231**	**11254**	**12379**	**10.0**

Annex 3.2

IMPORTS

$ Million

Commodities	2000-01	2001-02	2002-03	2003-04	ACGR %
	Benchmark				
Edible Oils	**431**	**463**	**508**	**551**	**8.5**
Palm Oil	324	347	382	416	**8.7**
Volume (000 MT)	890	935	986	1040	**5.3**
Price ($/MT)	364	371	387	400	**3.2**
Soyabean Oil	107	116	126	135	**8.1**
Volume (000 MT)	250	263	277	291	**5.2**
Price ($/MT)	428	441	455	464	**2.7**
POL	**3751**	**3569**	**2852**	**3616**	**-1.2**
Crude Oil	1771	1739	1692	1680	**-1.7**
Volume (Million barrel)	60.00	66.90	66.90	70	**5.3**
Price ($/barrel)	29.52	26.0	25.3	24.0	**-6.7**
POL Products	1980	1830	1879	1936	**-0.7**
Volume (Million MT)	10.40	10.90	11.50	12.10	**5.2**
Price ($/MT)	190.4	167.9	163.4	160.0	**-5.6**
Fertilizers	**107**	**123**	**138**	**157**	**13.6**
Volume (000 MT)	604	664	731	805	**10.0**
Price ($/MT)	177	185	189	195	**3.3**
Capital Goods (Value)	2785	2938	3100	3270	**5.5**
All Others	4538	5305	5917	6536	**12.9**
Total (c&f)	**11612**	**12398**	**13234**	**14130**	**6.8**
Total (fob)	**10653**	**11374**	**12141**	**12963**	**6.8**

Annex 3.3

BALANCE OF PAYMENTS

$ Million

Items	2001 benchmark	2002 Projection	2003 Projection	2004 Projection
TRADE BALANCE	**-1353**	**-1143**	**-887**	**-584**
Exports (fob)	9300	10231	11254	12379
Imports (fob)	10653	11374	12141	12963
INVISIBLES BALANCE	**139**	**128**	**-35**	**-61**
Services (net)	-2945	-2959	-2934	-2891
Invisibles Receipts	1590	1745	1865	1980
Invisibles Payments	4535	4704	4799	4871
Freight & Insurance	959	1024	1093	1167
Public & Guaranteed Debt	1130	1300	1250	1160
Others	2446	2380	2456	2544
Private Transfers	3084	3087	2899	2830
Remittances	1200	1250	1300	1350
F.C.A.(Resident Pakistanis)	234	89	0	0
Others	1650	1748	1599	1480
CURRENT ACCOUNT BALANCE	**-1214**	**-1015**	**-922**	**-645**
As percent of GDP	2.0	1.55	1.3	0.84
Reserve position (End period)	2110	2629	3117	3570
Weeks of imports	10.3	12.0	13.4	14.3
Capital requirements	3730	3049	2864	2985
Current Account Deficit	1214	1015	922	645
Amortization	1764	1515	1454	1887
Reserves Buildup	752	519	488	453
Financing	3730	3049	2864	2985
Official L. T. Capital(project Aid)	985	1130	1685	1557
Private long term Capital (Net)	615	649	685	723
Others *	2130	1270	494	705

* To be financed through Multilateral Institutions,relief from Re-scheduling and other short term borrowings

CHAPTER 4

FISCAL AND MONETARY POLICY AND CAPITAL MARKET

Pakistan's fiscal and monetary situation is characterized by weak resource base resulting from continuously growing expenditure, inelastic revenue generation, losses in public sector enterprises and heavy resort to borrowings resulting in large fiscal deficit persisting over the last several years. The tax structure, despite concerted efforts, remains narrowly based coupled with the tenacious trend of evasion and avoidance of taxation. The government expenditure on the other hand is dominated by mounting debt servicing and defense leaving insignificant funds for the genuine requirement of a growing economy. The imbalance between government expenditure and revenue thwarts all attempts to bring down fiscal deficit to a sustainable level and has resulted in further accumulation of public debt and containment of development expenditure.

A. FISCAL POLICY

4.2. During the Three-Year Programme structural adjustment and economic stabilization Programme initiated by the present government will be continued. It will provide a basis for transition to smooth long-term planning for the year 2001-02 to 2003-04. The steps to be contined are documentation of the economy leading to broadening the tax base and promoting tax culture, administration of General Sales Tax, strengthening of tax management and cleansing the taxation machinery from corruption and inefficiency. The fiscal policy aims at reducing fiscal deficit substantially by restructuring government expenditure and increasing government revenues. The details are given at Annex 4.I.

Objectives

4.3. The objectives of the Programme for 2001 and upto 2004 are given below:

- Reducing overall fiscal deficit to 3.1 per cent of GDP by 2004
- Increasing government revenues by 14.8 per cent or 18.6 per cent of GDP by 2004.
- Increasing tax revenues including surcharges by 14.3 per cent or 15.3 per cent of GDP by 2004.
- Increasing non-tax revenues by 17.2 per cent or 3.3 per cent of GDP by 2004.
- Containing total expenditure by 10.2 per cent or 21.7 per cent of GDP in 2004.
- Containing current expenditure by 17.6 per cent of GDP by 2004.
- Increasing development expenditure by 18.7 per cent or 4.1 per cent of GDP by 2004.

Strategy

4.4. To achieve the above objectives, following strategy will be adopted during the Programme period.

- Broadening the tax base through documentation of the economy.
- Reducing multiplicity of taxes.
- Application of GST through-out the country;
- Stepping up the resource mobilization efforts of the provincial governments including tax on agriculture income.
- Generating of resources by the district level administration.
- Improving elasticity of federal, provincial and local government taxes;

- Periodic review of taxation laws and make them compatible with the requirements of the economy.
- Rationalizing government expenditure i.e. bringing current expenditure to a bare minimum level and adequate flow of funds for the development projects keeping in view the priority sectors.
- Adequate system of user charges for public services.
- Constant monitoring of public sector enterprises so that these become self-sustaining units.
- Ensuring adequate allocation and other incentives to support R&D activities for industrial development

4.5. Based on the above fiscal reform agenda, following paragraphs provide projections on over-all budgetary scenario during the Three Years Programme period.

Government Revenues

4.6. The thrust during the Three Years Programme period will be to achieve significant enhancement of government tax and non-tax revenues. The tax administration will be improved to provide the required administrative support to mobilize estimated resources. Revenues are expected to increase from 16.6 per cent of GDP in 2000-01 to 18.6 per cent by 2003-04. On an annual average, revenues are expected to increase by 9.2 per cent in real terms or 16.6 per cent of the GDP during the Programme period.

Tax Revenues

4.7. Tax revenues (including surcharge) are expected to increase from Rs. 487.7 billion 13.8 per cent of the GDP in 2000-01 to Rs. 728.2 billion 15.3 per cent of the GDP in 2003-04. Tax revenues are expected to increase by 8.7 per cent annually in real terms. Direct taxes are expected to increase from 3.9 per cent of GDP in 2000-01 to 4.7 per cent of the GDP in 2003-04, showing average annual growth of 11.4 per cent, in real terms. Indirect taxes are expected to increase from 9.0 per cent of the GDP in 2000-01 to 9.7 per cent of the GDP in 2003-04 or 8.0 per cent per annum in real terms.

Non-tax Revenues

4.8 Non-tax revenues are expected to increase from Rs 97.5 billion in 2000-01 to Rs 157.1 billion by 2004 or on an annual average rate of 11.5 per cent in real terms and increase from 2.8 per cent of GDP in 2000-01 to 3.4 per cent of the GDP in 2003-04. Following table gives projections of tax and non-tax revenues.

BUDGETARY REVENUE DURING THE THREE YEAR PROGRAMME PERIOD

	Programme Period (2001-2004)			Av. Annual Growth Rate %
	2000-01 Benchmark	2003-04 Projections	Total 3 Years Programme	
	At Current Billion Rupees			
Total Revenues	585.2	885.3	2350.9	14.8
Tax	487.7	728.2	1923.9	14.3
Non-Tax	97.5	157.1	427.0	17.2
	At Constant 2000-01 Billion Rupees			
Total Revenues	585.2	761.5	2116.2	9.2
Tax	487.7	626.5	1731.7	8.7
Non-Tax	97.5	135.0	384.5	11.5
*Memo Items*As % of GDP				
Total Revenues	16.6	18.6	18.2	
Tax	13.8	15.3	14.9	
Non-Tax	2.8	3.3	3.3	

Government Expenditure

4.9. Consolidated government expenditure is expected to grow by 4.8 per cent annually in real terms from Rs. 770.9 billion in 2000-01 to Rs. 886.3 billion in 2003-04. Current expenditure, in real terms is expected to increase by 2.8 per cent annually. Emphasis will be laid on development expenditure, which would grow by 12.9 per cent per annum in real terms. As a proportion of GDP, government expenditure will be contained in the terminal year at the level of 22.0 per cent in the terminal year. Development expenditure is projected to increase from 3.3 per cent of GDP in 2000-01 to 4.1 per cent in 2003-04. Current expenditure is expected to decrease from 18.8 per cent of GDP in 2000-01 to 18.0 per cent in the terminal year. Following table highlights total expenditure with break-up into current and development expenditures.

GOVERNMENT EXPENDITURE DURING THE THREE YEAR PROGRAMME PERIOD

	Programme Period (2001-2004)			Av. Annual Growth Rate %
	2000-01 Benchmark	2003-04 Projections	Total 3 year Programme	
	(Current Billion Rs)			
Total Expenditure	770.9*	1030.7	2821.8	10.2
Current	663.7	837.7	2329.8	8.1
Development	115.4	190.0	492.0	18.7
	(Constant 1999-2000 Billion Rs)			
Total Expenditure	770.9*	886.3	2541.9	4.8
Current	663.7	720.2	2099.5	2.8
Development	115.4	166.1	442.4	12.9
Memo Items (As % of GDP)				
Total Expenditure	21.9	21.7	21.8	
Current	18.8	17.6	18.0	
Development	3.3	4.1	3.8	

*Adjusted for Rs 8.2 billion for net lending to PSE's etc.

Current Expenditure

4.10. During the Programme period, expenditure on defence (including pension) in real terms will decrease from Rs. 157.5 billion in 2002-01 to Rs 155.5 billion in 2003-04 whereas interest payments will increase by 2.6 per cent. As a proportion of GDP, defence expenditure is expected to reduce from 4.5 per cent in 2000-01 to 3.8 per cent. Debt servicing liability is also expected to reduce from 6.8 per cent in 2000-01 to 6.3 per cent in 2003-04. Other expenditure excluding defence, interest payment and subsidies, in real terms is expected to grow at 6.0 per cent whereas subsidies will decrease by 40.7 per cent during the Programme period.

Development Expenditure

4.11. Development expenditure (PSDP) financed from budget is expected to increase from Rs. 115.4 billion in 2000-01 to Rs 166.1 billion in 2000-04, showing an annual average growth rate of 12.9 per cent in real terms. As a proportion of GDP, the PSDP is expected to increase from 3.3 per cent of GDP during 2000-01 to 4.1 per cent in 2003-04 or an average of 3.8 per cent.

Overall Fiscal Deficit and its Financing

4.12. The Programme aims to reduce overall fiscal deficit from 5.3 of the GDP in 2000-01 to 3.1 per cent by 2004. Following Table 4.1 gives year-wise details with sources of financing.

Table 4.1
OVERALL FISCAL DEFICIT AND ITS FINANCING

	Three Year Programme (2001-04)			Av. Annual Growth Rate %
	2000-01 Benchmark	2003-04 Projections	Total 3 year Programme	
	(At Current Billion Rs)			
Overall Fiscal Deficit	185.7	145.4	470.9	-7.8
- Primary deficit	-53.3	-154.2	-376.2	42.5
- Interest payments	239.0	299.8	847.1	7.8
Financing:				
- Bank borrowing	-2.2	30.8	82.8	146.6
- Non-bank borrowing	57.0	48.8	126.7	-5.0
- External (net)	130.9	65.8	261.4	-20.5
	(At Constant 2000-01 Billion Rs)			
Overall Fiscal Deficit	185.7	124.8	425.7	-12.4
- Primary deficit	-53.3	-133.0	-338.3	35.6
- Interest payments	239.0	257.8	764.0	2.6
Financing:				
- Bank borrowing	-2.2	26.5	74.7	135.4
-Non-bank borrowing	57.0	41.8	113.4	-9.9
- External (net)	130.9	56.6	237.6	-24.4
Memo Items				
(As % of GDP)				
Overall fiscal deficit	5.3	3.0	3.6	
- Primary deficit	-1.5	-3.3	-2.9	
- Interest payments	6.8	6.3	6.5	
Financing:				
- Bank borrowing	-0.1	0.6	0.6	
-Non-bank borrowing	1.6	1.0	1.0	
- External (net)	3.7	1.4	2.0	

Institutional Strategy

Governance

4.13.. Realising the importance of good governance in mobilizing domestic resources, the Government, under the Chief Executive's agenda announced on 15th December 1999, has already begun the process of good financial governance in Pakistan. A number of important initiatives i.e. cleansing the taxation machinery of corrupt element, appointment of Tax Mohtasib, establishment of Revenue Benches in the High Court etc. have been taken by the Government to improve the situation. Efforts will be intensified for promoting a permanent change to a culture of financial discipline for better macro-economic management.

4.14. One of the important elements of good governance is to enforce fiscal discipline and strengthen the fiscal position of the country. For such an improvement, the reduction of fiscal deficit to 3.0 per cent of GDP by the end of the Programme period has been targeted as one of the major objectives of the Government. The inelastic tax system and built-in rigidities in public expenditure continue to pose a serious challenge to raising tax-GDP ratio. Measures have been adopted for effective implementation of fiscal policies, such as documentation of the economy, broadening of the tax base to hitherto un-taxed or under-taxed sectors, and inclusion of agriculture income. Concerted efforts will be made to contain wasteful government expenditure through efficient utilisation of human resources and weeding out inefficient and over-grown size of work force in the public sector.

4.15. Realizing the need for an efficient and transparent modern financial management system, compatible with an open economy and free from unnecessary regulatory controls, Project for Improvement of Financial Reporting and Auditing (PIFRA) would be further strengthened. It aims at developing a new accounting model to be automated with powerful tools to help produce accurate, timely, and meaningful accounts to cater to the needs of the users. The project aims at enhancing good governance by providing a support system and promoting accountability. During the Programme period emphasis would be on following aspects.

(a) Adoption and implementation of a modern accounting system designed according to recognized accounting principles and standards and based on modern information technology.
(b) Implementation of a governance structure and legal framework for an independent and effective audit function.
(c) Strengthening of institutional capacity and improving the professional capacity of the elements of the civil service responsible for fiscal management.
(d) Adoption of improved standards of private sector to supplement public sector sources.

4.16. Resource mobilization efforts in the past had limited impact in improving Government's financial position, largely because of weak tax institutions and an unfavorable tax culture. This had forced the government to rely heavily on presumptive and fixed taxes, resulting in increased distortions and low elasticity of the tax system. It is evident that without strengthening tax institutions the government cannot effectively implement tax policies.

4.17. The Programme aims to improve taxpayer compliance, reduce compliance costs, and broaden the tax base in order to achieve a sustained growth of tax revenue. An important step in strengthening tax administration will be enlarging the scope of documentation of the economy to the whole of the country and thereafter analyzing the results for a comprehensive action plan for strengthening the tax base.

4.18. Another step is the introduction of a National Tax Number (NTN) that will replace all previous numbering systems in use in the tax and customs administration. A computerized information exchange system will form the basis for harmonization of the operations of the major taxes. The new NTN and information exchange system will provide the foundation for a major expansion of tax registration and an improvement in tax enforcement.

4.19. With a view to reconciling data on expenditure on monthly basis a Fiscal Monitoring Committee comprising representatives of Finance Division, State Bank of Pakistan and AGPR has been formed so that any problem of mis-reporting is not allowed to recur.

4.20. By the end of the Programme period, government revenues will be substantially improved. Tax and non-tax revenues and government expenditure management measures are expected to improve public savings rates. The continued high economic growth and improvement in tax administration are also expected to help improve over-all fiscal situation.

B. MONETARY AND CREDIT POLICY

4.21. The major objectives of monetary and credit policy are to ensure sound financial management system so as to keep monetary expansion in line with the expansion of real economic activity, contain inflationary pressures to moderate level and cater to the credit needs of the expanding private and public sectors.

Monetary Reforms

4.22. The Three Year Programme will witness the continuation of the measures taken by the present Government to strengthening the institutional structure and increase the liquidity position of the banking system. The process of market-oriented monetary policy will be improved further through development of financial markets. Efforts will be made to improve the efficiency of financial system through strengthening the accountability mechanism by adopting modern techniques of prudential regulations and on-site and off-site inspection, use of modern information technologies for collecting and analyzing data and thorough review of bank's internal management and financial reports. These measures would provide sound basis for the growth of economy.

Objectives

4.23. The objectives of monetary and credit policy are as under:

(i) To regulate money supply in a manner compatible with the growth of nominal GDP.
(ii) To correct the distortions implicit in the administered structure of rates of return on various financial instruments.
(iii) To speed up the recovery of loans from the defaulters.
(iv) To resolve the problem of non-performing loans/assets.
(v) To ensure availability of adequate credit to the private sector.
(vi) To enhance competition and efficiency in the financial system and
(vii) To strengthen the supervisory role of the State Bank of Pakistan.

Strategy

4.24. To achieve the above objectives, following strategy will be adopted during the Programme period.

(i) Strengthening of legal infrastructure, revival of banking laws and regulations.
(ii) Vigorous follow-up of the drive to recover stuck-up loans from the defaulters through normal banking process as well as accountability process.
(iii) Restructuring and reorganizations of banks and DFIs.

(iv) Strengthening the role of State Bank of Pakistan into core and non-core functions.

(v) Establishment of institution for providing credit to the poor under the Poverty Alleviation Programme.

Financial Sector Reforms

4.25. In order to achieve the objectives a number of reforms are planned to be undertaken. In fact several measures have been initiated to this effect, including restructuring and re-organization of DFIs and State Bank of Pakistan; privatizing major banks, strengthening of legal infrastructure and improving banking laws and regulations, establishment of *Khushali* Bank for poverty alleviation. In an effort to reduce financial market segmentation, encourage the deepening of the capital market and reduce the cost of borrowing reforms have been launched in the National Savings Scheme. Institutional investors have been barred from purchasing NSS instruments and interest rates on these schemes have been reduced by an average of 4.5 percentage points since May 1999. During the Programme period, the Government intends to turn the Central Directorate of National Savings (CDNS) into an autonomous and professional entity so that its resources are utilized more judiciously. Measures have been taken to enhance bank's commercial orientation and upgrade the banking supervision system.

Restructuring and Reorganization of DFIs

4.26. Eleven existing DFIs will be radically restructured through mergers, divestiture and corporatization. Government will completely divest its share in PICIC, which will become a wholly private owned company. The funds managed by NIT and ICP will be privatized alongwith their management companies. Only four entities will remain under public sector initially. A specialized financial institution will be set up for providing long term project financing with public and private sector participation in equity to be run by professional management. Such an institution will be created by merger of the two institutions, namely NDFC and IDBP. Autonomous boards consisting of private sector and professionals will be formed to manage the affairs of this entity. Similarly, to focus on the financing needs of small and medium enterprises and businesses, the SBFC and RDFC will be merged to form a new entity.

Privatising Major Banks

4.27. The two major nationalized banks viz Habib Bank and United Bank will be privatized during the Programme period through a combination of sale to strategic investors and flotation of shares in the Stock Market. Similarly, the Government will divest its shares in banks which are partially privatized and already managed by the private shareholders. A beginning was made in January 2001 by divesting 15 million government shares in Muslim Commercial Bank.

Strengthening of the Legal Infrastructure

4.28. One of the serious constraints hindering the efficiency of the financial sector is the cumbersome legal system which makes it extremely difficult to enforce contracts between the lenders and borrowers. A high powered Banking Law Commission headed by a retired Judge of the High Court will review, revise and update all the banking laws in force but particularly those pertaining to recovery, foreclosure and bankruptcy.

4.29. The SBP Act, Banking Companies Ordinance 1962, Banking Nationalization Act and DFI Act, will also be revised to enable the operation of these institutions on commercial considerations without bureaucratic and political influences.

Restructuring Plan of the State Bank of Pakistan

4.30. During the Programme period, State Bank of Pakistan will be restructured and its core and non-core operations will be defined. The reform strategy is based on the principle of institutional building, decentralization and deregulation to make the Bank an efficient and effective regulatory authority. The core functions of the banks will include monetary policy, supervision and regulations of the commercial banks, exchange rate and maintenance of foreign exchange reserves. The non-core operations, like prize bonds, treasury transactions etc., will be hived off to assign to a new subsidiary of the Central Bank, or the existing set up of the National Bank of Pakistan and Central Directorate of National Savings.

Micro Credit Bank for the Poor

4.31. In line with the Economic Agenda announced by the Chief Executive on 15th December 1999, *Khushali* Bank has been established under an Ordinance for poverty alleviation. The Bank will provide sustainable micro-finance services to the poor particularly poor women for mitigating poverty and promoting social welfare and economic justice through community participation and social mobilization. The *Khushali* Bank shall have an authorized capital of Rs. 5 billion to be subscribed by such banking companies, financial and other institutions as the State Bank may determine from time to time. The Bank shall create and maintain a reserve fund to be called General Reserve Fund. The Fund shall not be less than 20 percent of its net annual profit. It shall also create other reserves as required by the State Bank from time to time. The Bank shall establish and maintain a depositors fund or scheme for the purpose of providing security or guarantee to persons depositing money in the Bank.

Non-performing Loans/Assets

4.32. The banks in the past had advanced huge loans, which were not being recovered. This had adverse effect on the liquidity position of the banks. Drive against recovery of stuck-up loans is continuing. For the purpose of acquiring non-performing assets of the banks and DFIs as well as for rehabilitating or liquidating them, the present Government has established Corporate and Industrial Restructuring Corporation (CIRC) through the promulgation of CIRC Ordinance in Sept. 2000. The Ordinance empowers CIRC to acquire, purchase, hold manage, restructure, rehabilitate, sell and dispose of non-performing loans assets to arrange finance for manage, dispose of, recognize or otherwise enter into any settlement or contract manage any loan, finance, advance, demand or other activity relating to non-performing assets.

PROJECTIONS OF MONETARY EXPANSION

4.33. The Programme aims at monetary and credits expansion compatible to the growth of nominal GDP. Monetary expansion during the Programme period is projected at 10.9 per cent per annum, from Rs.147.1 billion (10.5%) in the benchmark year of 2000-01 to Rs.213.4 billion (11.25%) in 2003-04. During this period allocation of credit to the private sector is expected to be doubled to meet the growing requirement of the economy. Following table 4.2 gives the details of monetary expansion during the programme period.

Table 4.2
MONETARY EXPANSION

(Rs. in Billion)

	Stocks Upto 30-6-2000	Credit Plan 2000-01 (B.mark)	PROJECTIONS 2001-02	2002-03	2003-04	Total Expansion
Government Sector	**662.8**	**-2.2**	**39.2**	**32.8**	**45.8**	**117.8**
Budgetary Support	545.9	-2.2	29.2	22.8	30.8	82.8
Others	117.0	0.0	10.0	10.0	15.0	35.0
Non-Government Sector	**825.4**	**89.2**	**133.6**	**151.7**	**170.0**	**455.3**
Private Sector @	781.2	85.2	128.6	146.7	165.0	440.3
Others	44.2	4.0	5.0	5.0	5.0	15.0
Others	**-87.6**	**60.1**	**-6.7**	**-1.0**	**-2.3**	**-10.0**
Monetary Expansion	1400.6	147.1	166.1	183.5	213.4	563.1
Growth Rate(%)		10.50	10.73	10.71	11.25	

@ : Also includes Credit to Private Sector Commercial Enterprises(PSCEs)

C. CAPITAL MARKET

4.34. Capital Market plays a critical role in the process of capital formation. During the Programme period, a number of structural and policy changes will be made to encourage local as well as foreign investors in equity capital. The Government aims to work closely with the private sector in the capital market development process and continue to maintain its policy of openness. The process is expected to continue to play a major role in further strengthening and deepening the capital market, through the listing of privatized entities on the Stock Exchanges. This will enable those entitles to obtain funds at lower cost. The listing will also introduce new sectors into the capital market contributing to its overall growth. In addition, the introduction of new guidelines pertaining to the listing is expected to increase the number of privatized companies listed on Stock Exchanges and contribute to overall economic growth during the period.

Objectives

4.35. The objectives of the Programme for the development of Capital Market are as under:-

(i) Government's support if necessary, to boost up the market.
(ii) Policy reforms in consultation with the Private Sector.
(iii) Supportive legal system.
(iv) Simplify procedures for issuance of Term Finance Certificate (Listing registration).
(v) Simplify/rationalize tax procedures for securities investors.

Strategy

4.36. The strategy for achieving the above objectives are as under:-

(i) Removing tax discrimination against private corporate debt, and reduce restrictions on investments by institutional investors
(ii) Strengthening market regulation and supervision amending the securities and company laws.
(iii) Strengthening self-regulation of stock exchange.
(iv) Creating an enabling policy environment to enhance competition and level playing field.
(v) Liberalizing investment restrictions on institutional investors.
(vi) Rationalizing tax anomalies for the equity market, debt market and for mutual funds.

4.37. During the period the Government will pursue a broad-based reform programme in this sector. The key element of the programme is to strengthen the Securities and Exchange Commission. Other measures adopted for this purpose include:-

(i) Promulgation of new law on take-over of listed companies
(ii) Application of new rules to allow new classes of shares
(iii) Application of the Information Disclosure Rules for the listed companies for soliciting public opinion.
(iv) Establishment of a complaint center for receiving complaints from small investors.
(v) More effective regulations for risk management of members of stock exchanges.

4.38. In addition to above, a related area of reform is in the insurance sector. A new insurance law that allows easier access to market, requires a level playing field between public and private sector insurance companies, affords greater flexibility for portfolio management and envisages more active and regulatory system during will be enacted.

Annex 4.1

CONSOLIDATED BUDGET: PROJECTIONS FOR 2000-01 TO 2003-04

	2000-01 Benchmark	Projections (Current Billion Rs)		
		2001-02	2002-03	2003-04
Total Revenues	585.2	684.5	781.1	885.3
Tax Revenues	487.7	556.2	639.5	728.2
Non-tax revenues	97.5	128.3	141.6	157.1
Total Expenditure	779.1	855.5	935.5	1030.6
Current Expenditure	663.7	719.5	772.5	837.6
Defense	157.5	163.3	171.7	180.9
Interest Payments	239.0	268.4	279.0	299.8
All Others	267.7	423.8	484.8	549.9
Development Expenditure	115.4	136.0	163.0	193.0
Fiscal Deficit	185.7*	171.0	154.4	145.3
Financing:				
Domestic borrowing	54.8	86.9	56.5	80.8
External borrowing (net)	130.9	84.1	97.9	64.5
GDP market prices	3521.1	3889.2	4292.8	4759.5
Memorandum items:				
As % of GDP				
Tax	13.9	14.3	14.9	15.5
Non-tax revenues	2.8	3.3	3.3	3.3
Total Expenditure	22.1	22.0	21.8	21.7
Current Expenditure	18.8	18.5	18.0	17.6
Development Expenditure	3.3	3.5	3.8	4.1
Fiscal Deficit	5.3	4.4	3.6	3.1

* Adjusted for Rs(-) 8.2 billion for net lending to PSEs,etc.

CHAPTER 5

GOVERNANCE AND CIVIL SOCIETY

Introduction

During the last decades of the twentieth century, the quality of governance in most of the developing countries witnessed a gradual deterioration, reflected mainly in the failure of state institutions to effectively respond to the felt needs of the ordinary people. Small wonder, the need for good governance, focus on redirecting the priorities of the state, revitalization of the state institutions and building of a new alliance with the civil society now figure prominently on the development agenda. Whatever the definition of good governance, making the government responsive to the needs of the people is its single most important ingredient. Governance embodies the power which is exercised in the management of a country's economic, social, political and legal requirements. Good governance must, therefore, enable the state, the civil society and the private sector to work in cohesion for accelerated growth and the achievement of greater human development. Every branch of the state - executive, legislative, judiciary - should work in a synchronized manner to enable the civil society grow and feel satisfied in the fulfillment of its emerging needs. In other words, the various branches should address the genuine aspirations of the people and work actively and effectively with utmost commitment in advancing their human resources and ensuring the well-being of the members of the society.

5.2 Good governance consists of four important components, namely: political governance, economic governance, civil governance and effective judicial system. All these components have gone through significant deterioration in majority of the South Asian countries in general and Pakistan in particular. Fifty years back most of the South East Asian countries having achieved independence from their colonial masters, stood on the same level of economic development. Countries such as Malaysia and South Korea, which redesigned their bureaucracy to meet the changing and emerging demands of their respective societies, managed to achieve very high growth rates and were able to bring about significant improvement in the provision of quality social services, meet basic needs of the people including primary and technical education, provision of primary health care including family welfare, nutrition education, potable water supply, and sanitation, and their effective and efficient delivery to the population. On the other hand, deterioration in governance in countries like Pakistan resulted in expanding orbit of poverty with rapid increase in unemployment, occurrences of social and sectarian strife.

5.3 This chapter highlights the major players in good governance and their role in promoting sustainable opportunities for all through a process that is participatory and based on a culture of merit and accountability. It discusses reforms under these headings:

Political Reforms – Devolution of Power Plan; Judicial Reforms; Restructuring of Government Bureaucracy; and Accountability and Transparency.

Political Reforms

5.4 Since October 1999, there has been a paradigm shift in the agenda of good governance. The Government set up the

National Reconstruction Bureau (NRB) for enunciating fundamental nation building reforms and formulating plans for their implementation.

5.5 The focus of the NRB is on the following areas: (i) *Political Structures and System:* based on a genuine and irrevocable transfer of local political power to the people with the District forming the basic building block of the future democratic structure and system; (ii) *Government Structures and System:* from the District (through the Provinces) up to the Federal level, which is fully responsive to different levels of administration and responsible political conduct, that encourages responsible political behaviour, and ensures that the citizen's interests are addressed on a priority basis both individually and collectively; (iii) *Law Enforcement Structure and System:* from the District (through the Provinces) up to the Federal level, which must serve as the main aim of the Judicial and Governmental structure, that ensures the liberty of every law abiding citizen and threatens every violator of the law without distinction; (iv) *Public Employment System:* which not only primarily focuses on the survival, sustenance and progress of the nation and the state, but is responsive to the requirements of the underprivileged classes and regions of the country; (v) *Primary Health Care System:* ensures the improvement in the quality of life for every section of the population, and provides access to affordable and accessible medical care to all citizens commensurate with their means; (vi) *Educational Structure and System:* which restores a link between education and the capability of coping with life's problems on the one hand, and doing a job well on the other; (vii) *Public Information Structure and System:* which promotes a free access of information to all citizens within the requirements of national security; and (viii) *Economic Structure and System:* which promotes the economic growth of the citizens as well as the state through transparent and sustainable means.

Local Governance and Devolution of Power

5.6 The National Security Council approved the above fields of focus for the NRB on 16 November 1999. A beginning has been made from the grassroots level. The NRB has formulated a consolidated local government plan for devolution of power and delegation of responsibility at the grassroots level. It was formally announced on March 23, 2000. Elections were to be held in four phases. The first phase was completed on December 31, 2000 by holding elections in 18 districts from across the four provinces. Elections for the second phase are scheduled on March 21, 2001 in another 21 districts. The system will be functional by August 14, 2001 with democratically elected and fully empowered local governments.

5.7 The plan includes a new political system, a supporting administrative system, a new policing system, a vision to bridge the urban-rural divide leading to coherent municipal management of cities, towns and villages, and a new legal structure.

5.8 Six of the principal characteristics of this plan are: (a) the voting age has been lowered from 21 to 18 years so as to bring the young generation into the mainstream of life as participants in the national process; (b) creating local government structures along with a carefully crafted system for provision of requisite financial resources to the districts. These will enable the new governments to provide for more roads, communication, electricity, running water, sewerage, education and health facilities, on the one hand and help the districts in the development of agriculture and industry on the other, thus opening the doors of greater job opportunities for the people. These are core objectives of the system and demand a new fiscal transfer mechanism to devolve responsibility, resources and authority to the local level while reinforcing provincial autonomy; (c) granting thirty three per cent representation for women in Union

Councils, Tehsil Councils and Zila Councils and in Village Councils (d) the creation of a full fledged district government with the district as the basic governance and development unit of the country, and Citizens Community Boards at the grassroots level creating an enabling environment for massive people's involvement in civic affairs through close monitoring of services, citizens rights and security; (e) the creation of an integrated rural-urban structure at the tehsil level to bridge the rural-urban divide for all times to come and turn the current trend of 'ruralisation of urban areas' into a regular process of 'urbanization of rural areas'; and (f) establishing the politico administrative mechanism to arrest urban decay and set the stage for the coherent growth of cities into potentially great urban centres.

5.9 In the existing system of governance at the local level, the province governs the districts and tehsils directly through the bureaucracy at the division, district and tehsil levels. And the local governments for towns and cities exist separately from those of the rural areas. The provincial bureaucratic set-ups are the designated 'controlling authorities' of the local governments, and tend to undermine and over-ride them, which breeds a colonial relationship of 'ruler' and 'subject'. The separate local government structures engender rural-urban antagonism, while the administration's role as 'controlling authorities' accentuates the rural-urban divide.

5.10 The two structural and systemic disjoints mentioned above, coupled with the absence of horizontal integration and the consequent inadequacy of functional co-ordination between the line departments at the division, district, and tehsil levels, lead to inefficiency and corruption, and are the root causes of the crisis of governance at the grassroots level. This crisis appears to have been addressed through over-concentration of authority, particularly in the office of the Deputy Commissioner, which besides creating the potential for abuse of authority, diffuses operational focus and results in the expedient handling of routine functions through crisis management.

5.11 The new Local Government system, therefore, intends to: (a) integrate the rural with the urban local governments on the one hand, and the bureaucracy with the local governments on the other, into one coherent structure in which the district administration and police are answerable to the elected chief executive of the district. Citizen monitoring by elected representatives, the civil society's involvement with development, and a system of effective checks and balances, completes the hard core of the political structure and system of the Local Government; (b) focus upon five fundamentals: devolution of political power, decentralisation of administrative authority, deconcentration of management functions, diffusion of the power-authority nexus, and distribution of resources to the district level. It is designed to ensure that the genuine interests of the people are served and their rights safeguarded. The new system will create an enabling environment in which the people can start participating in community welfare and be the masters of their own destiny; (c) rationalise the administrative set up by defining lines of responsibility clearly, and providing protection against political interference and transfers on non-professional grounds. To ensure coherent development and adequate provision of services, the administration and the police will work under the elected head of the district. However, to safeguard against abuse of authority, effective checks and balances are an integral part of the Local Government Plan.

5.12 The new system will: (a) distribute financial resources to local governments through formula-based provincial fiscal transfers and decentralisation of specified taxation powers. Prescribed lists of taxes will be finalised within the framework(s) of provincial fiscal transfers to districts. This will enable the Local Government to effect

credible development and service delivery; (b) be formed at three levels: District, Tehsil, and Union. Each will comprise its Nazim and Naib Nazim, its elected body, and its administrative structures. To involve people more actively in community development, grassroots organisations like the Village Councils and Citizen Community Boards have been introduced. The scheme provides for monitoring the functioning of government and delivery of services by the citizens and their representatives at all levels; (c) design to suit the needs of districts that have no large cities in them. Such districts form the large majority of districts of the country. The Local Government Plan envisages that the Federal Capital Islamabad and the Provincial capitals of Karachi, Lahore, Peshawar and Quetta will become self-governing Metropolitan entities comprising of one or more district government while the cities like Faisalabad, Gujranwala, Multan, Hyderabad, Sukkur, Rawalpindi and Bahawalpur together with other smaller cities will be part of the new joint rural-urban district assembly system; (d) address the crucial issue of public peace and security. The law enforcement system has been reconstituted from the thana upwards, through the district, the province, and up to the federal level. The new system is designed to serve as an honest arm of the judicial and government structures that will ensure the liberty of the law-abiding citizens and threaten every violator of law without distinction; (e) include recommendations for changes in judicial structures and systems at the district level and below and convey to the Chief Justice of Pakistan for consideration as part of the overall reform of the judiciary; and (f) perform clearly within the provincial framework. Sustainable development and credible improvement in the delivery of services, through devolution of power and responsibility and decentralisation of authority, to the districts, will greatly enhance the image and effectiveness of provincial governments at the grassroots level. This will strengthen the provinces and the country as a whole.

5.13 Based on this plan, a new model law, developed by the National Reconstruction Bureau, would be promulgated by provincial governments as provincial ordinances. Administrative structure of local government is given at Annex 5.1.

Judicial and Legal Reforms

5.14 Good governance, rule of law and credibility of government policies are key factors in the social and economic development of any country. No country in the world can implement a programme of economic prosperity and social development in "law-less" society. Such a scenario is fraught with difficulties which emanates from failure to provide speedy justice to citizens. Among its consequences are: (a) a widespread public disenchantment with the existing judicial system, its effectiveness and efficacy and (b) Social and political instability rendering the existing legal system dysfunctional to the modern day demands of a growing economy and population.

5.15 There are many reasons for the rapid erosion of the effectiveness of legal system. First, the judiciary in Pakistan has been a victim of resource constraints with no capacity either for the self-generation of funds or to cater to the rising demand of the public litigation of an increasingly complex and growing society. Secondly, the resource allocation to judiciary has been inadequate and totally deficient to even sustain the existing dilapidated infrastructure in the subordinate courts. Thirdly, the existing physical infrastructure and the stifling working environment in the various courts, particularly in the lower courts, are unable to ensure even the basic rights to an individual citizen of the country. Fourthly, a plethora of seriously deficient specific courts dealing with growing economic and fiscal complexities e.g. banking, taxes, privatization and alternate dispute resolution have compounded the situation. Fifthly, the

non-existence of appropriate legislation and inadequate number of judges who do not fully comprehend the intricacies of the modern day economic and financial issues, have led to critical imbalances in the legal system. Last but not the least, the existing system is marred by gender biases, which need to be removed in line with the requirements of justice and equity.

5.16 The prospects for the millennium, assessed on the basis of the continuation of the present legal framework, can and must be changed. There is a dire need for a strong, effective and efficient legal system, which would not only minimize legal transactional cost and abuse of power but also check rapid erosion of public confidence in the existing legal system and structure. The Government and the Judiciary together are embarking upon a Legal Reform Project, which would not only enhance and improve the existing judicial environment and efficiency but also set up special courts and enact appropriate economic and financial legislation on banking, privatization, taxes and related concerns.

5.17 The main emphasis of this programme would be to significantly improve the infrastructural environment of the existing courts particularly at the subordinate level. In the field of Judicial Administration, Infrastructure and Financial Reforms, the programme consists of (a) improvement in judicial administration including organization and administration, physical infrastructure, setting up of special courts and automation; (b) screening of existing procedure to root out discriminatory practices against any groups, class or category of citizens; (c) improvement in procedures and policies including judicial delay, application of court fee, updating and amending the Pakistan Code of Civil Procedure; (d) human resources development, setting up of performance standards, evaluation of performance, monitoring, appointment of judges and judicial training; (e) financial management and reforms, including budget preparation and review and self-financing innovation.

5.18 Economic Law Reform will suggest (a) improvement in the laws and administration of laws; (b) improvement in company laws, corporate laws, insolvency laws, fiscal laws, land laws and intellectual property laws. Further, in view of the fact the advanced technology and specialized technical education are critical in the handling of legal processes and procedures, the government will accord priority attention for the establishment of legal information in relation to the needs identified and prioritized. Furthermore, the government will undertake all measures to improve functioning of legal education through setting up a centres of excellence and by developing human resource with improved standards of performance in legal profession, galvanizing the judiciary to produce high quality legal professionals at all levels of the process. Finally, the government will restructure legal services and aim at improving law drafting skills of both federal and provincial government functionaries as well as various regulatory bodies established under the Acts of the Parliament.

Restructuring of Civil Bureaucracy

5.19 Civil services in Pakistan have increasingly become dysfunctional to the growing demands of the society. Decision making in government suffers from inadequate capabilities, absence of long term policies and induction of "rent-seeking" public servants. The inability to serve the population of the country has tarnished their image in the public eye. The people of Pakistan do not consider the civil servants capable of solving their problems in a smooth, responsive manner. On the contrary, the image of the civil servants is marred by corruption, political favouritism, lack of accountability, and inappropriate skills. There are many reasons for this public image, but an important one is that the existing salary structure of the civil servants

does not enable them to work honestly, efficiently and diligently.

5.20 Serving the people in its true sense and not mastering their destiny cannot be the trademark of a bureaucracy which is too centralized, politicized and some times corrupt. One major reason for the deterioration in the quality of civil services is an unrestrained expansion in the civil bureaucracy over the past many decades. The bloating bureaucracy has naturally led to increasing inefficiency and often exploitative behaviour.

5.21 The worst image of the government is reflected in the public dealing departments, law enforcement agencies and tax collecting departments. Not only is this image is incapable of showing any improvement due to lack of proper reward and punishment system but, also, its continued existence damages the government credibility, revenue collection efforts and the entire economic reform programme.

5.22 Compounding the apathy among the major civil servants to the resolution of the problems faced by the citizens is the unbridled application of administrative powers from lowest to the highest rank in the civil bureaucracy on civil life. There are very few cases, if at all, of civil bureaucrats being proceeded against for their inefficiency, corruption and mal-administration. If one compares the common complaints of the general public against the civil servants with the prosecution of the civil servants, it seems that the civil servants in Pakistan are the most protected. This is because the public sector still plays a dominating role in our civil society through its strong interference in the life of a common man. Platforms for redressal of the grievances available to the citizens such as Ombudsman are simply overwhelmed by the enormity of the task or even any existence of a Citizens Charter. As a result, civil bureaucracy continues to play its negative role not only in the distribution of economic and social services but also in weakening the revenue generation capacity of the Government. This is vividly reflected when people find themselves in awkward and cumbersome position in paying for their utility bills, paying for the taxes, or calling for police protection. It is in this area of governance that Pakistan has substantially failed and significant improvements are required.

5.23 Reforms in civil bureaucracy would basically emphasize (i) good governance in the civil citizenry embodying a Citizens Charter, (ii) reforms in police administration, and (iii) reforms in the tax collection agencies especially the Central Board of Revenues (CBR). The focus of these reforms would be the inappropriate centralization of decision making, a performance oriented and citizen friendly civil bureaucracy and application of proper reward and penalty system so critical to management by objective (MOB). In a growing and developing society, this would mean a high turnover in government services at various stages and constant efforts to retain good, competent and honest civil servants, review their performance against set targets of efficiency and competence on yearly basis and then reward or penalise them accordingly. Rather than having highly skewed and subjective evaluation of government servants in the form of existing system of Annual Confidential Report (ACRs), there would have to be an objective assessment of this performance on yearly basis accompanied by a proper reward and penalty. Any redundancy or induction or expansion in civil bureaucracy would be linked with the real needs and budgetary resources at the time of approval of the Annual Budgets. The essence of these reforms would focus on retention and employment of competent officers at salaries competitive with the corporate sector and encouragement to the "less than average" officers to go on "voluntary retirements". Officer to staff ratio would also be reduced significantly in most of the government to 1: 2.5 over the next

three years, excluding field agencies. Even in the later case, the ratio will have to be rational. Highest positions in the government sector would be tenure posts and the allowances and perks provided to the higher scale officers would be monetised over the next three years, keeping in line with the budgetary position every year.

Citizen's Charter

5.24 In Pakistan studies have focused on supply-side organizational and administrative structures. The recommendations, however, have not taken into account the institutional performance, benefits from competition and "consumer" or citizen damned for effective services. Previous efforts focused almost entirely on the "supply-side" of public service performance and not on the "demand-side". Citizen demands have proven to be an important technique by which to address traditional public administration concerns about efficiency, because it arouses the interest of the politicians in such reforms. And even if one public organization achieves improvement in its functioning through these exercises then the embarrassed others have to follow.

5.25 Six interrelated principles, which every citizen is entitled to expect, are tied to the general theme of service quality: (i) Set standards for performance related to quality. Set, monitor and publish explicit standards for the services that individual users can reasonably expect and publish data on actual performance against these standards. (ii) Be open and informative. Provide full, accurate, and readily available and easy-to-understand information about how public services are run, what they cost, how will they perform and who is in charge. (iii) Promote choice and consultation with citizens. There should be regular and systematic consultation with those who use the service by professionally qualified master trainers. Users views about services, and their priorities for improving them, should be taken into account in final decisions on standards. (iv) Show courtesy and helpfulness in dealings with the public. Public servants should be courteous and helpful and normally wear nametags. (v) Help to put things right when there are problems. If things go wrong, an apology, a full explanation and a swift and effective remedy are appropriate. (vi) Make sure citizens receive value for money. This principle, assuring that citizens receive value for money, is particularly radical inasmuch as it suggests that public services can and should be cost effective according to private sector measurements. Indeed, the driving precept behind the Citizens Charter is value for money.

5.26 The charters themselves must contain sufficiently specific commitments and inform about implementation and enforcement machinery: Platitudes such as "we will deliver and promote courteous services" are insufficient to meet the growing aspirations and expectations of the people.

Police Reform

5.27 Reform is required in the following directions: (i) Establishment of independent centres for registration of FIRs. (ii) Deterrent action against officers not registering FIRs for ulterior motives.(iii) Enhancement of punishment for lodging false FIRs. (iv) Intimation of arrest of the accused be communicated promptly to the family members and proper record be maintained to ensure that all reasonable efforts were made to communicate the information. (v) Restructuring and up-gradation of police stations with ASP as officer in charge. (vi) Setting up of independent prosecution service and Criminal Justice Coordination Committees in each district, headed by the District and Session Judges. (vii) To convert police into a service-oriented organization – to provide relief and assistance during internal calamities, accidents and emergency circumstances. It would also be provided necessary training and equipment to enable it to perform such duties effectively. (viii) In

order to eliminate corruption in the rank and file of police, direct recruitment on merit would be ensured. (ix) Members of the civil society and journalists be involved in a transparent process of recruitment. (x) Adoption of code of conduct for the police based on the UN Code of Conduct for Law Enforcement Officers. (xi) The existing ratio of officers to men for rural areas be enhanced from existing 12:88 to 24:75. For urban areas, it is being raised to 35:65. (xii) To up-grade Forensic Science Laboratories.

Transparency and Accountability

5.28 Like any other developing country, corruption is a major problem and not only affects the civil society and the polity of this country, but also affects the pace of economic development. It hinders both physical and human development thereby reducing the economic growth. It leads to cruel waste of precious public funds and breeds on poverty, illiteracy, over extended and centralized government exercising its monopolistic powers. It has many forms and features. However, it can be broadly categorized into: (i) petty corruption, mostly of the low-level personnel of the government such as traffic police or staff at hospitals and courts; (ii) middle level corruption by the bureaucrats by way of award of contracts, industrial licensing; collection of revenue and utility bills; and (iii) grand corruption which mostly relates to secretive large public contracts, judicial injustice, political bribes, and issues relating to international trade and assistance.

5.29 The first category of corruption i.e. petty corruption, has largest number of affectees by way of poor citizens of the country, yet the middle and higher level corruption is very large in size and the most wasteful of the national resources. Seventy percent of the economy, according to a study, remains untaxed. Out of this 36 per cent is thought to be "black economy", 19 per cent illegal trade, 18 per cent tax-free economy and the other 7 per cent is informal/ unaccounted economy. If all these are brought into tax net the tax to GDP ratio would increase significantly.

5.30 It is extremely difficult to quantify corruption in any society. Most "estimates" are perceptions of various segments of the society based on personal experiences. The Corruption Perception Index of Transparency International in 1996 ranked Pakistan as the "second most corrupt" country of the world. This ranking has now come down to 14th in recent years mainly because of a strong public outcry against this menace and the subsequent measures taken by the government by way of Ehtesab Cell and the National Accountability Bureau. A serious attempt has been made to stop corruption at the highest levels. Nevertheless, corruption continues to be perceived by the people as the Number One problem of this country and there is a continuous and strong public demand for establishing an independent and even handed mechanism of anti-corruption in the country in which all segments of the society should be treated without any discrimination or selectivity.

5.31 Any anti-corruption institution in a country must be totally independent, have access to all types of documentation, both classified and non-classified, possess strong investigation setup and be manned by those who have established reputation in the civil society. It should have legal powers of prosecution under special courts on a fast track basis. Needless to say, there must be effective legislation on Good Governance and Business Practices and their enforcement.

5.32 Elimination of corruption is an essential component of good economic governance. The best way to bring this about is through transparency of the working of the government, freedom and dissemination of information, a strong and effective monitoring system and enforcement of basic rights of citizenry through Rule of Law. Any system for the accountability and eradication of corruption must also ensure exemplary

punishment to those who are found corrupt. It must also significantly reduce centralization of decision making in the government as well as eliminate non-predictability of government policies, monopolies, quota and licensing systems and un-necessary involvement of the state in the distribution of national resources and delivery of social services. Good economic management cannot be expected from an over extended bureaucracy and non-involvement of the critical stakeholders of the civil society in the formulation of policies. Liberalization of finance and trade, decentralization, long term policy announcements, which do not cave in to pressure groups or individuals, are the hallmarks of good economic management.

5.33 Accountability has a relationship that comes into existence when one party delegates a task to another party. Accountability exists when there is a requirement for the delegated party to report back to the delegator. When reporting and the task are explicit and specifically defined the framework for accountability becomes clear. However, when in the event that the task is implicit, such as a general responsibility, it must allow for interpretation of action and perception of goals. When goals require interpretation, hidden differences in values are bound to surface. Two parties who believe they are moving ahead toward an identical objective may find that there are profound misunderstandings between them. It is said that as a mandate becomes complex when new dimensions are included in its implementation paradigm, it becomes essential to call for an accountability relationship, which is systematic. The more complex the mandate, the more sophisticated are the methods to keep the delegated party on track.

5.34 There is a dire need to change doctrines of individual political responsibility of a Minister and the "anonymity" of a civil servant in our society when the call for "transparency", and a "people friendly and compassionate bureaucracy" is gaining momentum. It must however be recognized that viewed within a "non-vindictive" and a compassionate perspective, accountability is much more than identifying a "culprit" for all errors made within an organization. It goes much beyond. It entails the different strategies used and approaches galvanized by organizations and institutions in strengthening themselves and in the final analysis all those aspects of the programme that are in public and state interest.

5.35 To operate successfully an Accountability Agency must possess the following: (a) committed political backing at the highest levels of government: (b) political and operational independence to investigate the practices of even the highest levels of political and bureaucratic functionaries; (c) adequate powers of access to documentation and to question witnesses; (d) leadership which is seen as being of the highest integrity; (e) any powers conferred on an Accountability Agency must conform to international human rights norms; (f) the agency itself operates under law and is accountable to the courts.

5.36 The Accountability agencies and the Public Accounts Committee need to be strengthened to facilitate the process of transparent accountability across the board along the above lines.

Summing Up

5.37 Reforms in governance can broadly be categorized into: (i) Political Reforms, (ii) economic and financial reform (iii) Judicial Reforms, (iv) Civil Services Reforms, and (v) Acountability and Transparency. The political reforms, in addition to devolution of power which the National Reconstruction Bureau (NRB) is working on require amendments in the Political Parties Act of 1964 and People representation Act 1972. Since the governance issues require an unflinching political commitment and support, it is

absolutely necessary to begin the regime of reforms within the political parties. These reforms pertain to elections within the political parties, enforcement of strict limits on expenditure on elections and minimum qualifications for an elected representative. There is also need to allocate the parliamentary time in a way that the functions, i.e. law-making, is facilitated. It would require legislative discipline in the running of both the Houses (i.e. the National Assembly and the Senate) with a minimum time on legislative business rather than spending all the time on Points of Order of Privilege Motions only. Similarly, no Bill or Motion should be hurried through the House without a minimum time on discussion and proper scrutiny by the Standing Committee, the latter also time bound to submit its report to the House. The second most important reforms are required in the existing structure of judiciary. The existing judicial structure cannot possible cope with the rising demands of a modern economy and the new challenges of the corporate sector. The third urgent reforms are needed in the existing civil bureaucracy. This the most critical of the reforms and the most urgent because the existing civil service structure is neither "civil" nor responsive to the growing needs of the civil society. It carries a public image marred by lack of accountability, inefficiency and incompetence. Reforms in civil services should not only confine to revamping the existing system of recruitment, reassessment of officer-to-staff ratio, but also strict adherence to the known principles of management by objectives.

5.38 Finally, there has been a growing public outcry against the constantly rising level of corruption and a strong public desire for an across the board accountability. Whereas there is no difference of opinion on taking to task the corrupt who looted and siphoned off national resources in the past, the focus of accountability should be on future i.e. to plug in all the loopholes and create a transparent and strong system of accountability. An effective, strong and continuous system of monitoring, more focussed on the on-going public sector projects/programmes and reporting to the Chief Executive, is most critical in any accountability process. In additon, public institutions such as the Public Accounts Committee (PAC) of the Parliament, the Natinal Accountability Bureau (NAB), the Anti-Corruption Departments and the Ombudsman's Office etc. are some of the institutions which need to be strengthened by providing them appropriate staff and legislative support in addition to enactment of appropriate legislation and establishment of special speedy anti-corruption courts. Corruption breeds on secrecy; a free and fair press which upholds the rights of citizenship is the best antidote to this deadly disease. Freedom of Information Act performs an important role here.

5.39 Good governance essentially pertains to institutional reforms. It does not require large sums of public funds. In fact, such reforms would save huge amounts of national resources. It basically requires a national commitment. It is the most critical factor in effective policy implementation. Without reforms in governance no plan can succeed, no matter how good it is in its contents and promises and how rich it is in resources. The Government has set up task forces, committees and commissioned reports on most of the critical components of good governance. A Steering Committee under the Finance Minister regularly monitors their progress. Implementation mechanisms will be put in place once the recommendations become available and these are processed for decisions.

Annex 5.1

Future Structure of Local Government

District Government

FUNCTIONS

- Prepare Plan and Budgets.
- Coordinate implementation
- Prepare rules and regulations
- Execution of polices
- Collaborate with legislative monitoring of the District Assembly, Tehsil and Union Monitoring Committees and evaluation system

STRUCTURE

The administration will consist of 11 groups of offices. Executive District Officers shall head each group of offices. District Officers will head sub-offices at the district headquarter. Deputy District Officer will be incharge of specific functions located at Tehsil Headquarters. Internal Audit Officer under Zila Nazam. District Coordination Officer to assist Zila Nazim

Groups of District Offices

1. Finance and Planning
2. Works and Services
3. Health
4. Literacy
5. Community Development
6. Information Technology
7. Revenue
8. Agriculture
9. Education
10. Law
11. Magistracy

Tehsil/Municipal Administration

FUNCTIONS

- Provision of municipal services
- Physical Planning, Land Use, Zoning
- Monitor the functioning of the district government officials located in the Tehsil.

STRUCTURE

Headed by Tehsil Municipal Officer, who will be assisted by 4 Tehsil Officers responsible for:

(a) Physical planning and development control
(b) Municipal infrastructure
(c) Services and support
(d) Finance

CHAPTER 6

A STRATEGY FOR DEBT REDUCTION AND MANAGEMENT

Pakistan faces grave debt problems, which threaten the economic future of the country. The debt problem has been in the making for years, if not decades. The country is saddled with a high public or government debt and a very large external debt. A large part of the public debt, more than 50 percent is external in nature. Government debt, including the portion of external debt, is a charge on the budget and must be serviced from government revenues or additional borrowing; whereas the external debt, both, public and private is a burden on the balance of payments and must be serviced from foreign exchange earnings, reserves draw down and / or additional borrowing. The Government of Pakistan established a "Committee on Debt Reduction and Management" headed by Dr. Parvez Hasan in 2000 to examine the problem and suggest possible solutions. This Chapter reflects the major findings and recommendations of the Committee.

Nature and Magnitude of Debt Problem

6.2. Nominal public debt grew from Rs 155 billion in 1980 to Rs 802 billion in 1990 and jumped to Rs 2971 billion in 1999. Consequently, the public debt burden has gown from 66 percent of GDP in 1980 to over 100 percent at present. The outstanding stock of public debt is now 625 percent of revenues compared to 400 percent in 1980. The total public debt service (before rescheduling) for the year 1999-2000 was at Rs 355 billion or over 60 percent of revenues. This is a higher public debt burden, by a large margin, than that of any large developed or developing country. Pakistan's debt as a percent of revenue is 625 percent, with the corresponding figure for India being 385 percent; Mexico 220 percent; Indonesia 141 percent; Thailand 94 percent and Chile 60 percent.

6.3. The above figures and comparisons understate government liabilities because they do not include any estimate of contingent liabilities of the Federal Government, which might materialize in the next few years. The contingent liabilities relate to guarantees given to IPPs and other public and private bodies, un-funded losses of public corporations including the Pakistan Steel Mills, WAPDA, KESC, Ghee Corporation of Pakistan (GCP), Rice Export Corporation of Pakistan (RECP), Cotton Export Corporation(CEC), Trading Corporation of Pakistan (TCP), Saindak etc. The GCP, CEC, TCP, RECP, and Saindak bonds alone have added around Rs 50 billion to the public debt. Additionally, the likely un-funded losses of public sector banks, to the tune of Rs 57 billion as of now may ultimately fall on the State Bank of Pakistan (SBP), despite extensive funding already provided to nationalized banks, thereby reducing its profits and the associated non-tax revenue receipts of the government.

6.4. Total external debt, including foreign exchange obligations to resident and institutional investors more than tripled from less than $10 billion in 1980 to $32.5 billion in 1996 (showing an annual average growth of 8 percent), and jumped further to $35 billion in 1999. This sharp rise in the external debt pushed up the ratio of the stock of external debt to foreign exchange earnings from less than 200 percent in 1980

to 315 percent in 1999, and debt service to foreign exchange earnings ratio from 18 percent to 39 percent over the same period.

6.5. Pakistan's external debt, in present value terms and in percent of GNP, is more than twice that of India and Bangladesh and substantially higher than that of Egypt and Brazil. The situation in terms of the proportion of foreign exchange earnings going into debt service is even worse: Pakistan, 39 percent; compared with India, 21 percent; Bangladesh, 9 percent; Sri Lanka, 7 percent; Indonesia, 13 percent; Malaysia, 9 percent; Egypt, 10 percent; and Nigeria, 11 percent.

Factors behind Debt Burden Growth

6.6. A number of factors have contributed to the rising debt burden of the country. A fundamental source of Pakistan's economic problems and high debt burden is the persistence of low rate of national savings for over two decades. National Savings actually declined from 14 percent of GDP in 1980-81 to a mere 11 percent in 1998-99. Consequently the reliance on foreign savings remained high at 3.4 percent of GDP in 1980 compared with 3.8 percent in 1998-99.

6.7. The growing negative savings in the government sector i.e. the inability to cover defence and other non-development spending from government revenues has been a major contributing factor to the poor savings performance. Negative government savings have averaged nearly Rs. 90 billion per annum or 3.2 percent of GDP during the last three years. The ratio of current expenditure to GDP increased from 15.6 percent in 1980-85 to 20 percent in 1999-2000 whereas the tax revenue to GDP ratio declined from 13.6 percent to 12.7 percent over the same period. Despite numerous IMF agreements since the early 1980s, there was little fiscal adjustment over the last two decades.

6.8. The country's public and external debt problem has recently become grave for basically three reasons: (a) stagnating revenues because of the unsound structure of taxation, showing negative growth in real terms during 1996-99; (b) negative real growth in exports as well as remittances because of structural weakness and exchange rate policy failures and (c) the high real cost of government debt rising sharply to 5 percent per annum during1996-99(compared to around 2 percent historically) reflecting the combined effect of slow down of both domestic and international inflation and real depreciation of the exchange rate which increased the cost of servicing external debt.

The Consequences for Growth and Poverty

6.9. The single biggest consequence of the high and growing public and external debt burdens has been a sharp slow down of Pakistan's economic growth from over 6 percent per annum in the 1980s to less than 4 percent in late 1990s. This in turn has led to a substantial increase in the incidence of poverty.

6.10. The links between high debt burden and slow growth are quite obvious. Reduced net external resources are constraining investment. For the next few years, practically all of the investment must be financed from domestic resources. Large government borrowing is keeping real interest rates high and discouraging private investment. Private investment is also being adversely affected by the shortage of complementary infrastructure and inadequate skill development, attributable directly to shortage of fiscal resources.

Debt Reduction Strategy

6.11. There is little doubt that Pakistan is in the firm grip of a debt trap and is caught in the vicious circle of high debt payments leading to stagnation in investment and growth; low growth is in turn limiting the

capacity to service debt and reduce the debt burden. Can Pakistan break this vicious circle? Certainly, the past record is not encouraging. Little fiscal adjustment has been undertaken over the last two decades. There has been virtually no reduction in the fiscal deficit and development expenditures have borne the brunt of cuts in non-interest spending.

6.12. Debt Management, therefore, has to be an integral part of overall economic management. A debt strategy with well defined medium and long-term goals, for reduction in public and external debt burden and clear guidelines for debt management, should be a part of the economic revival strategy of the government.

6.13. Only a comprehensive approach focusing on revival of growth, mobilization of tax revenues, increase in exports, reduction in cost of government borrowing, debt rescheduling, privatization, improvement in effectiveness of expenditures and agreement with the IMF can ensure a soft economic landing.

6.14. The debt reduction strategy should have the following essential elements.

Revival of Growth

6.15. Since strong economic growth, accompanied by an expanding level of government revenues and foreign exchange earnings is essential for reducing not only the present debt burden but also for creating capacity for future borrowing, the acceleration of growth initially to 5.5 percent per annum by 2002-03 and further to over 6 percent in the second half of the decade deserves high priority. Notwithstanding the constraints imposed by limited availability of foreign resources, it should be possible for Pakistan to increase investment to GDP ratio to more than 20 percent by 2008 from 15 percent at present. This, combined with improvements in productivity and better governance, should enable Pakistan to achieve the desired acceleration in growth, which will in the ultimate analysis be critical for bringing down the debt burden.

Strong Macro-Economic Adjustment

6.16. The implementation of a strong macro-adjustment progrmme, supported by the IMF, the World Bank and the ADB, through more than a 50 percent growth in, both, exports and revenues over the next four years (2000-04) and a containment of real defence spending at the present level is needed.

Reducing Cost of Borrowing

6.17. The real cost of government domestic debt has recently risen to unsustainable levels. While there has been a sharp decline in the inflation rate, the nominal interest rates have stayed high. As a result, the real cost of domestic borrowing averaged at 9 percent per annum during 1998-2000. This needs to be brought down to at least 4 percent per annum in the medium term by (a) re-structuring domestic debt instruments and reducing reliance on high cost National Saving Schemes especially Defence Saving Certificates (b) sharply reducing the rate of real growth in rupee debt from 7 percent per annum during 1996-99 to less than 2 percent during 2000-8, consistent with the planned reduction in the fiscal deficit.

6.18. Pakistan also needs to improve its external debt profile and sharply reduce the burden of external debt service payments by seeking a softer blend from the World Bank and the ADB on credit worthiness grounds, and reducing the costly short-term debt. Concessional assistance from the I.M.F. under PRGF will also help reduce average nominal interest rate on external debt. Finally, it is advisable to limit normal term borrowing from I.B.R.D. and ADB strictly to non-project borrowing which may be needed to meet the financing gap.

Accelerated Privatization

6.19. The pace of privatization is slow. It needs to be accelerated with the goal of mobilizing at least $3 billion in foreign exchange over the next three years. Privatization offers major opportunities for improving the foreign exchange position as well as economic efficiency and stimulating private investment. Significant problems and policy issues impending privatization need to be resolved quickly.

Increased Effectiveness of Public Spending

6.20. Effective use of public resources both developmental and non-developmental remains an important issue. There is wide spread skepticism about the effectiveness of use of foreign aid. Waste in government, over-staffing and leakages in public spending need to be tackled even more resolutely.

Adoption of Debt Burden Targets

6.21. There should be a firm commitment to reducing the burden of external debt and other foreign exchange obligations from 275 percent of foreign exchange earning at present to the sustainable level of 200 percent over the next five years. Similarly, a realistic target of reduction in public debt burden to 300-350 percent of government revenues over a period of eight to ten years should be set.

6.22. If these targets cannot be achieved, for whatever reason i.e. shortfall in revenues/exports, persistence of larger than planned fiscal or balance of payments deficits, or higher than expected cost of borrowing, investment, imports, growth and additional borrowing targets must be adjusted downwards.

Prospects for Debt Burden Reduction

6.23. The Government will be able to successfully implement the integrated economic revival and debt reduction strategy provided (a) it pursues macro-adjustment and structural reforms single mindedly (b) improves governance (c) strengthens public institutions for development significantly and (d) strongly resists pressures from well established vested economic interests notably redundant employees in the public sector, recipients of economic rents in the private sector, corrupt officials especially in the tax and police departments and labor unions.

6.24. This will transform the external debt picture and bring about at least a modest reduction in public debt burden (10-12 percent) consistent with revival of economic growth and reversal of the trend towards increasing poverty, even in the medium term of three years.

6.25. Our analysis shows that the next three or four years are crucial and if navigated safely, the foreign exchange crisis will be overcome and the need for an IMF programme eliminated. Most concretely, if a successful PRGF programme, supplemented by sizeable assistance from IMF, World Bank, and ADP can be implemented over the next three to four years, Pakistan will have reduced its external debt to a sustainable level of 200 percent of foreign exchange earnings by mid 2005 and will have eliminated the need for recourse to the IMF. In absolute terms, the external debt would have stabilized at around $35 billion, creating the scope for somewhat larger current account balance of payments deficits in the future.

6.26. The work out of reduction in public debt burden will take longer. But if prudent macro-management continues to be followed through 2010, the public debt burden will come down to 368 percent of government revenues by 2008 and further to 317 percent by 2010.

6.27. In order to achieve the target of reduction in public debt, not only will the fiscal deficit have to be reduced steadily

from 6.3 percent of GDP in 1999-2000 to 3 percent in 2003-04 and further to 2 percent of GDP by the year 2009-10 but also the reduction in fiscal deficit would have to be brought about in such a fashion that negative government savings are eliminated in three years and the share of development expenditures in total expenditures is increased from 13 percent in 1999-2000 to over 25 percent of GDP in eight to ten years. This will require a steady increase in government revenues from 17 percent in 1999-2000 to 18.6 percent by 2003-04 and further to around 20 percent by the end of the decade.

CHAPTER 7

PRIVATISATION

Privatisation is one of the key agenda of the present Government. The Chief Executive of Pakistan in his first address to the Nation on 15th December 1999 emphasized the need for self-reliant economic system by carrying out the privatisation programme in a transparent manner through the promulgation of an Ordinance. As part of this strategy, the Government has stressed the importance of carrying privatization in open and transparent manner with a view to maximizing the proceeds from privatisation of enterprises and utilizing these for debt retirement and poverty alleviation.

Background

7.2. During the early 1970s, Pakistan nationalized many businesses and enlarged the areas where the private sector was prevented from competing. In addition to a number of important industrial enterprises, the Government owned and operated services in banking, energy, communications, infrastructure, and transport. The experiment proved to be a failure and the state-owned enterprises exhibited most or all of the following characteristics:

- Mismanagement and overstaffing.
- Misguided and costly investments
- High level of corruption
- Poor service coverage and quality
- High debt and fiscal subsidies.

7.3. Politicians and other vested interests used the public entities to serve their political objectives, which further affected their profitability. Staff and managers were often appointed for political reasons and prices for many goods and services were kept artificially low. Cross-subsidies and pricing inefficiencies were widespread, with such a price structure that had little relation to cost. Many enterprises kept afloat solely because of coerced lending from state-owned banks, budgetary subsidies, monopolistic practices, or implicit government guarantees. Regulation of these large companies was virtually non-existent, with many banks and enterprises continuing to operate even while bankrupt. Safety, health, and environmental regulations were largely ignored.

7.4. Recognizing these difficulties, the Government began to reverse the nationalization strategy in the late 1970s. However, the size of the public sector continued to grow all through the 1980s. During 1991-97, successive Governments wholly or partially privatized 92 enterprises. Subsequently, the pace of privatization slowed down as the efforts shifted from industrial transactions, with small and localized impact to large transactions in the telecommunications, energy, transport, and banking sectors. The larger transactions required difficult decisions on pricing, restructuring, large-scale labor shedding, and the creation of appropriate regulatory framework. Concern for greater transparency in the sale process and a less favorable investment climate also contributed to the slowdown.

Objectives

7.5. Main objectives of the Privatisation Programme of the present Government are as under:

- Strengthening the private sector
- Improving investor's confidence
- Broadening capital ownership
- Retiring Debt
- Alleviating Poverty
- Reducing fiscal subsidies
- Eliminating opportunities for corruption
- Improving environmental standards
- Improving health and safety conditions

7.6. To implement its Privatisation Programme, the Government established Privatisation Commission, which is entrusted with divesting state assets, after carrying out some restructuring of the state owned enterprises, if required. For this task, the Privatisation Commission endeavors to structure the divestitures appropriately, design good contracts, and establish transparent and appropriate bidding procedures. The Commission is implementing a comprehensive public awareness programme to explain to the public the reasons for privatisation and the process by which this occurs. However, the success of any given transaction depends critically on some broader considerations including some or all of the following conditions:

- Sustainable macroeconomic situation
- Liberalizing import and price controls or market-based pricing policies
- Independent and competent regulatory agency
- Commitment of the enterprise management and regulators to the privatisation effort
- Fair and firm handling of labor issues

Privatisation Programme

7.7. The Government's Privatisation Programme envisages divestiture of government holdings in banking and finance, oil and gas, telecommunications, energy, transport, and industrial sectors. Early transactions include telecommunications, industrial enterprises, and minority shares or assets of selected banks and oil companies. Following the restructuring of some major enterprises and implementation of sectoral reforms, later transactions would include most enterprises in the banking, oil and gas sectors and a few transactions in the power and insurance sectors.

Strategy

7.8. Most of the planned transactions involve an auction or a strategic sale, under which management control would pass on to pre-qualified investors. However in many instances the Government plans to sell a minority share either through the capital market in an open public offer or through private placement i.e., block sale of share. Such transactions have the added benefit of improving investor's confidence developing capital markets and broadening the ownership base. The following table shows tentative Privatisation Programme during the Plan period.

7.9 Up till now total proceeds are to the tune of the $ 1.7 billion. Over the coming three years, the Government hopes to receive an additional $ 3-4 billion receipt from privatisation. In addition, there are likely to be fiscal savings from not having to bail out some loss-making enterprises and banks. Moreover, to the extent the privatised companies make higher profits, higher tax collection would also strengthen the fiscal position.

PRIVATISATION PROGRAMME
(TENTATIVE)

Sector/Unit	Mode of Sale
Banking & Finance	
Allied Bank Ltd.	Private Placement
Muslim Commercial Bank	Private Placement
National Bank of Pakistan	Public Offer
Habib Bank Ltd.	Strategic sale
United Bank Ltd.	Strategic sale
National Investment Trust	Right to manage Funds
Investment Corporation of Pakistan	Right to manage Funds
Insurance	
State Life Insurance Corporation of Pakistan	To be determined
Other Insurance Companies	To be determined
Energy	
KESC, one other distribution company and one other generation company	Strategic sale
POL	Private Placement
ARL	Private Placement
Oil & Gas Development Corporation	Strategic Sale
Pakistan Petroleum Ltd.	Strategic Sale
Sui Northern Gas Pipeline Ltd.	Strategic Sale
Sui Southern Gas Company	Strategic Sale
Pakistan State Oil	Strategic Sale
National Refinery Ltd.	Strategic Sale
Working interest in several fields	Auction/Strategic Sale
Transport & Communications	
Pakistan Telecommunication Company Ltd.	Strategic Sale
Industry	
Pak-Saudi Fertilizers	Auction
Pak-Arab Fertilizers	Auction
Miscellaneous industrial units	Auction

Privatisation Ordinance

7.10. In terms of the Chief Executive of Pakistan address to the Nation on 15th December 1999 and to ensure its strong commitment to the privatisation effort, the Government, in October 2000, promulgated an Ordinance aimed at strengthening the Privatisation Commission, establishing its clear legal authority, prescribing the ways and means of divestiture of assets and increasing the Commission's accountability, independence and dispute settlement.

7.11. To secure the interest of the investors, the Ordinance provides that the Government would investigate any transaction within one year of the completion of privatisation. In case of any dispute, the High Court shall exercise exclusive jurisdiction to adjudicate and settle all matters relating to privatisation and may at its discretion follow Summary procedure. There will be two rights of appeal to the litigant, firstly to a larger

Bench of the High Court and then to the Supreme Court.

Privatisation Ministry

7.12 To show its commitment and priority to the privatization effort, the Government created a Ministry of Privatisation in November 2000. In addition to sending strong signal of its seriousness in privatisation, the initiative facilitates the Privatisation Commission access to the Cabinet.

Debt Retirement/Poverty Alleviation

7.13. An important feature of the Government's Privatisation Programme included in the Ordinance is the creation of Privatisation Fund in which all the proceeds of privatisation shall be deposited. Ninety percent of the proceeds shall be used for retirement of debt and ten percent for poverty alleviation. This will go a long way in bringing about positive change in the macro economic adjustment and improving fiscal position of the country as well as providing funds to the projects included in the Poverty Alleviation Programme. Greatest boost to economic development will come from higher production and improved services that would be realized from better management, fresh injections of capital and effective regulation.

PART II

Productivity, Technology and Production

CHAPTER 8

EMPLOYMENT POLICY

Introduction

It is generally believed that there exists massive unemployment in the country. However, the official rate of unemployment is between 5.4%-5.9% (LFS 1997-98). Opinions of experts in case of underemployment vary between 15% to 40% but the official statistics suggest an underemployment rate of about 12%(LFS-1997-98). The unemployment rate is relatively higher among the younger age groups with education at various levels. After converting the estimate of the under-employed, those working less than 35 hours a week, into fully unemployed, the overall rate of unemployment at present works out at 10.5 per cent.

8.2 The main reason for the un/under-employment is the deficiency of labour demand. There is a decline in the absorptive capacity of agriculture and large-scale manufacturing. In addition to inflexibility in the rural labour market, participation by women has increased and urban-rural migration exacerbates the problem. The economy's growth has slowed down for several years, especially over the mid and late 90's. The weakening of growth has been accompanied by increasing poverty. Another set of problems has been brought by the pattern of growth and structural change over the last two decades, which are deeply rooted in the economic, social, and political conditions and has no quick or easy solution. In view of these, the main ingredients of the employment policy of the Government are investment promotion, promotion of more labour-intensive sectors, such as small-scale industry, construction sector, development programmes in rural areas and small towns focusing on physical and social infrastructure and rural industries, guidance and counseling at secondary school level for vocational and information technology education, provision of credit facilities for self-employment, specially to educated unemployed, and encouraging overseas migration and expansion of technical training facilities in the sophisticated trades.

II. Issues and Challenges

8.3 The development strategy for Pakistan was based on the theory that growth was the ultimate objective and that distributive justice could be ensured through trickle-down effect of the growth process, which automatically lead to human capital formation and social development. The strategy did help achieve an annual average growth rate of around 6% during the past thirty years but failed to ensure a respectable ranking on Human Development Indicator. In the context of structural adjustment programmes, shift of investment policy from public to private sector, and reduced subsidies for agriculture inputs as well consumer goods have aggravated the problems of poverty and un/under-employment in Pakistan.

A. Issues

8.4 Bottlenecks stem forms the three main characteristics of the human resource development approach. *First*, the issues of human resource development do not lend themselves to easy abstractions. The complexity of these issues and the nature of long-drawn processes involved call for more detailed and sustained efforts. *Secondly*, HRD consists of micro processes where continuous participation by people is necessary for securing the commitment at macro level. *Thirdly*, the agenda of HRD is huge and multi dimensional. These issues are correlated and complementary to each other. Social development itself is not independent of the

development of infrastructure and productive sectors. Conventionally, HRD includes social sectors like manpower and employment, health and nutrition, education and training, rural development, women's development, etc.

8.5 The social sectors have been the main victims of financial cuts in the past; the involvement of the people was also superficial. The problems of HRD, therefore, remain unaffected by the development strategy pursued. Despite increasing emphasis on family planning, average inter census growth rate of population is 2.6%. Despite considerable increase in the allocations for education and health sectors, there is little impact on literacy, disease control, health status, and deprivation of the poor masses may have increased. With an increased emphasis on women's development, we have only succeeded in learning of their miseries but failed to include their efforts in nation's development. Further, although top priority is given to employment issues, we hardly know the true extent of unemployment in the country. Growing unrest and crime, particularly among the urban youth, is only one of the manifestations of unemployment and the situation if it remains unchecked is likely to get more explosive in the future years. More specific issues are listed below:

a) Past neglect and insufficient investment on the development of social sectors.

b) High population growth rate, unemployment, social problems, and environmental degradation, leading to an explosive situation.

c) Deficient labour demand; increasing ratio of female labour force is not finding absorption.

d) Poor education profile and technically incapable work force in rural areas, particularly women.

e) Skewed income distribution did not allow a high living standard in spite of the high economic growth achieved in the past. The poor remain dormant and there is more inequality in access to education, health, and other social services among marginalized groups and in distant rural areas.

f) The use of modern technology has promoted unemployment and displaced large numbers of productive labour force. On the other hand, if government does not encourage industries to adopt hi-tech, then competitiveness in the international market would be impossible to achieve.

g) Low wage level (in order to keep production cost level suppressed) to compete in the global market and move into value-addition by focussing on higher profit will allow incremental increase in wages in the long run. Currently, though we are subsidizing consumers in the developed countries at the present local wage rate and reduced quality of life domestically, reducing the direct and shadow benefits of development to domestic labour force.

B. Challenges

8.6 The most important challenges which the country is facing today are growing unemployment, poor quality of skills, lower literacy rate, rapid flow of technology leading towards globalization, high growth of population, rural-urban and overseas migration, low productivity of industrial sector, poor quality of goods, higher competition in domestic and global markets, missing shadow benefits and the need for formulation of pro-poor national labour policies. These are described below in some detail.

(i) **Growing Unemployment**: The country has a population growth rate of 2.4 percent (1998), with high incidence of consumption poverty, at 34 percent (1998), and low literacy rate, at 45 percent (1998). In 1981, 45% of the population was below 14 years of age and they have now joined the job market. This has resulted in a serious pressure on the job market creating

challenges for Pakistan's economy to transform the system by matching the demand and supply of labour force. Otherwise, there would be a serious turmoil in society.

(ii) **Poor Quality of Skills**: The global environment is skill-based and requires highly skilled and re-engineered portfolio of labour force. Unfortunately, the skill base in Pakistan is poor and thin, and does not even match the existing industrial market demand. It is certainly uncompetitive in the international market. If the skill base of our labour is not re-engineered immediately, a large chunk of employed labour force will become un-employed later. Employers have to be given incentives to take a lead role in investing in on-job training of their employees and re-engineer the skills of the labour force according to market requirements.

(iii) **Rapid Technology Flow**: The information and communication technology provides an environment of elasticity to the labour market but has also pressed the traditional labour market out of business. Now-a-days technology flows even at the farm level suggest that the farmer of today has to be a knowledge and skilled worker in order to compete in the new global economy.

(iv) **Low Productivity of Industries**: The traditional structure of our domestic market has failed to produce competitiveness, enhance quality, or increase productivity of the industries and labour force. Pakistani industry has flourished on the *advantage of cheap labour force* but this notion is now redundant in a global economy where other countries are fast acquiring the markets due to advanced technology adoption. However, if we keep to the cheap labour paradigm, even then a country from Africa with even cheaper labour may take away our market share tomorrow. It happened to our carpet industry, when China offered cheaper labour and our domestic carpet industry went out of business in the international market. Thus the cheap labour would not be able to sustain our economy in the future. No nation today can survive and progress unless its manpower is highly motivated, efficient, and productive. Economic development and high economic performance, therefore, have a direct relationship with higher productivity of the work force.

(v) **Rapid Globalization**: Pakistan is now entering an era which is characterized by a new pattern of economic development, and wealth creation steered by globalization. The rapid globalization of the markets has created new global challenges and macro imbalances in the economies of the developing nations. There are the emerging issues of child labour, environment, human rights, and women' rights, etc which will demand proper resolution in the future. Each economic activity will be regulated in terms of the implications of above issues and according to how they are dealt with.

(vi) **Missing Shadow Benefits**: In the changing patterns of domestic and global markets, sustainable national development is not possible without transforming *the commodity economy* into a *value-added economy* that is able to earn shadow gains of economic productivity. Unfortunately, our production structure is operating as a commodity economy without embarking on quality production.

(vii) **Formulation of Pro-poor Labour Policies**: The concept of productivity has also developed with the passage of time. Its enhancement is based not only on scientific methods and knowledge but also on the creation of a favourable environment to generate and stimulate productivity consciousness at the macro

and micro levels in the country with maximum participation of the available labour force. However, to attract the full support of domestic labour force Government needs to formulate pro-poor labour policies. The national policies must include steps to enhance coordination between the global and local productivity fora in order to accommodate information and communication flows and to achieve competitiveness of economy based on quality and productivity. The present labour policy provides for the establishment of a tripartite productivity council to meet such targets.

III. Three Year Development Programme

8.7 The reduction in open and disguised unemployment is one of the major objectives of the Programme. The solution of the problem of unemployment has to be found through a high rate of economic growth and by encouraging the use of labour-intensive production technology. To supplement the opportunities created by the normal growth process, direct employment generation programmes, and avenues for oversees employment will have to be explored. Presently the unemployment rate (including open unemployment as well as underemployed working less than standard 35 hours a week) converted into fully unemployed equivalent) is around 10.5 percent. There are two solutions for expanding employment and thereby reducing unemployment. i) Accelerating the rate of economic growth in general and growth of those sectors which have shown relatively larger capacity to absorb labour, in particular; ii) Enhancing the employment elasticity or equivalently labour absorption capacity of economic activity. The two solutions are not mutually exclusive and a combination of the two provides a more effective way of handling unemployment problem. While the later solution calls for changes in the production techniques and technology, the former can be brought into operation through encouraging the investment rate.

Objectives

8.8 The main objectives during the three year development programme are proposed as follows:

(i) Establish the right macro-economic climate to set up an economic framework, which supports business by reducing regulation and the red-tapism undermining competitiveness.

(ii) A common vision and an integrated approach to help build, dynamic local economies focussing on local economic development and regeneration in both urban and rural areas to achieve national competitiveness.

(iii) Develop and encourage "a world-class work force", with the skills needed for successful business and industry. It would require restructuring the role, composition and functioning of a participative, autonomous body in the form of the National Training Council which would be responsible for formulating the National Training Policy and its implementation.

(iv) Partnership-based strategies to focus on "competitiveness" as the key-feature of the economy as a whole and of each individual person. This is to be achieved through restructuring of institutional set-up in key areas of economic, social, and educational growth, establishing realistic milestones.

(v) A national agenda for self-reliance is being launched which calls for reliance on the strength of our own resources, human resources being the most vital. It is now time that we take concrete

measures for developing and implementing employment oriented industrial, trade, and labour policies which support the employment strategy. The employers, workers, and their organizations have shown willingness to meet the challenge of change and they strongly feel that their organizations have also fully geared up to face this challenge. The Government will continue to improve governance to restore the confidence of the investors, consumers, business, and the work force, which has been badly shattered by the mismanagement of national economy and political disturbances during the last decade.

(vi) If a country like Pakistan is to survive in the community of nations it has to develop its basic infrastructure in order to induce positive industrial and agricultural development and also to raise export levels. Instead of relying on foreign loans and taking further loans to pay for debt servicing, or otherwise facing a default situation, a self-reliant strategy should be pursued.

IV. Financial Outlays

8.9 The allocation for federal public investment is Rs.339 million, of which Rs 54 million is for on-going projects. Year wise detail appears at **Annex 8.1** and Project- wise detail is presented in **Annex 8.5.** Provinces will draw up their own programmes. Private sector investment will be in addition.

V. Physical Targets

a) Projection of Labour Force

8.10 There has been an improvement in the female participation rate from 4.3% in 1974-75 to 9.4% in 1997-98 but the proportion of "unpaid family helpers" has decreased from 27.4% to 22.4% (LFS-1997-98). Other factors affecting labour supply, i.e., survival ratio, overseas migration and enrolment at matric and higher levels have also been considered. The proposed employment generation during the three year development programme is summarized in Table No. 8.1. GDP, Employment and Productivity Growth Rate and Sectoral Composition of Employment are given at Annex 8.2.

TABLE 8.1
EMPLOYMENT TARGETS OF THREE YEAR DEVELOPMENT PROGRAMME

(Million Nos)

Population & Employment	2000-2001	2003-2004
Population (Million)	142.5	151.1
Labour Force Participation rate (%)	29.4	29.5
Labour Force (Million)	41.9	44.6
Employed (Million)	39.0	41.6
Additional Job Creation (Million)		1.0
Open Unemployment	6.9	6.5
Underemployed converted into fully Unemployed equivalent (%)	3.5	2.9
Total Unemployment (%)	10.4	9.6

8.11 It is estimated that, with a GDP growth of 5.5 a year, about 2.41 million new jobs are likely to be generated internally during the three year period. Open unemployment will slightly decrease from 6.9 percent to 6.5 percent and total unemployment will decline from 10.4 percent to 9.6 percent.

TABLE 8.2

Employment Elasticities

Sector	Elasticities (%)
Agriculture	0.37
Large Scale Manufacturing	0.02
Small Scale Manufacturing	0.85
Construction	0.87
Transport & Communication	0.45
Trade	0.57
Electricity & Gas	0.54
Others	0.68

8.12. Although the relationship (elasticity) between employment expansion to overall GDP has been estimated at 0.41, sectoral activities differ significantly in their potential of employment generation. Elastiscities for some of the major sectors are given in Table 8.2.While there are a number of measures already covered in the public sector policies, such as small public works, construction of farm to market roads under Poverty Alleviation Programme, operation of recently established Micro Credit Bank (Khushhalli Bank), and SMEDA activities, some other measures needed to be taken are: 1) Tax concessions to sectors intensive in employment absorption, like trade and services. 2) Boosting construction activity by reducing excise duty on the key input of cement (presently at Rs 1000 per ton). 3) The labour laws, which the government is in the process of formulating, need to be devised in such a fashion that these do not hurt employment. 4) Presently private secor education and health activities are one of the major sources of employment generation. A specific policy for encouraging expansion in these activities is needed. Policies that strangulate mushrooming of institutions in these sectors must be avoided.

Table 8.3

Age specific Participation Rates for Pakistan (%)

Age Group	1982-83	1987-88	1994-95	1996-97	1997-98
10-14	21.5	26.6	11.5	12.8	13.1
15-19	40.3	36.5	32.3	34.6	34.4
20-24	50.4	48.3	47.9	50.1	48.4
25 & above	52.0	53.0	55.1	55.6	53.6

Source: Labour Force Surveys of the respective years.

(b) Overseas Employment

8.13. Given the decline in the absorptive capacity of major sectors of the domestic economy, employment abroad continues to be one of the major avenues for absorption of the fast-growing labour force since the early seventies. Since 1990, out-migration is increasing. Estimates for 1993-98 show 6,48, 288 Pakistani workers abroad. In the last 3 to 5 years, a rising overseas demand has been witnessed in many occupations. This includes

the demand for construction-related occupations, including masons, carpenters, electricians, plumbers, steel fixers, painters, etc. which is in sharp contrast with the commonly held view that the demand for construction related skills has declined in the Middle East. Other categories of skills in this rising demand are production workers including drivers, technicians and mechanics. The demand has also gone up appreciably for service occupations, including tailors, waiters, and cooks; and for professionals, including engineers, doctors, teachers, accountants, and mangers. The occupations where demand has stagnated or has actually declined include stenographers, agriculturists, supervisors, cable joinder, operators, surveyors, and fitters. While the construction-related skills still remain in demand, there is an increasing requirement for service and maintenance-related occupations. Out-migration statistics and remittances from 1971 to 1998 are presented at Annex 8.3 and 8.4 showing that the stock of the workers in foreign markets has risen but the remittance level has reduced.

VI. POLICIES AND STRATEGIES

a) Domestic Employment

8.14. Employment strategy of Pakistan must focus on different sectoral strategies. We must increase labour absorption in agriculture and promote a dynamic sector within the small-scale industries. The overall objective of the above is to revise growth strategy in such a way that employment multiplier effect in the economy is significant and there is minimum downward pressure on the productivity in agriculture. Positive element of the strategy is the services sector. Employment strategy for the Three Year Development Programme must focus on the following targets.

(i) Overall efficiency of economic management and effective structural adjustment are necessary to create approximately 5.64 million new jobs. This can be achieved if the growth rate of economy is at least 7.5% per annum, with investment levels of 20-23%, a possibility that does not exists in the medium term. A proper investment climate must be created to accelerating export-oriented trade policy reforms and stimulate the growth of key industries which may have significant direct and indirect employment potential. Special steps may be taken for employment generations in the less developed areas.

(ii) Urban employment generation can be achieved by promoting of the small-scale/informal sector, increasing the opportunities for self-employment and expanding the existing employment-generating sources in the private and public sectors.

(iii) Women are to be mobilized through increased employment and income by providing different opportunities.

(iv) Information technology and institutional machinery for HRD is to be expanded to monitor the long-range planning, investment in human resource, skill improvement, training and retraining of the labour force, particularly in the private sector.

b) Overseas Employment

8.15. The job market abroad is highly volatile and there is a need for policy vigilance to maintain this lucrative source of employment. In order to promote export of Pakistani manpower during the programme, the following will constitute the main elements of Pakistan's overseas employment strategy. These will be achieved both through promotion and perception of Good Governance in administrative, procedural, and operational matters.

a) The training programmes will be made sensitive to the changing requirements of skills in the Middle East countries. The need to train workers in multiple skills will be taken into consideration, and appropriate training and re-training

programmes will be introduced to meet that requirement.

b) A credible system of skill certification will be developed for selection of workers. Top priority will be given by the National Training Bureau to develop skill standards for the occupations in demand overseas and to establish the skill certification system with the help of Provincial Training Boards.

c) The procedure regarding recruitment of manpower for the private sector is generally satisfactory. However, the procedure for recruitment for the public sector is unnecessarily lengthy and time-consuming. The recruitment rules for hiring from among public servants should be simplified.

d) A centralized system will be established where information on various aspects of overseas migration is collected and disseminated according to the requirements of users, and it will be updated regularly. The possible users of that information may be for instance, the National Training Bureau, so as to determine the occupations which are in demand overseas at a given time; and also the recruiting agents, who need to know about the projects planned overseas, etc.

e) The role of Pakistani missions abroad in increasing manpower export from Pakistan is very crucial. It has been observed that the Community Welfare Attaches do not have enough time to work for the promotion of manpower export from Pakistan. To make up the deficiency, senior officials with relevant expertise of the departments concerned with planning, development, appraisal, and analysis of employment plans will be given the main responsibility of promoting manpower export and posted at least in the principal countries importing Pakistani labour in addition to the Community Welfare Attaches. These officials will campaign with the employers at the time they apply to their government for permission to recruit workers.

f) The Government of Pakistan will negotiate bilateral agreements with labour-importing countries, including those outside the Middle East region, for supply of manpower. Policy efforts to promote overseas migration have hitherto centered on the Middle East market. Little attention has been given to export Pakistani manpower elsewhere. Efforts will be made to explore prospects of exporting Pakistani labour to developed countries and Far East. Similarly, the prospects of migration to East Asian countries like Japan, Taiwan, Korea, Hog Kong, and Singapore should be carefully studied.

g) Pakistani firms, both in the private and the public sectors, will be assisted in securing projects in labour-importing countries so that manpower from Pakistan could be employed in those projects. The government will re-examine various possibilities to facilitate those firms in this regard and hold frequent discussions with them to assess their needs. Private construction companies will be encouraged to form consortia to enable them to secure construction contracts and sub-contracts from bigger international firms. Necessary incentives in the form of financial support, foreign exchange facilities, guarantees, bid bonds, and performance bonds from banks will be provided.

c) Technical/Vocational Skill Development

8.16 Under the National Training Ordinance, 1980, skill training is supervised by the National and Provincial Training Boards (NTB and PTBs). The main task of the NTB is to standardize skills, and upgrade, regulate, and expand training facilities. To expand training facilities, the NTB has completed Phase II of the National Vocational Training Project. This provides for

strengthening the existing system. By July 1998, most components of Phase II had been completed. PTBs are responsible for the execution of training plans, trade testing, evaluation and registration of training schemes, and the preparation of provincial training programmes. Both employers and employees are represented on the NTB and the PTBs to increase the effectiveness of training programmes.

8.17. Technical training of varying skills, quality, and duration is imparted both in the formal and the informal sectors with major facilities in the public sector. The main problem of the public sector training programmes is their high unit cost (about Rs.10000 per trainee per annum) because of long duration of courses, under-utilization of capacity in certain places, and other inefficiencies. The system is cited for its unresponsiveness to the labour market demands because of excessive bureaucratic controls. Part of the problem may also be due to employers' attitudes; potential employers because of inertia and lack of modern management techniques do not appreciate the value of formal training. Other key constraints include non-availability of qualified teaching staff due to low salaries and inadequate training facilities for trainers.

8.18 Despite the fact that technological development and adaptation in a country is a function of the technical competence of its work force, Pakistan continues to lay very little emphasis on technical training; 40% of Matric pass-outs follow Social Sciences subject, 30% follow science subject and only 15% pursue vocational and technical training. The result is slow economic development, growing unemployment and mismatch of skills. Training is also imparted in the private sector for their industry-specific needs and in the informal sector through the institution of **ustad-shagird** in small shops. Training capacity of the private and informal sector is not known but the system has been responsible for providing the largest number of skilled workers. The main drawbacks of the system of training in the informal sector are excessively long periods of training (8-10 years) and low level of skills.

B. HRD Implementation Approach

8.19. The Programme places heavy reliance on the private sector for formal as well as on-the-job apprenticeship style training. The public sector will perform support functions in the form of appropriate incentives for the private sector, curricula development, and testing and certification mechanisms. The incentives may include soft loans, matching grants, and duty-free import of training equipment. Besides, tripartite consultations will be made more effective by greater involvement of employers in the training at policy and operational levels.

8.20 Efforts may include imparting of training in skills in greater demand, development of a modular system of training, activation of employment exchange and their linkage with training institutions, and greater autonomy for training institutions to enable them to adjust their programmes to the local job market. To make the system more responsive to the job market, 50% representation of the private sector, including employers and workers in the Advisory Committees, the PTBs and the NTB, should be mandatory. Sub-sectoral strategy will be as follows:

i. Employment Generation

a) The economic system is being deregulated. The Government has embarked on a programme of liberalization and deregulation of economy, recognizing that the private sector will play the leading role in the country's future development.

b) Primary emphasis will be laid on employment generation in rural areas and the surrounding small towns through development of physical and social infrastructure and rural industries. The aim is to slow down rural to urban migration by accelerating development,

and increasing the productivity, of the small-scale/informal sector enterprises.

c) Effort will be made to radically improve the participation of females in income generating economic activities especially in less developed regions.

d) Special measures will be taken to reduce unemployment among the educated, not through unproductive public sector employment in administrative jobs but to meet the real needs of the economy, especially in the social and private sector.

e) Development of a well-trained, skilled labour force to help achieve significant gains in productivity and efficiency, primarily through the efforts of the private sector, is a major thrust of the present manpower policy.

f) A Khushal Pakistan Programme has been launched with the goal of providing employment opportunities for those who have been unemployed for long.

ii. Self-employment

a) Guidance and counseling will be provided at secondary school level to channel larger numbers of youth to vocational and polytechnic education.

b) Small prototype and profitable projects will be prepared and widely publicized on PTV/STN, etc., for information and guidance of those unemployed persons who want to set up their own enterprises. Those who want to get entrepreneurship training will also be provided with necessary information about the institutions, which are imparting such training. For this purpose, the Government has established the Small and Medium Enterprise Development Authority (SMEDA) which will assist in loan disbursement through the Banks and DFIs for the establishment of small and medium business, especially by those persons who possess the requisite skills and experience. An amount of Rs. 250 billion has been earmarked for this purpose. The self-targeting measures mainly include:

(i) A programme offering start-up loans for unemployed professionals and managers to setup their own ventures or small firms to create new jobs.

(ii) A programme targeting job creation in the existing small- and medium-sized enterprises. The programme aims to provide loans for job creation and for the improvement of working conditions.

(iii) A Programme for training and redeployment policies.

(iv) Special assistance with regard to credit will be provided to those semi-skilled or skilled workers who have undergone vocational training (both formal and informal).

c) Self-employment is an important vehicle for arresting the rising trend in unemployment Emphasis would be placed on income generation activities for promotion of employment at the grass root level for which loans would be given on soft terms. In this connection, a micro credit bank, **Khushhal Bank** has been established.

iii. Employment Exchanges and Vocational Guidance and Employment Counseling

a) Employment Exchange Offices which have been closed down in the provinces of Punjab and the NWFP will be re-opened and their role and functions, especially in imparting vocational guidance and employment counseling, will be revised in order to make them more effective.

b) Employment offices in the private sector which recruit workers for domestic labour

market would be allowed to function and suitably regulated.

iv. Educated Unemployed

a) Pakistan is passing through a transitional period, characterised by financial hardship and rising educated unemployment, complicated by a number of social evils. It is wastage of good human and physical resources, which may otherwise provide productive energy for our economy. The real long-term solution of the problem lies in the simultaneous reforms in the education and training systems and rapid revival of the economy, accompanied by careful and well-managed investment decisions. Measures would be taken to make the education system respond to the market, and to emphasize quality of skills particularly at the higher levels of education.

b) The other major area for job creation for the educated manpower, especially in the medium- and long-term, must be the private large- and small-scale manufacturing sector. It is time to initiate a programme for diverting atleast a part of the educated manpower to the large-scale manufacturing sector as trained industrial manpower. A substantial number from amongst the Matriculate certificate-holders and Intermediate will be trained as key industrial workers and employers will be persuaded to offer such workers jobs commensurate with their education and training.

c) Another area for job creation for unemployed graduates having degree in agriculture subjects has been envisioned under Land Reforms Program initiated by Government. Under the programme, agriculture graduates possessing requisite qualification in agriculture will be allotted government land for cultivation purpose. This will assist in reducing un-employment among the agriculture graduates on one hand and help in achieving self-sufficiency in agriculture products through knowledge-based agriculture.

v. Apprenticeship Training Scheme

8.21. Arrangements will be made to strengthen the provincial apprenticeship services to become In-plant Training Development Services and to shift the focus of activity from legal enforcement of the Apprenticeship Ordinance to providing a range of training services to enterprises. To achieve these objectives, the following course of action will be adopted:

(i) Employers will be assisted in assessing their training needs and developing training policies and plans for the training of semi-skilled and skilled workers including the existing work force. The focus of apprenticeship training will be on making it "competency-based".

(ii) Apprenticeship programmes will be run on sandwich course basis, giving time for practical training in the industrial establishments and theoretical training in the training centres. The facilities of the existing Technical Training Centres/Vocational Training Centres will be utilized whenever possible. Trade Testing and Certification will be undertaken by the National and Provincial Training Boards.

(iii) Revision in Apprenticeship Ordinance will be undertaken to make it friendlier.

(iv) Financing and incentives will be provided to those employers who have less than 50 workers.

vi. Strengthening the Vocational Training System

8.22 The Policy envisages the following measures to strengthen the vocational training system and the role of the Training Boards:

a) Based on the changing trends in the economy and the market demand for

labour, the existing technical training curricula will be revised and the vocational training institutions reorganized to meet the challenge of unemployment through appropriate training and retraining programmes.

b) Changes will be introduced in the management of TTCs to associate the industry through the establishment of Centre Management Committees at the local level. Flexibility and autonomy will be built into the training programmes.

c) The Skill Development Councils will be assisted to play an effective role in the identification of training needs and in providing training in the new and emerging skills in accordance with the requirements of the catchment areas.

d) New technical training centres will be set up in order to meet the training demands of the rural areas, agriculture mechanization, agro-based industry, and women. In order to make the operation of Women's Technical Training Centres efficient, there will have to be linkages with the employment market, generation of resources, and facilitation of self-employment. The concept of training-cum-production will be introduced in a phased manner.

e) Given the shortage of women teachers in TTCs meant exclusively for women, special efforts would be made to provide advanced technical training to women instructors. Women will be encouraged to fully participate in the training programmes so that they are brought into the mainstream through formal, informal and apprenticeship training.

f) The NGOs have been playing an important role in the development of the country. They will be encouraged to participate in the establishment of training centres and to meet the shortage of trained manpower in the country. The National Training Board and the Provincial Training Boards will register the NGOs and the private sector training providers that are interested in this field and give them guidelines for their effective participation in meeting the shortage of skilled and technical manpower.

g) The weaknesses in training in the informal and private sectors will be studied with a view to encouraging the **Ustad-Shagird system** of training to meet the growing need for training both in the urban and rural areas. Necessary assistance in the form of training software, testing and certification, and training of trainers will be provided.

h) The National and Provincial Training Boards will carry out studies to identify the needs of technical training in the country keeping in view the prevailing unemployment and labour market requirements. The Provincial Training Boards will be reactivated to identify and prioritize the training needs and prepare provincial training plans. They will also monitor and effectively coordinate the training programmes.

VII. Informal Sector

8.23. The Programme places heavy reliance on the informal sector for employment generation. Small- sized workshops continue to possess a lot of potential for providing job-oriented training. The Programme will provide for a more flexible approach for the diffusion of new technologies for small enterprises and also for artisans and the self-employed. Vocational training programmes managed by the NTB/PTBs will provide improved access to the informal sector by less stringent criteria for entry in terms of educational requirements and age, by changing curricula to meet the needs of employers and trainees by even providing mobile training facilities at the doorstep of small enterprises when their apprentices cannot attend the regular institutes. To break the communication gap

between the business community and governmental agencies, diffusion of technology and training may be taken up by eliciting the support of business associations. The small workshops will be assisted by sanctioning soft loans, exemptions in import duty, free tool kits, measuring instruments and simple machines, and reimbursement of half of the cost of apprentices. Training provided by such workshops will be recognized by the formal institutions; The arrangements of training, testing, and certification of **ustad-shagird** workshops will be made by the PTBs/NTB.

VIII. Private Sector Training Institutions

8.24. Private parties and the NGOs are running a number of technical training centres. Such institutions will be encouraged to play a greater role by assisting them technically and financially. Private sector institutions desirous of availing of Government's technical and financial assistance will be required to follow the curricula, testing, certification, and other conditions prescribed by the PTBs/NTB. Facilities of the PTBs training institution and instructor training may be made available to them for practical training on charge basis. Private sector institutions will also be given other incentives like soft loans, duty free import of training equipment and machines, and income tax holiday for the first five years.

8.25. To encourage private sector training institutions, the M/O Labour, Manpower & Overseas Pakistanis have established five Skill Development Councils as industry-led, autonomous organizations. Their aim is to assess the training needs of a geographical area, prioritize them on the basis of market demand, and facilitate the training of workers through training-providers in the public and private sectors. The SDCs will be given support to bridge the gap between the public sector institutions and the private sector industry. These councils will be assisted to play an effective role in the identification of training needs and to provide training in the new and emerging skills like computers, automation, machine control(CT Scan, X-Rays, ECG, ETT Machines/equipments using Energy, Fluid, Air pressure and Electronic etc) and bio-medical technologies. These councils will be made regular organs of the Vocational Training System.

IX. Women's Employment

8.26. The government has initiated a number of projects and programmes in various sectors for education, training, and skill development and also for facilitating income generation activities for women. The international donors and non- government organizations (NGOs) supplement the government efforts. Major donor aided programmes for women's employment, however, aim at strengthening the government institutions and assisting in the integration of women into the mainstream of development.

8.27. Centres set up in different sectors impart training in the following areas: (a) Rug-making, embroidery, knitting and garment-making, (b) Field assistants, livestock assistants, and agricultural extension workers, (c) Nurses and medical technicians, (d) Skill training in computer, telex, radio, television (e) Social forestry, vegetable gardening, livestock farming, food processing, fruit preservation and teachers training, etc.

8.28. In addition to the programmes envisaging education, training, and skill development of women, the promotion of female labour-based industries (ready-made garments, electronics, pharmaceutical) and occupations have been receiving priority in the development programme. The government has already fixed a five per cent quota for women's employment in government service. A Women Bank to provide loans to lower-income women interested in setting up any income-generating activity has been in operation since 1991. With the improvement in female literacy rate, as well as the constitutional protection and international concern about the basic human

rights, social barriers against women's entry in the labour market are gradually disappearing and women's vertical and horizontal mobility is increasing. Their actual participation rate is much higher than the official statistics show.

X. Eradication of Child Labour

8.29 Notwithstanding the governmental response such as setting up a National Commission on Child Welfare, enactment of Employment of Children Act 1991 and a National Steering Committee, the fact remains that child labour elimination requires in depth examination of the issues. Child labour could be due to various reasons such as poverty, low household income, high and increasing level of unemployment and under-employment, long mean distance from schools and low level of school facilities and lack of training for adult life. The governmental focus should be on those aspects of child labour which are hazardous for the health of the child and inimical to prospects of his adult life.

8.30 A major development in the field of child labour in recent years is the reorientation of public policy along realistic lines and the search by policy-makers and planners in Government and non-Governmental Organizations for new and practical ways to protect working children. The Government has approved **National Policy and Action Plan** to combat child labour. It identifies a number of activities to be undertaken by various Ministries/ Departments in collaboration with private sector in a given time frame. For education of the working children and rehabilitation of bonded labourers, the Federal Government has set up a fund with initial contribution of Rs.100 million. Modalities for a number of funds are being finalized. The 1990s have also witnessed an increase in the number of countries adopting national policies and programmes. These have formed the basis for mobilizing broad public support as well as for developing the institutional framework and capacity to carry out research and data collection, awareness raising, training, and legislative reform, and to identify target populations and strategic action programmes. An almost unparalleled number and variety of programmes are also being carried out, especially by non-Governmental Organization. The labour force participation rate for children in the age of cohort 10 to 14 years has virtually halved from 22% to 12% and the absolute number has dropped by half a million from 2.5 million to 2.0 million.

8.31 The Pakistan Baitual Mal (PBM) through its various schemes is trying to create self-reliance among needy individuals and families in a meaningful way. In collaboration with the Allma Iqbal Open University it has selected 175 schools where workshops have been set up to impart vocational training to the needy students and working children for two years. One of the objectives of the scheme is also to prevent school dropouts. On completion of these courses, the PBM will provide toolboxes to the students enabling them to earn a livelihood through self-employment.

8.32 Through another scheme, PBM is setting up 50 schools for poor children to rehabilitate children working in hazardous occupations. Under the scheme, the children are given basic education for two years before they are admitted to regular schools. Children studying in these schools are given monthly stipend of Rs. 150 in addition to uniforms, shoes and other clothing. The children are also provided meal during school hours. The parents are paid an amount of Rs. 250 for each child they send to these schools, 26 such schools are functioning at present. Other schemes run by PBM include APNA GHAR for destitute and orphans. Here the children are provided food, shelter and clothing and educational and training facilities as well. APNA GHAR will be set up in each district across the country.

8.33 Under the aegis of IPEC, the European Union is helping the Government of Pakistan for setting up 18 Community Education and Action Centres for combating abusive child labour through prevention, withdrawal and rehabilitation of ex-bonded child labour.

Conclusion

8.34 In conclusion, while the task of bringing about far reaching improvements in the living standards of the vast majority of the population will remain the greatest challenge, a major effort will have to be initiated to respond to the task and to lay the framework and foundation on which further progress can be built. This will have to be translated into practice by monitoring progress in each sector and by focusing policy on employment promotion throughout the period.

Annex 8.1

Manpower and Employment
Year-wise phasing of Three Year Programme
(Budgetary PSDP)

Rs in Million

Sector	2001-02	2002-03	2003-04	Total
Manpower & Employment	54.0	105.00	180.00	339.00

Annex 8.2

Table 1

Growth Rate per Annum

Plan Periods	GDP	Employment	Productivity
Second Plan (1960-65)	6.8	2.5	4.2
3rd Plan (1965-70)	6.7	1.5	5.1
Non- Plan (1970-78)	5.1	3.2	1.8
Fifth Plan (1978-83)	6.6	2.6	3.9
Sixth Plan (1983-88)	6.2	2.3	3.8
Seventh Plan (1988-93)	5.0	2.1	2.9
Eighth Plan (1993-98)	4.5	2.3	2.1
Annual Growth Rates			
1960-97	5.6	2.4	3.1
1970-97	5.3	2.5	2.7
1980-97	5.5	2.2	3.2

Source: National Income Accounts and Labour Force Surveys.

Table 2

GROWTH RATES OF GDP AND EMPLOYMENT

(%)

	Output				Employment		
Plan Period	GDP	Agri-culture	Manuf.	& Others Mining	Agri-culture	Manuf . mining	Others
1960-65	6.8	3.8	11.7	8.3	0.0	4.2	3.6
1965-70	6.7	6.3	8.0	6.7	0.7	2.8	1.5
1970-78	5.1	1.7	4.5	6.4	2.2	2.2	5.3
1978-83	6.6	4.1	9.9	7.0	2.4	1.3	3.4
1983-88	6.2	3.5	8.3	7.0	1.7	1.2	3.7
1988-93	5.0	3.4	5.8	5.3	0.6	-1.0	4.5
1993-98	4.5	3.5	3.0	3.6	1.9	1.1	3.1

Source: National Income Accounts and Labour Force Surveys.

Annex.8.3

NUMBER OF PERSONS PROCEEDED ABROAD FOR EMPLOYMENT THROUGH BUREAU OF EMIGRATION & OVERSEAS EMPLOYMENT AND OVERSEAS EMPLOYMENT CORPORATION, 1971-1998.

Year	Private	Public O.E.Ps	Direct Sector	Total BE&OEPs	O.E.C.	Total BE/OEPs O.E.C.
1	2	3	4	5	6	7
1971	3340	194	-	3534	-	3534
1972	3359	1171	-	4530	-	4530
1973	7654	4646	-	12300	-	12300
1974	14652	1676	-	16328	-	16328
1975	21766	1311	-	23077	-	23077
1976	38516	3174	-	41690	-	41690
1977	77664	2606	60175	140445	77	140522
1978	78685	3246	47602	129533	992	130525
1979	80615	3058	34568	118259	7248	125507
1980	91482	2114	24801	118397	11450	129847
1981	119711	-	33370	153081	15322	168403
1982	99119	-	38416	137535	5410	142945
1983	77658	-	42373	120031	8175	128206
1984	63965	-	29575	93540	6867	100407
1985	51869	-	30464	82333	6128	88461
1986	30416	-	27586	58002	4639	62641
1987	34818	-	31368	61861	3433	69619
1988	47842	-	33703	81545	3295	84840
1989	56025	-	39838	95863	2820	98683
1990	75081	-	38700	113781	1739	115520
1991	106586	-	36232	142818	4538	147356
1992	135376	-	56130	191506	4587	196093
1993	104090	-	50439	154529	3204	157733
1994	76383	-	34553	110936	3104	114040
1995	79318	-	37730	117048	5572	122620
1996	85751	-	33878	119629	8155	127784
1997	93349	-	55680	149029	4900	153929
1998	57464	-	43243	100706	3338	104044
Total:	1812554	23196	860442	2696191	114993	2811184

Source: Bureau of Emigration and Overseas Employment, Ministry of Labour, Manpower and Overseas Pakistanis, Islamabad

Annex 8.4

Workers' Remittances (1972-1998)

(Million US$)

Year	Workers' Remittances	Remittances from Middle East	Remittances as percentage of GNP
1972-73	136	35	1.4
1973-74	139	44	1.5
1974-75	211	84	1.8
1975-76	339	214	2.5
1976-77	578	437	3.1
1977-78	1156	938	5.5
1978-79	1398	1101	5.8
1979-80	1744	1361	5.9
1980-81	2116	1666	6.1
1981-82	2225	1849	5.6
1982-83	2886	2408	7.7
1983-84	2737	2344	6.9
1984-85	2446	2069	6.2
1985-86	2595	2021	5.9
1986-87	2279	1674	4.7
1987-88	2013	1419	3.6
1988-89	2279	1357	3.3
1989-90	1897	1323	3.2
1990-91	1448	1235	2.7
1991-92	1468	985	2.0
1992-93	1562	1097	2.1
1993-94	1446	1071	2.1
1994-95	1866	1440	2.3
1995-96	1461	1053	1.6
	1410	1034	1.7
1997-98	1490	1092	1.7

Source: Various Issues of Economic Surveys, Ministry of Finance, Islamabad.

MANPOWER AND EMPLOYMENT
THREE YEAR DEVELOPMENT PROGRAMME 20001-04

Rs in Million

S.No.	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June,99	Revised Estimates 1999-2000	Allocation 2000-01		Allocation 2001-02		Allocation 2002-03		Allocation 2003-04		Throw forward beyond TYDP	
		Total	Foreign Aid			Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	LABOUR, MANPOWER & O.P. DIVISION														
	(On-going)														
1.	NVTP, Phase-II whole country (App)(EEC,IDA,CIDA,FRG,UNDP)	2882.19	1884.03	2776.29	17.00	21.00	0.00	54.00	0.00	0.00	0.00	0.00		0.00	0.00
B	(NEW)														
2.	More and Better Jobs for Women	106.00	106.00	0.00	0.00	0.00	0.00			32.00	32.00	24.00		74.00	20.00
3.	Garment Vocational Institutions for women	555.83	555.83	0.00	0.00	0.00	0.00							555.83	0.00
4.	Modernization of Training System	1685.23	1340.00	0.00	0.00	0.00	0.00							1685.23	1340.00
5.	Strenghtening of Vocational Training System through Community Based Trg.	15.00	15.00	0.00	0.00	0.00	0.00			7.00		9.00		-1.00	15.00
6.	Strengthening of Training Centres in AJK & FATA	200.00	130.00	0.00	0.00	0.00	0.00							104.00	57.00
7.	Strengthening of Vocational Training System through Support to infromal training	1200.00	600.00	0.00	0.00	0.00	0.00			9.00		55.00		1191.00	600.00
8.	Expansion & Strengthening of Vocational/Skill training programmes in Northern Areas.	19.00	0.00	0.00	0.00	0.00	0.00			6.00		5.00		8.00	0.00
9.	Strengthening and upgradation of of Existing Training Programmes of NSTI, NTDI & ATC Islamabad	395.00	380.00	0.00	0.00	0.00	0.00					45.00		395.00	
10.	Const. of two additional Floors on existing building of PMI.	25.00	0.00	0.00	0.00	0.00	0.00			10.00		6.00		9.00	0.00
11.	New Schemes of Labour Wing	500.00	300.00	0.00	0.00	0.00	0.00			41.00		36.00		423.00	300.00
	Total New Programme	**4701.06**	**3426.83**	**0.00**	**0.00**	**0.00**	**0.00**			**105.00**		**180.00**		**4444.06**	**2332.00**
	Total (Manpowr & Employment.) A+B	**7583.25**	**5310.86**	**2776.29**	**17.00**	**21.00**	**0.00**	**54.00**		**105.00**		**180.00**		**4444.06**	**2332.00**

CHAPTER 9

EDUCATION AND TRAINING

Challenges and Issues

Presently there is inadequacy in access to school education and there exist gender and rural-urban imbalances, both in the availability and quality of education. Education remains inequitably distributed among income groups and regions in the country. Literacy and participation rates are below those of other South Asian countries with similar level of economic development. The target of minimum essential requirement for quality education has not yet been achieved. There is shortage of trained and qualified teachers, especially female teachers. Educational institutions lack proper physical facilities whereas some are sub-optimally utilized. A large number of secondary schools face a serious shortage of laboratories, science equipment and qualified science and mathematics teachers. Many teachers lack dedication, motivation, and interest in their profession. Curricula are mostly non-relevant to the market requirement. An unattractive school environment has resulted in poor retention and a high dropout rate. There is centralization of powers for approval of development projects and posting and transfers of staff.

9.2. Private institutions are mostly profit motivated with generally improvised physical facilities. Most of the teachers are of low quality, less paid and without service structure. Public examination systems have receded credibility and needs improvement. Intake capacity of public sector technical institutes is very low. There are limited options for technical, vocational and commerce education and their teaching staff have no career planning/incentive to stick to the department. Certain trades are in short supply while others produce surplus. Duration of training courses for the same trade differs under different administrative ministries/ autonomous organization. Trained technicians in some of the modern disciplines are not available.

9.3. Universities are funded by the federal government while are administratively under the control of the provincial governments and are faced with serious administrative problems, large budget deficits, an outmoded curricula, a defective examination system, and a lack of focus on research. Higher education, is mostly traditional and obsolete lacking simultaneously the research potential. Updation is needed to keep pace with advancement at international level. Capacity building of local universities to start research programmes in modern technologies in collaboration with universities of international repute requires more efforts. Only a low proportion of GNP is allocated to Education.

Brief Overview of the Three Year Programme

9.4. So far, to reform education, many education policies have been framed, the last in the series being the National Education Policy 1998-2010. This policy, among others, recommends to inculcate Islamic values among youth, enhanced funding, raise literacy level, remove urban-rural and gender imbalances, improve quality of education at all levels, strengthen Higher Education facilities, provide for demand driven education rather than supply driven and encourage private sector participation. It was proposed that followed by Education Policy, a well conceived plan of action will be developed. Education Sector Reforms mainly focuses on Strategic Plan containing implementation strategies, programme summaries and innovative programmes which include proposals of Education for All,

poverty reduction, public private partnership, good governance and redefining the role of the Federal Ministry of Education for spearheading Education for All & Sector Wide Reforms and mobilization of resources.

9.5. The Three Year Programme will focus on improving literacy and participation rates through formal and non-formal education system. Girls' and technical education will receive special attention. Information technology will be made available to educational institutions. Quality education at all levels will be ensured through better teaching facilities. Curricula will be reviewed. Financial and managerial constraints will be overcome through good governance. Major Physical targets are given in ensuing paragraphs and in Annex 9.1.

Objectives

9.6. The main objectives of the Three-Year Programme in the Education and Training Sector are:

- Improving literacy rate to 61%, achieving Universal Primary Education for boys and 85% participation rate for girls, expanding Elementary Education and proportionately secondary education, with a focus on girls' education and vocational education;
- Diversifying and expanding technical, vocational, and commerce education and ensuring their spread to meet the requirements of each area/region;
- Creating appropriate teaching and research environment in higher education institutions;
- Improving quality of education at all levels;
- Enhancing of the education system through participation of local community in the conduct of day-to-day business of educational institutions;
- Devolution of powers to the lowest rung of hierarchy empowering district officers to appoint, transfer & promote the teaching and non-teaching staff of schools and approve development projects up to a fixed cost limit.

The Policy Frame Work

9.7. The following measures will be adopted to improve the performance of Education System:

- To enhance external and internal efficiency of the education system. participation of local community in conduct of day to day business of education institutions will be mandatory.
- Legislation of various measures will be adopted to achieve the education sector targets.
- Education in the private sector will be regulated at Federal and Provincial levels.
- The Ideological and Islamic basis for the creation of Pakistan will form an integral part of the curriculum contents at various levels.
- Admission in professional education institutions will be regulated through a standard and transparent entry test.
- Provision of non development budget to commission the new facilities created will be ensured.

Strategies for Implementation

9.8. The strategies to achieve the Programme objectives will be:

- Maximize use of available resources through good governance.
- Rationalizing priorities and making education responsive to the emerging needs of 21st century.
- Improving quality of delivery system through better qualified-teachers, fine-tuning the curriculum to impart knowledge-led, state-of-the-art education.
- Large-scale social mobilization, community participation, and activation of the role of local bodies, NGOs, and CBOs.
- Motivating the private sector to contribute about 30% of primary and elementary

education and to regularized/regulate private sector education in the country.

- Enactment and enforcement of legislation for compulsory schooling, first, for primary level. Spread of physical facilities will be ensured by providing required infrastructure for this purpose.
- To strengthen the existing tertiary level institutions, and to restrict the opening of new ones in the public sector. Spread of tertiary-level educational institutions will mainly be in the private sector.
- Revamping teacher training institutions to ensure the quality and skill of prospective teachers. The existing lot of working teachers will undergo intensive in-service training courses to improve their working efficiency.
- Devolution of powers to the lowest rung of hierarchy empowering district officers to appoint, transfer, and promote the teaching and non-teaching staff of schools and approve development projects upto a fixed cost limit.
- To encourage higher education institutions to conduct research studies on various problems in education and arrange for the dissemination of their findings.
- To achieve the literacy target, UPE will be the main source. Programmes of non-formal and informal education through the print and electronic media will, however, supplement the efforts towards this end.
- To provide information technology facilities to educational institutions.

Good Governance: Ensuring Quality Education

9.9. Good governance in Education & Training Sector will inculcate greater self-reliance and ensure improvement of system efficiency, implementation of merit and transparency, maximized and just use of available resources. Every effort will be made to achieve good governance through legislation and community participation. Efficiency of education system will be improved through better supervision and administration. Involvement of community/local bodies will help resolve the problems of construction, repair and maintenance of buildings, day-to-day management problems of the remotest schools, purchases out of non-salary recurrent grants, and teachers' adherence to a code of conduct. Enactment/revision and enforcement of legislation/rules for various measures proposed in the education policy/plan will be adopted followed by efficient financing and management capabilities of implementation, monitoring, and evaluation machinery. Devolution of powers to the lowest rung of hierarchy empowering district officers to appoint, transfer & promote the teaching and non-teaching staff of schools and approve development projects up to a fixed cost limit will help achieve good governance. Timely collection of educational data and the dissemination of analysis to concerned quarters will also be required. Information technology facilities will be provided.

9.10. Efforts will be made to adhere strictly to the Plan discipline, readjusting the priorities of the Plan/Projects through continuous monitoring and review in the context of financial resource position. Optimal utilization of development funds and provision of non development budget will be ensured to commission the new facilities created. Effective measures will be devised to check spread of resources over low priority projects. Effective implementation, monitoring and evaluation of the projects will be ensured. Management training will be mandatory for all managers and administrators of education.

Major Programmes

9.11. Sub-Sectoral Programmes of the Three Year Plan are given in the Annex 9.2 while summary and recommendations are given below. These contain on-going and new programmes.

(a) **Literacy**

9.12. Literacy rate will be increased from 52% in 2001 to 61% in 2004. Expediting Universal Primary Education (UPE) is the only dependable and sustainable course to achieve higher targets of literacy rate. However, for out of school youth, especially, below 19 years of age, separate programme will be launched. To develop feasible literacy programme performance evaluation of earlier non-formal education programmes will provide guidance. Functional literacy and continuing education will be the hallmark of adult education. Literacy programmes will be co-ordinated at Federal level and implemented by the provinces/other agencies.

(b) **Primary/Elementary Education**

9.13. UPE for boys will be achieved by the end of the Plan while for girls it will be achieved by the year 2007. Buildings will be provided for all existing shelterless primary/elementary schools besides provision of classrooms in the existing overcrowded primary/elementary schools. Mosque schools will be converted to regular schools and existing primary school to elementary schools wherever the enrolment so permits. New mosque schools will be established in areas where regular schools may not be feasible. Drop out rate will be reduced by improving the efficiency of the system through better supervision, administration and involvement of local communities. Strong motivational campaign will be launched to persuade parents to send their children to schools. This will be reinforced by legislation for compulsory primary education. Gender and regional imbalances in availability of basic education facilities will be taken care of. Evening classes will be started in areas where feasible. Entry qualification for fresh Primary School Teachers will be raised to Intermediate with one year teacher training and for Middle School Teachers as Bachelor degree with one year teacher training to help achieve quality education. Local teachers for rural female institution will be preferred to overcome the problems of non-availability of accommodation and conveyance. Wherever feasible, co-educational primary schools will be established in which female teachers will be appointed Incentives will be given to deserving students. Participation of Private Sector will increase from existing 24% to 28%.

(c) **Secondary education**

9.14. Secondary education on the one hand is a terminal stage for many while it is entry point to higher education to others. It is a stage which plays a crucial role in determining the future career of a raw and immature youngster. Diversification of courses for the students in different streams at this stage is a very crucial task. Democratic access to various career options will be provided at this stage. To accommodate increasing output of elementary graduates a concomitant increase in facilities at secondary level of education with focus for girls education will be the thrust of Plan programmes. The expanded requirement for secondary education will be met by upgrading middle schools, adding classrooms to existing schools and establishing new system of secondary schools through restructuring. Private sector will be encouraged to share this responsibility, especially, in setting up of model schools at district level. Deeni Madaris will be persuaded to follow the courses of general stream in job-oriented subjects in addition to the decent work they are performing. Computer skills and vocation will be introduced in the schools.

9.15. To improve the quality of secondary education following measures are recommended:

(i) Integration of secondary education classes IX-XII under one roof.
(ii) Master degree holder in relevant subject with degree in education will be recruited as secondary school teacher. This condition may be relaxed in case of non-availability of teachers with relevant qualification in rural and girls schools.

(iii) Intensive in service training courses at least once in five years.
(iv) Vocationalization of secondary education. Trade schools will be started as evening shift in the existing school buildings for imparting income generating skills.
(v) Existing science teaching facilities in high schools will be revamped while teaching of science will be provided in high schools where it is not available.
(vi) Multiple textbooks system will be introduced at Secondary level and the institutions will be authorized to select any of these textbooks on competitive basis.

(d) Technical Education & Vocational Training

9.16. Technical and vocational education being tool for all kind of development will be expanded and diversification of courses will be introduced. Provision of multiplicity of options, at close proximity of even rural clientele will be ensured. The out reach will assure accessibility of technical education, vocational training facilities for urban-rural and male-female clientele alike. It will be made in tune with demand in job market. Curricula will be made responsive with requirement of industry. Linkage with industry will help achieve this goal. At present about 35% of matric pass students are channelized towards technical, commercial and vocational training which by the end of Plan will rise to 40%. It is expected that private sector will come up into the process at still accelerated pace.

(e) Teacher Education

9.17. Quality education requires motivated and competent teachers at all levels. Due to low salaries, dearth of quality training, limited options for career planning/incentive to stick to the department etc., there exists an un-motivated lot of teachers. Profit motivated private institutions mostly employ teachers of low academic qualification and less pedagogy. They are less paid and are without service structure. It is recommended that intake qualification of teachers at all levels be enhanced. Teacher training institutions be re-vamped to ensure output of devoted prospective teachers. The existing lot of working teachers should undergo intensive in-service training to improve their working efficiency. Management training will be mandatory for all future administrators of education from secondary school levels to higher education levels. Pay scales of the teachers will be linked with their qualifications. Awards and medals will be given to hardworking and devoted teachers.

(f) Tertiary level Education

9.18. Tertiary level education produces leaders for all walks of life. It is the age of competition and it will be more so in the 21st century. For tertiary level graduates, state of the art education, in marketable disciplines, will be required. For this purpose the proposals are:

(i) The intake qualification of tertiary level teachers will be raised as M.Phil degree for Postgraduate colleges, and Ph.D. for universities. Besides intensive in service training will be mandatory.
(ii) Traditional and un-economical disciplines will be dispensed with/merged with those in other institutions while new emerging and marketable disciplines with focus on research will be introduced.
(iii) Split Ph.D. training in local universities/institutes in collaboration with foreign universities will be started.
(iv) A substantial allocation to universities will be made to enhance their research capabilities and start new research programmes through provision of better infrastructural facilities, extending research grants and staff development.
(v) The failure rate of at Bachelor and at Master level will be reduced through effective teaching and streamlining the external examination system.

(vi) National Council for Academic Awards and Accreditation will be created to ensure quality education at tertiary level institutions and examinations.

(vii) Undisciplined private education System will be governed through regulations.

(viii) Special efforts will be made to improve the quality of higher education. In fields where feasible three year degree course will be introduced. Courses will be diversified to provide training in marketable skills.

(ix) The existing dual control of the universities will be eliminated. To improve the administrative efficiency of the universities, the University Acts will be amended. Besides this, some of the existing universities will be made fully autonomous in all respects for which suitable legislative measures will be taken.

(x) Special support will be provided for developing selected university departments, having potential for upgradation, as Centres of Excellence, specially in newly emerging scientific fields.

(xi) To improve the quality of instructions and output of research at the universities, a system of accountability will be devised and implemented.

(xii) University courses will be transformed to make them demand-oriented. Linkage will be established with industry.

(xiii) Information technology facilities will be provided.

(g) Research & Development Facilities

9.19. Research & Development institutions in Pakistan are very few. Even those which are functioning fail to come up to the expectation both in terms of input and output. Coordinating research related institutions at national level is non existent. There is urgent need to take serious note, by all concerned, for such a lapse. In a country where highly talented manpower is available, quality control and research and development activities are almost non-existent, resulting in unimaginable brain drain which requires immediate attention of all concerned. To make optimal use of available highly educated manpower infrastructure development of the R&D institutions need to be updated with state of the art instruments. Separate allocations will be made for R&D during the Plan. The local universities may be tasked to initiate Ph.D. programmes. Following proposals will enable our universities to achieve excellence in this specialized fields.

(i) At the governmental level, agreements to initiate the process of cooperation in the area of higher engineering education should be signed so that the option could be effectively utilized. Private organizations in Pakistan could also be involved in such ventures.

(ii) A strong political will and commitment on the part of the Government is required to take decisions to ameliorate the state of higher education in Pakistan.

(iii) Resource for higher education will need to increase.

(iv) Careful selection and extensive advanced training for teachers may be required.

(v) Ensure proper attention to the provision, repair and maintenance of laboratories and their equipment.

(h) Scholarships and Library Services

9.20. Existing scholarship schemes will be continued during the Plan. Split Ph.D. training in local universities/institutes in collaboration with foreign universities will be started. No foreign scholarship for M.Sc/M.Phil will be provided from the public resources. Libraries of educational institutions will be strengthened & their proper utilization will be ensured. Accessibility to modern literature, research based material and information technology will be provided to higher educational & research institutions. Public libraries will play a greater role in educating the masses and help in R&D activities.

(i) **Examination System**

9.21. Public examination system has receded its credibility and requires to be reformed. Mal-practices in the examinations at all levels will be rooted out through overhauling the existing system including decreasing stress on stereo-type papers. This will be done with active involvement of teachers, multiplicity of text books, spreading questions asked over the whole of syllabi and with the enactment of appropriate legislation. A National Testing Service will be established, preferably under a reputed NGO, to develop and administer standardized tests for entry of students to various higher educational levels. This would moderate the distortions arising from disparate examination standard operative in various institutions.

(j) **Role of Private Sector**

9.22. During Eighth Plan private sector was encouraged to establish educational institutions at all levels. As a result at school level about 25% students are going in private institution. At tertiary level there are 21 universities/institutions in private Sector. Private sector institutions are of many types. Some are single while others have intercity chains. Some institutions are goal oriented while majority of them are profit earning. Some institutions are sponsored by individuals and others are run by a Committee/Anjuman/NGO. A large number of private institutions do not have proper infrastructure nor the qualified teachers. These institutions are charging heavy amounts from students. The three year plan proposes greater involvement of private sector in the spread of education. It is necessary that such institutions be governed under some regulations. To improve participation of private sector it is necessary that a system may be evolved to recognize their certificate/degrees at par with those of public sector educational institutions. Incentives should be provided to these institutions so that they get themselves registered with education departments and are able to provide low cost quality education at all levels.

(k) **Community Involvement**

9.23. The Three Year Plan recommends that involvement of non-political/local bodies be ensured to resolve the problems of construction, repair and maintenance of building, management of day to day problems of the remotest schools, teacher absenteeism, purchases out of non-salary recurrent grants etc. Resource position for education sector will be improved through social mobilization, community participation and activating the role of NGOs, CBOs and local bodies. Higher literacy rate will be ensured through concerted efforts of public sector, NGOs and community participation. The role of communities and NGOs will particularly be focussed for setting up new girls institution in rural areas and urban slums.

Financial Requirements

9.24. The Programme has been prepared to achieve a high level of educational profile through investment in human resource development, information technology, universal access to primary education, proportionate increase in secondary-level enrolment. It ensures maximized utilization of resources through good governance and implementation of programmes developed under Education Sector Reforms. An allocation of Rs. 40.63 billion including Rs.29.7 billion for SAP is proposed (Details in Annex 9.2). Annex 9.3 contains agency-wise allocation for SAP and Non-SAP. It is estimated that private sector will invest Rs. 10 billion during this period. In addition, about Rs. 260 billion will be required to meet the cost of recurring expenditure during the Plan period.

9.25. The targets of the earlier plans could not be fully achieved on account of non conformity of PSDP allocations to the Plan provisions and priorities. A large number of projects are approved by various forums but are not fully funded. There are delays in making the institutions operational after completion of the physical infrastructure. Efforts will be made to adhere strictly to the

Plan discipline, readjusting the priorities of the Plan projects through continuous monitoring and review in the context of financial resource position. Non provision of required recurrent budget reverses the development efforts made. During the Plan period and onwards provision of non development budget to commission the new facilities created will be ensured. Effective measures will be devised to check spread of resources over low priority projects. During the 3 Year Plan optimal utilization of development funds will be ensured. For cost recovery and resource generation following measures will be adopted:

(i) Allocation for education sector will be increased with active participation of private sector. Allocation for basic education will be accelerated through Social Action Programme. Provincial governments are expected to enhance their expenditure on elementary education under Social Action Programme.

(ii) Federal and Provincial Education Foundations will advance grants/loans to the private sector/NGOs for establishment of new educational institutions, particularly for female and in the rural areas. Education Foundations will receive grants from the Social Action Programme for promotion of elementary education and literacy through NGOs/local bodies. They will also provide matching financial grants to private sector entrepreneurs to establish educational institutions at all levels.

(iii) Incentives like small loan facilities, exemption from custom duties, tax rebate etc. will be extended to private entrepreneurs in education sector.

(iv) In all future residential and housing schemes, free of cost plots will be reserved for primary/elementary schools. Plots will also be earmarked for secondary schools.

(v) Local Bodies will be re-activated to provide basic education facilities in their jurisdictions.

(vi) Fee structure and other user charges will be rationalized for higher education institutions. Educational institutions will be encouraged to generate funds through various developmental activities.

(vii) Financing of universities will be apportioned between Federal and Provincial Governments.

(viii) Industries, large commercial organizations and agricultural units will be encouraged to establish educational institutions upto secondary level.

(ix) Philanthropists will be encouraged to make donations to educational institutions. Donations to educational institutions will be allowed tax-rebate.

(x) Women literacy and technical education programmes will be linked to micro credit and poverty alleviation programmes.

Annex 9.1

Achievement 2000-01 and Targets for 2003-04

S.No.	Levels		2000-01			2003-04		
			Total	Govt.	Privately Established	Total	Govt.	Privately Established
NUMBER OF SCHOOLS								
1.	Mosque		22050	22050		21000	21000	
2.	Primary	Total	152950	112950	40000	166000	116000	50000
		Male	82950	64950	18000	89000	67000	22000
		Female	70000	48000	22000	77000	49000	28000
3.	Middle/Elementary	Total	24000	18000	6000	33000	24000	9000
		Male	16000	12000	4000	20000	15000	5000
		Female	8000	6000	2000	13000	9000	4000
4.	High	Total	15000	11000	4000	19000	14000	5000
		Male	9000	7000	2000	12000	9000	3000
		Female	6000	4000	2000	7000	5000	2000
ENROLMENT (000)								
5.	Primary stage (I-V)							
		Total	17458	13095	4363	20786	15211	5575
		Male	10564	8295	2269	11942	9016	2926
		Female	6894	4800	2094	8844	6195	2649
6.	Middle Stage (VI-VIII)	Total	6258	4817	1441	7698	5500	2198
		Male	3888	3043	845	4783	3400	1383
		Female	2370	1774	596	2915	2100	815
7.	High Stage (IX-X)	Total	2369	1909	460	3238	2441	797
		Male	1502	1284	218	1897	1540	357
		Female	867	625	242	1340	900	440
8.	Secondary Stage (VI-X)	Total	8627	6726	1901	10937	7941	2996
		Male	5390	4327	1063	6680	4940	1740
		Female	3237	2399	838	4256	3000	1256
PARTICIPATION RATE (%)								
	Primary Stage	Total	83			94		
		Male	96			102		
		Female	70			85		
	Middle Stage	Total	57			66		
		Male	67			77		
		Female	46			52		
	High Stage	Total	35			45		
		Male	42			50		
		Female	27			39		

Annex 9.2

SUMMARY OF THE THREE-YEAR PROGRAMME ALLOCATION FOR VARIOUS SUB-SECTORS

(Billion Rs)

Sub-sector	Proposed Allocation	SAP Component
Elementary Education	24.780	24.780
Secondary Education	4.280	
Teacher Education	2.020	1.900
Technical Education	2.420	
College Education	1.800	
Scholarship	0.490	
University Education	1.750	
Literacy & Mass Edu.	2.410	2.410
Library Services	0.017	
Miscellaneous	0.068	0.053
Education Foundation	0.558	0.558
National Education Management Information System	0.009	0.009
Establishment Div.	0.028	
TOTAL:	40.630	29.710

Annex 9.3

Agency-wise Allocation: SAP/Non-SAP

(Rs.in billion)

Name of Agency	SAP	Non-SAP	Total
Ministry of Education.	1.7	4.2	5.9
Federal Area & AJK	1.7	0.4	2.1
Total Federal	3.4	4.6	8.0
Total Provinces	26.3	6.4	32.7
Grand Total:	29.7	11.0	40.7

CHAPTER 10

SCIENCE AND TECHNOLOGY

Science and Technology must act as the primary vehicle of change for socio-economic development to meet the challenges of the new millennium.

The acquisition of technology and its use as a strategic tool will be an important facto in Pakistan's future development, especially because in an increasingly globalized and independent world economy, science and technology have emerged as the driving force behind the structure of domestic production, advantage in market competition, opportunities for cross-border trade, etc. The power to create wealth, which resides in productive enterprises, is derived from the ability to- innovate technologically. The key to realizing Pakistan's potential therefore, will be found in the capacity to understand Pakistan's current economic structure and learn from the experience of others to develop appropriate S&T strategies.

Current Situation, Issues and Challenges

10.2 The state of Science and Technology is dismal in Pakistan. Engineering foundations are weak. The loss of qualified S&T personnel has further depleted the already meagre technology resources developed by the country. The current technology apparatus is ill-equipped to assist Pakistani firms to tackle the economic challenges of the new millennium. Laboratories are under-funded, scientists are under-paid, and technicians poorly-trained. As a result, private industry largely ignores the existing apparatus which, for all its faults, represents a valuable capability and starting point for building an effective technologically-based economy.

10.3 The low demand for innovation that has been identified in industry will require specific policy approaches. While steps to build institutional capability and supply side instruments will be necessary, the future challenge lies in creating demand for innovations and technology upgrading by private enterprise. There is a need to develop a strong linkage between industry and research institutions (RIs), which has not occurred due to: i) The involvement of private firms in the identification of sectoral need is negligible. The main factor contributing to weak linkages among stakeholder is that the research conducted by most RIs is not need-based. ii) RIs cannot ascertain the technological deficiencies faced by industry due to lacks of co-ordination between them. iii) Lack of trust/credibility between RIs and industry adversely affects the process of technology identification. iv) Lack of technology managers in the industry results in very low demand for technology whether developed locally or imported.

10.4 The information support system required to identify technological needs is weak. The technological capability of industries is not known. International technological requirements, arising from national socio-economic development needs, are not clarified. In addition, the changing requirements of the WTO for quality and environmental standards are not well understood.

Objectives

(i) ***Human Resource Development***: Great stress would be laid on the development of adequate PhD level as well as technician level human resource of high quality as a foremost requirement for

accelerating Scientific and Technological development. It is proposed to strengthen and utilize the existing facilities of promising local universities, institutes and centers as well as send bright students abroad for education and training in critical fields. It is also proposed to invite expatriate Pakistani and foreign experts for specific duration to promote high quality teaching and research. Emphasis is also laid on improving the salary structure and other service conditions of scientists and engineers working in S&T organisations. High level scientific and technological manpower will be increase according to the national needs by initiating PhD and other training programme in Pakistan and abroad. New training programmes would be introduced for the production of technicians and skilled manpower to cater the shortage for manpower in local industry.

(ii) ***Upgrading R&D Infrastructure and Launching of R&D Programmes***: It is proposed to upgrade the basic infrastructure of R&D organizations by providing international level facilities of equipment, literature, etc. and utilize it to launch the S&T programmes in the key sectors of development, which include Food and Agriculture, Health, Industry, Energy, Pharmaceuticals, Textiles, New Materials, Information Technology, Electronics, Bio-technology, Oceanography, Defence etc. A strong and sustainable infrastructure is important to develop a dynamic culture of R&D activity. Besides necessary technical staff, the facilities of laboratory, library and information system of international standards and compatibility need to be created in these establishments on sustained basis to carry out meaningful work. New projects in public sector would include as their integral part, the establishment of pilot projects/plants to initiate commercial operation with economic feasibility being demonstrated to attract local industrial entrepreneurs to invest.

(iii) ***Restructuring of R&D Organizations***: It is proposed to restructure the R&D organizations by providing them uniform service structure and other working conditions including autonomy of operation, and introducing accountability similar to PAEC through improved legal framework, administrative measures, structural changes and easy access to funding to achieve the desired results. The accountability factor could be introduced in the form of evaluation by external review, production of patents and processes, etc. and their commercialisation, annual earnings through training, consultancies, trouble shooting services, etc. It would be ensured that R&D organizations have easy access to funds for conduct of R&D to enhance their capability for undertaking meaningful and result-oriented programmes. Besides these organizations would be restructured/re-organized and their legal framework as well as administrative structure be improved.

(iv) ***Technology Development and Industrialization***: Various measures have been suggested to develop indigenous technology and promote industrialization for import-substitution and export promotion including Defence. These involve establishment of Technology Cluster Centres (TCCs) to provide training, testing and quality development services for the fan industry; establishment of Technology Development Fund (TDF) to support the productivity drive in different sectors of our economy, Technology Development Board (TDB) to streamline policies and incentive packages for industry, and Technology Venture Capital Companies (TVCCs) to provide risk funds for technology development; forging of Government, Industry and Research Institution linkages, and promoting S&T

Information and Metrology, Standards, Testing and Quality Assurance (MSTQ) Services to enhance our competitiveness in the international market. The role of R&D in this sector is crucially important not only to improve the quality of our product but also to enhance the productivity through introduction of modern technologies. Steps would be taken to develop a very strong alliance between Government, Industry and Research Institutes to integrate indigenous R&D effort with technology development and industrialization.

Financial Outlay

10.5 Science and Technology Sector has long been neglected in Pakistan. UNESCO recommends minimum of 1% of GNP to be spent on R&D by the developing countries. The R&D expenditure in case of Pakistan is estimated to be 0.18% of GNP only. It is proposed to bring R&D expenditure to the level of 0.4% of GNP in next three years.

10.6 The main emphasis has been laid on the priority areas necessary for R&D and infrastructure development. These include human resource development, upgrading of the R&D infrastructure and launching of R&D programmes, restructuring of R&D organizations, technology development and industrialization and information technology

10.7 It is hoped that the private sector will invest heavily in the S&T sector which will boost the R&D activities and the overall economic situation of the country. An allocation of Rs 11.963 billion has been made for Science and Technology for the year 2000-2003. Detail is given in Annex 10.1. In addition about Rs 5200 million will be required to meet the cost of recurring expenditure each year (including Rs 100 million for the new development activities to be undertaken during the plan period).

Policy Measures and Strategies

10.8. The policy measures envisaged are to:

(i) Create the basic infrastructure in S&T by relating it to the requirements of modernization and industrialization, i.e., development of requisite manpower and skills through a major upgradation of our educational philosophy and institutions.

(ii) Set up a series of S&T targets within specific time frames and appropriate funding in R&D, special projects, and manpower development.

(iii) Encourage collaboration among R&D institutions in each target area from the universities, industries, and national research organizations. Teams of specialists would be given the task of solving specific problems faced by industry, and provide adequate funds in order to do so. It is only through such a mission-oriented approach, which on the one hand challenges the capabilities of our scientists and technologists, and on the other hand provides them with adequate funding and facilities to solve these problems.

(iv) Improving the quality of science education in our schools, colleges and universities so that it becomes internationally compatible and produces a different breed of scientists and engineers capable of competing with the best in the world in their innovativeness and creativity and who can develop new value-added products and processes to boost our exports.

10.9 A series of actions would be undertaken to achieve these goals, as described below:-

(i) Without a quantum jump in S&T allocation, no impact could be achieved. At the same time, timely release of funds to the concerned S&T organization would be a prerequisite for

achieving the objectives of R&D programmes.

(ii) A consistent and transparent mechanism for appraisal of project proposals would be established. Thus, MOST would invite all R&D organizations and universities to submit research proposals aimed at solving technological problems. Once approved, the executing organization would be given a free hand in carrying out the project but with regular (yearly) monitoring by appropriate experts designated for the purpose.

(iii) Once approved, the executing organization would be given a free hand in carrying out the project, but with regular monitoring by appropriate experts designated for the purpose.

(iv) The procedure for funding R&D projects would be telescoped in such a way that the approving and funding authorities take a joint decision in Special Committees in which the scientists, technologists, and the bureaucrats are all present.

(v) The R&D organizations including universities would be clearly identified in their respective fields of specialization according to their capacity, capability and the previous track record. The funds would not be distributed equally but allocated equitably based on their performance.

(vi) It is important to involve the private sector in S&T by including their representatives with requisite expertise in the Governing Bodies of the institutions and in joint R&D programmes with government institutions. A mechanism would be developed for implementing projects of interest to the private sector involving equal financial inputs from both sides. The Chambers of Commerce and Industry would be encouraged to contribute funds towards projects relevant to their needs.

(vii) The National Commission for Science and Technology would be reorganized and activated so that it comprises the most eminent and active scientists of the country.

TARGETS

10.10. The programme targets are:

(i) Production of high quality S&T manpower through expansion of split Ph.D. programme and at least five-fold increase of Ph.D. level trained manpower in key areas of S&T.

(ii) Creation of basic infrastructure in S&T by relating it to national needs, through provision of modern equipment and other facilities in the existing R&D institutes.

(iii) Establishment of National Accreditation Council as an apex body for accrediting the certification agencies, for listing and calibration of laboratories, as well as for registration of auditors.

(iv) Suitable incentives/concessions would be offered to private sector for establishing R&D units, and assistance would be provided for guiding the industry to establish ISO-9000/14000 Standards.

(v) Promotion of rapid industrialisation through application of R&D results.

(vi) Eradication of absolute poverty, creation of greater employment opportunities, and improvement in the living standards, through industrialisation and application of science and technology in national development programmes.

(vii) Increase in exports of both manufactured goods and services through liberalisation of technology transfer regulation, promotion of direct foreign investment, and creation of a system in which the government, industry, and scientists can cooperate and work as a team.

(viii) Attainment of leadership in key areas of S&T such as biotechnology, information technology, engineering sciences, micro electronics, pharmaceuticals, material sciences, and oceanography, etc.

Programme Areas

(i) ***Human Resource Development:*** This is undoubtedly an important area and an essential pre-requisite for national development. Pakistan lags behind many developing countries in terms of its human development index. The present literacy rate is very low, and the number of scientists and technicians is extremely small in the country. Proper development of scientific and technology manpower which forms the most important component of S&T infrastructure has been neglected so far. Our S&T manpower engaged in R&D is only 112 persons per million population, which is 1/3 of what is recommended by UNESCO for developing countries. The quality of education and tra9ning of our scientists and technologist at various levels determines the extent to which they can conduct scientific research and technological development to solve national problems and achieve economic prosperity. Development of High Level Scientific Manpower by initiating PhD, split PhD and post doctoral programmes. Expatriate Pakistani Scientists and foreign experts would be invited for periods of 1-2 years to Pakistan to work in our R&D institutions and universities, in order to improve the quality of education and research and to introduce high technology subjects for which local expertise is not available.

(ii) ***Strengthening of Universities and R&D Institutes and linkages with Industries:*** Industrial and R&D Institutes would be established preferably on university campuses wherever possible. These institutes will be the direct responsibility of the concerned universities as part thereof with policy guidance from MOST. Working directly as part of the university will make them more effective and productive in a multidisciplinary environment. Those centres which have shown outstanding performance in the country and are able to provide Mphil/PhD level training would be expanded and given the charge of training scientific manpower in the country. Universalization of science education for rapid socio-economic development and developing a science culture in our society so that the key role which S&T plays in the national development effort is commonly understood and appreciated. Introduction of hi-tech subjects at the school, college and university levels after considering the needs of the society. Improvement of the existing poly techniques to internationally compatible level of excellence.

(iii) ***Development of Basic Infrastructure:*** Development of basic infrastructure in R&D organizations and academic institutes is the most important issue to be addressed. The quality of research institutes is largely determined by the quality of manpower employed and the infrastructure/institutional facilities in existence. Over the years, there has been an unplanned growth of S&T and R&D institutions. Resultantly the meager financial resources were thinly distributed among the institutions thus making their effectiveness very small. There is a need for certain fundamental changes at various levels if any significant progress is to be made towards the national development.

(iv) ***Metrology Standards and Testing Quality System (MSTQ):*** Internationally recognized Metrology Standards and Testing Quality System (MSTQ) would be established in Pakistan. Public and private sector would be motivated to obtain ISO-9000/14000 Certifications. National

Accreditation Council (NAC) is a body responsible accrediting the certification agencies, for listing and calibration of laboratories as well as for registration of auditors. NAC would be strengthened to play its role for implementation of metrology standards and testing quality systems.

(v) ***Network of Analytical Centres for Industrial Analysis:*** The country would have a network of analytical laboratories specialized in different types of analysis and testing. Establishment of properly equipped new laboratories will be very costly and it is therefore, proposed to strengthen existing centres of excellence and provide them necessary capabilities, infrastructure, trained manpower, and appropriate operational expenses to meet the cost of analysis.

(vi) ***Biotechnology:*** The vast panorama of the uses and applications of the new skills in biology — popularly called biotechnology and genetic engineering, is just unfolding. Many resource development firms in Europe and USA predict that biotechnology is going to be one of the biggest industrial opportunities and the economic impact of the new technology will be equal to, if not more than, that of plastics in the 1940's, transistors in the 1950s' computers in the 1960's and micro-electronic's in the 1970's and 1980's. Biotechnology will affect international trade and impact will be maximum in agriculture. Since our economy depends almost exclusively on export of agricultural products, breakthroughs in biotechnology could have important consequences to Pakistan's economy.

(vii) ***Electronics:*** There can be significant economic and strategic benefits of a strong and vibrant electronics base in the country. It offers the possibility of moving away from a single crop economy (cotton, textiles and garments) in a short time. The electronic industry forms the back-bone of almost all industrial sectors either in the form of computerised hardware control systems or in the form of appropriately structured software. In order to encourage the electronic industry it is necessary to set up national projects in the following areas: (1) a silicon foundry, (3-5 micron initially) in the private sector through joint venture agreement.; (2) design and launch national communication satellite/ancillary ground equipment; (3) set up a national optical industry; (4) set up a Electronics Parks for promotion of the electronics industry.

(viii) ***New Materials:*** The field of material sciences affects almost every sector of our lives, ranging across such fields as shipbuilding, automobile manufacture, heavy engineering, power generation, bio-engineering, micro-electronics and construction. The variety of basic materials such as ceramics, glass, polymers, metals and inter-metallic or their combinations such as alloys, blends and their composites has created a large number of opportunities for substituting conventional structural materials with new alternatives, such as the use of optical fibres instead of copper cables for communication or the use of plastics in place of wood, or various alloys in place of metals. . It is important that the following materials should be produced locally: a) foundation grade pig iron; b) electrical, surgical and other alloy steels; c) ferrous alloys; d) refined copper and its alloys; e) aluminum and its alloys; f) composite materials including ceramics and polymers; g) rare earth metals.

(ix) ***Renewable Energy:*** Pakistan is among the energy resource poor developing countries, with a very low of per capita energy consumption (Pakistan's consumption is about half of the average per capita consumption of developing countries, $1/6^{th}$ of the

world average, and 1/20th of the average for the industrialized countries.

(x) The areas identified for the S&T effort in this field are: R&D in energy resource assessment, exploration and exploitation; utilization of indigenous low quality coal; development and adaptation of renewable energy resources including nuclear power, solar and wind energy technologies; R&D in energy efficiency improvement and conservation; adoption of environmental control technologies.

(xi) ***Pharmaceuticals:*** Pakistan has a total market of pharmaceuticals of about Rs.25 billion which is growing at an annual growth rate of 20-25%. Unfortunately the pharmaceutical industries in Pakistan are largely confined to packaging and except for a few companies no one has undertaken basic manufacture of ingredients. This presents a large potential of exploitation both for indigenous use and exports. The research organizations and universities in Pakistan should immediately undertake projects in order to develop the technology for local industry.

(xii) ***Marine Resources:*** Pakistan has a coastline of 990 km extending from the Indian border in the east to the Iranian border in the west. The Exclusive Economic Zone (EEZ) of Pakistan is about 250,000 sq.km. Under the "Commission on the limits of the Continental Shelf", Pakistan stands to annex an additional area of about 60,000 sq. km. As such, this total maritime zone of Pakistan will be over 30% of the land area. The area is characterised by distinctive oceanic phenomena and features that are capable of producing rich fisheries, mineral, oil and gas resources. Extensive survey, data collection and research are required to understand the processes and features which have a direct bearing on locating the living and non-living marine resources and their sustainable development, and conservation. The marine resources of Pakistan have so far remained unexploited and concerted oceanographic research in the country is required to be undertaken.

GOVERNANCE ISSUES

10.11 The following issues of governance are important for effective policy implementation:

(i) The issue of quality control is often ignored due to poor understanding of its benefits at the decision-making level. The main reason for this shortcoming is lack of training and comparative experience on the part of management.

(ii) Lengthy procedures and long delays, result in delays in acquisition of new capital equipment.

(iii) The trust of industrialists in domestic technology is missing. More training in scientific management skills can build credibility and attract domestic industry.

(iv) Lack of understanding obscures the harmful environmental effects of technology.

(v) Despite the ambition for technology development, political commitment is lacking. When it comes to practice, the willpower has not been evident and a sincere conviction for technology promotion is missing. Corruption is certainly linked to the ineffectiveness at this level, and anti-corruption measures will also have beneficial impacts on technology initiatives in Pakistan.

(vi) The vision for technological development has not been clear. This lack of clarity resulted in a plethora of development efforts with insufficient resources allocation.

(vii) Almost all the administrative staff have been promoted from among the civil service and are ill-equipped to manage institutions of higher learning. They are unaware of modern methods of management and are ill-equipped to use

modern communication and management tools readily available now.

(viii) Lack of accountability-performance is to be evaluated according to the success of the research results.

(ix) Lack of trained and competent scientific administrators and technical managers to effectively organize and direct research for the achievement of national goals, and to apply it productively.

(x) Political priorities are constantly changing. Constitutional cover needs to be given to set priorities.

Annex-10.1

SCIENCE AND TECHNOLOGY SECTOR
THREE YEAR DEVELOPMENT PROGRAMME 2001-2004

Million Rs.

S.No.	Name, Location and status of the Scheme	Estimated Cost Total	Estimated Cost F.Aid	Expenditure upto June 1999	Revised Estimates 1999-2000	PSDP 2000-2001	PSDP 2001-2002	PSDP 2002-2003	PSDP 2003-2004
1	2	3	4	5	6	7	8	9	10
A.	**SCIENCE & TECHNOLOGICAL RESEARCH DIVISION**								
	National University of Sciences & Technology (NUST)								
1.	National University of Sciences and Technology (NUST) (Revised)	498.972	149.623	231.726	45.000	115.845	85.000	21.401	-
2.	National University of Sciences and Technology (NUST) Phase-II.	389.156	328.621	0.000	30.000	195.984	130.000	33.172	-
	(NEW)								
3.	Research Centre for Modelling and Simulation (IDB Credit (IBD Credit)	99.900	99.900	-	-	9.900	70.000	20.000	-
4.	Microwave Research Lab. (IDB Credit)	99.900	99.900	-	-	59.940	39.060	-	-
5.	Institute of Envirnomental Science and Engineering (IESE) Lab (IDB Credit)	54.000	54.000	-	-	43.200	10.800	-	-
6	Establishment of Electronic Class rooms (iGIS)(IDB Credit)	54.000	54.000	-	-	5.400	35.000	13.600	-
7.	Institute of Geographical Information Systems (iGIS) (IDB Credit)	54.000	54.000	-	-	5.400	35.000	13.600	-
8.	Centre for Chemical Engineering and Material Sciences (IDB Credit).	24.732	24.732	-	-	2.470	22.262	-	-
9.	Institute of Applied Electronics and Computing (IDB Credit)	221.940	221.940	-	-	177.550	44.390	-	-
10	Institute Telecommunication and Inforamtion Technology (IDB Credit)	108.000	108.000	-	-	86.400	21.600	-	-
11.	Institute of Manufacturing Engineering and Management (IDB Credit)	105.300	105.300	-	-	63.180	42.120	-	-
	Sub-Total (NUST)	**1709.900**	**1300.016**	**231.726**	**75.000**	**765.269**	**535.232**	**101.773**	**0.000**
	Pakistan Council of Scientific & Industrial Research (PCSIR)								
12.	Establishment of Technical Training Center in PSTC for Process Control Instrumentation & Engineering, Karachi	130.237	81.692	34.201	3.000	10.000	83.034	-	-
13.	Establishment of Institute of Industrial Electronics Engineering, Karachi (Swiss Grant)	139.000	74.000	106.329	10.000	10.000	7.500	5.171	-
14.	Establishment of PCSIR Labs. Quetta.	91.466	-	47.746	5.000	8.000	15.500	15.220	-
	(NEW)								
15.	Establishment of Precision Mechanical and Instruments Technology Centre, Lahore	199.600	144.900	-	-	-	85.000	114.600	-
	Sub-Total (PCSIR)	**560.303**	**300.592**	**188.276**	**18.000**	**28.000**	**191.034**	**134.991**	**0.000**
	Pakistan Council of Research in Water Resources (PCRWR) (On-going)								
16.	Water Resources Research Centers (WRRC)	35.848	-	32.918	0.000	2.930	-	-	-
	Sub-Total (PCRWR)	**35.848**	**0.000**	**32.918**	**0.000**	**2.930**	**0.000**	**0.000**	**0.000**
	Technology Development Action Plan (TDAP) (On-going)								
17.	Dev. Fuel Efficient Brick Kiln (CWHR)Karachi.	2.773	-	0.773	1.000	1.000	-	-	-
18.	Institute of Environmental Sciences and Engineering at at NUST in Collaboration with MSU, USA.	13.862	-	6.700	1.000	2.000	4.162	-	-
19.	Consultancy Programme for Industrial Technology Development(NTP)	18.550	-	4.385	7.000	2.000	3.000	2.165	-
20.	Disposal of Solid Waste from Hospitals by Incineration. (PCSIR), Karachi	16.750	-	4.446	2.000	2.000	5.000	3.304	-
21.	Fuel Saving Technology Project Phase-I (PCAT/TDAP)	15.510	-	6.434	1.000	1.000	4.000	3.076	-
22.	Fibre Cement as substitute of Asbestos Cement Products	1.720	-	1.120	0.420	0.200	-	-	-
23.	Grant-in-Aid for Contractual Research.(NTP)	19.840	-	7.982	1.000	1.000	5.500	4.358	-
24.	Development and Dissemination of 50 Micro Hydro Electric Power Plants in NWFP, Phase-III	9.104	-	2.525	1.000	1.000	2.000	2.579	-

S.No.	Name, Locaton and status of the Scheme	Estimated Cost		Expenditure 'upto June 1999	Revised Estimates 1999-2000	PSDP 2000-2001	PSDP 2001-2002	PSDP 2002-2003	PSDP 2003-2004
		Total	F.Aid						
1.	2.	3.	4.	5.	6.	7	8	9	10
25.	Implementation of National Technology Policy (NTP)	11.100	-	5.569	1.000	2.000	2.531	-	-
26.	Balancing and Modernization of PSTC Karachi.	26.500	-	15.000	0.000	1.000	6.500	4.000	-
	Sub-Total (TDAP)	**135.709**	**0.000**	**54.934**	**15.420**	**13.200**	**32.693**	**19.482**	**0.000**
	National Institute of Oceanography (NIO)								
27.	Research vessel (ice class) for Extension of Continental shelf EEZ	6277.700	4179.240	-	-	0.100	-	-	-
	Sub-Total (NIO)	**6277.700**	**4179.240**	**0.000**	**0.000**	**0.100**	**0.000**	**0.000**	**0.000**
	M/o Science & Technology (Main)								
	(On-going)								
28.	Development of High level S&T Manpower (Phase-III)	1294.834	-	463.256	2.000	1.000	-	-	-
	(New)								
29.	National Accreditation Council (NAC) (New)	55.522	32.203	-	-	23.579	21.000	10.943	-
30.	Post Doctoral Research Fellowship Programme	103.475	-	-	-	41.540	61.300	-	-
31.	Engagement of Consultants and Experts/Members of Peer Review Committee etc to implement NCST recommendations	37.375	-	-	-	10.025	13.000	14.325	-
32.	Establishment of Fan Cluster councils	37.842	-	-	-	10.000	17.842	-	-
33.	Curriculum Development at Graduate and Post-graduate level	9.000	-	-	-	3.240	2.880	2.880	-
34.	Block allocation for new projects *	8160.195	-	-	-	1935.195	2488.000	3746.000	4567.000
	Sub-Total (Main Ministry)	**9698.243**	**32.203**	**463.256**	**2.000**	**2024.579**	**2604.022**	**3774.148**	**4567.000**
	Total (Science & Tech. Res.Div.)	**18417.703**	**5812.051**	**971.110**	**110.420**	**2834.078**	**3362.981**	**4030.394**	**4567.000**
	B : PAKISTAN ATOMIC ENERGY COMMISSION(PAEC)								
	(On-going)								
35.	National Institute for Biotechnology & Genetic Engineering (NIBGE), Faisalabad	348.651	-	279.090	30.000	36.461	3.100	-	-
	Total (PAEC):	**348.651**	**0.000**	**279.090**	**30.000**	**36.461**	**3.100**	**0.000**	**0.000**
	Total: (Science & Technology)	**27485.814**	**5812.051**	**1250.200**	**140.420**	**2870.539**	**3366.081**	**4030.394**	**4566.000**
	C: INFORMATION TECHNOLOGY DIVISION								
	(New)								
36.	Information Technology (Block)	16356.000	0.000	0.000	0.000	2000.000	3900.000	4800.000	5656.000
	Total Information & Technology Division	16356.000	0.000	0.000	0.000	2000.000	3900.000	4800.000	5656.000
	Total Science & Information Technology :	**43841.814**	**5812.051**	**1250.200**	**140.420**	**4870.539**	**7266.081**	**8830.394**	**10222.000**

* The block allocation will be distributed in the following S&T fields

1. Human Resrouce Development
2. Basic Infrastructure
3. Development of linkage between Industry, R&D Institutions and Universities
4. Meterology Standards and Testing Quality System
5. Network of Analytical Centre for Industrial Analysis
6. Biotechnology
7. Renewable Energy
8. New Materials
9. Ocean & Water Research

CHAPTER 11

INFORMATION TECHNOLOGY

Information Technology is a tool that possesses the potential to enable Pakistan achieve the vision of becoming a strong, prosperous and self confident nation in the near term.

INTRODUCTION

11.1. In the history of civilization no work of science has so comprehensively impacted on the course of human development as Information Technology (IT). Undoubtedly, IT has been the greatest change agent of the present time and promises to play this role even more dramatically in the coming decades. IT is changing every aspect of human life, trade, services, manufacturing, government, education, research, entertainment, culture, defence, communications etc. IT is breaking old barriers and building new paradigms in the emerging global village. It has also become the determinant of the progress of nations, communities and individuals.

11.2. For Pakistan, the use of Information Technology is an opportunity to overcome the historical disabilities. IT is a tool that will enable Pakistan to achieve the vision of becoming a strong, prosperous and self confident nation. In doing so, IT promises to compress the time it would otherwise take for Pakistan to advance rapidly in the march of development and occupy a position of honour and pride in the family of nations.

11.3 The vision in the IT sector is :-

Complete implementation of the concepts of E-Commerce and E-Government coupled with abundant production of quality IT manpower and proportionate infrastructure of International standard by the year 2004.

CURRENT SITUATION

11.4 Although computer literacy and awareness are increasing the quality of professional competence and skills in this area are still lacking. It is unfortunate that little progress has yet been made in the area of Information Technology. This was mainly due to the fact that the importance of IT in the improvement of efficiency and transparency of working was never recognized. As such, no well-planned and serious efforts were made in the acquisition of this technology. The Government, realizing its need, has established a separate Division of "Information and Telecommunication Technology" under the Ministry of Science and Technology. An Information Technology Policy has been approved by the Cabinet. In spite of the resource constraints, substantial allocation has been made for projects for the promotion of Information Technology in the country.

Issues and Challenges:

Global

11.5. To face the challenges of the world, which is rapidly transforming itself into a global village, the country needs to nurture a computer culture. The importance and need of IT has now been universally accepted as a pre-requisite and norm for progress and development since IT is a symbol of efficiency, consistency, reliability, and quality control. The importance of IT is further enhanced in the context of global free international trade where the word "Competition" is the rule of the game. In

future, only those nations will be able to survive the competition whose governments and businesses are fully equipped to react to the rapid changes emerging on the global scene. The Government of Pakistan has shown its commitment at the highest levels of hierarchy to introduce IT in all its operations and in the country.

11.6. There exists enormous potential in the export of software, services and IT trained manpower to the International software market, whose magnitude has been estimated at over one trillion US Dollars this year. Many East Asian and South Asian countries have already taken the lead in promoting IT and have been successful in achieving the software exports to the tune of billions of US dollars. Their earnings from export of software are more than the total exports of Pakistan. There still exists a enormous potential of increasing their exports in the order of 40 to 50% per year. To follow the same path of progress at the fastest rate, Pakistan, too, needs to adopt a crash programme for the introduction, implementation and benefiting from the power of IT.

Regional

11.7. Exports of Pakistan are characterized by loose quality control, low value addition, and low levels of labour productivity and low price products in the regional and international trade. It has to compete with the countries of the South Asian and South East Asian Regions, which have more than 90% literacy rate and a substantially higher computer literacy. In addition to this, these nations have, comparatively a better infrastructure and a disciplined labour force, and they are concentrating on higher value addition. Many of these countries have less natural resources in terms of land, water, irrigation system, gas, coal, etc., yet due to educated, skilled, and computer-literate manpower, they have been able to make landmarks in international trade and development. Pakistan, too, needs to follow their footprints if it also plans to proceed at a rapid pace of development.

Domestic

11.8. At the domestic front, the country is faced with the challenges of poor public service, poor contact of Government with the common man, inefficient public utilities and services, lack of transparency, corruption, inefficient businesses, high inflation, high degree of unemployment, substantial imports, and low domestic production. Promotion of Information Technology is one of the main solutions to all these ills.

11.9. The vision of the policy is to harness the potential of Information Technology as a key contributor to the development of Pakistan. The policy mission is the provision of quality IT education at affordable rates, development of efficient/competitive infrastructure and making effective arrangement for the absorption of IT trained manpower locally and exporting software/ manpower to massively increase export earnings. The policy is directed to the rapid development of infrastructure in together with the synchronous creation of highly trained manpower aiming at transforming our society into a prosperous and dynamic state through the creation and free flow of information and knowledge and making the fruits of this technology available to every citizen.

Objective Goals

11.10. The main objectives set to realize the vision behind IT Policy include:

i) IT for all at affordable price.
ii) Ensuring quality education in IT.

iii) Three fold increase in software export in the next three years.
iv) Development of E-Commerce and E-Government with supporting infrastructure and legislation.
v) Implementation of intellectual property rights and promotion of software that would put minimum burden in terms of licensing costs.

11.11 The goals of Information Technology are :-

i) Enhancing public awareness about IT and promotion of quality IT education.
ii) The role of the Government as a facilitator and enabler to give maximum opportunities to the Private Sector to lead the thrust in development of IT in Pakistan.
iii) The development of an extensive pool of trained IT manpower at all levels to meet local and export requirements
iv) Developing regulatory framework for controlling the fees/charges of Private IT educational institutions and improving the standard of Public Sector IT Institutions to compete with the Private Institutions
v) To provide business incentives for both local and foreign investor to ensure the development of Pakistan's IT sector (including the software, hardware and services) and the use of its products.
vi) The development of an encouraging legislative and regulatory framework for IT related issues.
vii) The deployment of an efficient and cost effective infrastructure that provides equitable access to national and international networks and markets.
viii) The promotion of widespread use of IT applications in the government.
ix) Integration of Government services by developing, implementing, and maintaining a countrywide information resources infra-structure.
x) Establishing a tradition of electronic commerce for both national and international transactions.
xi) Creation and improvement of service delivery to public through the use of IT.
xii) Substantial increase in software export.
xiii) Adoption and application of information resources, standards, and guidelines.

Targets

11.12. The Govt. aims at following an ambitious plan in the area of Information Technology. The concepts of Electronic Government, Electronic Commerce, Electronic Education, and Electronic Medicine would be implemented in order to achieve the targets of Efficient Government and Private Sector in a medium term period. The production of Software Engineers, Computer Scientists, technicians, etc. coupled with the telecommunication infrastructure, would be enhanced, in proportion to the demand. It is also programme to substantially increase the earnings of foreign exchange from the export of Software, IT professionals and technicians. The Three Years Programme target is to increase the software export from the current level of about 30 million US$ to US$ 152 million in 2004 at a compound growth rate of 50% per year. Other targets for the year 2004 are given in Table- 11.1.:-

Table 11.1
IT: Targets for Three Years Development Programme

S. No.	Description	Benchmark 2000-01	Targets 2003-2004
1.	No. of IT Professionals (Annual Output)	5,200	11,424
2.	No of Personal Computers in the country	1.95 Mill.	4.28 Mill.
3.	No. of Towns connected with 64 kbps links for internet purposes	296	800
4.	No. of Internet Connections (Cummulative)	260,000	570,000
5.	Software Export (Annual)	US$ 45 Mill.	US$ 152 Mill.
6.	No of Software Technology Parks	3	27
7.	No. of Software Houses	300	350
8.	No of IT Degrees Institutions and Universities	165	219
9.	No. of IT (Non-Degree) Institutions	600	1037
10.	No. of Internet Service Providers (ISPs)	55	80
11.	IT Professionals by Gender		
	- Males (%)	85	70
	- Females (%)	15	30
12.	IT Professional by Degrees		
	- PhD's (%)	4	6
	- Master's (%)	26	31
	- Bachelor's (%)	46	51
	- Others (%)	24	13

IT Action Plan

11.13. In addition to the formulation of IT Policy, an IT Action Plan has also been prepared which provides a framework for implementation of the IT Policy. This framework includes the priority areas, specific projects that can be conceptualized, formulated assessed, prioritized and implemented.

11.14. The Action Plan constitutes the basic implementation template on which all future government, private, academic, and investor activities in the information technology and related fields will be based. A system of monitoring, surveying and compiling statistics on the extent and growth of the IT sector is being devised to provide reliable data for planning and evaluation purposes and to set up performance indicators. Standard indicators of IT progress are being devised, which can be continuously updated, are broad in scope, and include independent observer verification (e.g., relevant international indices and market surveys). Targets and milestones will be both qualitative (subjective assessments of attitudes, awareness, proficiency, preferences, investor perceptions, etc.) and quantitative (objective evaluation of IT related data of business, commerce, export, penetration, spending, traffic, sales, manpower, etc.). The IT Action Plan will be implemented according to these well defined phased targets and objectives. To ensure that the plan meets its objectives consistently and that suitable midcourse corrections can be incorporated in a timely manner, a mechanism will be set up involving the government, private sector, academia and other national representatives to coordinate and implement the policy and plan elements and provide strategic oversight over the longer term. A formal broad policy and plan review will be conducted under this mechanism every six months, with more area specific monitoring carried out on a monthly basis. Consequently, a public-private partnership will be formalized to inherit and continue the functions of the task force in later years and ensure that Pakistan becomes and remains an internationally competitive force in the global IT industry.

11.15. Since the IT sector is extremely dynamic and developing, it has been-decided that the policy and action plan will be subjected to a process of continuous review

and update under a modular mechanism focussed on well defined short and long-term objectives. Achievements at each phase of implementation will be marked and future targets accordingly reviewed, to ensure that initiatives are kept on track.

Strategies

11.16. Core IT Policy strategies focus on human resource development, infrastructure development, tele-communication, databases, software industry development for exports and local markets, exponential increase in Internet usage and fiscal and regulatory incentives.

(i) **Human Resource Development**: Human Resource (HR) Development is imperative for the local IT industry to position as an important player in the international IT market. Under the HR Action Plan, a large pool of academically as well as technically skilled IT manpower would be developed to meet the local and export needs. The Policy accordingly envisages the establishment of four new IT Universities, Virtual IT University, National Testing and Accreditation Services and Educational Internet, strengthening of existing IT Institutes and hiring of Faculty from abroad. A major portion of the funds under IT Action Plan would be dedicated towards HR development initiatives.

(ii) **Infrastructure Development:** The local IT Industry requires a world class enabling infrastructure. An exercise for deployment of this infrastructure would be undertaken under which a series of IT Parks and Incubators across the country would be established. These Parks will be equipped with modern facilities and matchless incentives, to provide a one stop shop for prospective investors in the IT industry. Telecom infrastructure would be modernized to carry broadband access in the backbone and local loops. Other steps include the establishment of IT Boards in provinces (except Punjab where it exists already), increasing teledensity and introduction of new technologies such as wireless local loop for data and cable Internet.

(iii) **Software Industry Development:** Software development is a high growth industry and forms a major segment of the vast IT market and will continue to do so in the future. Integrated efforts to develop software industry with focus on exports (in addition to the local market) would be undertaken. This would include encouragement of local software houses in Government projects, local content development, Urdu and regional language software development, promotion of software exports through establishment of International Marketing Network, special bandwidth rates for software exporters, encouraging joint ventures, hiring of international consultants for global business development and fiscal and regulatory incentives for software exporters through State Bank of Pakistan.

(iv) **Hardware Industry Development**: The policy recommendations in the area of hardware industry development do not seek to initiate aggressive competition with the developed countries. Rather, they focus on developing the areas that are within Pakistan's reach, in terms of technology and resources and in which the country could have a competitive advantage. Major recommendations include the waiver of duties and taxes on the hardware, incentives to reduce the cost of raw material and inputs, encourage and fund research and development in the Universities and

Engineering Colleges through faculty, matching grants and focused joint projects.

(v) **Internet:** The Internet is likely to continue to revolutionize the way people communicate and access information. The basic principles adopted for the Internet growth in the country would be to encourage competition, avoidance of un-necessary regulations, provision of low cost, reliable and broadband Internet access. Universal Internet Access in the areas connected with the telecom network and free Internet access for public sector Universities.

(vi) **Incentives:** The government will invest in various fiscal and non-fiscal incentives to nurture, develop, and promote the use of IT in organizations, to increase their efficiency and productivity. The strategies focus on promotion of venture capital industry through incentives, recognition of software development as a priority industry for financing by the banks and DFIs, creation of investment friendly environment, building investor's confidence and changes in rules to allow the technology companies to be listed on stock exchanges of Pakistan.

(vii) **IT Promotion & Awareness:** A massive IT promotion and awareness campaign would be undertaken. The national strategy includes provision of continued support and funds by the Export Promotion Bureau (EPB) for the participation in world IT/computer trade fairs, posting of IT specialists in Embassies and Commercial Consulates, promotion of IT use by the Head of the Government, Ministers, and all other key figures who can influence public opinion at all public and private forum, declaration of the next fiscal year as 'IT year' and organizing special events during the current year including national and international exhibitions.

(viii) **IT Usage:** To embark on an aggressive program to improve efficiency and provide quality services to the citizens of Pakistan, IT would be inducted at all levels of government, Key projects thus launched would include Government On line, Electronic Government Project and E-Commerce Network.

(ix) **Legislation:** To provide protection and enhance the confidence of users, providers, and facilitators of information services, legislation based on the recommendations of the Working Group comprising IT and legal experts would be framed. Action in the areas of Digital Signature Act, Intellectual Property Rights and Copyright Act and the Consumer Protection Act, has been started. The government would seek legislative approval of changes to statutes that will encourage electronic commerce and revise statutes that mandate a paper-based or manual process.

(x) **Regulations:** A regulatory framework is essential to avoid violating policy goals and direction. It would be ensured that excessive regulations do not stifle industry investment and growth. In devising a useful regulatory framework, the focus would be on creating a fair, equitable and competitive environment, based on the principles of free market and open access.

Issues of Good Governance

11.17. In order to implement Information Technology Policy in its true perspective and to undertake Government's Institutions in the IT Sector, in an aggressive way, a separate Division of Information Technology and Telecommunication

Division: was established last year under the Ministry of Science & Technology. The same Division is being strengthened with specialists and experts of high caliber available in the country and abroad. All the Departments (e.g. Pakistan Computer Bureau, Pakistan Export Board, Information Technology Commission, Petroman, Comsats etc.) which were working for the promotion of Information Technology have been placed under the umbrella of IT and Telecomm. Division. These Departments are being revitalized by reviewing their performance, addition of necessary staff, change of management etc. The role of these Departments are being reviewed to avoid duplication and are being assigned clear assignments relating to their Departments out of the recommendations of IT Policy. A comprehensive monitoring mechanism is being evolved by the IT and Telecomm. Division for monitoring the progress of achievements of the IT Institutions.

Key Programs and Projects

11.18. An ambitious IT development programme has been worked out by the IT and Telecom Division of the Ministry of Science and Technology and an allocation of Rs 14.4 billion has been earmarked for various information technology projects/initiatives for the period 2001-04. The main initiatives include the addition of facilities for computer education and training at affordable rates while ensuring quality of education, enhancement of Internet infrastructure and the provision of efficient internet services at reasonable rates, establishment of software technology parks and data networks, incentives for software exports and computer hardware manufacturing, making arrangements for marketing of software overseas and addressing other issues relating to the provision of a legal cover to the electronic transactions enabling implementation of e-commerce and e-government. The Financing Plan is given in Table No. 11.2.

TABLE 11.2
ANNUAL PHASING

S. No.	Year	Investment (Rs. Billion)
1.	2001-2002	3.900
2.	2002-2003	4.800
3.	2003-2004	5.656
	TOTAL	14.356

11.19. The portfolio of projects included in the IT development programme and list of incentives are given at Annex 11.1 and 11.2.

Annex 11.1

FUND FLOW REQURIEMENTS
IT IMPLEMENTATION PLAN JULY 2001-JUNE 2004

Billion Rupees

No.	Name of the Scheme	2001-02	2002-03	2003-04
1.	Ph.D./Masters/Bachelor/Intermediate Programs	0.2	0.30	0.40
2.	Distance Learning and Distance Learning Centers:	0.2	0.30	0.25
3.	Virtual University	0.2	0.30	0.40
4.	Retraining Centers and operations of IT for unemployed or underemployed engineers/ scientists/professional		0.20	0.10
5.	Specialized Training Centers for training of Trainers	0.10	0.30	0.20
6.	Internet and Intranet infrasturcture for colleges, schools and universites	0.20	0.30	0.45
7.	A Scholarships/Qarz-e-hasna Scheme	0.10	0.30	0.30
8.	Computer Literacy (Computers, Networks, Software, training) at school level	0.20	0.20	0.25
9.	National Testing Agency be established for standardizedc testing and certification of IT professionals.	0.10	0.05	0.05
10.	Accredition, syllabus, IT awareness		0.15	0.22
11.	Four Information Technology Institutes be set up one each in Punjab, Sindh, NWFP and Balochistan.	0.20		
12.	Operating expenes and growth of IT Institutes		0.15	0.20
13.	Introduction to other segments (Tele-medicine-Health, Large Data base creation, GIS projects for mapping)	0.20	0.10	0.20
14.	Retrain of government employees, Software purchases, allowances	0.20	0.20	0.20
15.	Software Technology Parks	0.4	0.10	0.20
16.	Data Network Centers	0.07	0.10	0.10
17.	Community Internet Centers	0.08	0.15	0.10
18.	Series of IT awareness seminars	0.05	0.10	0.10
19.	Participation in Major international IT trade fairs, conferences and trade shows	0.05	0.10	0.10
20.	Overseas marketing offices in strategic locations like Singapore.	0.12		
21.	Marketing offices and Inubation Centers Centers		0.20	0.20
22.	Devleopment of Urdu and regional software	0.10	0.10	0.20
23.	Triggering off local data entry and Blue collar IT activity	0.25		
24.	Data Entry projects		0.20	0.20
25.	Venture Capital Seed Fund with public private partnership	0.20	0.20	0.20
26.	Development and production of IT and communication products	0.10	0.20	0.20
27.	E-commerce pilot, facilitation, training and core infrastructure	0.22		
28.	E-Commerce Infrastructure		0.20	0.20
29.	e-Government Pilot projects at two Ministries and the CE's offices	0.25		
30.	e-Government introduction to other Ministries		0.20	0.35
31.	Legislation drafting for IT related issues	0.01	0.10	0.01
	Total (Rs. Billion)	**3.90**	**4.80**	**5.66**
	Grand Total (Rs. Billion)		**14.40**	

INCENTIVES AND REFORMS IN THE IT AND TELECOMMUNICTIONS SECTOR

1. The cost of Internet bandwidth of PTCL was reduced up to 53% in April 2000, 25% in September and again 50% in December with heavily discounted rates for software exporters and educational institutions. This has led to reduction in Internet end user prices and improvement in quality of service for the Internet users.

2. Free Internet connections are being extended to public sector Universities under an agreement with the private sector ISPs and PTCL.

3. To facilitate the private sector IT and telecom industry and to enhance the investor's confidence in the Government, processing period for license applications in the deregulated sector by the PTA has been reduced to 7 days from several months.

4. In order to deliver efficient IT infrastructure, PTCL would now provide international bandwidth and Internet connectivity to the ISPs and other corporate customers within 4 to 8 weeks. Previously this connectivity used to take 4 to 12 months.

5. Training of thousands of blue collar IT workers for data entry and transcription services is being initiated and would be completed within 6 months.

6. As a first step towards Electronic Commerce, the State Bank of Pakistan (SBP) has allowed banks to open Internet Merchant Accounts within Pakistan. This was a major hindrance in start of E-commerce activities in the country.

7. To facilitate the software export industry, SBP has instructed banks to accept the contracts as collateral for the software exporters to qualify them for Export Refinance Scheme. Previously this was only permitted against letter of credits, which do not exist in the software export business.

8. Software exporting companies have been allowed to retain 35% of their export earnings in foreign exchange accounts. Hitherto, the software exporters did not have any such facility.

9. Internet delivery on Cable TV has been permitted which would result in substantial increase in the Internet usage.

10. The market is being opened up for the private sector participation in joint venture with PTCL in terms of tele-housing arrangements, voice over Internet, setting up international bandwidth gateways via satellite and cable.

11. Universal Access to the Internet even to non connected areas at the cost of a local call using the unique '131' Universal Internet Numbers of ISPs has been extended. This facility is not available in many advance countries.

12. Call Centers, which are an important potential source of foreign exchange earnings and employment creation, have been allowed to establish in the private sector.

13. The minimum tax of 0.5% on remittances from software exports has been waived off.

14. Computer networking and majority of IT equipment has been exempted from custom duties.

15. Draft IT Ordinance 2000 has been formulated to provide legal recognition to electronic transactions and digital signatures and has been circulated to the concerned Ministries for comments. The final Ordinance would be submitted for approval of the Cabinet within next 2 months.

16. Income tax holiday for the IT Training Institutions has been extended by another five years, i.e., 2005.

17. A high level committee has been constituted to work out the detailed proposals of increasing the Ph.D. allowance to Rs. 5,000.00 per month and propose a package of financial incentives for the researchers based on their productivity. The Committee would submit its report within two months for final approval of the Government.

18. Income tax on the salaries of professionals involved in full time teaching and research and development work in non-profit R&D Organizations and Universities would be charged @50% of the normal rate.

19. PTCL's charges for Internet bandwidth were further reduced by 25-45% with special concessions for educational institutions and software exporters.

20. Scholarships and Qarz-e-Hasna schemes for 1,070 students in Bachelors and Masters IT Degree programmes are being provided on the basis of open competition. A total of 10,000 students have appeared in the National Entry Test held on 19 November 2000, out of which top 1,070 students would be awarded scholarship and Qarz-e-Hasna. The programme would be expanded to provide 3,000 awards per year from next year and a Master Plan in currently under preparation.

21. Training programmes in high end technologies such as networking, JAVA, XML, etc., have been started.

22. Scholarships for Re-Training of Public Service Scientists and Engineers in the IT field have been launched. The programme is being expanded to all under or un-employed scientists and engineers.

23. Feasibility for establishment of Virtual University for Distance Learning has been prepared and the project would be commissioned in first quarter of year 2001.

24. Venture Capital Fund Management Rules have been finalized by the Securities and Exchange Commission of Pakistan and notified with seven years income tax holiday for VC Funds.

Key Progress Indicators

- Internet bandwidth usage in Pakistan has grown by over 110% during the last 5 months since the bandwidth rates were reduced and delivery mechanism of PTCL was made efficient.

- A comparison of news items and advertisements appearing in the leading newspaper indicates that there has been over 200% growth of news items and advertisements relating to IT in the newspapers in July 2000 as compared to January 2000. This clearly shows the increase in IT awareness in the country and the importance that Government accords to this sector.

- A baseline survey of IT statistics in the country, first of its kind, has is being started which would be used to monitor the progress of the implementation of IT Action Plan in a scientific manner. The survey is being undertaken by Gallup/KPMG, Pakistan.

Immediate Future Programmes to be Launched within Next 2 Months

1. Virtual University for Distance learning would be launched with the objective to supply thousands of computer science graduates every year.

2. Faculty members from overseas would be hired and deputed to work in IT Institutions/Universities under a crash programme to meet the critical shortage of IT faculty in the country.

3. A National Testing and Accreditation Service would be established to ensure quality IT education and training.

4 Seven years income tax holiday to the VC Funds would be provided and a notification would be issued shortly by the Finance Division.

5. Notification for changing the Rules of SECP for listing of the IT companies on stock exchanges for their initial public offering (IPO) would be issued shortly by the SECP. The new rules would facilitate the listing of technology company on the stock exchanges of Pakistan and hence their access to capital markets.

CHAPTER 12

MANUFACTURING AND MINERALS

To create a dynamic and sustainable industrial sector responsive to the demands of globalization and focussed on new alliances between private and public sectors, which will generate employment, establish linkages with other sectors and a quantum increase in exports.

The Current Situation

Manufacturing is the second largest sector of the economy contributing more than 17 per cent to GDP, engaging 11.2 per cent of employed labour force and its contribution to export earnings is more than eighty per cent. In the recent years, performance of this sector due to a number of factors has been depressed. Over the Eighth Plan period (1993-98), growth of large scale manufacturing industries has been only 2.0 per cent. The stagnation of export earnings in 1990s is reflective of low growth rate of manufacturing output. The share of employment in manufacturing over this period has fallen from 14.8 per cent in the 1960's to 13.5 per cent in 1980's and further to 11.2 per cent in 1990's. Since the sector has strong forward and backward linkages with the agriculture and services sectors, its poor performance has resulted in the sharp reduction in GDP. Pakistan is engaged in the manufacturing of simple items such as textile and leather rather than sophisticated goods such as steel, basic chemicals, engineering etc. Textiles and food products account for 27 per cent and 15 per cent, respectively of the manufacturing output. Small and medium engineering units have come up throughout the country and a large number of these are vendors producing components for heavy engineering sector. The share of engineering sector in manufacturing value added is only 17 per cent.

Challenges

12.2 Keeping into consideration the falling levels of investments and output in the manufacturing sector on the one hand and present trends towards globalization and integration of the economy on the other, the industrialization in the three year programme are guided by the basic principle of competitiveness, i.e. efficient import substitution and export orientation. The industries based on comparative advantage and the acquisition of competitive advantage in knowledge-based industries rather than on just locally available raw materials or easy access to capital will be the basis for future industrialization. A number of initiatives will be taken during next three years. In particular these will include, firstly considering the size, variety, and the depth of the software market to find a right niche. Secondly, the speed of integration of regional blocks including Pakistan is extremely slow as compared to the speed of integration of other regional blocks like the European Union, the ASEAN, etc. Pakistan will consider the option of becoming a staging area between APEC and Central and West Asia. Thirdly, the eventual termination of Multi-Fibre Agreement (MFA) and the application of WTO agreements will be viewed in terms of opportunities rather than dangers. To seize upon the opportunities of an expanded market, policies leading to higher value addition and quality control through public/private participation would be encouraged. Further, indigenization programmes for self-reliance will be promoted in engineering, computer, and other value-added high-tech industries.

Fifth, to improve the quality of goods and facilitation of ISO-9000. Finally, as environment-friendly products are fast becoming a growth industry, Pakistan will take a lead in the export of eco-cottons and initiate eco-labelling.

Objectives

12.3 The Three Year Programme aims at enhancing efficiency and international competitiveness of the local industry through optimal utilization of capacity, technical innovations, tariff rationalization, and not only removal of impediments but active facilitation of industrial investment and exports and comprehensive Industrial Policy. The Three Years Programme will have the following major objectives: (a) increasing the share of manufacturing sector in GDP from 17 per cent to 17.5 per cent; or more (b) diversification of exports to higher value addition through high-tech product diversification; (c) establishing an efficient industrial structure with competitive advantage within the WTO regime; (d) increasing textile products exports from existing $ 4.9 billion to $ 13.8 billion by 2005; (e) adopting modern technologies, technical and managerial know-how, and a vigorous international marketing strategy; (f) promotion of indiginization for self-reliance; (g) adoption of environment friendly technologies; (h) enhancing the pace of privatisation, and (i) increasing emphasis on engineering industries, leather and leather products and agro-based industries. The success of these objectives would critically depend on creating a business and investment friendly environment particularly an improved and stable law and order situation. This would also require good governance, rule of law and predictability of government policies for taking long-term investment decisions i.e. building up the government credibility.

Strategy

12.4 The Three Years Programme is being formulated through the adoption of a strategy, which will be compatible with national aspirations, globalisation and natural advantages. The major elements of this strategy will be: (a) instituting measures for higher-capacity utilization; (b) activating Industrial Facilitation Boards for the provision of physical infrastructure, etc.; (c) cluster approach in key industries, supporting sectors, infrastructure and human resource development; (d) standardization and quality control through institutional measures; (e) human resource development through Vocational Training and on-the-job apprenticeship programmes; (f) development of expertise on the WTO agreements, patents, copyright, etc.; (g) revival of viable Sick Industries; (i) attracting Foreign Private Investment; (j) elimination of smuggling; and (k) tariff rationalization.

Policies

12.5 The major issues in manufacturing include slow growth rate, high cost of utilities, lack of physical infrastructure, low investment, revival of sick industry, development of SMEs, total quality management and productivity enhancement, R&D, vocational training, and the role of chambers of commerce and trade associations in achieving rapid industrial progress. The various policies to address these issues are discussed in the following paragraphs;

Investment Policy

12.6 The investment policy provides an integrated strategy for creating an investor-friendly environment, with a focus on further opening up of the economy and finding markets for the potential of all economic sectors for direct foreign investment. The policy includes improving the policy regime, offering fiscal and tariff reliefs, and providing additional procedural

and social facilitation and convenience. The policy emphasis would be on long term predictability, a culture of SRO-free policy implementation and complete transparency.

12.7 To keep Pakistan competitive in the international market and to make the investments viable, several fiscal and tariff incentives have been provided. To simplify and speed up processing of investment proposals government has recently unified all investment related incentives in one SROs. The main features include: (a) hi-tech industries would be exempted wholly from customs duties; (b) priority and agro-based Industries are exempted from so much of the Customs duties as are in excess of 10 per cent ad-valorem; and (c) export industries which annually export minimum average 50 per cent of production in first ten years and Value-added industries with 40 per cent and above value addition are exempted wholly from customs duties.

12.8 However, in order to create simplicity and transparency, a positive list of industries has been prepared which will replace the item (c) of the Investment Policy. Furthermore investor friendly environment will facilitate and support the domestic investors who will bring in foreign investor and joint ventures.

Employment

12.9 The share of manufacturing in the GDP has increased from 14 percent in the 1960s to around 17 percent in the year 2000 but the share of labour engaged in manufacturing sector has declined from 13% to 11% during the same period. Until 1990, the manufacturing sector used to be the second largest employer of work force. However, the deceleration in manufacturing growth in the 1990s has adversely affected its labour – absorptive capacity and placed it in the fourth position, behind the service sector.

12.10 In the Three-Year Development Programme, there will be increasing emphasis on small and medium scale labour intensive industries. Growth in these industries would lead to increase in employment. Additional employment would also be generated through better utilization of existing industrial capacity and revival of sick units. For this purpose, the government has established the Small and Medium Enterprises Development Authority (SMEDA) which would play an active and leading role. Furthermore, Micro Credit Finance Bank would extend start up loans for the unemployed professionals and managers to set up their own ventures or small firms to create new jobs. For revival of sick units corporate and industrial restructuring corporation (CIRC) would play a very significant role.

Small and Medium Size Manufacturing

12.11 Small and medium-size enterprises play an important role in the overall economic development of a country. They provide a productive outlet for the entrepreneurial spirit of individuals and assist in the dispersion of business activity throughout the economy. Small-scale industries and self-employment schemes are highly labour-intensive and efficient users of capital. The sector has grown at a rate of 5.3 per cent in Eighth Plan Period. It provides about 80 per cent of employment and 30 per cent of value added in manufacturing sector.

12.12 The significance of the SME sector must therefore not only be recognized but also be made the centre piece of any employment and growth strategy. In both urban and rural areas SMEs are increasingly providing employment to women and encouraging their entry into the labour force. Therefore higher levels of total factor productivity, relatively large potential in employment generation and positive impact on income distribution and poverty reduction are sufficient grounds for promotion of small enterprises. Unfortunately the focus of public policy has been on promotion of the large business. The policy measures including higher import duties on inputs compared to large producers, non-availabilities of credit and

appropriate technology etc. has constrained SME's growth.

12.13 Accordingly, an appropriate choice of economic activity and technology would result in higher levels of productivity, output and employment and better income distribution. The policies of growth without much regard to income distribution shall have to be reconsidered with a view to eradicating poverty and unemployment problems. The tax structure must be neutral between small and large producers. Credit availability needs to be enhanced through improvements in the mandatory targets.

12.14 Several measures have been taken in the past to establish, stimulate, and encourage small industries in Pakistan. Important among those are the development of infrastructure facilities including industrial estates, establishment of technical services and training centres, and marketing facilities. Besides, fiscal and monetary measures are being applied in various forms to boost investment in small industries. Financing being the most significant among the factors of industrial growth, a number of institutions were created to cater for the special need of the small industries. These included provincial Small Industries Corporations/ Boards, Industrial Development Banks, and special credit lines from International Lending Agencies.

12.15 For the development of the small and medium enterprises, the following specific measures and programmes will be pursued during the three year period: (a) emphasis will be given to the development of SMEs. Government will facilitate growth of Light Engineering and SMEs, through clusters/incubators such as service/ technology parks and business/ technology incubators. For this purpose, to identify and focus on sectors with high growth potential, it is important to create regional clusters of industries based on significant SME presence, labour intensity, competitive strength and potential growth rate. For this purpose, in order to make access to capital within the reach of SMEs, all possible regulatory retardant will be removed and a network of support institutions and experts termed as cluster council, to help address SMEs technical marketing and managerial needs will be developed as soon as possible. (b) Industrial Support Centres will be established at growth points for small-scale industry. The Centres will provide advisory services to potential entrepreneurs, including feasibility studies; (c) a dedicated credit fund for labour-intensive, small-scale self- employment units will be created at the federal and provincial levels through the National Credit Plan. Poverty Alleviation fund and Micro Finance Bank will provide the requisite credit to micro enterprises; (d) for the training of small entrepreneurs, efforts will be made to set up entrepreneur development institutes, one each in all provinces and at the federal level; (e) development of infrastructure (including farm-to-markets roads, space to establish business in urban areas, and provision of utilities in industrial estates, parks, and sheds) will be undertaken through public/private partnership; (f) cluster Approach for the development of small and medium industries will be adopted in key areas including textile, leather, sports goods, surgical instrument, cutlery, and light engineering; and (g) a dissemination centre to provide information regarding design, quality, appropriate/available technology, sub-contracting and export opportunities will be created for SME development.

Industrial Credit Policy

12.16 With a reduction in inflation and prudent lending policies, it is expected that the interest rate will go down. With the pursuit of consistent industrial policy, it is expected that financial institutions shall provide sufficient credit to manufacturing sector for both investment and working capital. Micro Finance Credit Bank has also been established for providing credit for very small entrepreneurs.

Privatization Programme

12.17 The privatization programme was launched in 1991 in order to minimize the governments role in commercial activities. Successive governments have attached high priority to the privatization process as a pivotal feature of their policies on restructuring and revitalizing the national economy. However, the process of privatization has remained slow mainly due to litigation and structural problems in the process, as well as lack of an appropriate legal framework Presently, there are two types of assets on the privatization list i.e. those that would generate cash on sale and those that would provide no cash but stop further losses to the exchequer i.e. Pakistan Steel Mills and some cement plants. The Privatisation Commission would prepare a detailed programme and time table for implementation. The focus will be on immediate disinvestment and liquidation of industrial units which do not have competitive ability and can be revived only through the dynamism of the private sector. Both local as well as foreign investors would be encouraged to take over these industries keeping in view the larger and long-term interests of the country. In order to remove impediments in the privatisation process the government would enact necessary laws so that the process of privatisation is accelerated under maximum transparency.

Revival of Sick Industries

12.18 A large number of industries have either closed down or are operating at below the optimal capacity utilization levels. The revival of these sick industrial units can result in higher levels of aggregate productivity from the investment which has already been made. These units have become sick due to various reasons and not all such units need to be revived. The government would consider revival of those industries which are technologically sound and economically viable.

12.19 The industrial units which have become sick, either because of the changes in government policies or because of inadequate working capital, will be provided government support. The sick industries would be dealt with, on a case-to-case basis, so that only genuine cases, where owners are really serious in reviving the units, will be provided necessary relief in the form of concessional lending and working capital. In this regard, the following steps will be taken: (a) the State Bank of Pakistan will make a special allocation, in its annual credit plan, for providing funds to Banks/DFIs for revival of sick but viable units; (b) a resolution trust fund will be created for the liquidation of unviable sick units: (c) the Ministry of Finance/ The State Bank of Pakistan will consider a clear-cut policy decision regarding revival or liquidation of existing sick industrial units; and (d) recently government has also established corporate and industrial restructuring corporation (CIRC) for the revival of sick industry.

Total Quality Management and Productivity Enhancement

12.20 During the Three Year Programme, emphasis will be laid upon research and development, technology upgradation, human resource development and improvement in management, and policy environment and development of professional manpower bodies encouraging technology clusters for productivity enhancement and total quality management. In this regard, the National Quality and Productivity Council will be accorded the pivotal role for productivity enhancement through its institutional strengthening.

12.21 The existing regulatory bodies, established with active collaboration of private sector, such as National Accreditation Council, Pakistan Standard and Quality Control Authority, and the National Physical and Standard Laboratory, will be activated and promoted by providing necessary resources.

R&D, Quality Control, Standardization, and Vocational Training

12.22 Promotion of research and development activities is the key to expanding the industrial base and to promoting quality control and standardization in the country. The PCSIR is a multipurpose research organization, with the main emphasis on industrial research. In order to make the PCSIR more efficient, to meet the changing industrial and technological requirements, particularly the ISO - 9000 series certification and pollution control, The proposed strategy during the Three Year Plan will have a major focus on developing workable linkages between the PCSIR and industries, enabling the PCSIR to achieve collaboration and accreditation with the of International Standards Organizations to meet the international standards such as the ISO – 9000/14000 series, coordinating activities of public sector R&D organizations, educational institutions, and private sector labs to avoid duplication of R&D activities, develop human resources, and encourage contract research, with clear-cut project targets, based on commercial criteria.

12.23 Vocational Training Institutes are important for the industrial sector and will be established in public and private sector. Local Chambers and Associations will be associated in the development and operation of these vocational and specialized institutes. Private sector will share the responsibility for the upgradation of technical skills of workers and new labour force.

Environment-friendly Technologies

12.24 The major industries creating environmental hazards are the manufacture of chemicals, textiles, pharmaceutical, cement, glass, ceramics, pulp/paper board, leather tanning, and petroleum refining. At present, industries do not control their wastewater effluent through process controls, waste recycling, or end-of-pipe treatment. In order to attend to environmental issues measures would be taken for achieving the environment friendly industrialization through proper enforcement of National Environmental Quality Standards, Green Technologies/ availability of clean fuels, joint waste water treatment facilities and initiation of Environmental Impact Assessment for industrial projects.

Textile Vision 2005

12.25 Textile Vision 2005 envisages an open, market driven, innovative and dynamic Textile Sector which is internationally integrated, globally competitive, Pakistan will be fully equipped to exploit the opportunities created by the MFA phase out and it will enable Pakistan to be amongst the top five textiles exporting countries in Asia.

12.26 Pakistan is amongst the top ten Asian Exporters of Textiles with $4.897 billion ranking at 8th position. Pakistan is projected to achieve 5th ranking with $13.815 billion exports by year 2005 by adopting following strategy: (a) exports will maintain the historic growth rates; (b) there will be no change in the product or the market mix; (c) exports growth rate will match each importing country's growth rate of unit imports; (d) unit exports of garments to Middle East Market will grow at 3 per cent annually; (e) Pakistan will capture 0.5 per cent share in the Japan and Hong Kong Markets; (f) unit price of cotton yarn will grow at 3 per cent and that of fabric will grow at 4 per cent annually; (g) share of 100 per cent synthetic garments share in the garments exports will increase from current 3 per cent to 30 per cent in line with the world trend; (h) 13 million bales of cotton will be consumed; (i) value added products (garments and made-ups) will be the engine of export growth (20 per cent annually); (j) export Product mix will be balanced by giving extra push in the women and woven garments; (k) fabric exported will contain 55

per cent processed fabric; and (l) total cotton production will be 16 million bales of which 13 million will be consumed.

12.27. For this purpose, a Textile Board is being constituted which will monitor the implementation of all the recommendation of the Textile Policy and report to the highest level authority. Textile Commission's Organization will be restructured and strengthened for this purpose. The Textile Board will be headed by a full time chairman preferably from private sector.

Agro-based Industries

12.28 An Agro-industry encompasses a wide and diversified range of production activities, based on the utilization of agricultural raw materials or their by-products wastes. The agro-industries generally, possess a strong backward linkage with the agricultural sector as well as direct and indirect forward linkage with the industrial sector. The rationale of development stems from the very agro- orientation and agro characteristics that the economy of Pakistan is endowed with. The primary justification for this lies in endeavours directed towards obtaining the optimal returns from the agro produce, creation of employment opportunities for rural population and avoidance of population concentration in big cities.

12.29 The most potential efforts to ensure sizeable returns on agricultural front would be to expand the agro-based industries. Prudence has to be applied while making a choice of the industries. Export oriented industries will be given a positive preference over the industries catering only for the local market. Industries aiming at import substitution will also be recommended. Besides, industries based on wastes and by-products of agro-industries will merit special preference. The implementation of agro-industries would play a very important role towards catering to the domestic requirements besides making an addition to the list of our exports. Visualizing this broad perspective, in the processing of agricultural produce and livestocks i.e; crops, vegetables fruits, milk, fish, poultry, meat, hides and skins etc will be activated during the three year programme.

Leather and Leather Products Vision

12.30 Pakistan is one of several countries in South and Southeast Asia promoting the rapid development of its leather-based industries. The country's large quantities of livestock, its generally favourable slaughtering practices and the large number of existing clusters, especially in tanning and glove manufacturing, represent strong assets in competing with other countries of the region. Nevertheless, Pakistan has not yet been able to achieve its export targets especially in footwear, leather goods and garments although it has considerable potential both in terms of quality and quantity. The Government has established a fairly reliable system for accumulating funds for developing the leather-related trade i.e; 0.25% of export value is collected as an industrial development levy and kept ready for financing projects offering benefits for the entire local leather and leather products industry.

12.31 There are around 700 tanneries in the country, most of them capable of producing good quality finished leather. The Government has provided various incentives which encouraged the tanning sector to invest on a large scale in applying the most advanced technology for producing high quality product. However pollution has been and still is the major problem of this industry that needs to be controlled by minimum use of chemicals, maximum recycling and optimum utilization of solid and liquid wastes. There is need for strengthening the R&D activities in respect of raw materials, processing materials, machinery, utilization of bye-products, trained technical manpower and environmental pollution.

12.32 In order to increase value added on the good quality raw hides and skins available locally, downstream industries such as footwear, leather goods, gloves and leather garment production play a substantial role. Considerable success, in terms of increasing production, sales and export volumes, has been achieved in particular by the leather goods and leather garments and especially gloves industries. Footwear sub-sector is the main consumer of leather material. Approximately 80 percent of the leather footwear are made by small and cottage type units. Their performance is affected by the usage of un-suitable material and components, lack of standardization and design, pattern making and grading deficiencies. The medium scale footwear industries which are producing cheap grades of products and locally made components are facing problems of shortage of trained production supervisors and foremen.

12.33 Leather industry also has a great export potential. Leather and leather goods industry would have to be developed with introduction of sophisticated modern technology which increases not only the productivity but also adds maximum value to the final product and maintains pollution control standards. This would obviously require Government support in providing fiscal, monetary and physical incentives like encouraging establishment of Leather Parks etc. For the development of this industry, a Leather Outlook 2010 is also under formulation which will be provide a guidance to integrated approach to this important sector.

Engineering Industry

12.34 The engineering industry in Pakistan is involved in the assembly and manufacture of a variety of products, such as basic metals, metal products, mechanical equipments, textile machinery, electronics and electrical goods, transport, and agricultural equipments, etc. The engineering sector at present is running at around 30% capacity utilization, lagging far behind developing nations in value addition in the manufacture of engineering goods that lead to national wealth. On the other hand, the engineering goods import in Pakistan is about Rs 145 billion, amounting to 32 per cent of the total imports. Local manufacturing of engineering goods is unable to meet even 25% of the total import demand because most engineering industries are still operating at low technological level and unable to produce value added products cost-effectively.

12.35 The Development of Engineering Industry will not only save foreign exchange but will also develop strong linkages with defence production and energy sectors particularly in gas, petroleum, transportation and distribution network and manufacture of Turbine Generator etc. EDB is also expected to play an active role wherever indigenisation is feasible. The emphasis has to be on globalization perspective with minimum tariff protection and international competitiveness. Detailed indigenisation plan would be followed in assembly sector particularly in the automobile and electrical appliances.

12.36 Since the existing level of production and productivity of local engineering industry is far from satisfaction, the desirable approach would be to acquire, absorb, and use appropriate and modern technologies. Realizing the importance of engineering industry for overall development of the country, an Engineering Development Board (EDB) is in place to serve as a central coordination body. The EDB would develop a long-term vision for the development of the engineering sector, formulate and coordinate all government policies relating to the engineering sector and develop an overall strategic Engineering Development Plan. This would lead to promote, enhance technical training as well as formulating policies and guidelines for the utilization of technology development and engineering funds, and also to implementing an indigenisation programme.

Automotive Industry

12.37 The auto and allied industry covers a broad range of engineering and industrial activity. It make use of steel making, high grade alloys, aluminum and other non-ferrous alloys, glass and plastic raw materials, chemicals including paints and lubricants and machine tool manufacture etc. On the ancillary side it depends upon foundries, forge shops, investment casting, precision machine shops, press works, plastic moulding, electrical and electronic equipments, rubber products, hydraulic and pneumatic engineering.

12.38 Pakistan is presently engaged in the manufacture/ assembly of Cars, Trucks, Buses, Van/ Pickups, Motorcycles, three Wheelers, 4-WD Vehicles and Tractors. About 350 vendors are engaged in the manufacture of different parts/ components for these vehicles employing over 135,000 persons directly and 300,000 indirectly.

12.39 Automotive Industry is a highly protective field which needs to be made more cost effective and globally competitive. The industry has to prove this by improving their exports. This would necessarily mean that automotive manufacturing industry has to reduce its price to a level which the common Pakistanis could afford and also improve its quality to compete in the international market. The automobile manufacturers may also like to consider dovetailing their production with the vehicular demands of the armed forces. This will not only enable the manufacturers to have the economy of scale so critical for a viable automobile production line but will also lead to a significant savings in foreign exchange.

12.40 During the three year plan, while the emphasis will be on further indigenization, the key areas of concern will be the improvements in international competitiveness, quality improvement, affordable domestic automotive prices and hence the ultimate benefits of economy of scale.

DEFENCE PRODUCTION

12.41 Defence Production in Pakistan has developed a fairly wide technological base necessary for further advancements. The capabilities now exist for manufacturing of arms and ammunition as well as high-tech defence equipments, and sophisticated products like missiles, radars, Laser and nuclear based devices etc. Defence production has however remained within the domain of public sector organizations and its link with the private sector is limited. Furthermore, the defence production is restricted to the defence purposes and its constructive application and dovetailing with the private sector could generate tremendous commercial gains. This will not only relieve the government from the pressures of high defence budget but will put the existing public sector institutions to the best commercial uses. Additionally, the defence related R&D and technologies will be used for the development of key areas of the manufacturing namely engineering, automotive, air craft manufacturing and ship-building and will hence boost the industrial activity. The time is now ripe to open up defence production to the private sector so that the R&D knowledge, technological developments & innovations are diverted for commercial and civil applications. The private sector in turn will contribute their skills in the form of marketing, customer orientation, R&D and business/ technical innovations available with the private sector organizations. The main emphasis of three year plan will therefore, remains on the commercialization of defence production through joint public and private efforts and investments. The three-year plan will restructure its policies to improve the prospects of defence production and actively involve the private sector in it. For further development of defence production, the following strategies will be adopted:

(i) A favourable policy for setting up defence industries in the public sector in collaboration with private entrepreneurs on cost sharing basis will be adopted. The government equity after

stabilization of the industry will be sold to the private investor so that the burden of running the industry is not borne through public finances.

(ii) Imports of equipments, spares, machinery and tools will be done through by those private sector industries which are willing to participate in subsequent indigenous manufacture of defence stores/ Technology Transfer. This will provide the necessary business and technical ailiance with the Services.

(iii) Discriminatory regulations and anomalies of duties and taxes on raw materials, parts and sub-assemblies for defence manufacture will be removed. The private industry will be treated equally and at par with the public sector.

(iv) The Services will share defence production plans and information with the concerned private sector industry for encouraging private sector investment.

(v) Transfer of Technology acquisitions will be allowed to the private industry for less restrictive areas for export and civil markets.

(vi) The idle capacity in the public sector defence industry will be made available to the private sector on charges and vice versa, subcontracting to the private sector will be encouraged.

Physical Targets

12.42 The manufacturing sector as a whole is expected to grow at 6.6 per cent per annum during the next three years. Small-scale manufacturing will grow at the rate of 5.3 per cent per annum, while the large-scale industry will grow at the rate of 6.7 per cent per annum. A statement showing targets of industrial production is given at Annex 12.1

Financial Targets

12.43 In order to achieve the desired industrial growth an investment of Rs.325 billion is estimated in the manufacturing sector during the three year period (2001-04). This includes Rs.250 billion in large-scale manufacturing and Rs.75 billion in small-scale manufacturing industries. The major portion of investment, i.e., Rs.310 billion is expected to be in the private sector, contributing about 95 per cent of the total investment. Detail are given at Annex 12.2 & 12.3.

MINERALS

Current Situation

12.44 Pakistan is endowed with a diversified mineral resource potential, however economic viability of extraction of many mineral deposits have not been established yet. The sector has been allocated very small amount, which has ranged between 0.45% to 2.46% of the total public sector expenditure since First Five Year Plan. The growth has mainly remained in construction and industrial minerals e.g., marble, limestone, dolomite etc. This shows weak 'Resource Base' of the mineral sector reflecting the contribution of this Sector to GDP of just around 0.5%.

Policies

12.45 The major issues/ barriers requiring urgent attention include lack of support and facilitations to investors, ffiscal levies, inadequate geological mapping at appropriate scales, accessibility to geodata, retro-development oriented rules, in-sufficient and uncoordinated R&D/ S&T facilities, lack of middle line workforce and on-job training, un-attractive wage and salary structure both in public and private sectors, lack of composite mineral facilities in remote mineral bearing areas and lack of co-ordination among various mineral sector agencies etc. For this purpose, the policies envisaged for implementation during the Three Year Development Programme are being framed to help in steadily increasing the contribution of the mineral sector to the GDP of Pakistan.

Keeping in view the policy framework, incentives provided in the *National Mineral Policy* and the interest shown by Foreign Companies, it is expected that the contribution of mineral sector may increase from existing 0.5 percent of GDP to 0.8 percent of GDP in Three Year Plan period.

12.46 The policy framework and the general guidelines for the overall development of the mineral sector during the Three Year Plan period will provide;

- Adequate financing to the public sector corporations/ organisations for grass root exploration.
- Regulatory framework and regime about licenses and mining leases in line with the *National Mineral Policy.*
- Development of infrastructure in mineral bearing areas.
- Consistent fiscal regime including fiscal package, taxes, concessions and royalty.
- Encouragement of small-scale mining.
- Environmental policy regarding mining and querying
- Regulatory institutional strengthening according to *National Mineral Policy.*

Strategies

12.47 National Mineral Policy will form the foundation for realization of the objectives through following strategies;

- Implementation of the *National Mineral Policy* by the Provinces.
- Speedy completion of geological mapping of 10,000 sq km of 14 identified mineralized areas of the country on different scales by GSP.
- Privatization of public sector mines and restricting public sector efforts to regional resource surveys.
- Adoption of multi-disciplinary approach for regional resource surveys, integrated techniques of photo geology, satellite imagery, aerial photographs, ground and airborne geophysical/geochemical surveys and drilling.
- Strengthening of R&D capabilities and the testing and analytical facilities in the mineral sector including those for training and human resource development.
- Establishment of Geo-Data Centre of Pakistan (GDCP) in Geological Survey of Pakistan.
- Encouraging foreign direct investment in mining ventures for acquisition of modern technology and establishment of mineral-based industries.

Challenges of Governance

12.48 Mineral Industry involves multiple disciplines starting from prospecting and geologic mapping to development and exploitation. However, absence of proper and effective interfacing of various mineral related activities handled by a number of federal institutions (Geological Survey of Pakistan, Pakistan Mineral Development Corporation, Pakistan Council of Scientific and Industrial Research, Saindak Metals Limited, Pakistan Atomic Energy Commission, Azad Kashmir Minerals and Industrial Development Corporation, Northern Areas Administration etc); Provincial Mineral Development Departments (Punjab Mineral Development Department, Sarhad Development Authority; Balochistan Development Authority, Mineral Concession Departments and Inspectorate of Mines etc); and academic institutions turning out geo-scientists, mining engineers and metallurgists results in poor monitoring and bad governance. In order to develop proper linkages, with the various public sector departments to effectively and judiciously, the immediate requirement is that the work so far done by these institutions may be consolidated, and in turn interfaced.

Institutional Arrangements

12.49 So far as institutional arrangements are concerned, already there is a large number of public, semi-public and private organizations on all levels, engaged in all

types of mineral-related activities (i.e. exploration, investigation, development, exploitation, processing, manufacturing, promotion, marketing and utilization), adducing the seriousness interlaced with the sector. Multiplicity of these agencies results in duplication of efforts and wastage of available meager resources.

12.50 To make efficient use of the existing institutional set-up, as a matter of priority, it is imperative to define the role of federal and provincial mineral agencies/stake holder by its organization streamlining their functions, procedures, simplification and enhancement of their resources. Where necessary, new orders are being inaugurated, to take-up rapidly expanding responsibilities.

Physical Facilities

12.51 To promote advancement of the mineral sector, various physical facilities, as continuously improved upon, are available. Providing for necessary services as well as offering appropriate incentives, they comprise generally of geological maps, data bank, analytical tests, feasibility studies, established reserves, mining infrastructure, mining transportation, mining equipment and mining operations.

Data Bank

12.52 As works on various phases of exploration/evaluation/development/exploitation/ utilization advance, techno-economic information on various aspects of mining is collected as a matter of routine, which constitute a data bank in the form of Geo-data Centre. The information thus collected, often published as a directory or manual, is variously used in mineral activities.

Physical Targets

12.53 The production/ extraction of various minerals has been fluctuating in the past and therefore growth rates have been based on previous uneven trend of production during Seventh & Eighth Five Year Plan and the future indicative plans. Detail of Mineral Production is given at Annex 12.4.

Financial Targets

12.54 Total Federal Public Sector Investment during the Plan period (2001-2004) is estimated to be Rs.239 million excluding Provinces' and Special Areas. Detail of Mineral Investment is given at Annex 12.5. Foreign Direct Investment to the tune of Rs 5 billion is anticipated during the Plan period. For the private sector, investment is based on the indicative programmes of foreign firms, which are in the process of firming up the feasibilities of various mineral projects.

Annex 12.1

Industrial Production Targets for Three Year Programme (2001-04)

I t e m s	Units	* 1999-2000	2001-2004 (Projections)	ANNUAL GROWTH RATE %
		1	2	3
TEXTILES				
COTTON YARN	Million Kgs.	1671	1990	6
COTTON CLOTH (MILL SECTOR)	Mill.Sq.Mtrs	319	380	6
GARMENTS	Million Pieces	650	989	15
KNITWEAR/HOSIERY	Million Pieces	400	691	20
LEATHER PRODUCTS				
LEATHER (UPPER)	'000' SQ. MTR.	9785	11070	4
LEATHER (SOLE)	M. T.	124	132	2
LEATHER (FOOTWEAR)	'000' PAIRS	24116	27363	4
AGROBASED				
VEGETABLE GHEE/OIL	'000' M.T.	922	1129	7
SUGAR	'000' M.T.	2429	3295	11
WRITING AND PRINTING PAPER	'000' M.T.	97	116	6
PAPER & BOARD	'000' M.T.	427	483	4
FERTILIZERS				
NITROGENEOUS FERTILIZER	'000' N.T.	1842	2200	6
PHOSPHATIC FERTILIZER	'000' N.T.	86	138	17
CHEMICALS				
SODA ASH	'000' M.T.	249	282	4
CAUSTIC SODA	'000' M.T.	141	159	4
PAINTS & VARNISHES (LIQUID)	000 LTR.	20714	22899	3
PAINTS & VARNISHES (SOLID)	M.T.	7277	8045	3
NON-METALLIC MINERAL PRODUCTS				
GLASS SHEETS	'000' SQ.MTR.	6250	7051	4
CEMENT	'000' M.T.	9314	11298	7
PETROLEUM PRODUCTS				
MOTOR SPIRITS	'000' Litres	1375918	1791680	9
HIGH SPEED DIESEL	'000' Litres	1695629	2294015	11
FURNACE OIL/LIGHT DIESEL OIL	'000' Litres	2175548	2763465	8
JET FUEL	'000' Litres	1043070	1328254	8
KEROSENE OIL	'000' Litres	357707	476108	10
STEEL (PAKISTAN STEEL)				
PIG IRON	'000' NOS	1107	1281	5
BILLETS	'000' NOS	345	511	14
H.R/C.R.SHEETS/PLATES	'000' NOS	707	818	5
GALVANIZED SHEETS	'000' NOS	59	93	16
AUTOMOBILES				
TRUCKS	NOS	977	1387	12

Annex 12.1

Industrial Production Targets for Three Year Programme (2001-04)

I t e m s	Units	* 1999-2000	2001-2004 (Projections)	ANNUAL GROWTH RATE %
		1	2	3
BUSES	NOS	1508	1958	9
LCV's	NOS	5122	6651	9
CARS/JEEPS	NOS	31352	47682	15
AGRICULTURE TRACTORS	NOS	34909	42765	7
TWO/THREE WHEELERS	NOS	94881	144302	15
ENGINEERING				
AIRCONDITIONER	'000' NOS	48	71	14
REFRIGERATOR	'000' NOS	213	299	12
DEEPFREEZER	'000' NOS	140	202	13
T.V SETS	'000' NOS	121	298	35
BICYCLES	'000' NOS	534	673	8
ELECTRIC FANS	'000' NOS	680	981	13
TRANSFORMERS	'000' NOS	13	36	40
SWITCHGEAR	NOS	56888	72662	9
CONDUCTORS	M.T.	16000	30506	24
GENERATOR SETS	NOS.	30000	50555	19
ELECTRIC SUPPLY METERS	NOS	898817	953832	2
MINIATURE CIRCUIT BREAKERS	NOS	30000	46827	16

PROJECTIONS

Annex 12.2

INVESTMENT IN THE MANUFACTURING SECTOR FOR THREE YEAR PLAN (2001-2004)

(Rs in billion)

	ACTUAL	PROJECTIONS			Total
	1998-99	2001-02	2002-03	2003-04	
Total Manufacturing Investment	72	89	103	133	325
Public Sector Investment	11	7	5	3	15
Private Sector Investment	61	82	98	130	310
Large Scale Manufacturing	53	68	80	102	250
Small-Scale Manufacturing	19	21	25	29	75

Annex 12.3

PUBLIC SECTOR
ALLOCATIONS/UTILIZATIONS AND THREE YEAR PROGRAMME ALLOCATIONS

SECTOR : MANUFACTURING (Billion Rupees)

	8th Plan Allocations 1992-93 Prices	Allocation during 8th Plan as per PSDP		Utilization during 8th Plan		Allocations during 3 Year Plan 2001-04
		Current Prices	1992-93 Prices	Current Prices	1992-93 Prices	
1	2	3	4	5	6	7
Budgetary PSDP						
Federal	0.335	1.853	1.363	2.194	1.620	1.632
Non-budgetary Corp.	1.520	12.107	9.068	12.242	9.138	13.368
i) Pakistan Steel Mills Corporation						12.000
ii) Utility Stores Corporation						1.368
TOTAL	1.855	13.960	10.431	14.436	10.758	15.000

Annex 12.4

MINERAL PRODUCTION AND TARGETS

Sr. No.	ITEMS	UNITS			Actual		Targets (2003-2004)
			Actual Production (1992-93)	Actual Production (1997-98)	Production (1998-99)	Production (1999-2000)	(2003-2004)
1	2	3	4	5	6	7	8
1.	Aragonite/ Marble	(000 Tonnes)	388	345	403	364	375
2.	China clay	(000 Tonnes)	37	68	54	46	51
3.	Celestite	(Tonnes)	1682	961	486	698	957
4.	Chromite	(000 Tonnes)	23	35	16	16	23
5.	Coal	(000 Tonnes)	3256	3145	2314	2289	2751
6.	Dolomite	(000 Tonnes)	220	116	199	265	300
7.	Fire Clay	(000 Tonnes)	132	94	61	98	120
8.	Fullers Earth	(000 Tonnes)	23	18	11	14	17
9.	Gypsum Anhydrite	(000 Tonnes)	533	307	242	217	325
10.	Limestone	(000 Tonnes)	9015	11166	9519	8245	9486
11.	Magnesite	(Tonnes)	5047	3397	3455	3356	3814
12.	Rocksalt	(000 Tonnes)	895	971	1190	1027	1050
13.	Silicasand	(000 Tonnes)	158	135	158	121	143
14.	Ochre	(Tonnes)	1000	3147	4080	3634	3800
15.	Sulphur	(Tonnes)	510	22458	18900	17148	19000
16.	Soapstone	(000 Tonnes)	48	49	61	34	48
17.	Baryte	(000 Tonnes)	26	30	18	15	22
18.	Bauxite/Laterite	(Tonnes)	18682	28366	41362	25741	28538
19.	Iron Ore	(Tonnes)	1922	5500	38151	37594	38550

Sources: Statistical Bulletin, Federal Bureau of Statistics.
Seventh and Eighth Five-Year Plans, Planning Commission of Pakistan.
Economic Surveys, Finance Division, Islamabad.
Mineral Wing, Ministry of Petroleum and Natural Resources

Annex 12.5

MAJOR PROJECTS IN THREE YEARS PLAN (2001-04)
MINERALS

(Million Rs.)

Sl. No.	Name, Location and status of the Scheme	Estimated Cost		Expenditure upto June, 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	Ministry of Petroleum & Natural Resources							
	Geological Survey of Pakistan							
	(New - Un-approved)							
1.	Regional Geological Mapping/ Geophysical & Geochemical Surveys of un-explored areas of Pakistan	150.000	50.000	0.000	0.000	25.000	20.000	59.000
2.	Establishment of National Geodata Centre of Pakistan (cost given by FACE)	200.000	75.000	0.000	0.000	25.000	60.000	50.000
	Total Minerals	**350.000**	**125.000**	**0.000**	**0.000**	**50.000**	**80.000**	**109.000**

CHAPTER 13

AGRICULTURE, LIVESTOCK AND FISHERIES

Agriculture is the single largest sector and driving force of the economy. At present, it accounts for 26 per cent of the Gross Domestic Product (GDP), provides livelihood to 68 per cent of the people living in rural areas, employs 46 per cent of the labour force, and its share of export earnings amounts to 60 per cent, including processed agricultural exports. It serves as the base for major industries like textile and sugar. Although the share of agriculture in the GDP has declined over the years, because of relatively higher growth of other sectors such as industry, infrastructure, services, etc., it is still a leading sector of the economy. It has maintained an average annual growth rate of 3.9 per cent during the last decade.

'3.2 The Agricultural production projections at presented in Annex 13.1.

13.3 Agriculture will continue to be a dominant sector of the economy providing food to the people, raw materials to industry, and exportable surpluses of agriculture commodities in order to earn valuable foreign exchange. The future agricultural development strategies will be geared towards attaining high growth rates in agriculture by providing the right policies and institutional support so that the sector can move forward and further enhance its contribution to the economy. Accelerated growth and development of the agriculture sector will not only improve the income, employment opportunities, and living standards of the people in rural areas but also provide a base for increasing production of agro-based industries. The stage will beset to bring in a second 'green revolution' in the country making agriculture competitive in the wold market, through higher yields and a transformation of the cropping pattern towards high value added crops.

Major Issues

13.4 The country is endowed with fertile land, water resources, and hard-working farmers to exploit it. There are 22.0 million hectares of cultivated land, out of which 80 per cent is irrigated. There are different agro-ecological zones under which a wide variety of crops can be grown. In spite of these favourable factors, agricultural productivity is low. There exists tremendous potential to increase the productivity of crops grown in irrigated areas by development of high-yielding, disease-resistant varieties, increased crop coverage under certified seeds, balanced use of fertilizer, and adequate plant protection measures. The productivity of barani areas can also be enhanced by developing crop-specific technologies and its transmission to the farmers. There are good prospects for increasing productivity of all major crops, particularly cotton, wheat, rice, sugarcane, and maize. There is a yield gap of 30-50 per cent between average and progressive farmers' yields. This difference becomes much higher when compared to best practices in other countries. This unrealized potential will be tapped through proper policy measures and efficient farm management practices.

13.5 The availability of water is becoming a limiting factor in expansion of the area under agricultural crops and in increasing the cropping intensity. The storage capacity of existing dams is being progressively reduced due to accumulation of silt. At present, around 35-40 million acre feet of water flows to the sea which can be harnessed for agricultural purposes. Thus there is an urgent need to establish additional water storage facilities

through construction of dams for conservation of additional water to meet the irrigation requirements to increase cropping intensity, and to bring additional area under cultivation.

13.6 Farming must be made a profitable enterprise by providing the right price for agricultural commodities. The Government must provide minimum guaranteed price to the farmers by implementing the support price programme. The input and output prices for crops must be rationalized. The marketing system of agricultural produce must be streamlined and rural infrastructure, especially farm-to-market roads, improved.

13.7 In the past, large investments have been made in institutional development, especially for research, extension, and education, but linkages between these institutions have remained weak, thereby affecting the overall process of development and transfer of new technologies to the farmers. Research programmes have not been adequately funded. The extension system has failed in reaching the small and medium farmers who are badly in need of the latest technologies. The educational system has to be reformed in order to make the graduates responsive to the present needs and demands of the agriculture sector. It is therefore imperative that research, extension, and education must be strengthened and technical capability of agricultural graduates enhanced in order to bring about perceptible improvement in agriculture.

13.8 The livestock sub-sector contributes about 43.9 per cent of the agricultural value-added, and 11.5 per cent to the GDP. There is considerable potential to increase productivity in terms of meat and milk, through provision of adequate quantities of fodder and feed, genetic improvement, disease control, and scientific management. There is also vast scope for the establishment of feed lots for fattening of cattle and lamb for increasing meat production.

13.9 The fisheries sub-sector contributes 2.2 per cent to the agriculture value- added, and 0.6 per cent to the GDP. There is considerable scope for increasing the production of both marine and inland fisheries. In the case of marine fisheries, the area between 12-35 nautical miles is under exploited due to lack of suitable fishing boats. The quality of fish catch is poor due to lack of hygienic facilities at landing sites and proper cold storage facilities in fishing boats. There is over-harvesting of shrimp, which is adversely affecting the shrimp resources. In case of inland fisheries, production can be enhanced through better management practices, intensive farming, and further development of aquaculture facilities. There is a large untapped potential in establishing clusters of fish farms throughout the country.

Objectives and Policies

13.10 In line with the 2025 vision, the main objectives of agricultural development during the Three Year Programme period will be to achieve self-reliance in agricultural commodities, ensure food security, improve crops, livestock and fisheries productivity and promote sustainable development. These objectives will be achieved through implementing the following policies :

(i) enhance productivity of crops, livestock and fisheries through development of new technologies, scientific methods of farming and improved management practices;
(ii) promote import substitution by enhancing the production of edible oils, tea and milk;
(iii) promote production and export of high-value crops;
(iv) ensure availability of agricultural credit especially for small and medium farmers;
(v) improve income of the farmers by providing incentives through the support price mechanism;
(vi) improve marketing infrastructure;
(vii) improve efficiency of agricultural inputs and ensure their timely availability to the farmers;

(viii) strengthen agricultural institutions for education, research and extension, and improve their linkages and coordination; and
(ix) promote development of barani, riverine and mountainous areas.

Strategies

13.11 The research and development activities will be focused on generating new technologies, on evolving improved varieties of crops, and on genetic improvement of livestock. For this purpose, Biotechnology and Genetic Engineering will be employed by research institutes. Major emphasis will be laid on improving the per acre yield of crops and improving the productivity of livestock, and fisheries sub-sectors.

13.12 The Government has decided to revitalize the agriculture sector to exploit its vast potential. It is an important element in the overall strategy of economic revival. As a result of Government's policies, an impressive growth rate of 5.5 per cent was achieved in agriculture sector during 1999-2000. Self-sufficiency in wheat has already been achieved. Its productivity will be further enhanced. Efforts will be made to increase the production of edible oilseeds in order to reduce the import of edible oil. Support prices of agricultural commodities will continue to be fixed in order to provide incentive to the farmers to increase agricultural productivity. In the livestock sector, production and export of meat and dairy products will be encouraged. Sustainable exploitation of marine fisheries in the Exclusive Economic Zone will be promoted through institution of support for value added exports and the provision of credit. State lands which have not been distributed so far, will be distributed among landless peasants. A special credit package will be made available to the small farmers to help them develop their land and make it productive. De-silting of canals and water courses will be undertaken in order to increase the water availability and improve its efficiency, which will ultimately increase the production of crops.

13.13. The operational elements of the agricultural strategy for the Three Year Programme will be as follows:

(i) accelerate the modernization of the agriculture sector and achieve self-sufficiency in food;
(ii) the Pakistan Agricultural Research Council (PARC) and the Provincial Agricultural Research Institutes and extension services will be suitably strengthened and adequately funded in order to meet the future requirements of modern and scientific agriculture. Research in bio-technology and genetic engineering will be given high priority. High-yielding, disease-resistant varieties of major crops and improved breeds of livestock will be developed;
(iii) all agricultural research and extension institutes will provide practical training to farmers in order to improve their technical knowledge and skills;
(iv) effective linkage and coordination will be established between all agriculture-related line departments at the provincial level;
(v) the electronic media will be extensively utilized to provide information on the latest technologies developed by research institutes to farmers;
(vi) additional water storage capacity will be developed to the maximum possible extent, in order to avert any crisis in agricultural production and food availability;
(vii) water use efficiency will be improved and drip and trickle irrigation will be promoted in water-scarce areas;
(viii) programmes will be undertaken to control water-logging and salinity. Research will be undertaken on bio-saline agriculture;
(ix) programmes will be undertaken for the development of cultivable wastelands through land-levelling and provision of water;
(x) state lands which have not been distributed so far, will be distributed among landless peasants;

(xi) agricultural productivity will be enhanced through balanced use of fertilizer and micro-nutrients, increased use of certified seed, adequate plant protection measures, and improved agronomic management;

(xii) the availability of institutional agricultural credit, especially for small and medium farmers, will be ensured in order to enable them to purchase essential agricultural inputs;

(xiii) adulteration of fertilizers and pesticides will be discouraged through legislation and by imposing stiff penalties;

(xiv) the availability of certified quality seed of high-yielding varieties of major crops, fruits, vegetables, and oilseeds will be ensured. Private sector will be encouraged to undertake production and distribution of good-quality seed;

(xv) agriculture will be diversified towards high-value crops. Special emphasis will be laid on growing fruits, vegetables and flowers for the export market. The private sector will be encouraged to establish processing, grading, packaging, and cold storage, etc., through provision of liberal credit;

(xvi) the cultivation of tea on commercial lines will be promoted in the NWFP. Long-term credit facilities will be provided to the farmers;

(xvii) agricultural universities and colleges will improve the quality of agricultural education and make it responsive to the future needs;

(xviii) in barani areas, high-yielding, drought-tolerant varieties of food and fodder crops will be promoted, with a view to improving the agricultural productivity and farm incomes of people of these areas. Dryland farming techniques will be developed and disseminated among the farmers;

(xix) agricultural marketing will be improved in order to ensure that farmers receive remunerative prices for their crops and livestock and consumers have abundant access to daily necessities. The support price programme will be implemented in order to provide protection to farmers against market risks;

(xx) the livestock research and extension will be strengthened in order to increase the production of milk, meat, and other livestock products. Feed and fodder resources will be developed in order to provide balanced and nutritious feed to livestock;

(xxi) in order to increase the production of fish, aquaculture, and marine fisheries will be promoted. For inland fisheries, the existing hatcheries and research facilities will be strengthened. In the case of marine fisheries, the infrastructure facilities, the equipment and management of fish harbours will be further improved.

Corporate Farming

13.14 The private sector will be encouraged to undertake corporate farming as a means of introducing new technology, increasing yields, providing processing on farm, marketing for export and introducing shareholding as means of broad based ownership of commercially viable agro-livestock farms. There is high potential in utilizing this mode to make the best use of agriculture land assets and the largest man-made canal system in the world to make maximum contribution to economic growth and provide a competitive environment for production of high value crops, fruits, vegetables, livestock and dairy products. It will undertake production of agricultural commodities on modern scientific lines including its processing, marketing and storage. State land will be provided on long-term lease to the corporate sector. Agricultural Development Bank and Commercial Banks will provide credit for development of corporate agricultural farms making it possible to increase investment in the agriculture sector.

Commodity Boards

13.15. Commodity Boards will be formed to assist in formulation of policies and strategies

for improving production, marketing, processing and export of different agricultural commodities. The commodity boards will have representation from farmers' association, private business and trade, and Government agencies. Initially, commodity boards will be formed for wheat, cotton, sugarcane, rice, horticultural crops and livestock and dairy. It will later on be extended to other commodities.

Production Targets

13.16 The crop production targets have been fixed keeping in view the domestic demand, population growth, and industrial and export requirements, as well as the technical feasibility to achieve them. The availability of required inputs such as water, fertilizer, machinery, and seed were also kept in view while fixing the targets. Short- and long-term projection techniques were applied to estimate the targets. The production targets for the Three Year Programme are presented at Annex 13.2 and 13.3.

Availability of Inputs

13.17. The physical inputs required to achieve the crop production targets are presented in Table 13.1. Appropriate measures will be taken to improve and ensure timely availability of these inputs.

Table 13.1
Crop Production Input Targets

Inputs	Benchmark 2000-01	Target 2003-04	Annual Growth Rate %
Water Availability (MAF)	134.77	134.88	0.04
Fertilizer Offtake (000 'N' Tonnes)	3,037	3,520	5.0
Seed Distribution (000 Tonnes)	200	300	14.5
Mechanization (000 Tractors)	286.3	375.0	9.4

Fertilizer

13.18. In order to achieve the crop production targets, the fertilizer requirement during the Three Year Programme period is expected to increase by 5.0 per cent per annum over the 2000-01 offtake. The annual growth rate for Nitrogen is estimated to be 4.4 per cent, Phosphate 8.0 per cent, and Potash 30.1 per cent. In quantitative terms, the Nitrogen offtake will increase to 2,623 thousand tonnes, Phosphate to 842 thousand tonnes, and Potash to 55 thousand tonnes. The total fertilizer use will increase from 3,037 thousand nutrient tonnes in 2000-01 to 3,520 thousand nutrient tonnes in 2003-04. Each cropped hectare will receive 150 nutrient kg. of fertilizer. The NPK ratio will improve from 3.3 : 1 : 0.04 in 2000-01 to 3.1 : 1 : 0.07 by 2003-04. The fertilizer consumption targets are given in Table 13.2.

Table 13.2
Estimated Fertilizer Offtake, 2001-04
(000 Nutrient Tonnes)

Year	N	P	K	Total
2000-01 (Benchmark)	2,305	707	25	3,037
2001-02	2,406	749	35	3,190
2002-03	2,512	794	45	3,351
20003-04	2,623	842	55	3,520
Annual Growth Rate %	4.4	8.0	30.1	5.0

13.19 The following measures will be taken to improve the use and efficiency of fertilizers:

(i) the quality of fertilizers will be checked through legislation and effective quality control measures;
(ii) the price structure of both nitrogenous and phosphatic fertilizers will be adjusted in such a way as to promote their balanced use;
(iii) blended fertilizers will be introduced;
(iv) Integrated Plant Nutrition Systems (IPNS) will be introduced on pilot basis; and
(v) application of micronutrients like zinc and boron in rice and cotton crops will be promoted.

Improved Seed

13.20 The use of good-quality seed is a basic requirement for increasing the production and yield of crops. The foundation of a sound and viable seed production system is dependent on the ability of research institutes to continuously evolve high-yielding varieties of crops. Research institutes will direct their efforts towards development of new crop varieties and hybrid seed. The Federal Seed Certification and Registration Department will be strengthened in order to make it more effective and functional. Additional seed testing laboratories will be established. The seed production and distribution programme in Punjab, Sindh, NWFP and Balochistan will be developed and improved with the active participation of the public and private seed companies. The offtake of improved seed will increase from 200 thousand tonnes in 2000-01 to 300 thousand tonnes in 2003-04. The action plan warrants increase in yields to free area for high value crops.

Management of Pests and Diseases

13.21 It has been estimated that around 25 per cent of crop outputs are lost due to attack of pests and diseases. Although the application of pesticides has increased over the years, its indiscriminate use should be avoided as it kills useful insects and predators, and causes environmental degradation. In order to reduce pesticide application, Integrated Pest Management (IPM) programmes will be developed and promoted. Adulteration of pesticides will be controlled through strict implementation of the Pesticides Act.

13.22 During the Three Year Programme period, pest scouting services in the provinces will be made more effective in order to provide information to the farmers regarding the economic threshold level of pests and diseases for application of chemicals and pesticides. A pesticide information system will be established to monitor the import, production, distribution, sale and prices of pesticides. A country wide survey of pesticide use will be conducted. Strict quarantine measures will be followed at all entry points to the country in order to prevent import of disease/pest-infected seeds and plants. Private companies will be encouraged to manufacture pesticides locally in order to reduce the cost.

Mechanization

13.23 Mechanization of farm operations has become necessary due to shortage of labour and animal power at planting and harvesting stages of crops. It helps in timely sowing and harvesting of crops and reduction in post-harvest losses. It is projected that 45,000 tractors per annum will be added to the existing fleet. Thus the total number of operational tractors will increase from 286.3 thousand in 2000-01 to 375.0 thousand in 2003-04. During the Programme Period, the availability of institutional credit to farmers for purchase of agricultural machinery will be ensured. Custom hire service centres will be established for tractors/bulldozers and costly implements in order to make them available to small and medium farmers.

Agricultural Credit

13.24 Timely availability of credit to farmers plays an important role in accelerating agricultural growth and productivity. It is required to meet the production and developmental needs of farmers. The Three Year Programme lays emphasis on enhancement of agricultural productivity, which will require larger use of inputs, agricultural machinery, and implements. Thus the requirement of agricultural credit will increase considerably. The total agricultural credit requirement is estimated to be Rs 526 billion. The details are given in Table 13.3.

Table 13.3
Agricultural Credit Requirement

(Million Rs)

Year	Develop-ment	Produc-tion	Total
2000-01 (Benchmark)	48,767	92,270	141,037
2001-02	54,229	102,604	156,833
2002-03	60,303	114,096	174,399
2003-04	66,936	127,787	194,723
Total	181,468	344,487	525,955

Development of Marginal Areas

13.25 Marginal areas include rainfed, riverine, coastal, desert, hilly, waterlogged, and saline areas. These areas are less productive or non-productive due to low and erratic precipitation, severe temperature, rough topography, poor soil structure, and poor drainage. These areas are not contiguously located and possess different characteristics. Around 9.4 million hectares of land is classified as culturable waste which cannot be brought under cultivation due to lack of water. In the past, most of the efforts were confined to developing technology for exploiting the potential of irrigated areas and less attention was paid to marginal areas. Due to population pressure and increasing demand for agricultural commodities, the development of marginal lands will be given priority. It will help in horizontal expansion of the area under agriculture. Marginal land owned by the State will be allotted to tenants/haris and unemployed agriculture graduates in order to hasten its development and utilization.

Horticulture

13.26 There is a great potential to improve the production and export of fruits, vegetables, and flowers. Diversification towards these high-value crops will improve the income of the farmers, meet the dietary and nutritional requirement of the people, and earn valuable foreign exchange through export.

13.27 The following measures will be taken during the Three Year Programme period:

(i) an important policy goal will be to encourage fruit and vegetable farmers to grow specifically for the export market. For this purpose, improved cultural and agronomic practices for increasing the production of fruits and vegetables will be promoted through an aggressive extension campaign by the print and electronic media;

(ii) the Federal Fruit and Vegetable Board will be made functional to provide support and guidance to provincial boards and private sector;

(iii) fruit plants available from private nurseries are generally of uncertain origin, thus resulting in poor fruit quality which is detected at the maturity stage. In order to avoid this problem, multiplication of good-quality fruit trees will be undertaken by research institutes. Progeny gardens and clonal repositories will be established for production of disease-free plants;

(iv) products for export will be subjected to quality and quarantine inspection in order to ensure that they meet the requirements of the export market:

(v) fruit and vegetable processing and preservation plants and export companies will be established in growing areas;

(vi) concessional air and sea freight will be provided for export of fruit, vegetables, and flowers;

(vii) research will be carried out on improvement of quality of flowers, development of virus-free plants, and soil-less rooting media;

(viii) Export Promotion Bureau will promote marketing and export of flowers, pot pourri products, and essential oils. A percentage of the export development fund would be utilized for marketing,

research, and development of floriculture, and

(ix) a Horticulture Export Board will be established to promote export of horticulture products.

Oilseed Crops

13.28 The domestic production of edible oil during the last 10 years has grown at the rate of 2.6 per cent annually, whereas the consumption is increasing at an annual rate of 8 per cent. The domestic production of edible oil is around 0.5 million tonnes and 1.0 million tonnes are being imported annually.

13.29 The oilseed crops grown in the country are classified as traditional and non-traditional. The traditional crops are rapeseed, mustard, groundnut, sesame, and linseed. Non-traditional oilseed crops are sunflower, soybean, and safflower. Oil-bearing trees such as coconut, oil palm, and olive are also being planted on a small scale. The main sources of domestic edible oils are cottonseed, which accounts for 75 per cent of the total production, rape and mustard contribute 16 per cent, non-traditional oilseeds around 8 per cent, and other crops 1 per cent. Although a number of oilseed crops can be grown in the country, the promising oilseed crops are rapeseed and mustard/canola, sunflower, and soybean. The developmental activities on oilseeds are being carried out by the Pakistan Oilseed Development Board (PODB).

13.30 The following measures will be taken to promote the cultivation of oilseed crops:

(i) PODB will prepare annual production plans, undertake development activities, ensure availability of inputs and procurement of the produce, and liaise with edible oil industry for oil extraction and marketing of oil and meal;

(ii) efforts will be concentrated on three promising oilseed crops, namely, rapeseed, mustard/canola, sunflower, and soybean;

(iii) the yield of oilseeds will be doubled through better management practices such as the use of quality seed, application of fertilizer and plant protection measures;

(iv) the availability of quality seed of rapeseed and mustard/canola, sunflower, and soybean, alongwith a package of production technology, to the farmers will be ensured;

(v) inbred lines of suitable hybrid varieties developed by the research institutes will be provided to the Provincial Seed Corporations and Private Seed Companies for further multiplication and distribution among the growers;

(vi) oilseed crops compete with wheat, sugarcane, maize and cotton. Thus, inter-cropping will be encouraged where feasible;

(vii) contract growing of oilseed by farmers will be promoted by the edible oil industries; and

(viii) PODB will undertake large-scale plantation of oilpalm in coastal areas of Sindh and Balochistan.

Agricultural Research

13.31 The primary objective of agricultural research during the next three years will be to generate new knowledge and technologies for the enhancement of agricultural productivity. The research system will be made responsive to new challenges facing the agriculture sector, and will be developed in consonance with the farmers' needs. Better linkages will be developed between systems of research, education, extension and production. Genetic Engineering and Bio-technology will be utilized for the development of new varieties of crops. A high priority will be given to the development of cotton varieties resistant to leaf curl virus disease.

13.32 The Pakistan Agricultural Research Council (PARC) will be responsible for coordination of research throughout the country in order to avoid duplication of research activities. The modest human and financial resources available for research will be judiciously used by prioritization of

research needs and consolidation of scattered research efforts. A national master plan for agricultural research has been prepared by the Pakistan Agricultural Research Council for the next 10 years. It will serve as a basis for research activities.

13.33 The following measures will be taken during the Three Year Programme period :

(i) basic and strategic research will be conducted by the PARC while provinces will undertake applied/adaptive research. Research programmes will be reorganized and resources will be allocated to high priority research areas. A proper mix of adaptive and basic research will be undertaken to solve the emerging problems in crops, livestock, fisheries and forestry;
(ii) germplasm of important crops will be collected, evaluated, and conserved with a view to utilizing it for the development of new varieties;
(iii) high priority will be accorded to the development of virus resistant-varieties of cotton by the relevant federal and provincial research institutes;
(iv) emphasis will be laid on accelerating the development of high yielding, disease-resistant varieties of crops, especially sugarcane, wheat, rice, oilseeds, pulses, fruits and vegetables;
(v) research will be undertaken to develop agronomic packages necessary for realizing the full yield potential of each crop, including appropriate tillage and planting equipment. Appropriate management practices for problem soils will be developed;
(vi) integrated disease and pest management programme for different crops will be developed;
(vii) programmes on Genetic Engineering and Bio-technology will be established and strengthened in selected institutions which have the capability for undertaking such activities;
(viii) research will be undertaken on efficient harvest and post-harvest handling techniques of different crops/commodities;
(ix) special attention will be given to optimize the use of irrigation water for different crops;
(x) research and development activities will be undertaken for cultivation of tea in the NWFP;
(xi) livestock research will be strengthened in order to increase the production of milk, meat, and other livestock products; and
(xii) coordination and linkages within the research and extension system will be strengthened.

Agricultural Extension

13.34 The main function of agricultural extension is to transfer the latest production technologies generated by research institutes to the farmers. The identification of farmers' problems, their resolution through research, and the transfer of information through the extension system will help in improving agricultural productivity. For this purpose, there must be strong and formal linkage between research and extension.

13.35 The following measures will be taken during the Three Year Programme period:

(i) Linkages between research and extension will be improved in order to transfer the latest production technologies to the farmers;
(ii) a section on transfer of technology will be established as an integral part of all research stations to ensure that the latest research findings are incorporated in packages of production practices and communicated to the farmers. The extensionists will arrange field days for farmers at the research stations;
(iii) the electronic media, especially the television network, will be more extensively used for telecasting special programmes and projecting details of various components of the improved agricultural technologies; and

(iv) for effective dissemination of improved technology, 5-10 acre adaptive research-cum-demonstration farms will be established in each Union Council preferably on farmers' fields, to provide a focal point for research and extension at the grassroots level.

Agricultural Education

13.36 Agricultural universities and colleges play a major role in human resource development for agriculture. Properly trained and educated manpower is required for future development of agriculture. However, the standard of agricultural education has declined over the past years and this is a cause for concern.

13.37 During the Three Year Programme period, agricultural universities and colleges will strive to improve the quality of education by giving emphasis to both the theoretical and practical aspects of agriculture. They will review the curricula, syllabi, and textbooks and incorporate in them the latest developments, in order to make agricultural education responsive to present national requirements. The research facilities of universities will be adequately strengthened and improved to enable them to award Ph.D. degree. Topics selected for postgraduate research will be based on national research priorities and problem-oriented issues.

Support Price Policy

13.38 Support price programme is being implemented for wheat, rice, cotton, sugarcane, gram, onion, potato, and non-traditional oilseeds, namely, sunflower, soybean, and safflower. It has helped in increasing agricultural production and farm incomes. Support price plays an important role in giving the right signal to the farmers and provides economic incentives for increasing agricultural productivity. Carefully devised support price can be used as an instrument for promoting the production of selected crops.

13.39 Support prices are reviewed annually, keeping in view the cost of production, domestic demand, import and export parity prices, supply and stock position, comparative advantage etc., and are generally announced before the sowing time, in order to enable the farmers to properly plan the allocation of area and inputs for different crops.

13.40 The implementation of the support price programme will be continued during the Three Year Programme. It will be extended to cover maize crop in order to promote its production. The cost of production methodology, which is a major factor in determining support price, will be reviewed and improved in consultation with all the parties involved in crop production. The Agricultural Prices Commission (APCom) will regularly review the domestic and international terms of trade and recommend measures to correct distortions. The non-price measures recommended by the APCom for different crops will be implemented in order to increase crop productivity.

Marketing

13.41 An efficient marketing system is essential for increasing agricultural production, ensuring better returns for the growers, and meeting requirements of the consumers. Some of the important pre-requisites for efficient marketing are: physical marketing facilities, network of farm-to-market roads, proper grading and packaging, processing facilities, and storage and marketing information. The following measures will be taken to improve the marketing system:

(i) the functioning of regulated markets will be reviewed and necessary measures will be taken for their improvement by the Provincial Governments;
(ii) grading and quality control will be enforced by the Agriculture and Livestock Marketing Adviser (ALMA) specially for commodities which are being exported;

(iii) private sector will be encouraged to construct storage facilities especially for perishable commodities;
(iv) the formation of growers' associations will be encouraged for collective transportation of produce to the markets, as well as for its processing and storage;
(v) an effective market Information System will be provided for agricultural commodities by ALMA/Provincial Governments; and
(vi) markets will be linked with producing areas by constructing farm-to-market roads.

Livestock

13.42 The productivity of livestock in terms of meat and milk is low. There is considerable potential to increase the productivity of livestock. Some of the best breeds of cattle, buffalo, goat and sheep are available in the country whose full production potential has not been realized. The productivity of livestock will be improved through provision of adequate and nutritious feed, improved coverage against diseases, and adoption of modern animal husbandry practices. The livestock extension programmes will convey the latest production and management technologies to the farmers. The research and developmental activities will focus on genetic improvement of livestock through cross-breeding, artificial insemination, and embryo transfer technology. For disease control, vaccination coverage against endemic diseases will be increased. Research will be initiated on refinement of vaccines, disease diagnosis, and rumen microbial digestion.

13.43 The following additional measures will be taken during the Three Year Programme period :

(i) Farmers will be educated through the extension system about the benefits of supplying balanced nutritious feed and about adequately meeting the feed requirements of animals in order to increase productivity. It would be more economical for them to raise the productivity rather than increase the number of animals;
(ii) pure breeds of different species will be maintained at Government livestock farms to conserve and improve the genetic potential of indigenous livestock;
(iii) the non-descript livestock population will be upgraded by crossing with local bulls of Sahiwal and Red Sindhi and exotic bulls of Holstein, Friesian and Jersey breeds. The artificial insemination programmes will be increased by 10-15 per cent per year;
(iv) in order to improve the nutritive value, the treatment of crop residues and addition of molasses to feed, as well as silage and hay-making techniques, will be demonstrated to livestock owners;
(v) as irrigated fodder plays a prominent role in the feed of livestock, research programmes for evolving high-yielding varieties of fodder and multiplication and distribution of their seed to farmers will be given high priority;
(vi) local bodies will be advised to equip local markets with minimum facilities like weigh-bridges, sheds, water, electricity, etc.
(vii) a percentage of the income of District Councils from animal markets will be earmarked for giving awards to the farmers who maintain the best livestock breeds;
(viii) a pricing system based on live weight will be introduced in the primary markets;
(ix) the private sector will be encouraged to establish feed lots for fattening of animals; and
(x) women livestock farmers will be provided training in rearing of livestock and dairy animals.

Dairy

13.44 There is a vast scope for the development of milk and dairy products. The main constraint is seasonal fluctuations in the production of milk. During the summer

months, there is shortage of milk and in winter there is excess production. In order to stabilize the situation, the private sector will be encouraged to set up additional milk powder plants to process excess milk during the winter season and establish milk collection and chilling centres at appropriate sites to maximize procurement of fresh milk from far-flung areas and also prevent its spoilage. Production and marketing of pasteurised/sterilized milk in returnable bottles will be promoted in order to reduce cost of packing material. Local manufacture of dairy machinery will be encouraged. Food laws will be updated to increase consumption of hygienic and processed milk.

Poultry

13.45 There has been appreciable improvement in the production of poultry meat and eggs over the last decade. However, poultry farming faces serious constraints such as poor quality and high cost of feed, prevalence of diseases and poor management practices. These deficiencies must be overcome to further increase the production of poultry meat and eggs.

13.46 The following measures will be taken during the Three Year Programme period:

(i) Feed quality control services will be established and legislation for quality control services will be strictly enforced;
(ii) research will be undertaken on development of control measures for viral and other newly emerging diseases;
(iii) disease diagnostic facilities will be expanded and the supply of vaccines will be improved. A reference and services laboratory for monitoring and checking the quality of vaccines and drugs will be established;
(iv) the private sector will be encouraged to establish poultry processing units and refrigeration facilities for poultry products; and
(v) improved and adopted strains of poultry will be introduced in rural areas to promote poultry development.

Fisheries

13.47 There is considerable scope for increasing fisheries production through proper exploitation of marine fisheries resources and development of aquaculture facilities for inland fisheries. The traditional fishing boats are confined to shallow waters upto 12 nautical miles from the coastline. These boats are not properly equipped to harvest in relatively deep water, although the area up to 35 nautical miles from the coast is reserved for traditional small-scale fishermen. Fisheries potential of the area between 12 to 35 nautical miles will be exploited by upgrading and equipping the traditional fishing boat with modern equipment. The private sector will be actively involved in deep sea fishing and development of fish harbour infrastructure facilities.

13.48 The following additional measures will be taken during the Three Year Programme period for the development of fisheries :

(i) Resource surveys and research on stock assessment, migratory pattern, biological studies of demersal/small, pelagic/large, pelagic, and, meso-pelagic fisheries will be carried out to develop strategies for sustained exploitation;
(ii) the traditional fishing fleet will be modernized by providing high-power engines, navigational and communication equipment, and improvement of deck facilities, in order to enhance their capability to fish in relatively deeper waters;
(iii) post-harvest handling and preservation of fish catch will be improved by providing chilling/refrigeration system in the traditional boats through the financial assistance of Small and Medium Enterprises Development Authority (SMEDA);

(iv) coastal aquaculture of desired species of shrimp and fin-fish will be taken up along the coast;
(v) an export outlet from Gwadar will be provided, so that fishermen of the area can export their catch directly to the Gulf countries;
(vi) improved aquaculture techniques like pen culture and cage culture will be introduced through demonstration to fish farmers;
(vii) comprehensive aquaculture research on disease control, fish nutrition, feed formulation, genetics, pollution control, etc., will be undertaken by the Fisheries Departments; and
(viii) the discharge of industrial effluents in the rivers and the sea will be checked through legislation in order to reduce the effect of pollution on aquatic life.

Financial Allocations

13.49 An allocation of Rs 4.00 billion has been made for the agriculture sector for the period 2001-2004 in the federal programme to be financed through the budget. The project-wise details are given at Annex 13.4.

Annex 13.1

AGRICULTURAL PRODUCTION PROJECTIONS

Items	Benchmark 2000-01	Projections 2003-04
A. Crops		
Foodgrains	**27,255**	**33,206**
Wheat	20,000	24,000
Rice	**4,700**	**6,186**
Basmati	1,764	2,182
Others	2,936	4,004
Maize	1,900	2,315
Others	655	705
Cash Crops	**45,876**	**58,600**
Cotton (Lint)	1,769	2,488
(Million Bales)*	(10.4)	(14.6)
Sugarcane	44,000	56,000
Tobacco	107	112
Pulses	**1,047**	**1,479**
Gram	772	1,094
Others	275	385
Oilseeds	**4,605**	**7,333**
i. Traditional	**4,157**	**6,189**
Cottonseed	3,538	4,976
Rape and Mustard	227	503
Canola	192	409
Others	200	301
ii. Non-traditional (Sunflower, Soybean & Safflower)	**448**	**1,144**
Vegetables	**6,895**	**8,756**
Potato	1,965	2,374
Onion	1,430	1,698
Others	3,500	4,684
Fruits	**6,900**	**9,462**
B. Livestock Products		
Milk	26,284	32,653
Meat	**2,009**	**2,317**
Beef	1,005	1,146
Mutton	663	805
Poultry	342	366
Eggs (Million Nos.)	8,900	10,186
C. Fish Production	**704**	**1,000**
Marine	507	718
Inland	197	282

* Million bales each of 375 lbs.

Annex 13.2

TARGETS FOR CROP PRODUCTION

(000 Tonnes)

Crops	2000-01 Benchmark	2001-02	2002-03	2003-04	Annual Growth Rate (%)
Foodgrains	27,255	29,101	30,210	33,206	6.8
Wheat	20,000	21,252	22,017	24,000	6.3
Rice	4,700	5,149	5,326	6,186	9.6
Basmati	1,764	1,893	1,937	2,182	7.3
Others	2,936	3,256	3,389	4,004	10.9
Maize	1,900	2,029	2,153	2,315	6.8
Others	655	671	714	705	2.5
Cash Crops	45,876	49,770	52,252	58,600	8.5
Cotton (Lint)	1,769	1,982	2,079	2,488	12.0
(Million Bales)*	(10.4)	(11.6)	(13.0)	(14.6)	12.0
Sugarcane	44,000	47,679	50,063	56,000	8.4
Tobacco	107	109	110	112	1.6
Pulses	1,047	1,175	1,262	1,479	12.2
Gram	772	867	935	1,094	12.3
Others	275	308	326	385	11.9
Oilseeds	4,605	5,348	5,788	7,333	16.8
i. Traditional	4,157	4,735	5,040	6,188	14.2
Cottonseed	3,538	3,963	4,154	4,976	12.0
Rape & Mustard	227	296	320	503	30.3
Canola	192	247	304	409	28.7
Others	200	229	262	301	14.5
ii. Non-traditional (Sunflower, soybean & Safflower)	448	612	748	1,144	36.7
Vegetables	6,895	7,464	8,075	8,756	8.3
Potato	1,965	2,093	2,166	2,374	6.5
Onion	1,430	1,514	1,566	1,698	5.9
Other Vegetables	3,500	3,857	4,343	4,684	10.2
Fruits	6,900	7,666	8,517	9,462	11.1

* Million bales each of 375 lbs.

Annex 13.3

TARGETS FOR LIVESTOCK AND FISHERIES

Products	Unit	2000-01 Benchmark	2001-02	2002-03	2003-04	Annual Growth Rate (%)
Livestock Products						
Meat	'000' Tonnes	2,009	2,106	2,209	2,317	4.9
Beef		1,005	1,050	1,097	1,146	4.5
Mutton		663	707	755	805	6.7
Poultry		342	349	357	366	2.3
Milk	'000' Tonnes	26,284	28,255	30,374	32,653	7.5
Eggs	Mln. Number	8,900	9,309	9,738	10,186	4.6
Fish Production	'000' Tonnes	704	704	704	1,000	12.4
Inland	'000' Tonnes	197	222	250	282	12.6
Marine	'000' Tonnes	507	569	639	718	12.3

Annex 13.4

THREE YEAR PROGRAMME 2001-04

(Million Rupees)

Sl. No.	Name, Location and status of the Scheme	Estimated Cost		Expenditure upto June, 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A.	FOOD, AGRI. & LIVESTOCK DIVISION							
	(On-going)							
1	Oilpalm Development Pilot Project Sindh and Balochistan.	90.0	0.0	24.5	11.9	22.0	22.0	9.6
2	Increasing Productivity of Kitchen Crops (All Pakistan).	142.2	0.0	62.3	18.0	25.0	25.0	12.0
3	Establishment of Seed Testing Laboratory at Mingora (Swiss Govt.)	7.0	2.8	1.9	2.3	2.8	0.0	0.0
4	National Arid Land Development and Research Programme (All Pakistan).	85.0	0.0	10.0	15.0	25.0	35.0	0.0
5	Establishment of Hatchery Complex for Production of Fish and Shrimp Seeds (Karachi).	18.9	0.0	14.9	2.0	2.0	0.0	0.0
6	Oil-Crops Cultivation in Cholistan R.Y. Khan.	12.2	0.0	7.3	2.3	2.6	0.0	0.0
7	Productivity Enhancement and Sustain-ability of Rice Based Cropping System (Islamabad, Punjab, Sindh & NWFP).	19.5	0.0	8.1	1.0	5.0	5.4	0.0
8	Application of Gypsum to Improve Soil Fertility.	10.0	0.0	7.7	2.3	0.0	0.0	0.0
9	Tea Research and Development Programme (Mansehra).	58.5	0.0	7.0	5.0	20.0	26.5	0.0
10	National Sugar Crops Research Institute Thatta.	18.8	0.0	6.5	6.2	6.2	0.0	0.0
11	Seabuckthorn Exploitation and Development in Pakistan.	28.1	0.0	8.0	6.0	7.0	7.1	0.0
12	Coastal Zone Agri. Development and Research Institute Thatta.	22.4	0.0	4.7	7.3	10.4	0.0	0.0
13	Potash Use for Enhancing Crop Productivity.	6.0	0.0	2.5	2.0	1.5	0.0	0.0
14	Establishment of National Veterinary Laboratory at Islamabad (IDB).	153.8	109.0	11.5	40.0	62.0	41.5	0.0
15	Establishment of Pilot Black Tea Processing Plan	40.0	0.0	15.0	16.7	8.3	0.0	0.0
16	Monitoring of Cotton Crop Using Satellite Remote Sensing Data.	2.7	0.0	0.0	0.8	1.9	0.0	0.0
17	Olive Cultivation and Development in Rainfed Areas of Pakistan.	14.8	0.0	0.0	2.0	5.0	5.0	2.8
18	Use of True Potato Seeds for Seed Tuber Production.	19.9	3.1	0.0	2.0	5.0	5.9	7.0
19	Promotion of Bamboo Production and Utilization.	8.2	0.0	0.0	1.0	3.0	4.2	7.0
20	Development of Quarantine Facilities at Karachi	5.9	0.0	0.0	2.5	3.4	0.0	0.0
21	Establishment of Animal Quarantine Station at Sialkot.	4.5	0.0	0.0	2.0	2.5	0.0	0.0
22	Agriculture Sector Investment Project (ASIP) (World Bank).	2345.1	1,979.8	0.0	100.0	500.0	500.0	800.0
	(New)							
23	Streamlining Export of fruits and vegetables through Vapor Heat Treatment.	8.5	0.0	0.0	0.0	3.0	4.0	6.0

THREE YEAR PROGRAMME 2001-04

(Million Rupees)

Sl. No.	Name, Location and status of the Scheme	Estimated Cost		Expenditure upto June, 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
24	Oilseed Model Farming in Balochistan.	38.3	0.0	0.0	0.0	18.2	10.3	9.8
25	Promotion and Multiplication of Pre-basic and Basic Cottonseed CRIS Varieties for Sindh.	29.7	0.0	0.0	0.0	2.0	5.0	7.0
26	Expansion of Plant Quarantine Section.	150.8	108.8	0.0	0.0	29.0	50.0	55.0
27	Accelerated Promotion of Olive Cultivation in NWFP and Potohar.	24.1	0.0	0.0	0.0	5.3	3.8	3.9
28	Strenthening of Veterinary Services for Livestock Disease Control in Pakistan - Eradication of Rinderpest (Federal component).	280.2	236.5	0.0	0.0	54.5	60.2	32.4
29	Construction of PODB Headquarter at Islamabad.	37.5	0.0	0.0	0.0	20.0	17.5	0.0
30	Block allocation for other new schemes.	0.0	0.0	0.0	0.0	0.0	273.2	643.0
	Total (M/o Food, Agri. & Livestock)	**3682.5**	**2,440.0**	**192.0**	**248.3**	**852.6**	**1,101.6**	**1,595.3**
	M/O EDUCATION							
	(On-going)							
31	Establishment of Z.A. Bhutto Agriculture College, Dokri, Larkana.	199.9	0.0	118.6	20.0	30.0	31.3	0.0
32	Establishment of University College of Agriculture at Bahauddin Zakariya University, Multan.	87.9	0.0	88.1	0.9	0.0	0.0	0.0
33	Improvement of Existing Facilities and other Development Activities at the University of Agriculture, Faisalabad.	116.6	0.0	33.8	19.0	30.0	34.1	0.0
34	Immediate Need for Repair and Renovation of Old Building of University of Agriculture, Faisalabad and CVS Lahore.	19.2	0.0	6.0	8.2	5.0	0.0	0.0
35	Construction of Hostels for 250 Students at Agriculture University, Tandojam.	18.3	0.0	14.3	4.0	0.0	0.0	0.0
36	Development of Academic Facilities at University of Arid Agriculture, Rawalpindi.	49.7	0.0	20.0	15.0	14.7	0.0	0.0
37	Immediate Repair of Hostels, Residences and Academic block at University of Agriculture, Peshawar.	5.4	0.0	3.0	2.4	0.0	0.0	0.6
38	Establishment of Agriculture College at Dera Ghazi Khan as Constituent College of University of Agri., Faisalabad.	99.7	0.0	0.0	2.0	30.0	35.0	32.7
39	Strengthening the Facilities for Education and Research at Sindh Agriculture University, Tandojam.	170.6	0.0	0.0	1.0	53.6	76.6	45.4
	Total (M/o Education)	**767.3**	**0.0**	**283.8**	**72.5**	**163.3**	**177.0**	**78.7**
C.	**INTERIOR DIVISION**							
	(On-going)							
40	Establishment of Fish Seed Production Farms for Expansion of Fish Culture activities in Small/Mini Dams .	17.1	0.0	5.9	1.0	5.0	5.1	0.0
41	Purchase/Replacement of Agriculture Machinery and Equipment in ICT.	19.8	0.0	3.9	3.1	6.8	6.0	0.0
42	Expansion and Improvement of Veterinary Hospital (Bhara Kau and Rawat).	8.9	0.0	6.6	1.4	0.9	0.0	0.0

Annex 13.4

THREE YEAR PROGRAMME 2001-04

(Million Rupees)

Sl. No.	Name, Location and status of the Scheme	Estimated Cost		Expenditure upto June, 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
43	Establishment of Veterinary Diagnostic Laboratory Tarlai.	3.2	0.0	2.6	0.6	0.0	0.0	0.0
44	Sheep and Goat Development in Rural Areas of Islamabad.	3.2	0.0	0.0	0.4	1.0	1.8	0.0
45	Livestock Diseases Control in ICT.	0.7	0.0	0.0	0.5	0.2	0.0	0.0
46	Improvement of Fish Production and Control of Illegal Fishing in Rawal Dam.	0.4	0.0	0.0	0.4	0.0	0.0	0.0
	Total (Interior Division)	**53.3**	**0.0**	**19.0**	**7.4**	**13.9**	**12.9**	**0.0**
D.	**PLANNING AND DEVELOPMENT DIVISION**							
47	Monitoring of Pesticide Information Project.	4.0	0.0	0.0	1.0	1.5	1.5	0.0
E.	**STATISTICS DIVISION**							
48	Agriculture input output survey.	2.5	0.0	0.0	0.0	1.4	1.1	0.0
	Total (Agriculture)	**4509.6**	**2,440.0**	**494.8**	**329.2**	**1,032.7**	**1,294.1**	**1,674.0**

PART III
Physical Infrastructure

CHAPTER 14

WATER RESOURCES DEVELOPMENT

Introduction

Irrigated agriculture is the backbone of the national economy. The level of agricultural production is directly related to the availability and effective use of water as a major input. On the one hand, intra-sectoral demand for additional water is increasing rapidly while on the other, opportunities for further development of water resources or maintaining their use to existing levels are diminishing faster than the expected pace. Therefore, the mighty challenge of 21st century will be the effective implementation of a state of the art management-cum-development package in water resources. An approach encompassing development of additional reservoirs, integrated resource use, the introduction of water efficient techniques, containment of environmental degradation, institutional strengthening, capacity building and human resources development will have to be implemented in its true spirit.

General Issues

14.2 Key issues facing the Water Sector are: (a) shortage of water due to non-construction of additional storages; (b) non-availability of irrigation water at required time and in right quantity; (c) inadequate Operation and Maintenance (O&M) funding and poor cost recovery; d) increase in waterlogging and salinity hazard due to poor maintenance; (e) excessive groundwater pumpage in certain regions and resulting in secondary salinization; (f) effluent disposal and other environmental issues related to water; (g) inequity in water distribution; (h) absence of conducive environment required to introduce and implement water-efficient irrigation techniques and practices; (i) lack of private sector participation; (j) deteriorating institutional capacities of key water sector institutions; (k) absence of integrated river basin development and management approach; (l) poor and isolated implementation of flood sector schemes; (m) poor linkage among water, agriculture and rural development policies and strategies; (n) interest burden during construction; (o) inadequate reflection of poverty alleviation issues and gender concerns; (p) insignificant use of information technology in water resource; and (q) little applied research.

Objectives

14.3 Keeping in view the future requirements of the Water Sector, a specific set of objectives will be pursued. These include: (a) progressive increase in surface water supplies through construction of new reservoirs and conservation means to sustain the existing irrigated area and to further expand it; (b) groundwater management (both quantitative and qualitative) through tubewell transition, aquifer monitoring and management, groundwater modeling and other applicable techniques; (c) improving existing management practices using the latest technologies to increase productivity per unit of water utilized and to minimize the amount of drainage effluent generated from agricultural fields; (d) protecting land and infrastructure from waterlogging, salinity, and floods; (e) implementing integrated flood control and management program; (f) promoting beneficiary participation in development initiatives; and (g) devising and implementing effective O&M mechanism through institutional reforms to sustain the investment made over a longer period of time.

Strategies

14.4 The above mentioned objectives will be achieved by adopting the following strategies: a) Development of consensus over ready-to-implement projects and initiation of feasibility studies and preparation of detailed engineering and tender documents for alternate options such as Kalabagh Dam, Basha Dam, Munda Dam, Gomal Zam, Thal Reservoir and other small and medium reservoirs; b) Use of stored water through construction of new irrigation schemes like Sehwan Barrage Complex, Kachi Canal, Greater Thal Canal, CRBC first lift etc; (c) works related to construction of water storage will be initiated: (d) an integrated program approach will be adopted and programs like the National Drainage Programme and On-farm Water Management will be implemented; (e) water conservation will be ensured through canal and watercourse rehabilitation, remodeling, and lining; (f) institutional reforms will be introduced in all irrigation and drainage-related agencies dealing with the planning, designing, construction, O&M and Monitoring & Evaluation to make them more effective and responsive; (g) transitioning of public tubewells in various SCARPs will continue to ease the O&M burden on the public sector and to encourage private ownership; (h) watershed management through satellite imagery system will be undertaken; (i) ground water table monitoring in Balochistan and in selected areas of Punjab and implementation of measures to replenish aquifer e.g. artificial groundwater recharge will be done; (j) to ensure equitable distribution of water and for real time information relating to flows in various channels, modern telecommunication and flow gauging systems will be installed; (k) on-farm drainage system will be constructed by the Farmers' Organization with the government sharing a part of the expenditure; (l) all surface drains below 15 cusecs will be transferred to Farmers' Organizations for O&M; (m) priority will be given to the completion of ongoing schemes; (n) new flood protection schemes will be initiated within the framework of an integrated flood management program and (o) Sailaba areas will be developed in an environmentally safe manner.

Programmes

14.5 In the light of objectives and strategies mentioned above, programs have been formulated with sub-sector wise physical targets and implementation mechanism along with specific issues. However, under this program, priority will be accorded to implement Gomal Zam Dam Project in NWFP, rehabilitation of barrages and canal lining in Punjab and rehabilitation of LBOD & construction of RBOD in Sindh in order to boost up agricultural growth in a comparatively shorter period of time. These are discussed as under.

Irrigation

Water Potential and Demand

14.6 Total water requirements (Irrigation and non-irrigation) have been classified into two categories: a) Water requirement at different time periods projected on the basis of normal methods of population increase but without technological support such as use of high efficiency water techniques and rotation of crops, etc. b) Water requirements at different time periods based on normal methods of projection but adjusted with technological support and higher efficiency of use of water. A summary of water potential and demand based on the above assumptions and water availability both surface and ground water sources with the possibility of construction of reservoir and saving of water through conservation measures is given in Table 14.1

Table 14.1
Water Potential and Demand at Farmgate (MAF)

Item	2001	2004
Water Availability		
(a) Surface water	84.34	84.86
(b) Ground water	50.05	50.02
Sub Total (a+b)	**134.39**	**134.88**
Water Requirement		
(c) Irrigation	135.1	143.29
(d) Non Irrigation	5.9	6.5
WR without Tech. Sup. (c+d)	141.00	149.80
WR with Tech. Support	141.00	145.00
Irrigation Efficiency (assumed)	60	62

Assumptions:
a) Population growth rate per annum 2.6 (2000-03).
b) Current irrigation efficiency = 60%
c) Max. Assumed irrig. Efficiency = 75%
Values in between inter-polated.

14.7 Limited opportunities are available to further tap the available groundwater as about 51 MAF of water is already being exploited through more than 450,000 tubewells. Surface water availability depends upon seasonal variations in river flows resulting from seasonal temperatures and rainfall. Based on 72 years inflow data (1922-23 to 1994-95) of western rivers, Table 14.2 shows mean, maximum and minimum availability of water.

Table 14.2
Inflows in Western Rivers (MAF)

Years	Kharif	Rabi	Total
Maximum	154.74	35.14	186.79
(Year)	(59-60)	(90-91)	(59-60)
Minimum	79.47	15.74	97.74
(Year)	(74-45)	(71-72)	(74-75)
Mean (72 Year)	115.89	22.80	138.69

Source: WAPDA/IRSA Reports.

14.8 It is clear from the above table that flows in Western rivers vary significantly. For every 4 out of 5 years, yearly flows are around 123.59 MAF. Super floods occur approximately once in 5 years. This may increase the average to a respectable 137.27 MAF per year but in the remaining 4 years availability of water is 123.59 only. Surface water availability is decreasing on account of reservoir siltation. It has been estimated that the live storage of on-line storage reservoirs has decreased by 2.90 MAF by the year 2000 and will decrease by 4 MAF by the year 2010 if no corrective measures such as desiltation, effective water management, etc are taken. Capacity loss of on-line storage reservoirs is summarized in Table 14.3.

Table 14.3
Capacity Loss of On-line Storage Reservoirs

(MAF)

Reservoir	Year of Commissioning	Storage		
		Live	In 2000	In 2010
Mangla	1967	5.3	4.5	4.2
Chashma	1971	0.7	0.3	0.2
Tarbela	1974	9.7	8.8	7.3
Total:		15.7	12.8	11.7

Source: Riaz Nazir Tarar, WAPDA, 1997

14.9 Canal supplies have gradually been declining due to aging system and poor operation and maintenance. It is clear that Pakistan will not be able to sustain its existing level of canal diversions that was attained during the Post Tarbela periods. No substantial increase in water availability is possible in the short run because no reservoir of significant size can be built within next 10 years even if there are no political or other bottlenecks. However, in the longer perspective concerted efforts are required to develop consensus on the construction of Kalabagh Dam and to accelerate feasibility studies and/or preparation of detailed design and tender documents for alternate potential sites. Pending this consensus on Kalabagh it has been decided to proceed immediately with the Basha Dam project and the detailed engineering for this project is already under way. A summary table of various Hydel projects giving live storage, useable storage, Hydro-power potential, total cost and current status is given below:

Salient Features of Major Hydel Projects

Name of Project & Status	Storage (MAF)		Hydro Power Gen. MW	Total Cost (Rs. B)
	Gross	Use-able		
KalabaghDam (postponed pending national consensus).	7.9	6.1	3600	378
Diamer / Basha Dam (engineering being carried out).	7.3	5.7	3400	209
Munda Dam (feasibility completed).	0.67	0.5	600	193
Gomal Zam Dam (feasibility completed).	1.13	0.89	17.4	12.85
Other Dams (Yugo, Skardu, Kalam, Mir Khani, Khazara) (At pre-feasibility stage).	----	22.4	6110	----

Other Options for Meeting Water Shortages

14.10 The options can be broadly divided into two categories. In the first category fall the augmentation measures, such as: (a) construction of new reservoirs; (b) raising of Mangla Dam; (c) desilting of Tarbela Dam; (d) construction of carry-over dams; (e) construction of small and medium dams; (f) harnessing of hill torrents; (g) exploitation of remaining potential of ground water. The second category includes conservation measures like: (a) lining of canals; (b) lining of watercourses; (c) changes in cropping patterns in light of water available; and (d) use of high efficiency techniques.

Augmentation Measures

New Reservoirs

14.11 After meeting the environmental demand of 10 MAF below Kotri, it is still possible to develop water resources amounting to 16 MAF through Kalabagh Dam (6.7 MAF), Bhasha Dam (5.7 MAF), Thal Reservoir (1.8 MAF) and Sehwan Barrage Complex (0.8 MAF), etc. In addition, WAPDA has identified various storage and hydropower small and medium dams (within and outside Indus Basin) for which pre-feasibility and feasibility studies will be taken up in stages. The Gomal Zam Dam in the NWFP is a major new initiative currently under preparation in this regard. Simultaneous to these, irrigation canals like Thal Canal in Punjab, CRBC Lift Irrigation scheme in NWFP, Kachi Canal in Balochistan and Thar/Rainee canals in Sindh will be constructed. These projects are at various stages of implementation and accordingly their feasibility studies, detailed engineering designs or tendering document will be prepared. However, any new reservoir can be built in 8 to 10 years even if there are no political or other bottlenecks. The work needs to be started in the Three-Year Programme. An allocation of Rs. 22,365 million has been proposed for this purpose. The studies on Raising of Mangla Dam and Desilting of Tarbela Dam are also being taken up in the program period. Small dams and hill torrents and exploitation of ground water serve local areas but have been proposed to be taken up wherever feasible. The existing irrigation system is aging and structures have gone weak and consequently additional water cannot be run in these canals without rehabilitation and improvement which will be given due attention in the perspective plan period.

Conservation Measures

14.12 Water conservation will remain as one of the priority area. The pursuance of this strategy is critical especially under the circumstances when the completion of new on-line and off-line water storages will take another 10 to 15 years. Beside other conservative measures, about 8 to 9 MAF of water will be saved from watercourse improvement program by minimizing water losses in the watercourses and applying more evenly through land leveling and improved water application techniques at the farm level. To achieve the afore-

mentioned water savings, it has been planned to renovate all the remaining 90,000 watercourses at comparatively economical costs through specific OFWM projects and other development platforms such as Poverty Alleviation Fund. Since watercourse renovation seems to the most economically attractive option, therefore planning of OFWM projects and their implementation will be accelerated. Lining in canal commands underlain by saline groundwater will be given priority. In the case of conservation measures, the Program will keep in view the following: (a) lining of main canals and distributaries/minors on case to case basis considering its economics and monitoring feedback of canals lined in the past; (b) it has been estimated by WAPDA that 75 % of water seeped into the ground from main and secondary canals i.e. 18 MAF serves as a recharge to the groundwater aquifer. Assuming average tubewell capacity of one cusecs running for eight hours per day for 240 days in a year, then approximately 1,10,000 tube-wells are dependent on groundwater recharge from the canal system. It is, therefore, absolutely essential to avoid pre-empting one resource at the cost of other.

14.13 Thus the irrigation sub-sector envisages construction of new water reservoirs of medium & small storage wherever possible as an alternate approach to big reservoirs which are also essentially required on long-term basis to supplement surface water reservoir. Moreover, construction of new canals, rehabilitation, remodeling and lining of the existing irrigation network on selective basis, and construction of small irrigation schemes like delay action dams, check dams, infiltration galleries and diversion weirs has been envisaged, so as to provide additional irrigation water, on the one hand, and to mitigate waterlogging in the affected areas on the other. The fresh groundwater is developed by the private sector through installation of fractional tubewells from own resources. It is expected that with the completion of the CRBC stage-III, Pat Feeder Canal Rehabilitation, small irrigation schemes, installation of tubewells in fresh groundwater areas, and improvement of watercourses, 0.11 MAF of incremental irrigation water will be made available at the end of the Three Year Program period. This is based on adjustment for decrease in storages & shortfall in canal withdrawal.

Cost Recovery

14.14 Poor operation and maintenance usually due to insufficient allocation of funds, negligible cost recovery from beneficiaries and inefficient use of allocated budget, results in deteriorating performance of irrigation and drainage facilities. The O&M requirements for development expenditure will range between 2 to 3 per cent (Rs. 1.2 to Rs. 1.8 billion). Institutional reforms involving devolution of power and participation of beneficiaries in the decision making are also called for. PIDAs have been created in all the four provinces and the Area Water Boards and FOs have been established on pilot projects. This arrangement will result in self-sustaining, self-accounting and financially autonomous organizations. On the basis of success of the pilot projects the institutional reforms will be expanded to other areas during the plan period.

14.15 On the issue of inadequate operation and maintenance and insufficient recovery of expenditure, the data on O&M budgets giving details of requirements, provisions, releases, expenditure and cost recoveries for the period 1991-92 to 1999-2000 was obtained from Irrigation and Power Departments of all the four provinces which was consolidated and analyzed. It was noticed that on overall basis, average actual expenditure was 28% short of O&M requirements whereas the shortfall between O&M expenditure and revenues was 72%. The province of Punjab provided O&M fund equivalent to 87% of the O&M requirement followed by Sindh (76%). However, these provisions were low in case of NWFP (41%)

and Balochistan (53%). Actual releases had further aggravated the problem which were around 80% of O&M requirements in Punjab, 74% in Sindh whereas in NWFP and Balochistan, these were only 29% and 52% of O&M requirements. In terms of recovery versus expenditure, NWFP was better among all provinces with 38% recovery, followed by Punjab (32%), Sindh (22%), and Balochistan (12%). The above data clearly shows that the existing mechanism of fund allocations and releases should be seriously looked into for further improvements. Moreover, revenue recovery has to be improved in order to enhance the overall provincial revenues. One can easily conclude that in addition to insufficient allocation of funds, ineffective use of allocated maintenance budgets and mismanagement by the concerned institutions had resulted into poor maintenance and consequently deterioration of irrigation and drainage facilities.

14.16 In this regard, following strategies will be adopted:

- Routine O&M activities should not be charged to the development budget.
- No project should be approved without firm commitment by the provinces for adequate O&M budget along-with a detailed plan of action.
- The size of development budget should be fixed according to the capacity of Provinces to provide O&M budget based on prioritization of projects by them.
- The provinces should ensure availability of adequate O&M funds, make efficient use of the allocated budgets by introducing institutional reforms and taking measures like acceleration of transitioning of SCARP tube-wells to ease the O&M burden and expedition of decisions on cost sharing of O&M funding for inter-provincial projects so that the maintenance is not deferred and subsequently reflected in the development budgets.

Drainage and Reclamation

Land Restoration

14.17 The drainage and reclamation program has been assigned top priority as it aims at checking/mitigating the severe problem of waterlogging and salinity, especially in the areas where the water table lies within 0-5 feet depth to the surface. Under on going and new Salinity Control and Reclamation Projects (SCARPs), a disastrous area of 2.5 million hectares inclusive of completed projects (having watertable depth between 0 and 5 feet) will be reclaimed/restored for agricultural production through rehabilitation and new investments. Moreover, surface drains will be constructed in areas faced with surface runoff resulting from rainfall or excess irrigation (e.g rice drainage). Efforts will continue to transfer SCARP tubewells from the public to the private sector in order to encourage private sector participation in drainage. Tile drainage will be given due attention in the Perspective Plan period. The latest position of province-wise waterlogged area is given in Table 14.4.

Table 14.4
Area under various Depths to Water Table (000 Hectares)

Province	(0 – 90) cm (0 - 3) ft	(0 – 150) cm (0 - 5) ft	(0 – 300) cm (0 – 10) ft	(300-600) cm (10 - 20) ft	> 600 cm > 20 ft
Punjab	103	594	3167	4028	2769
NWFP	6	30	182	116	290
Sindh	171	1742	4991	664	80
Balochistan	45	92	221	107	71
Pakistan	325	2458	8561	4915	3210
Percent of 15 Mha Irrigated area	2.2	16.4	57.1	32.8	21.4

Source: SMO Depth to W.table Map of Indus Plains June 1998

14.18 It is clear from Table 14.5 that the disastrous area i.e. depth to water table 5 ft. and below is 2.46 Mha (6 Mac) which constitutes 16.4 % of the total irrigated area of 15 Mha. About 1.06 Mha (2.62 million

acres) of disastrous area has been covered under various SCARPs. During the Three Year Program period, an area of 1.80 Mac will be reclaimed under drainage projects such as LBOD, RBOD, Drainage-IV, NDP and Swabi SCARP through installation of 660 drainage wells, transitioning of 3000 public tubewells, construction/ rehabilitation of 1954 Kms of open drains, and laying of tile drainage system in an area of 117395 hectares (300085 acres).

Accumulation of Salts

14.19 It is reported that at present, about 33 million tons of salts are annually brought into the IBIS, out of which 24 million tons (73 percent) are being retained or recycled within the system as per following break-up.

- Leached into groundwater through direct seepage from irrigation and drainage system (about 18.5 million tons or 56 percent to total annual salts brought into the system);
- Stored in evaporation ponds (about 2.2 million tons or 7 percent);
- Conveyed to Manchar and Hamal lakes (about 2.6 million tons or 8 percent);
- Stored in Peshawar Vale (about 0.7 million tons or 2 percent);
- The remaining 9 million tons or 27 percent of total salts are transported into the Arabian Sea via River Indus and Left Bank Outfall Drain.

14.20 . The unregulated groundwater pumpage in a closed basin further aggravates the situation by mobilizing salts dissolved in the groundwater aquifer and bringing onto the surface resulting in secondary salinization.

Effluent Disposal

14.21 Presently about 10.9 MAF of drainage effluent is being generated from various SCARPs and additional 10.9 MAF are anticipated from future drainage schemes. Under the existing drainage strategy, only 6 MAF are planned for disposal into the sea while the remaining effluent is either re-circulated into canals or disposed off into rivers, evaporation ponds and other water bodies. On long-term basis, the existing strategy may lead to the unsustainability of IBIS and therefore the entire effluent has to be drained outside the Indus basin preferaly into the sea so that at least incoming salts amounting to 24 million tons could be taken out of the system and a healthy balance between incoming and outgoing salts could be maintained. The National Drainage Strategy including preparation of Master Plan identifying various spines for disposal of drainage effluent is being prepared and implemented. The rehabilitation of the Left Bank Outfall Drain and a construction of a new Right Bank Outfall Drain (both into the sea) are major new initiatives planned for the 2001-04 period.

14.22 Under National Drainage Strategy, government would encourage the use of local experience and capability and will work on creating an environment that is conducive to the expansion and up-gradation of contracting and construction industry related to drainage sector.

Master Planning

14.23 No long term drainage disposal strategy can be implemented without proper master planning. This is an activity, which is extremely crucial and essential in drainage development and management at the basin level. Under this, national and provincial drainage development plans will be formulated and dovetailed to the overall master plan. Under NDP, a provision for conducting pre-feasibility study on National Surface Drainage System (NSDS) has been made, however this will not suffice as a comprehensive master planning exercise backed by relevant surveys and investigations is required without further loss of time.

Aquifer Management

14.24 Groundwater exploitation in fresh groundwater areas will remain with the private sector. However government will formulate and implement a comprehensive groundwater regulatory and monitoring framework. This framework will be periodically reviewed and updated in light of data collected and experience gained. In the private sector, development of fractional tubewells (having capacity less than 1 cfs) in fresh groundwater zones will be promoted whereas in the public sector, tubewells having capacity less than 2.5 cfs will be installed in saline groundwater in order to check the intrusion of saline aquifer into the fresh ones and to control watertable in these regions. The government will adopt a policy of not mobilizing the deepwater salts until it is absolutely essential for the reclamation of agricultural lands and a proper disposal outlet is available for the safe disposal of highly saline effluent. Use of groundwater management tools such as development of salt movement models, satellite technology, etc, will be promoted.

Role and Responsibilities in Drainage

14.25 One of the major reason for not achieving the desired benefits from drainage projects is that WAPDA, as an executing agency, completes the works and hands over to Provincial Irrigation Departments (PIDs) who then operate and maintain such facilities. Under these arrangements there is no ownership and consequently, the project suffers as a whole. It is therefore required that the same agency should be responsible for project execution and subsequent operation and maintenance. Under the present institutional reform strategy, WAPDA will be responsible for inter-provincial drainage infrastructure and provinces will be incharge of intra-provincial drainage infrastructure. Both of these agencies will be made responsible for drainage development as well as operation and maintenance in their own areas of jurisdiction. At present, less priority is given to maintenance of drainage infrastructure by the provinces relative to that of irrigation system due to no direct benefits accruing from the former. This trend has to be changed and adequate financing of operational budgets for drainage infrastructure will be ensured.

National Drainage Programme

14.26 The NDP costing Rs. 31.4 billion has been started to restore the sustainability of irrigated agriculture in an environmentally sound manner by minimizing drainable surplus and its evacuation from the Indus Basin to the sea. NDP is a mix of institutional and policy reform, physical works, coordination, motivation of beneficiaries, research and studies in drainage. The implementation of the program has been slow as against the target of 30%, actual progress achieved upto May 2000 was only 14%, mainly because of poorly negotiated consultancy contracts, unsatisfactory performance of consultants, unauthorized expenditure, delay in establishment of FOs, approval process of sub-projects, implementation arrangements, allocation for irrigation vis-a-vis drainage sub-projects and delay in recruitment of institutional reform consultants. Therefore major restructuring of the program will be carried out to improve the utilization by accelerating formulation of sub-projects.

14.27 An allocation of Rs. 18842 million has been proposed as a part of the drainage sub-sector. The physical targets to be achieved under NDP have been included in the overall targets of drainage sub-sector.

On-Farm Water Management

14.28 The OFWM Program aims at reducing conveyance losses and field losses by improving watercourses, precision land leveling, organizing WUAs and establishing demonstration plots. In addition, water storage tanks are constructed and lifting

devices installed on streams so as to provide irrigation water to barani agricultural land. Province-wise summary of key watercourse data is given in Table 14.5.

Table 14.5
Watercourse Data

Description	Punjab	Sindh	Baloc-histan	NWFP	Total
Water-courses (No)	54,501	40,364	19,566	20,409	134,840
Water-courses Renovated (No)	28,415	6,704	2,411	6,248	43,778

Source: PC-I of OFWM-IV

14.29 Watercourse improvement would be accelerated because it is the cheapest available option to save water or minimize water loss and alleviate poverty. Average unit cost of water saved per acre-foot from watercourse improvement is around Rs. 12,000. In order to improve remaining watercourses (90,915) in a period of 15 years, an average annual renovation of 6,000 watercourses will be required. According to the current policy, 55 % of watercourse improvement cost is to be shared by farmers. Thus out of the total investment of Rs 109 billion required for watercourse improvement over next 15 years, farmers' share is Rs 60 billion whereas the government will have to provide an amount of Rs. 49 billion. This implies that an amount of Rs. 3.3 billion per year will be required in the budgetary investment program if the above targets are to be met.

14.30 However due to limited financial resources, 15000 watercourses have been proposed to be improved during three years, resulting in water saving of 1.50 MAF. In addition, about 44994 Ha of agricultural land will be precisely leveled. Currently, World Bank funded OFWM-IV is at its initial stages of implementation. The program will be implemented by the provinces and the financial allocations have also been shown in the provincial ADPs. However, a small coordination unit has been retained at the Federal level for which an allocation of Rs. 83 million has been proposed. Watercourse improvement would also be vigorously monitored to enhance its effectiveness.

Flood Control/Protection

14.31 Every year colossal losses are caused to private properties and public infrastructure by the recurring onslaught of floods and hill torrents. Recently ADB assisted Flood Protection Sector Project (FPSP), Phase-I has been completed and phase-II of FPSP has started in addition to Normal Flood Sector Programme meant for emergency schemes. Besides, an extensive program of harnessing hill torrents is being prepared to regulate the flash flows of hill torrents. Further improvements in the Flood Forecasting and Warning System through installation of two more 10 CM radars, provision of the HF Radio system, and updating of Flood Plain Manual have also been planned. As part of an integrated flood management program, 301 Kms. of embankments and 83 spurs will be constructed in the provinces at an estimated cost of Rs. 7877 million. This program will be updated periodically in consultation with the provinces.

Research

14.32 Research is being conducted on: (a) minimization of drainable surplus; (b) appropriate choice of irrigation and drainage technologies; (c) effective operation and maintenance of irrigation canals to help them attain the regime conditions; (d) improvement of drainage facilities and drainage effluent disposal; (e) on-farm water management, economical methods of lining and observing losses under different soil conditions; (f) maximization of economic productivity of water as the major input; (g) sediment control in the watershed of reservoirs; (h) use of brackish drainage effluent for agriculture and forestry; (i)

institutional framework to improve sustainability of irrigated agriculture; and (j) utilization of international research in irrigation and drainage.

10.33 Under NDP, seven policy studies including national water policy, water pricing and revenue, and water rights are being carried out, while ten planning studies covering national surface drainage system, effluent disposal from Balochistan, flood protection of Peshawar valley, monitoring and evaluation of SCARPs are at various stages. In addition, 36 research studies covering various areas of irrigation and drainage sub-sector are being carried out by various research institutes either on their own or in association with other research organizations. During the Three Year Programme period most of these studies will be completed. Implementation of research will be taken up as a combined national effort to which all the research institutes and other related organizations will contribute within their capabilities, and it will be supplemented by such external support as can be mobilized.

Landmarks

14.34 The landmarks of the Three-Year Programme in Water Sector within the longer-term perspective of 2025 can be summed up thus: (a) efforts will be made to start work on major storage/carry-over dams within the Programme period. Water availability will increase from 134.77 MAF to 134.88 MAF by conservation measures; (b) disastrous area of 0.73 million hectares (1.8 million acres) will be reclaimed under the National Drainage Programme and by completion of ongoing projects, including the remaining works of LBOD and by constructing the RBOD; (c) improvement of 15000 watercourses and precision leveling of 44994 hectares (111180 acres) of land will be done; (d) hill torrents will be harnessed and their irrigation potential will be developed. In addition, small irrigation schemes will also be developed; (e) construction of 83 spurs and 301 kilometers of embankment and improvement of flood warning systems will be carried out; (f) institutional Reform Programme (the creation of PIDAs, Area Water Boards and Farmer Organizations) will be further strengthened; (g) applied research will be continued to provide feedback for future sound planning of water resources development projects; (i) studies will be conducted to highlight reasons for the deteriorating water quality of the Indus River and the environmental issues above and below Kalabagh; (j) Pilot Projects for the Sprinkler/Drip system over 10,000 acres will be undertaken. Physical targets for three years (2001-02 to 2003-2004) are given at Annex 14.1.

Financial Programme

14.35 The total outlay for the National Three-Year Programme for Water Sector amounts to Rs. 80.136 billion with a Federal share of Rs. 53.116 billion and the Provincial share of Rs. 27.020 billion. For the Federal share an amount of Rs. 30.751 billion has been allocated to on-going projects whereas for new projects an allocation of Rs. 22.365 billion has been proposed. The sub-sector-wise break-up of on-going and new projects / programs and detail of projects are given at Annex 14.2 and 14.3.

YEAR-WISE PHYSICAL TARGETS FOR THE THREE YEAR DEVELOPMENT PROGRAMME

Sr. No.	Item	2001-2002	2002-2003	2003-2004	Total (2001-2004)
1.	Water Availability				
		Bench Mark for 2000-2001 is 134.77 MAF			
	Incremental (MAF)	-0.38	0.09	0.4	0.11
	Cummulative (MAF)	134.39	134.48	134.88	134.88
2.	Disastrous area to be protected (MAC)	0.60	0.60	0.6	1.80
	(Mha)	0.24	0.24	0.24	0.73
	SCARP Tubewells				
3.	a. Installation (No)	216	108	336	660
	b. Transition (No)	1000	1000	1000	3000
	Surface Drains				
4.	a. Rehabilitation/Remodelling (Km)	344	168	714	1226
	b. New (Km)	280	163	285	728
5.	Sub-surface Drains (AC)	110000	114000	76085	300085
	(Ha)	40469	46135	30791	117395
	Flood Control				
6.	a. Embankments (Km)	97	104	100	301
	b. Suprs (No)	24	28	31	83
	OFWM				
7.	a. Watercourses (No)	5000	5000	5000	15000
	B. Precision land levelling (AC)	37060	37060	37060	111180
	(Ha)	14998	14998	14998	44994

MAF = Million Acre Feet, **AC** = Acre, **Km** = Kilometer, **Ha** = Hectare

Annex 14.2

WATER RESOURCES SECTOR
Three Year Programme
Summary (Rs. Million)

	SUB-SECTOR	Year			Total
		2001-2002	2002-2003	2003-2004	(3 Years)
A	**Federal**				
	I. On-going				
1	Irrigation	3258.6	100	166.54	**3525**
2	Drainage and Reclamation	7371.91	5970.94	5500	**18843**
3	Planning and Investigation	101	112.1	0.00	**213**
4	Research	80	88	14	**182**
5	Flood Control Program	2035	2342	3500	**7877**
6	OFWM and other related projects	37	36.12	27	**100**
7	Survey of Pakistan	11	0.00	0.00	**11**
	Sub-total (on-going)	**12894**	**8650**	**9207**	**30751**
	II. New				
1	Feasibility/Engineering Studies for new storages & Irrigation Studies	1122.17	9721.05	11521.63	**22365**
	Sub-total (Federal New)	**1122.17**	**9721.05**	**11521.63**	**22365**
	Sub-total Federal (On-going + New)	**14016**	**18371**	**20729**	**53116**
B	**Provincial**				
a)	**(On-going)**				
1	Punjab	3000	3500	3500	**10000**
2	Sindh	1500	1699	2000	**5199**
3	NWFP	1000	1500	1690	**4190**
4	Balochistan	1292	500	0.00	**1792**
	Sub-total Provincial (On-going)	**6792**	**7199**	**7190**	**21181**
b)	**New**				
1	Punjab	700	800	851	**2351**
2	Sindh	500	500	600	**1600**
3	NWFP	300	344	344	**988**
4	Balochistan	300	300	300	**900**
	Sub-total Provincial (New)	**1800**	**1944**	**2095**	**5839**
	Total Provincial (On-going + New)	**8592**	**9143**	**9285**	**27020**
	Grand Total (Federal + Provincial)	**22608**	**27514**	**30014**	**80136**

THREE YEAR PLAN
WATER RESOURCES SECTOR
FINANCIAL ALLOCATIONS

Annex 14.3

Rs Million

	Name of Project/sub-sectors	Total Cost	Anticipated Total Expendture Upto June 2000	Throw forward For Rolling Plan	Year - wise Rolling Plan Allocation 2001-2002	2002-2003	2003-2004	Total Cost	Throw Forward
	1 FEDERAL (On-going)								
A	IRRIGATION PROJECTS								
	i) Chahma Right Bank Canal	17690.00	12061.50	3128.50	3128.50	0.00	0.00	3128.50	0.00
	ii) Pat Feeder Canal Project	8500.00	8336.00	Completed	0.00	0.00	0.00	0.00	0.00
	iii) Provincial Irrigation Schemes								
	a) GW Recharge of Pishin, Quetta, Mastung & Mangochar Valleys	436.54	50.00	366.54	100.00	100.00	166.54	366.54	0.00
	b) Feasibility Study for Katchi Canal	20.00	4.00	10.10	10.10	0.00	0.00	10.10	0.00
	iv) Khanpur Dam (Safety Works)	49.13	25.13	20.00	20.00	0.00	0.00	20.00	0.00
	SUB-TOTAL (A)	26695.67	20476.63	3525.14	3258.60	100.00	166.54	3525.14	0.00
B	DRAINAGE AND RECLAMATION PROJECTS								
	i) National Drainage Programme	31400.00	4482.02	25167.98	4967.00	5000.00	5500.00	15467.00	9700.98
	ii) Fordwah Eastern Sadiqia (South)	3488.16	1836.52	1346.64	0.00	0.00	0.00	0.00	0.00
	iii) Fordwah Eastern Sadiqia (Remaining)	2054.07	1909.11	-45.31	0.00	0.00	0.00	0.00	0.00
	iv) SCARP Gojra Khewra Phase-II (2nd Rev)	1067.00	820.44	-53.44	0.00	0.00	0.00	0.00	0.00
	v) Upper Rechna Rem Deg Basin (2nd Rev)	1040.00	591.00	299.00	299.00	0.00	0.00	299.00	0.00
	vi) Shorkot Kamalia (Saline) Project (2nd Rev)	1195.04	797.23	197.81	197.81	0.00	0.00	197.81	0.00
	vii) SCARP Panjnad Abassia-II	1383.45	131.13	1252.31	0.00	0.00	0.00	0.00	Dropped
	viii) LBOD Total Cost	(31036.572)							
	WAPDA share (Expected)	23425.00	20591.90	883.10	883.10	0.00	0.00	883.10	0.00
	ix) RBOD	(4395)	Approved cost						
	Expected Revised Cost	5438.95	2468.01	1970.94	1000.00	970.94	0.00	1970.94	0.00
	x) Kotri Surface Drainage Phase-I, Part-II, Stage-III	612.16	591.30	-28.14	25.00	0.00	0.00	25.00	0.00
	xi) Swabi SCARP	6273.20	5209.23	993.98	Project completed			0.00	0.00
	xii) Mardan SCARP	3393.42	2258.30	1035.12	Project completed			0.00	0.00
	SUB-TOTAL (B)	80770.45	41686.18	33019.99	7371.91	5970.94	5500.00	18842.85	9700.98
C	PLANNING & INVESTIGATION								
	i) Munda Dam Multipurpose Project	258.84	49.74	202.10	90.00	112	0.00	202.10	0.00
	Feasibility Study & Detailed Desig			0.00				0.00	
	ii) G Water Investigation in Gujrat	39.00	25.28	10.72	10.72	0.00	0.00	10.72	0.00
	Sub-total (C)	297.84	75.03	212.81	100.72	112.10	0.00	212.82	0.00
D	RESEARCH								
	i) IWASRI	267.00	255.93	-0.93	Project completed		0.00	0.00	0.00
	ii) Management & Rehab of Saline soil	191.49	0.00	146.49	70.00	76.49	0.00	146.49	0.00
	iii) LIM	19.90	1.00	17.90	5.00	6.00	6.90	17.90	0.00
	iv) Mona Reclamation Project	19.93	1.00	17.93	5.00	6.00	6.93	17.93	0.00
	SUB-TOTAL (D)	498.32	257.93	181.39	80.00	88.49	13.83	182.32	0.00
E	FLOOD CONTROL PROGRAMME								
	i) Second Flood Sector Project	8000.00	14.30	6845.70	1500.00	1500.00	2000.00	5000.00	1845.70
	ii) Flood Management of Mun Bugti	125.00	33.00	77.00	35.00	42.00	0.00	77.00	0.00
	iii) Normal/Emergent Flood Project	3000.00	0.00	2800.00	500.00	800.00	1500.00	2800.00	0.00
	SUB-TOTAL (E)	11125.00	47.30	9722.70	2035.00	2342.00	3500.00	7877.00	1845.70
F	ON-FARM WATER MANAG. PROGRAM								
	i) ON-FARM WATER MANAGE. (OECF)	3327.00	2720.00	606.00	Project completed				
	ii) OFWM-IV (Federal Cell) (IDA)	134.00	4.00	110.00	28.00	28.00	27.00	83.00	27.00
	Total Project Cost)	(12450)							
	iii) Rod-Kohi System [illegible] ment	50.00	21.88	17.12	9.00	8.12	0.00	17.12	0.00
	SUB [illegible]	3511.00	2745.88	733.12	37.00	36.12	27.00	100.12	27.00
G	SURVEY OF PAK. & Nucleus Clearance Cell	80.00	62.00	11.00	11.00	0.00	0.00	11.00	0.00
	SUB-TOTAL ON-GOING (FEDERAL)	122978.28	65350.94	47406.16	12894.23	8649.65	9207.37	30751.25	11573.69
	Federal New								
	i) Kalabagh Dam Project (Provisional allocations, to be intialed only after consensus)	402000.00	0.00	402000.00	0.00	3106.00	3970.00	7075.00	394924.00
	ii) Bhasha Dam, PC-II (Allocations reflected under WAPDA)	Allocations reflelected under WAPDA							
	iii) Gomal Zam Multipurpose Dam Project	13110.00	0.00	13110.00	285.00	1500.00	2600.00	4385.00	8725.00
	iv) Munda Dam	14300.00	0.00	14300.00	166.17	1000.00	1200.00	2366.17	11933.83
	v) Mirani Dam	7000.00	0.00	7000.00	0.00	1000.00	1000.00	2000.00	5000.00
	vi) Bund Khushdil Khan	1800.00	0.00	1800.00	0.00	852.05	924.63	1776.68	23.32
	vii) Thal Reservoir, PC-II	12000.00	0.00	12000.00	42.00	60.00	78.00	180.00	11820.00
	viii) CRBC (Lift cum Gravity) Canal, PC-II	135.00	0.00	135.00	44.00	91.00	0.00	135.00	0.00
	ix) Greater Thal Canal, PC-II	110.00	0.00	110.00	55.00	55.00	0.00	110.00	0.00
	x) Kachi Canal Project, PC-II	170.00	0.00	170.00	57.00	80.00	33.00	170.00	0.00
	xi) Remodelling/Extension of Pat Feeder	3000.00	0.00	3000.00	0.00	1000.00	1000.00	2000.00	1000.00
	xii) Riverine Area Development by Tubewells, PC-II	75.00	0.00	75.00	27.00	48.00	0.00	75.00	0.00
	xiii) Sehwan Barrage Complex, PC-II	198.00	0.00	198.00	50.00	75.00	73.00	198.00	0.00
	xiv) Thar / Rainee Canal Project, PC-II	138.00	0.00	138.00	50.00	75.00	13.00	138.00	0.00
	xv) Raising of Mangla Dam	43.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	xvi) Feasibility Study of Small and Medium Dams	1800.00	0.00	1800.00	230.00	550.00	400.00	1180.00	620.00
	xvii) Chaghi Water & Agri. Dev. Program	600.00	0.00	590.00	100.00	200.00	200.00	500.00	90.00
	xviii) Survey of Pakistan	88.00	0.00	75.00	16.00	29.00	30.00	75.00	0.00
	SUB-TOTAL FEDERAL (NEW)	456567.00	0.00	456501.00	1122.17	9721.05	11521.63	22364.85	434136.15
	TOTAL ON-GOING+NEW (FEDERAL)	579545.28	65350.94	503907.16	14016.40	18370.70	20729.00	53116.10	445709.84

THREE YEAR PLAN
WATER RESOURCES SECTOR
FINANCIAL ALLOCATIONS

Annex 14.3

Rs Million

	Name of Project/sub-sectors	Total Cost	Anticipated Total Expendture Upto June 2000	Throw forward For Rolling Plan	Year - wise Rolling Plan Allocation 2001-2002	2002-2003	2003-2004	Total Cost	Throw Forward
	* Partly Covered in NDP								
	3. PROVINCIAL (On-going/New)								
A	1. a) On-going								
	IRRIGATION /DRAINAGE/FLOOD/OFWM PROJECTS								
	i) Punjab	56542.00	3855.00	49906.00	3000.00	3500.00	3500.00	10000.00	39906.00
	ii) Sindh	6715.00	996.00	5199.00	1500.00	1699.00	2000.00	5199.00	0.00
	iii) NWFP	8379.00	1071.00	5867.00	1000.00	1500.00	1690.00	4190.00	1677.00
	iv) Balochistan	4347.00	1107.00	1792.00	1292.00	500.00	0.00	1792.00	0.00
	SUB-TOTAL ON-GOING (A)	**75983.00**	**7029.00**	**62764.00**	**6792.00**	**7199.00**	**7190.00**	**21181.00**	**41583.00**
B	b) New								
	i) Punjab	4163.00	0.00	4000.00	700.00	800.00	851.00	2351.00	1649.00
	ii) Sindh	3350.00	0.00	3300.00	500.00	500.00	600.00	1600.00	1700.00
	iii) NWFP	1318.00	0.00	1286.00	300.00	344.00	344.00	988.00	298.00
	iv) Balochistan	1500.00	0.00	1348.00	300.00	300.00	300.00	900.00	448.00
	SUB-TOTAL NEW (B)	**10331.00**	**0.00**	**9934.00**	**1800.00**	**1944.00**	**2095.00**	**5839.00**	**4095.00**
	TOTAL PROVINCIAL (ON-GOING + NEW)	**86314.00**	**7029.00**	**72698.00**	**8592.00**	**9143.00**	**9285.00**	**27020.00**	**45678.00**
	Total On-going (Federal + Provincial)	**198961.28**	**72379.94**	**110170.16**	**19686.23**	**15848.65**	**16397.37**	**51932.25**	**53156.69**
	Total New (Federal + Provincial)	**466898.00**	**0.00**	**466435.00**	**2922.17**	**11665.05**	**13616.63**	**28203.85**	**438231.15**
	G.TOTAL (PROV. + FEDERAL) NEW AND ON-GOING	**665859.28**	**72379.94**	**576605.16**	**22608.40**	**27513.70**	**30014.00**	**80136.10**	**491387.84**

CHAPTER 15

ENERGY DEVELOPMENT

INTRODUCTION

Pakistan is an energy deficient county and the enormous oil import bill places a very heavy burden on our economy. The indigenous oil production of 57000 barrels/day caters only for 15% of the current oil requirements of 350,000 barrels/day. The government has given high priority to the exploration of gas and petroleum resources and it is one of the three sectors which has been identified for immediate focus to achieve self-reliance. In order to achieve the desired results, the institutional strengthening and policy formulation work is being put in plan to achieve the target.

15.2 The present oil consumption in the country is about 18 million tonnes per annum which is projected to increase to about 21 million tonnes in 2004. The share of gas in over all energy demand is expected to increase from about 49 % in 2001 to 52% in 2004.

15.3 Slow indigenous growth in production of oil and gas is due to low level of investment and non-effective role of R&D in exploration and production. A major part of the sedimentary basins is still un-explored. Due to lack of infrastructure and geological information about these areas, no oil company is ready to conduct exploration in such risky years. Therefore, it is imperative that local R&D facilities may be strengthened and the role of R&D institutes like HDIP may be enhanced. More attractive policies would be developed for encouraging foreign investment in this sector. A solution of the security problems in tribal areas of Balochistan needs to be found urgently, providing reasonable incentives to people of tribal areas. At the same time, consideration should be given to provide legal protection to incentives allowed in the Petroleum Policy, 1997.

15.4 The GOP has varying working interests in different producing and exploration joint ventures. Presently, GOP in the absence of adequate professional and consultancy support is not equipped to effectively manage and monitor the operation of these joint ventures. GOP is, therefore, in a process of redefining its role and dis-investing its interest in these ventures. This, however, requires the establishment of an independent, efficient and autonomous regulatory authority for which Petroleum Regulatory Authority (PRA) is being established which will also include the functions of Gas Regulatory Authority (GRA).

15.5 A major thrust is being made in the gas sub-sector and it has been given top priority within the fuel sector. For its availability and consumption, appropriate steps need to be taken regarding transmission and distribution system and infrastructure development. It is desirable to replace furnace oil by natural gas in power generation. Programme for CNG utilization is being expanded. Efforts will also be made to use CNG in public transport sector to reduce dependence on imported diesel. To increase the availability of gas supply, efforts should be made to increase the exploration in less explored and frontier sedimentary areas such as Sulaiman- Kirthar Fold Belt, Pishin and Offshore.

Petroleum Policy, 1997

15.6 The existing Petroleum Policy, 1997 has offered a number of incentives in the off-shore areas in the up-stream sector. The

incentive package and Model Production sharing agreement for offshore areas has been approved. The model has refined the deepwater zone into deep water and ultra deepwater with relatively better incentives to make the model more attractive. Necessary changes have also been proposed to limit the undue advantage on account of abnormal price hike. The PARCO refinery with 4.5 million tonnes per annum capacity has recently been installed which has been provided 25% guaranteed rate of return under the Petroleum Policy, 1994, where as the modalities to install Iran-Pak Refinery with 6 million tonnes per annum capacity are being worked out.

Governance, Institutions and capacity-building

15.7 Lately, Fuel Sector entities were found to lack efficient performance due to a number of reasons. A need was felt that the entities should be re-organized and managed on commercial lines, to tackle the issues of efficiency, customer satisfaction, affordability, overhead costs, losses and pilferage/theft. The strategic plan for restructuring and corporatization of the entities is underway. In order to safeguard the interests of all parties, the GRA has been established through an ordinance. Petroleum Regulatory Authority(PRA) is also being established. Later on, GRA will be merged in the PRA. Further, a new 100% GOP owned Holding company, has been made functional to separate GOP's ownership and regulatory functions in different joint ventures in gas and petroleum sector. Furthermore, the Board of Directors of eight energy entities namely, SNGPL, SSGC, OGDCL, PPL, PSO, NRL, ARL and PARCO have been reconstituted and restructured to improve operational efficiency. The privatization of fuel sector entities viz SNGPL, SSGCL, OGDCL, etc. is expected to be completed during the year 2001-2002.

Regional Cooperation and Energy Trade

15.8 Pakistan has a unique geographic and strategic location in Asia. It is situated at the crossroads of West, Central and South Asia and provides access to the warm waters of the Arabian Sea. With the fast growing markets of countries of South Asia and East Asia, the availability and security of energy supplies to these countries is critical for their economic development. Due to its strategic location and the strength of its well developed energy sector the corner stone of fuel policy is to increase the use of natural gas. Therefore, the government is considering seriously the import of natural gas from the neighboring countries to supplement the local supplies. Projected gap between supply and demand of gas would required to be filled in by the import of gas. Proposal for import of gas in the country have been under discussion with various consortium of multinational oil & gas companies. An MOU has been signed for import of gas from Qatar. A proposal to import gas from Iran is under active consideration of the government. Option to import gas from Turkmenistan and U.A.E. is also being reviewed. However, the security and strategic issues needs to be examined before finalizing the deal. In addition, a storage and export terminal, combined with export oriented refineries, on Pakistan's Arabian Sea coast at Gawadar can provide a convenient outlet that would be vital for the Central Asian countries if their oil was to find international market.

Main Objectives

15.9 The main objectives of the Fuel Sector are: (a) to provide all sectors of the economy with reliable and competitively priced energy. (b) to encourage the utilization of the country's indigenous resource base and reduce dependence on imported fuel: (c) to create an environment conducive to the participation of the private sector, while ensuring that the cost of energy is competitive: and (d) to link the regional energy scenario with efficient use of energy.

Energy Profile/Balance

15.10 The share of gas in the final commercial energy mix is expected to increase to about 51% by the year 2004. Steps are undertaken by the government to increase the utilization of natural gas in the industrial, and power sector. This is based on the possible domestic production and import and keeping in view process of inter-fuel substitution. The share of oil is expected to decrease from about 39.6 % in the year 2001 to 36.6 % in the year 2004, keeping the existing level of consumption constant throughout the plan period. The share of coal is expected to remain low whereas of LPG will be 1% in 2004. The details are summarized in Table 15.1.

Table-15.1
COMMERCIAL ENERGY PROFILE

Million TOE

S.No.	Items Consumption/Demand	2001	% Share	2004	% Share
1	Oil	19.0	39.6	21.0	36.6
2	Gas	23.2	48.4	29.1	50.7
3	Coal	1.4	3.0	2.1	3.7
4	LPG	0.4	0.8	0.6	1.0
5	Electricity.	3.9	8.1	4.6	8.0
	Total:-	47.92	100.0	57.39	100

Demand Projections

15.11 The oil demand is projected to increase at a rate of 5.0% per annum to reach 21 million tonnes by 2004 as compared to 19 million tonnes in 2001. This does not take into account the substitution of oil with natural gas. Refining capacity is planned to be significantly increase from the existing capacity of 11 million tonnes per annum to reach 17 million tonnes per annum with the commissioning of Iran-Pak Refinery in 2004. Deficit import will still be about 7.5 million tonnes.

15.12 The gas demand is expected to increase to 3403 MMCFD by the year 2004 as compared to 2722 MMCFD in 2001.

15.13 The benchmarks and projections of the fuel sector are summarized in Table-15.2.

Table 15.2
Demand Projections

	2001	Projection 2004	ACGR (%)
Oil Demand (million tonnes)	19	21	5
Gas Demand (MMCFD)	2722	3403	7.7
Coal Demand (million tonnes)	3.4	5.3**	15.9
Biomass Demand (million tonnes)	73	80	3

** Include the demand of about 1 million of steel mills which is being imported.

Production Targets

15.14 Planned production targets of oil, gas, coal and LPG by the end of the three years programme are given in table 15.3. The Three Year Programme will add 600,000 new gas consumers to the SNGPL and the SSGCL systems bringing the total number of gas consumers to 4.451 million by the end of the Three Year Plan. In order to meet this target of addition in gas consumers, efforts will be made to enhance the indigenous production and to import gas from the neighboring countries. A target of conversion of 400,000 vehicles to CNG and establishment of 400 CNG stations by the year 2004, is also part of the Programme.

Table 15..3
Production Targets

	Units	2001	2004
Oil	BPD	54466	58,000
Gas	MMCFD	2722	3,200
Coal	Million/Tonnes	3.4	4.0
LPG	Tonnes/day	1000	1500

Details of production targets of fuel sector are given in Annex-15.1

Programme
Oil and Gas Wells

15.15 It is planned to drill 168 wells in the country during the next three years. OGDCL in the Public Sector will drill 38 wells comprising 23 exploratory and 15 development wells, where as 130 wells will be drilled in the Private Sector comprising 55 exploratory and 75 development wells.

15.16 Based on the attractive incentive package offered by the government for offshore exploration, increased drilling activity in the Exploration and Production of oil and gas sector is expected.

POL Logistics

15.17 In order to achieve the targets for the fuel sector, a thorough review would be carried out of the adequacy of oil handling facilities to meet future requirements. These include port facilities, oil transportation and storage. The transportation of oil would be done through most economical mode.

Second White Oil Pipeline by PARCO

15.18 The existing white oil pipeline with 4.5 million tonnes per annum capacity would be used to supply crude to PARCO refinery. Consequently, a Second White Oil Pipeline from Karachi to Multan is to be constructed at an estimated cost of US $550 million. The white oil pipeline project is expected to be commissioned by December, 2002.

HSD Handling Facility at PQA

15.19 The oil piers at KPT would receive crude for the PARCO refinery and the imported HSD would be handled at FOTCO jetty PQA. FOTCO jetty at PQA have all the necessary arrrangements except laying of 30 inch of diameter pipeline, which will be completed during the plan period. About 4.5 KM 30 inches diameter pipeline will be used to move 1.5 million tonnes of HSD from PQA to meet the up-country requirements.

Second Oil Terminal at PQA by FOTCO

15.20 The project of Second Oil Terminal at PQA by FOTCO was conceived in light of the Second White Oil Pipeline from PQA to Multan which has been necessitated after the switching of PARCO's existing pipeline to carry crude oil for the Mid Country Refinery at Multan. Since the pipeline project is in progress, therefore, the second oil jetty at FOTCO is scheduled to commence after the financial close of the pipeline project. The completion period of the second jetty would be approximately 24 months from the date of signing of implementation agreement and is expected to be completed by December, 2002.

Storage

15.21 Strategic storages will be developed to meet the contingency demand of the country. Private Sector will given incentives to construct these storages. The existing storage capacity for POL products (including oil, refineries and PARCO) is

1.96 million tonnes. But there is need for 0.8 million tonnes additional storage capacity to meet the requirement. The government wants oil marketing companys' investment in storage and distribution infrastructure to generate healthy market competition before ultimate deregulation of prices. PARCO has recently constructed 30,000 tonnes storage capacity of crude at Keamari for their Mid Country Refinery at Multan. Permission for construction of 20,000 tonnes storage capacity each for NRL and PRL has also been granted to improve their inventories. To tanks of 10,000 each for storage of naphtha for NRL would hopefully be completed by the end of June 2001. Efforts would be made to create an additional storage capacity to have an inventory of 30 days.

Refineries

15.22 The refinery operations in Pakistan will be optimized, and the need for additional refineries would be confirmed especially in the private sector, keeping in view the strategic and economic trade-offs. The PARCO Refinery with a capacity of 4.5 million tonnes per annum has been commissioned in November, 2000, whereas the Iran-Pak Refinery Project will be completed during the three year plan period. Further addition in the refining capacity will depend upon the prices of imported POL products, crude and our level of substitution of furnace oil with natural gas.

Gas Infrastructure

15.23 The augmentation of existing gas transmission infrastructure would be undertaken to accommodate the recent discoveries of 5-6 TCF gas. Steps would be undertaken for the expeditious development of seven, out of nine discoveries in two phases, Hasan, Zamzama, Miano, Sawan and Bhit will be completed upto December 2002 in phase-1 while Mari Deep, Sui Deep, Sawan and Zamzama would be completed by December 2003 in phase-II. An estimated production of 928 MMCFD gas is likely to become available from the above mentioned gas fields in Sindh and Balochistan.

15.24 A conceptual plan has been prepared by the gas utilities for optimal utilization of this gas. This plan envisages construction of about 244 miles of pipeline ranging from 16 to 36 inches diameter and installation of 18000 horsepower of additional compression for transmitting it to various consumption centers along its pipeline system. These facilities, estimated to cost about Rs. 16 billion. It will approximately take 30 months to complete the project.

Utilization plan of new gas discoveries

15.25 Availability of gas from new discoveries is given in Table-15.4.

Table 15.4
Availability from New Gas Discoveries

Field	Quantity (MMCFD)	Expected delivery
Phase-I:-		
Hasan	12	December 2000 (already started)
Zamzama	60	April, 2001
Miano	100	July 2001,
Sawan	60	Dec, 2002
Bhit	216	December, 2002
Total	448	
Phase-II:		December 2002/2003
Sawan	90	July 2003
Zamzama	190	July 2003

Mari Deep	100	July 2003 (10 MMCFD production started presently)
Sui Deep	100	
Total:-	480	
Grand Total:-	928	

Inter-fuel substitution

15.26 Inter-fuel substitution is planned to save foreign exchange being spent on the import of furnace oil. The power plants presently being run on furnace oil are expected to be switched over to natural gas during the plan period. The following proposals/recommendations are made to expedite the process of inter-fuel substitution.

- Provide natural gas to WAPDA/KESC on priority basis for the replacement of fuel oil on combined cycle systems.
- Those private power projects willing to switch from furnace oil to the natural gas should be given preference for provision of natural gas on urgent basis.
- WAPDA/KESC should identify the new projects based on gas which may utilize new gas discoveries and can utilize the existing infrastructure.
- Identify and implement ways for the maximum utilization of low-btu gas for power generation.

Compressed Natural Gas (CNG)

15.27 As a follow up of the Petroleum Policy 1997, a new strategy has been adopted and the use of CNG in vehicles is being encouraged to reduce pressure on Petroleum imports and to improve the environment. It is new industry in Pakistan and steps are being taken for its rapid development. CNG industry has been allowed concessional tariff of gas which is only revised subject to a maximum of equivalent to industrial tariff, if there is an increase in the consumer price of motor gasoline. The existing price differential of about 50% between CNG and motor gasoline will be maintained as an incentive for CNG use. Import of machinery equipment, conversion kits, cylinders etc. by CNG companies have been exempted from duties and sales tax for a period of five years.

15.28 More than 550 permissions for installation of CNG stations have so far been issued and 150 CNG stations have been established in different parts of the country. These include 147 in private sector and 3 in public sector. More than 150 stations are under construction in the private sector. Efforts will be made to use CNG in the public transport system.

15.29 In the wake of installation of CNG Stations being undertaken by private sector, Hydro Carbon Development Institute of Pakistan (HDIP) will be responsible for demonstration, training, inspection, and approval of equipment standards, data processing, technical advise and transfer of technology besides refuelling and conversion activities. In order to undertake the above functions and to meet the rapidly growing demand of CNG industry, HDIP has to develop its expertise and capacities in the respective fields on a fast track basis and technical advice. HDIP has been designated as Technical Support Institution for the CNG Regulatory Authority.

15.30 As the Technical Support Institution for the CNG Regulatory Authority, the HDIP will also be working as third party inspector under CNG Rules, 1992 for carrying out safety audit of CNG stations and vehicles. Re-certification of CNG vehicle-cylinders after every 5 years will also be performed by HDIP, and for this purpose, the HDIP has to develop CNG cylinder testing laboratories in each Province.

Coal

15.31 The resource potential of coal is 185 billion tonnes in the country. The present production of coal in the country is 3.25 million tonnes per annum. The coal production has been at low level for the last so many years due to lack of availability of suitable coal resource (quality wise) and its large scale utilization in power sector as well as in other industries.

15.32 Most of the coal found in the country is of poor quality, high sulfur, ash and moisture content, which makes its use unsuitable for domestic and most of the industrial applications. However, it can be used for Power generation based on advanced technologies (e.g. the gas desulfurization, fluidized bed combustion) provided large scale economical mines are developed. Furthermore, the existing the existing limited market demand for coal can be expanded in a big way if it is used in Power generation while meeting acceptable environmental standards.

15.33 More than 175 billion tonnes of coal resources have been discovered at Thar in southern part of the country. There is need to have an implementable plan for expeditious development and utilization of indigenous coal resources to meet the future demand of thermal energy.

15.34 The fastest way of developing the coal deposits would be to create an environment in which private power developers could be invited to generate power using indigenous coal particularly Thar Coal with the bid price related to the cost of power. The power policy 1998 lays emphasis on power generation based on indigenous energy resources, i.e. coal, natural gas and hydel.

15.35 During the next three years, GSP plans to undertake coal exploration and evaluation in Lakhra, Thar in Sindh, Karak-Hangu, in NWFP, Mach-Abi Gum, Harani in Balochistan and Cholistan in Punjab. It is recognized that without a proper feasibility study for a particular site-specific hydel or indigenous coal based project, it will not be possible to invite competitive bids and receive firm offers. Thus, detailed feasibility studies for such projects will be prepared before bids are invited. The Request for Proposals (RFP) will be for one integrated coal mining and power generation complex.

15.36 Feasibility Studies for coal development especially for Thar Coal would be undertaken on priority. Sindh Coal Authority (SCA) in collaboration with private sector will undertake feasibility of Thar Coal minning.

15.37 Keeping in view the huge deposits of lignite coal at Thar, efforts would be expedited in research and development of coal utilization technologies, such as gasification of coal, etc. Non-power users of coal will also be encouraged

15.38 The targets of production/ consumption of coal are based on its utilization in the power sector. In case coal is not utilized in the power sector then its share in the overall energy mix will be substituted by natural gas.

Strategic Environmental Management

15.39 The energy sector is a major contributor to greenhouse gases (GHG) emission, accounting for over 80 percent of the total CO2. The sources of these emissions are mainly fuel combustion activities in the industries, power generation, transportation, agriculture, commercial and domestic sectors. The quality of fuels has a significant impact on emission levels. At present, the F.O. being imported by the Pakistan State Oil and other marketing companies contains a high sulphur content (3.5 percent). Thus the majority of power plants and the industrial units cannot meet the National Environment Quality Standards (NEQS). The same is the case with gasoline, where the lead present in the combustion gases is creating serious health problems.

15.40 During the three year plan period, the import and manufacture of clean fuels, for example, unleaded gasoline, low sulphur fuel oil and diesel will be encouraged. Large scale replacement of liquid fuels with CNG will be a major step towards protecting environment. In view of our thrust on natural gas utilization, it is expected that the country will remain as the environmentally cleanest country of South East Asia. In order to cope with this issue and maintain the environment within the international standards, the National Environment Quality Standards (NEQS) have already been set by the Government. Furthermore, at the provincial level, environmental protection agencies have been established. In the three year Plan, infrastructure would be developed to comply with the NEQS. Environmental management systems and environmental aspects would be introduced to minimize waste generation and control pollution at source. The import and manufacture of clean fuels would be encouraged. A strategy would be evolved for utilization of lead-free fuel within a specified time-frame. In this regard, necessary regulations would be formulated. Collection of baseline data would be commenced, as environmental impact assessments can be meaningfully carried out only if the baseline conditions are well-studied.

Renewable Energy

15.41 The programme regarding renewable energy is included in Science & Technology Sector. Although there is enormous potential for modern renewable energy technology development in the countries, its contribution to the overall energy supply remains low. It is recognized that renewable energy sources, particularly through the increased use of modern technologies, could play a key role in enhancing energy supplies, particularly in the rural areas of the Country. To that effect, policies and strategies would be developed to focus on and facilitate the optimal commercial exploitation of renewable energy resources. For the promotion and diffusion of renewable energy technologies, in country technology development, local manufacturing and transfer, as well as the facilitation of technology transfer between the regional countries would be encouraged. The need for enhanced efforts to create an enabling environment for greater private sector participation and a strong public-private partnership would be developed.

15.42 The Pakistan Council for Renewable Energy Technology (PCRET) should undertake a comprehensive implementable action plan for the development of non-conventional technologies, with a focused proposal which should be developed based on successful experiences of other countries with similar geographic proximities.

Energy Efficiency

15.43 Activities with primary focus on identification, demonstration, data gathering and construction of information systems, creating awareness and education, and systematic implementation of low-cost and medium cost measures to achieve conservation in various sectors of economy like industry, buildings, transport and agriculture sector will be continued. Some of the activities initiated by ENRCON have attained commercial viability and partially spun off to the private sector. A project on tune up of engines undertaken with the assistance of UNDP has shown encouraging results

Privatization

15.44 The privatization of fuel sector is on the priority agenda of the government. In view of this the government has decided to privatize fuel sector entities viz SNGPL, SSGCL, OGDCL, PSO and joint venture partnerships in oil and gas sector as soon as possible.

15.45 The de-regulation of import of POL products is underway. The government has initiated various actions and a phased programme is chalked out. In the first phase,

the furnace oil trade has been deregulated. This will facilitate oil marketing companies, IPP, WAPDA, KESC and industrial consumers to import furnace oil over and above the domestic production of the refineries. In the wake of coming up of PARCO refinery in November, 2000, the LPG business has been de-regulated. In order to encourage investment for the development of LPG infrastructure and to ensure its enhanced availability in the country and the possibility of its export, private sector will be encouraged.

Investment

15.46 An investment of Rs. 12.870 billion is proposed for fuel sector for the period 2001-2004. Detail is given at Annex 15.2. Since the formation of a Holding Company is underway, the allocations of funds through budget earmarked for the Ministry of Petroleum & Natural Resources would be reduced straight away on the functioning of the Holding Company and the amount earmarked for Ministry of Petroleum & Natural Resources would be off loaded from the budgetary portion.

15.47 The Government of Pakistan is following an investment strategy in such a manner that the share of Public Sector investment is gradually reduced in Fuel Sector followed by inputs from Private Sector. The GOP role will be gradually reduced to the regulatory functions.

Power Sector
Objectives

15.48 The main objectives in the Power Sector will be: (a) to create an environment conducive for the participation of private sector while ensuring that the cost of electricity remains competitive and affordable for end user (b) to encourage the utilization of indigenous resources for electricity generation in the country (c) to convert existing thermal power plants based on furnace oil to gas fired power plants (d) to improve efficiency of electricity production and consumption: and (e) to explore the possibility for developing and linking the regional electricity scenario for efficient and reliable use of electricity.

Policies

15.49 Future power stations will be based on indigenous sources (hydel and coal), and local/imported gas as it becomes available. The country's hydel potential will be harnessed as the first priority. Moving in this direction, feasibility studies would be conducted on potential sites for their earliest development. Gas-fired combined cycle plants would be developed, given the economic and environmental advantages of these plants.

15.50 Keeping in view the power requirement projections from the year 2003-04 onwards, the need for a revised power policy is felt where the main thrust would be to explore the potential of indigenous fuels and resources for power generation, especially hydel and coal. The current power policy is being amended to make it more result oriented, as it has received poor response from the investors in the initial phase.

15.51 Extensive use of indigenous resources like hydel and coal for power generation will be possible only if detailed feasibility studies of such projects are undertaken, and information made available to private entrepreneurs to enable them to participate in competitive bidding. Such studies should be of international standard and carried out by independent experts. The government will allocate sufficient funds for such studies and for data collection. Towards this end, work on Basha Dam feasibility has already been undertaken.

Efficiency Improvement

15.52 In Pakistan, the energy intensity ratio, i.e., the commercial energy consumed per unit of GDP output, is among the highest in the region reflecting an opportunity to

improve efficiency. During the Three Year Programme, energy conservation efforts will be accelerated. In view of limited resources, energy conservation programmes would be carried out on a commercial/cost recovery basis and the use of public sector funding would be minimized. The Government would only act as a facilitator. In a restructured energy sector, it would be ensured that the privatized entities have an incentive to implement conservation measures.

Pricing/Tariff

15.53 Electricity pricing/tariff need rationalizing since economic efficiency requires both (a) an efficient production of power, by ensuring least cost supply and optimum system operation and management; and (b) efficient power use, by providing cost-based pricing signals that ensures optimal consumption and resource allocation. Industrial tariffs will be made competitive, as power being a factor of production influences international competition of goods produced by our industries.

15.54 Pricing policies for electricity will be based on the cost of providing goods or services, leaving a reasonable margin to the entrepreneur and safeguarding the interest of consumers. Under the evolving policy of privatization and separation of functions (generation, transmission, and distribution in the power sector), all units and entities, regardless of ownership, will need to operate on commercial principles.

Power Demand

15.55 Power demand growth rate has remained below target because of the depressed growth rate in economy during past few years and is expected to continue with the same trend for the next couple of years. The demand projections for the next three years have been rationalized. However, the growth rates are indicative and would be reviewed critically before any investment is committed in the public or private sector. As can be seen in Table 15.5, power demand would increase at an average annual growth rate of 5.95 per cent to reach 13,326 MW by 2003-04, showing an increase of 2,121 MW during the three year period. Energy generation is planned to increase at an average annual rate of 4.59 per cent to reach 77,266 GWh by the end of the Plan period. The energy sold is forecast to increase by 9,137 GWh to reach 56,945 GWh in 2003-04 i.e. an annual increase of 6.00 per cent. System losses are targeted to decline over the period to reach about 26.3 per cent by the year 2003-04, as compared to their present level of about 29.2 per cent. It is also planned to add 2.00 million new power consumers to the system and to electrify 6,222 villages during the Programme period. The physical targets are shown at Table-15.5.

TABLE – 15.5
PHYSICAL TARGETS

Sl. No.	ITEMS	UNIT	Benchmark 2000-01	Targe 2003-04
1	Installed Capacity	MW	17710	19052
	Growth Rate		5.7	2.46
2	Maximum Demand	MW	11205	13326
	Growth Rate	(%)	2.1	5.95
3	Energy Generation	GWH		
	Annual Energy Generation		67539	77266
	Growth Rate	(%)	3.7	4.59

4	Energy Sale			
	Annual Energy Sale	GWH	47808	56945
	Growth Rate	(%)	2.9	6.00
5	System Losses	(%)	29.2	26.3
6	Consumers Cumulative	Million	13.75	15.75
7	Electrification of Villages/Abadies Cumulative	Nos.	70544	76766

15.56 Upto year 2004, against an increase in power demand of 2,121 MW, it is programmed to add 1467 MW of capacity, of which 1,450 MW would be added by the public sector and 17. by the private sector. Retirements of 125 MW from the WAPDA and KESC systems are also envisaged during the three year period. Thus net capacity addition would be 1,342 MW. The capacity addition is due to already committed capacity addition in the public and private sectors as can be seen from the Table – 15.6.

TABLE-15.6
CAPACITY ADDITION

Year	Name of Power Station	Installed Capacity						Agency				Cumulative Total
		Oil/ Gas	Gas Turb	Comb. Cycle	Coal	Hydel	Nuclear	WAPDA	KESC	Pvt.	Total	
		7706	1970	2380	150	5042	462	9889	1893	5928	17710	17710
2001-02	***Public Sector***											
	Korangi Steam	-125							-125		-125	17585
	Private Sector											
	Davis Energen	11								11	11	17596
		-114	**0**	**0**	**0**	**0**	**0**	**0**	**-125**	**11**	**-114**	17596
2002-03	***Public Sector***											
	Ghazi Brotha					1450		1450			1450	19046
	Private Sector											
	Northern Electric				6					6	6	19052
		0	0	0	6	1450	0	1450	0	6	1456	19052
2003-04	*Public/Private Sector*		N	I	L		0					
	Net Additions (2001-2004)	-114	0	0	6	1450	0	1450	-125	17	1342	
	Retirement of unit the plan.	-125	0	0	0	0	0	0	-125	0	-125	
	% of Total Added	-8.5%	0.0%	0.0%	0.4%	108.0 %	0.0%	108.0%	-9.3%	1.3%	100.0%	
	Total Generation capacity End of Plan	**7592**	**1970**	**2380**	**156**	**6492**	**462**	**11339**	**1768**	**5945**	**19052**	***19052***
	% of Total	39.8%	10.3%	12.5%	0.8%	34.1%	2.4%	59.5%	9.3%	31.2%	100.0%	

Programmes
Generation Programme

15.57 Keeping in view the future power demand for the years 2001-04 and the committed on-going projects in public and private sector during this period, there would be no need for addition of new generation facilities by the public or private sector. The public sector will only complete its on-going projects i.e. Ghazi-Brotha hydropower project and Chashma hydropower project. The private sector will complete the committed projects for which financial close

has already been achieved. However, WAPDA and KESC will continue their expansion programme for primary/secondary transmission and grids and distribution programme to expand the electricity network for new electrification and for keeping the system stable and reliable.

15.58 In order to meet the future requirement of energy, to keep in check the power tariff and bring proper generation mix (hydel/thermal), besides development of Thar Coal Field for power generation, major hydro power sites like Basha, Bunji, Dasu, Gomal Zam, Kurram Tangi, Hingol, Mirani and Munda etc. would be developed. Further small and medium sized hydro power potential for which feasibility studies have been completed 2875 MW from run of river type and 4340 MW multipurpose type would be implemented and feasibility studies for additional potential will be pursued in public/ private sector.

Primary Transmission Programme

15.59 The primary transmission programme for dispersal of power from Ghazi Barotha, Chashma Nuclear, Chashma Hydro to the main load centres has already been undertaken whereas power transmission from South to North will be undertaken as required.

Secondary Transmission Programme

15.60 Secondary Transmission and Grid Station programme will be undertaken to improve the quality of supply and to increase the access of electricity.

Distribution Programme

15.61 The distribution programme for both WAPDA and KESC will be augmented to increase the service area for reliable and sustainable electricity supply. The utilities also plan to augment their distribution networks to minimize their distribution losses, to the extent technically possible. About 2.00 million new consumers are expected to be added both by WAPDA and KESC during the three year period.

Village Electrification Programme

15.62 The village electrification programme is funded by the Federal Government, and implemented by WAPDA. The targets provided to WAPDA for rural electrification during the next three years is 6,222 villages which includes completion of 1,722 on-going/partially electrified villages and 4,500 new villages. In line with the devolution of power, future village electrification programme would be dully verified by local councils and they would be actively engaged in chalking out and implementation of the programme. In a privatized set up, it is envisaged that this programme will continue to be funded by the Government, and implemented by WAPDA or the private agency responsible for distribution in the area concerned.

Power Losses Reduction Programme

15.63 Transmission and distribution losses including auxiliaries are 43.61 per cent for KESC and 27.64 per cent for WAPDA in 1999-2000. An appropriate long-term target for losses should be 16 per cent for KESC and 18 per cent for WAPDA. The losses for KESC should be reduced by 6 percentage points/annum and then by 1 percentage point till the target of 16 per cent is reached. In the case of WAPDA, the losses should decline by 2 percentage point per annum and then by half percentage point till the target of 17 per cent is reached. To improve the power losses, projects like energy loss reduction, load management and power rehabilitation programme are planned. The loss reduction programme should be implemented by electricity companies, operating in a competitive environment and providing efficient and affordable service to the consumers.

Efficiency Improvement Programme

15.64 Efficiency improvement programme will be undertaken with the aim of sustaining and improving the current activities in various sectors of the economy,

with the primary focus on identification, demonstration, data gathering and construction of information systems, and systematic implementation of low and medium cost measures to achieve conservation.

15.65 Power utilities generally construct facilities to meet their peak demand. By shifting usage from peak to off-peak times, utilities can reduce their peak loads and thereby defer construction of new facilities. This can be achieved through use of time or seasonal tariffs. Many utilities in the world have successfully reduced their consumption at peak and increased their load factors accordingly.

Environment

15.66 The Power Sector is one of the major contributor of Green House Gases (GHG) emission; accounting for over 80% of total CO_2 emission. The main source of these emissions is due to heavy use of fuel oil in the power generation. In the three year programme, conversion of existing thermal power stations from fuel oil to natural gas would substantially reduce the CO_2 and particulate emission.

Implementation of New Power Policy

15.67 For the implementation of the New Power Policy one window support at federal level is being provided by PPIB and at provincial level by Provincial Governments. GOP had identified six hydel projects (1204 MW) under 1998 Power Policy for which feasibility studies were completed. The pre-qualification documents prepared by PPIB and NESPAK were issued to the interested parties. Similarly, the standard Implementation Agreement (IA), Power Purchase Agreement (PPA) and Water Use License (WUL) and the tariff structure were finalized. A discouraging response was received from the investors and not a single project was picked up by private investors for implementation. The power policy is therefore being reviewed and efforts are being made to make the policy more investors' friendly and result-oriented. It is expected that new power policy would be announced shortly.

Restructuring and Privatization of Transmission and Distribution

15.68 Wapda is at various stages of corporatization/privatization. Moving in this direction, 8 Distribution Companies(Discos), 3 Generation Companies (Gencos) and one National Transmission and Dispatch Company (NTDC) has been established as a corporate body. These Corporatized entities/companies are working under the overall supervision and control of Wapda for all practical purposes. For real benefits of the corporatization of various entities of Wapda, it is essential that these companies should operate independently and efforts be made to make them financially viable for ultimate privatization.

Good Governance

15.69 Lately power sector utilities have been giving lackluster performance for number of reasons. It is essential that the power sector utilities should be reorganized and managed on commercial lines, to tackle the issues of efficiency, customer satisfaction, affordability, to check overhead costs, losses, and pilferage/theft etc. The strategic plan for restructuring and corporatization of WAPDA, which includes commercialization, professional management and improvement in system to bring about reforms, is underway and would be implemented during the Three Year Plan. Consistency in government policies is necessary to ensure good governance, and the government policy should not be revoked during the course of implementation & a project Regulatory bodies should be made autonomous, effective, transparent and credible. This may necessitate a revisiting of Rules of Business. Human resource development through proper training of professionals in regulatory and planning bodies must be pursued. Corporatized companies should be made commercial oriented to facilitate their

eventual privatization. Quality of service and high performance standards should be maintained for public and private sector entities.

Institution building

15.70 In order to regulate the privatized/Corporatized power sector entities, National Electric Power Regulatory Authority (NEPRA) has already been established in 1995. The main purpose of this authority is to look after the interests of consumer as well as the investors. NEPRA would play an active role to regulate the Power Sector in future. NEPRA, the electricity pricing regulatory body, has been strengthened and made more independent by placing it (along with other utility regulatory bodies) under the Cabinet Division of the Federal Government. Government will curtail its intervention its working and will encourage regulatory bodies to play its role in an aggressive and judicious way, which in turn will ensure the efficient functioning of the power sector and protection of consumer/entrepreneur interests in future.

15.71 Adequate and fair representation from all provinces has been given in PPIB and NEPRA so that they are empowered to take final decisions on all proposals relating to private power stations based on indigenous or imported fuels. Privatization programme in power sector will not succeed unless a clear cut policy is laid down for fixing power tariff and NEPRA is fully empowered to fix tariff rates on the basis of cost of service in accordance with policy laid down by the Government.

Power Sector Investment

15.72 The total public sector investment for the power sector during the Three Year Programme is projected to be Rs. 109.197 billion. Rs. 58.58 billion would come from the budgetary resources and the balance to be mobilized by the corporations themselves. Details are given in Annex – 15.3.

15.73 The total energy sector investment from budgetary sources during the next three years would be Rs. 71.449 billion. Details are given in Annex-15.4.

Annex 15.1

FUEL: PRODUCTION TARGETS

SR. NO.	ITEMS	UNIT	Benchmark Target 2001	Three Years Plan (Targets) (2003-2004)
1	2	3	4	5
1	Oil Demand	Million Tonnes	19	21
2	Oil Production.	BPD	54466	58000
3	Gas Production	MMCFD	2236	3200
4	Wells drilled	Nos.	32	168
	OGDCL	Nos.		
	Exploratory		5	23
	Appraisal/Development		4	15
	Private Sector	Nos.		
	Exploratory		8	55
	Appraisal/Development		15	75
5	Gas Consumers(Addition)	Million Nos.	0.2	0.6
	(Cumulative	"	3.2	4.0
6	LPG Production	Tonnes/day	1000	1500
7	Coal Production.	Million Tonnes/ Per Annum	3.25	4

FUEL: INVESTMENT PROGRAMME

(RS. MILLION)

S. No	Name, Location of and Status of the Scheme	Estimated cost		Estimated Expenditure upto	Revised Estimates	Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	F.Aid							
1	2	3	4	5	6	5	6	7	8	9
	MINISTRY OF PETROLEUM AND NATURAL RESOURCES									
	GSP									
	ONGOING SCHEME									
1	Systematic Evaluation and Appraisal of Coal Resources of four specific tracts in Thar Coal Field, Mithi Sindh(Approved).	347.2	0.0	120.7	20.0	140.7	40.0	40.0	60.0	67.0
	Total (Ongoing GSP)	347.2	0.0	120.7	20.0	140.7	40.0	40.0	60.0	67.0
	NEW									
2	(UN-APPROVED) *	436.0	280.0	0.0	0.0	0.0	0.0	80.0	57.0	137.0
	Total (New GSP):	436.0	280.0	0.0	0.0	0.0	0.0	80.0	57.0	137.0
	Total (GSP):-	783.2	280.0	120.7	20.0	140.7	40.0	120.0	117.0	204.0
	HDIP									
	ONGOING SCHEME									
3	Establishment of CNG Station at Lahore.	8.5	0.0			3.8	8.5	0.0	0.0	0.0
	HDIP									
	NEW									
4	Establishment of CNG Cylinder testing labs, one at Islamabad and one each at provincial capital (5 Nos).	70.0	0.0			0.0	0.0	0.0	70.0	0.0
5	Establishment of CNG station at Peshawar and BMR of Islamabad and Karachi CNG station.	38.0	0.0			0.0	0.0	38.0	0.0	0.0
6	Preparation of training manuals SOPs, and training aids etc.	6.0	0.0			0.0	0.0	0.0	0.0	6.0
7	Miscellaneous field equipment for performing safety audit of CNG stations/vehicles.	7.0	0.0			0.0	0.0	0.0	0.0	7.0
	Total (New):-	121.0	0.0	0.0	0.0	0.0	0.0	38.0	70.0	13.0
	Total (HDIP):-	129.5	0.0	0.0	0.0	3.8	8.5	38.0	70.0	13.0
	D.G.P.C.									
8	ON -GOING	N.A	N.A	10712.6	957.1	11669.7	1993.6	2425.0	3000.0	3693.0
	Total (DGPC-On-going):-			10712.6	957.1	11669.7	1993.6	2425.0	3000.0	3693.0
	D.G.P.C.									
9	NEW	N.A	N.A	0.0	0.0	0.0	0.0	200.0	470.0	1000.0
	Total (DGPC-NEW):-			0.0	0.0	0.0	0.0	200.0	470.0	1000.0
	Total (DGPC):-			10712.6	957.1	11669.7	1993.6	2625.0	3470.0	4693.0
	DG (Oil)									
10	Iran-Pak Refinery Project (GOP's equity only)	2725.0	0.0	0.0	0.0	0.0	181.5	417.0	600.0	428.0
	Total (DG Oil):-	2725.0	0.0	0.0	0.0	0.0	181.5	417.0	600.0	428.0
	Total (M/O. Pet & NR):-	3637.7	280.0	10833.3	977.1	11814.2	2223.6	3200.0	4257.0	5338.0
	Finance Division									
11	Special social welfare schemes in Murre-Bugti and Maingal Areas in Balochistan (Un-approved)	1000.0	0.0	0.0	0.0	0.0	15.0	10.0	15.0	20.0
	(Total Finance Division):-	1000.0	0.0	0.0	0.0	0.0	15.0	10.0	15.0	20.0
	Cabinet Division:									
12	Gas Regulatory Authority	30.0	26.0	0.0	0.0	0.0	0.1	15.0	14.9	0.0
	Total (M/o Law & Justice)	30.0	26.0	0.0	0.0	0.0	0.1	15.0	14.9	0.0
	Total (Fuel):-			10833.3	977.1	11814.2	2238.7	3225.0	4286.9	5358.0

POWER SECTOR
THREE YEAR DEVELOPMENT PROGRAMME 2001-04

(Rs. Million)

S.No	Name, Location by District of the Scheme	Estimated Cost		Actual Expen-diture Upto	Allocation 2000-01			Throw forward	Allocation 2001-02		Allocation 2002-03		Allocation 2003-04		Throwforwad
		Total	Foreign Aid		Total	Foreign Aid	Rupee		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total
1	2	3	4	5	6	7	9	8	9	10	11	12	13	14	15
	Pakistan Atomic Energy Commission (PAEC)														
	(On-going)														
1	Chashma Nuclear Power Project 300 MW District Mianwali.	31018.500	0.000	28480.040	2480.000	0.000	2480.000	58.460	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Nuclear Mineral Survey Lahore. (Phase-IV).	167.950	0.000	82.931	30.000	0.000	30.000	55.019	35.000	0.000	30.000	0.000	0.000	0.000	0.000
3	Detailed Exploration of Uranium, Dera Ghazi Khan (Phase-VI)	251.561	0.000	40.000	50.000	0.000	50.000	161.561	91.000	0.000	90.000	0.000	0.000	0.000	0.000
	(New)														
	Chashma Nuclear Power Project Unit-II	31019.000	0.000	0.000	0.000	0.000		31019.000	43.000	0.000	85.000	0.000	222.000	0.000	31283.000
	Total PAEC	62457.011	0.000	28602.971	2560.000	0.000	2560.000	31294.040	169.000	0.000	205.000	0.000	222.000	0.000	31283.000
	Ministry of Water and Power (SHYDO)														
	(On-going)														
	2.8 MW Reshunn Hydro power project district Chitral	337.255	22.000	333.792	35.000	0.000	35.000	-31.537	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Ministry of Finance/Water and Power														
	(On-going)														
	Transmission Arrangement for Pasni (Share of Govt of Pakistan)	879.500	337.760	956.000	76.500	0.000	76.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total Power	63673.766	359.760	29892.763	2671.500	0.000	2671.500	31262.503	169.000	0.000	205.000	0.000	222.000	0.000	31283.000

POWER SECTOR (WAPDA)

THREE YEAR DEVELOPMENT PROGRAMME 2001-04

(Rs. Million)

S. No	Name, Location by district of the Scheme	Estimated Cost		Actual Expenditure Upto June 2000	Allocation 2000-01		Allocation 2001-02		Allocation 2002-03		Allocation 2003-04	
		Total	Foreign Aid		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
	GENERATION											
	(Hydel) on-Going											
1	Chashma Hydro Power Project.	17821.770	9264.250	13653.900	3800.000	2000.000	593.000	565.000	87.000	60.000	0.000	0.000
2	Ghazi Barotha Hydro Power Project	89840.000	50494.000	36528.600	16000.000	8000.000	17000.000	8000.000	14711.400	10440.800	5600.000	4378.000
3	Rehabilitation of Warsak.	1325.000	609.000	720.190	165.000	73.000	67.000	1.000	0.000	0.000	0.000	0.000
4	Extension of Hydromat Network N.Area	38.618	22.088	25.500	2.000	0.000	5.000	3.000	0.000	0.000	0.000	0.000
5	Basha Dam Project NWFP / N.Areas	900.000	96.590	89.700	10.000	0.000	150.000	10.000	400.000	50.000	250.000	36.790
6	Bunji Hydropower project N/Areas	293.700	114.200	4.800	15.000	0.000	200.000	59.000	53.000	50.000	20.900	5.200
7	Doyian Hydro Power Project	52.407	16.167	6.400	20.000	5.000	26.006	11.000	0.000	0.000	0.000	0.000
8	4 Promising Hydel Schemes in N/Area.	32.563	13.046	4.500	15.000	5.000	13.063	8.000	0.000	0.000	0.000	0.000
9	Hydel Investigation	455.000	200.000	0.000	0.000	0.000	70.000	45.000	100.000	40.000	150.000	100.000
	(NEW)											
10	Feasibility Studies	350.000	160.000	0.000	0.000	0.000	20.000	12.000	30.000	15.000	150.000	130.000
	Sub Total Hydel	111109.058	60989.341	51033.590	20027.000	10083.000	18144.069	8714.000	15381.400	10655.800	6170.900	4649.990
	Thermal on-Going											
11	320MW Muzaffargarh Unit -4	5861.000	3721.000	6290.100	318.000	233.000	0.000	0.000	0.000	0.000	0.000	0.000
	(NEW)											
12	27 MW Diesel Gen Set at Pasni Ph-II	1061.000	638.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	200.000	150.000
	Sub-Total Thermal	6922.000	4359.000	6290.100	318.000	233.000	0.000	0.000	0.000	0.000	200.000	150.000

S. No	Name, Location by district of the Scheme	Estimated Cost		Actual Expenditure Upto June 2000	Allocation 2000-01		Allocation 2001-02		Allocation 2002-03		Allocation 2003-04	
		Total	Foreign Aid		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
	Total Generation	118031.058	65348.341	57323.690	20345.000	10316.000	18144.069	8714.000	15381.400	10655.800	6370.900	4799.990
	Transmission											
	On-Going											
13	Secondary Transmission & Grids.	27248.038	11321.100	23239.500	4500.000	2000.000	0.000	0.000	0.000	0.000	0.000	0.000
14	3rd 500 KV Jamshoro Lahore	18527.000	8648.000	10381.200	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	Private Power Generators inter- connection facilities	2209.000	914.000	760.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	Upgradation of 220KV S.S to 500 KV at Muzaffargarh	1022.000	617.000	1085.400	290.000	200.000	20.000	0.000	0.000	0.000	0.000	0.000
17	Transmission Arrangements For Power Dispersal of Ghazi Barotha.	14127.000	6990.000	71.400	3000.000	2400.000	5653.000	2453.000	5200.000	2000.000	202.600	137.000
18	Transmission Arrangement for Pasni (Share of WAPDA 373.5 m, GOP 76.5 m & GOB 429.5 m)	1165.000	500.000	817.600	100.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(NEW)											
19	Secondary Transmission Lines and Grid Stations. (Anticipated)	22000.000	11000.000	0.000	0.000	0.000	5500.000	1753.900	5500.000	2054.200	6000.000	2300.000
20	Modernization and Extension of Load despatch System (Anticipated)	4568.240	2164.200	0.000	0.000	0.000	200.000	100.000	926.000	400.000	3442.440	1664.200
21	500 KV Muzzaffargarh Gatti T/L (Anticipated)	4100.000	2450.000	0.000	0.000	0.000	310.000	174.000	900.000	300.000	2890.000	1976.000
22	Strengthining interconnention of Wapda Kesc T/L System (Anticipated)	4000.000	2500.000	0.000	0.000	0.000	0.000	0.000	784.000	200.000	3216.000	2300.000
23	Strengthining and Augunentation Transmission system	6300.000	5000.000	0.000	0.000	0.000	100.000	0.000	200.000	0.000	6000.000	4950.000
24	Extension of Sahiwal Grid station (Anticipated)	2700.000	2000.000	0.000	0.000	0.000	0.000	0.000	600.000	400.000	1400.000	850.000

S. No	Name, Location by district of the Scheme	Estimated Cost		Actual Expenditure Upto June 2000	Allocation 2000-01		Allocation 2001-02		Allocation 2002-03		Allocation 2003-04	
		Total	Foreign Aid		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
	Sub-Total (Transmission)	107966.278	54104.300	36355.900	7940.000	4600.000	11783.000	4480.900	14110.000	5354.200	23151.040	14177.200
	Distribution											
	On-Going											
25	Distribution of Power (Urban)	13847.000	2779.000	413.400	1000.000	0.000	1600.000	0.000	1558.000	0.000	3000.000	0.000
26	Distribution Rehablitation Renovation and Augmentation.	20446.000	1071.000	195.600	1000.000	300.000	1150.000	475.000	1350.000	0.000	1600.000	0.000
	Sub-Total (Distribution)	34293.000	3850.000	609.000	2000.000	300.000	2750.000	475.000	2908.000	0.000	4600.000	0.000
	Total Wapda With-out R.E	260290.336	123302.641	94288.590	30285.000	15216.000	32677.069	13669.900	32399.400	16010.000	34121.940	18977.190
	Rural Electrification											
	On-Going											
27	Rural Electrification	23301.000	14506.000	1358.900	500.000	185.000	0.000	0.000	0.000	0.000	0.000	0.000
	(NEW)											
28	Projects for Less Developed Areas.	1000.000	200.000	0.000	0.000	0.000	15.000	0.000	20.000	0.000	160.000	0.000
29	Rural Electrification	28000.000	20000.000	0.000	0.000	0.000	1974.000	0.000	2471.000	0.000	4762.110	1934.110
	Total	52301.000	34706.000	1358.900	500.000	185.000	1989.000	0.000	2491.000	0.000	4922.110	1934.110
	Total Wapda With Rural Electrification	312591.336	158008.641	95647.490	30785.000	15401.000	34666.069	13669.900	34890.400	16010.000	39044.050	20911.300

Annex 15.4

THREE YEAR DEVELOPMENT PROGRAMME 2001-04
Energy Sector

(Rs. Million)

	Allocation 2001-2004		
	Total	Through Budget	Out side Budget
POWER			
PAEC	596	596	
WAPDA	108,601	58,059	50,542
Sub-total (Power)	109,197	58,655	50,542
FUEL			
GSP	441	441	-
HDIP	121	121	-
DGPC	10,788	10,788	-
Special Welfare Schemes	45	45	-
Iran Pak Refinery	1,445	1,445	-
Regulatory Authorities	30	30	-
Sub-total (Fuel)	12,870	12,870	-
TOTAL (Energy)	122,066	71,525	50,542

CHAPTER 16

TRANSPORT AND COMMUNICATIONS

Overview

Transport contributes about 6% of the GDP. In the last ten years public sector expenditure on transport has been to the tune of Rs. 730 billion while total revenue generated has been Rs. 869 billion. For trade purposes Pakistan is essentially an "Island" as over 90% of the trade is through sea-ports & shipping. While the road transport services are deregulated, the rest of the transport sector is managed & financed by the Government . Only recently, has the airline sector been opened to the private sector airlines with mixed results primarily due to market distortions caused by in-equitable regulation . The transport infrastructure is inadequately maintained. While the potential exists for the Railway sub-sector, the road sector has become the dominant mode in the handling of inland traffic. The three year programme has been formulated allowing for the national resource constraints & other constraints, availability of national energy resources, changing land use patterns & other emerging trends in the transport market.

Issues

16.2 The issues that need to be addressed are: (a) the continuing declining trend of Railways' handling of inland freight traffic. The Railways organization and system suffers from lack of modern management approach; it has obsolete tractate power, coaches and wagons, overage assets, poor maintenance, low investment, and negative speed restrictions; (b) the role of the Railways has not been clearly defined, i.e., whether it should be run as a commercial or a social service; (c) the fare structure of Railways is irrational; (d) the road density in the country is very low. It works out to 0.30 km. per sq. km. as against 0.5 km. per sq. km. for other developing countries with similar topography and level of development. The system deficiency works out to over 200,000 km; (e) the condition of the roads is deteriorating due to poor maintenance, resulting from inadequate maintenance funds and outdated maintenance techniques. The problem has aggravated by overloaded vehicles plying on the roads. There is no check on the overloading of vehicles; (g) there is a need to develop and improve port infrastructure and operations through provision of dedicated terminals and deepening of navigation channels, rationalization of port tariffs, streamlining of the port and customs clearance procedures, and amendment and improvement of legislation.

Objectives

16.3 The following targets are proposed to be achieved during the Three Years Programme period: (a) creation of information systems within the government which can provide for a detailed analysis to assess what information is necessary and what is not, to assess what information should be shared on an intra-agency and inter-agency basis, to link information flows with a more delegated authority and performance-based evaluations, and to assess information-sharing needs between the federal and the provincial governments; (b) judicious investment for development which is oriented towards an egalitarian system assigning priority to and addressing those areas which have a strong bearing on a large segment of the society; (c) removal of capacity constraints of different modes of transport, which have resulted in huge social costs, higher cost to the economy, and low level of service, to provide some measure of relief to the common man. Likewise

operational efficiency of different modes should be improved; (d) simplification and streamlining of the Government's procedures for preparation, processing, and implementation of the projects plus the evolution of a mechanism to ensure transparency in the award of projects; (e) reduction of the liabilities of the Government through maximization of participation of the private sector to the extent possible, and establishment of an effective regulatory system to monitor private sector operations and programmes. Private sector should be encouraged to participate in the development programmes and provision of transport services, so that the level of availability of services to the commuters can be enhanced.

Strategy

16.4 The main emphasis of the programme should be on completion of on-going projects, undertaking of rehabilitation-oriented projects and maximum participation of the private sector. The strategy proposed for the Three Year Programme should have these elements: (a) the rationale for inland freight traffic between the rail and road networks should be that the Railways should haul long-lead traffic to the full utilization of its operational capacity while roads would carry the rest; (b) a significant shift of freight traffic to Railways should be effected to achieve maximum utilization of its inherent capacity to reduce relative transportation costs; (c) for the Railways, clearance of backlog of replacement and renewal of assets should be carried out to restore the capacity; (d) in the road sub-sector, the highway development programme should be broadened by the induction of the private sector and the realization of user charges; (e) toll roads should be developed and all those sections on National Highway which are either newly constructed or improved should be tolled; (f) the Highways and Railways Maintenance System should be modernized and the maintenance budget should be rationalized. (A package of development and maintenance budget should be developed for allocations, with the highest priority to the maintenance budget) (g) port facilities should be modernized by containerization of traffic on BOT/BOO arrangement with the help of dry ports and bonded warehouses; (h) private sector should be given incentives for participation in the shipping and road sub-sectors; (i) private sector participation in airlines should be accelerated and the national flag carrier, PIAC, should be modernized and studied for subsequent privatization; and (j) the new international airport at Islamabad should be constructed through BOT arrangement, while construction of new terminal at Lahore should be completed.

16.5 The Three Years Programme should focus on optimal utilization of the existing capacity through necessary improvements, better management, and improved operational techniques. The development of a transportation system, which is large and sophisticated enough to cater satisfactorily to the traffic needs of the Programme period requires a level of investment which will place a heavy burden on the public exchequer. The major thrust should, therefore, be towards continuation of efforts for the induction of the private sector financing for the commercially viable projects of roads, civil aviation and ports. Further, shipping (PNSC), the national flag carrier (PIAC), and telecommunications (PTCL) should be studied for privatization.

Three Year Investment Programme

16.6 An allocation of Rs. 82.225 billion is envisaged for the public sector investment through the budget. The break up is given in Table 16.1.

Table 16.1
Budgetary Investment

(Rs. Billion)

Sl. No.	Sub-Sectors	Allocation
1.	**Pakistan Railways**	**15.800**
	a) On-going Works	3.980
	b) Emergency Repair Plan	2.200
	c) Rehabilitation Programme (Ongoing)	3.430
	d) Rehabilitation Programme (New)	6.190
2.	**National Highways**	**63.664**
	a) Motorways	13.131
	b) Construction of additional carriage-way on N-5	7.004
	c) Rehabilitation of National Highway N-5	7.200
	d) Improvement & Widening for Capacity Increase	19.007
	e) Indus Highway including Kohat Tunnel	10.122
	f) Makran Coastal Road	7.200
3.	**M/o Communications' New Schemes**	**1.500**
4.	**Ports**	**0.066**
5.	**Special Communi-cations Organization**	**0.055**
6.	**Pakistan Telecommunication Authority**	**0.899**
7.	**Pakistan Post Office**	**0.055**
8.	**National Transport Research Centre**	**0.032**
9.	**Trade & Transport Facilitation Project**	**0.155**
	Total	**82.225**

16.7 A total investment of Rs.448.0 billion, is envisaged which includes Rs.82.225 billion for the Public and Budgetary Corporations Sector, Rs 106.487 billion for the Non-Budgetary Corporations Sector and Rs.259.373 billion in the private sector, has been proposed to meet the objectives of the three year period. Sub-sector wise break up may be seen in Annex 16.1 Three years phasing of the Public Development Programme may be seen in Annex 16.2.

RAILWAYS

Issues

16.8 The following are the main issues for the Three-Years Programme: (a) railway is suffering huge losses for maintaining un-remunerative lines. Losses on railways' operation need to be minimized by closing un-remunerative lines where strategic and other considerations do not warrant such services, and where there is no potential for improvement & fare rationalization; (b) railways is operating at low rates. A flexible policy for rates and fares requires to be adopted whereby freight rates could be varied according to the type of commodity as well as direction; (c) the industrial units of railways are running at a loss. The locomotive factory, sleeper factories, and the carriage factory as well as the other large manufacturing units of railways need to be converted into autonomous corporations & subsequently privatized; (d) the operational efficiency of railways is very low. The overall efficiency of the railways requires to be improved through better managerial and operational techniques. Suitable measures would need to be taken to enable the railways to operate as a commercial enterprise, by charging fares on commercial lines, opening or closing certain lines, and the rationalization of staff; the strength (e) the bulk of railways earnings are drawn from freight services which are not being accorded the priority they deserve. Goods traffic needs to be accorded higher priority in the assignment of locomotive power relative to passenger services, particularly on the branch lines; and (f) railways and N.L.C. need to coordinate their operations

and also compete in their operations to economize on the inter-modal movement of goods traffic.

Strategy/Policy

16.9 The following strategy is proposed to be followed for the Three Year Programme: (a) maximizing the net benefit to the economy by revitalizing the railways' role in transportation and by capacity optimization; (b) improvement of the existing infrastructure to realize the inherent capacity of the railways; (c) improvement in the overall efficiency of the system through better management information systems and managerial and operational techniques; (d) allocation of traffic between rail and road to be made according to the suitability of traffic for the two modes, i.e., long-haul for rail and short-haul for road to the extent possible, given the capacity constraint of railways; (e) goods traffic, which is more paying, to be accorded priority in locomotive power over passenger services particularly on branch lines; (f) the speed of passenger trains on the main line between Karachi and Lalamusa would be increased to 120 kph, and that of freight trains up to 80 kph with four-wheeled stock, and up to 90 kph for bogie stock so as to increase the traffic-carrying capability of the railways.

Traffic

16.10 Since the railway freight traffic has shown a declining trend over time, the regression of freight traffic against GDP suggests a further decline which is not desirable. Pakistan Railways (PR) has been given the target of carrying 5.5 billion ton km of freight and 19.77 billion passengers km of passenger by 2003-04. While the railways would be able to carry the required passenger traffic, the inadequate operational efficiency, delayed input and other constraints of the railways would at the most only allow them to carry the assigned freight traffic. The main objective during the Three Years Programme would be in concentration of efforts to optimally utilize the inherent capacity of the railways. With this policy approach, the traffic projections for the Three Years Programme are shown in Table 16.2.

Table-16.2
Railways Traffic Projections

	Benchmark 2000-2001	Projection 2003-2004	ACGR % 2000-2004
Pasenger (BPKm)	18.44	18.69	0.45
Freight (BTKm)	3.96	5.04	8.37

16.11 In order to achieve these targets, it would be necessary to provide additional physical inputs like motive power, improved line capacity works, replacement of major assets such as track renewal, coaches, wagons, etc., and also to introduce better management/ operational techniques for optimal utilization of the system capacity.

Investment

16.12 An allocation of Rs.15.80 billion is envisaged for the Railways Three Year Programme. The main thrust of the programme would be towards completion of the on-going works like procurement of 30 DE Locomotives (3000 HP), Fitment of Roller Bearings to Freight Wagons and Track Circuiting of 94 stations, and completion of the projects under the Emergency Repair Plan launched during 2000-01. The Rehabilitation Plan would also be launched & completed to a worthwhile extent. The Emergency Plan is essentially a deferred maintenance programme, occasioned by inadequate maintenance of the infrastructure, motive power and the rolling stock over the years. Major projects of the Emergency Repair Plan include modification of 320 redundant tank wagons & assemblies for 680 freight wagons, improvement of tele-communication facilities, bridge replacement works and procurement of plant and Machinery for C&W shops at Mogulpura Lahore. The purpose of the Rehabilitation Plan is to enhance the capacity and improve the

operational efficiency of the system which is beset with the acute problem of overage assets. Major projects include rehabilitation of 36 GMU D.E locomotives, procurement of 69 DE locomotives, rehabilitation of 450 passenger carriages, procurement/ manufacture of 175 passenger coaches. track rehabilitation and improvement of telecommunication and signaling works.

Performance Indicators

16.13 The productivity and performance of the railways system is proposed to be improved, in accordance with the following indicators, which should be monitored from time to time: (a) wagon turn-around time to be reduced from 18.2 days to 15 days; (b) daily engine kilometerage per engine in use (goods) to be increased from 221 kms per day to 275 km per day; (c) percentage of ineffective locomotives to be reduced from 26% to 18%; and (d) daily system loading to be increased from 962 to 1100 wagons per day.

Cost Recovery

16.14 Losses on Railways operation is a global phenomena. PR is no an exception. No cost recovery from Railway projects is expected since PR is already incurring heavy losses which are compensated from freight earnings through cross subsidization. Partial stoppage of development works resulted in further aggravation of the already deteriorating conditions. The revenue earnings of Pakistan Railways are not keeping pace with expenditure. Railway's deficit increased sharply in the mid 1990s. Considering the Revenue Receipts and Revenue Expenditure the loss to the Railway has increased from Rs. 2753.0 million in 1992-93 to Rs.7177.0 million in 1998-99. It would therefore be desirable that PR should first be rehabilitated and subsequently modernized to achieve the benefits of the investment made, in terms of better quality of service, a dependable and reliable primary mode of transport.

ROADS

Issues

16.15 The following issues need to be addressed during the Three Years Programme period: (a) due to excessive axle load levels and inadequate maintenance, the present road network is deteriorating at an alarming rate. The bulk of investment in the road sector is being made for new construction. The National Highways Authority have tendered out and started execution of a large number of road projects without any corresponding increase in their maintenance programme. As a consequence, over the years, the road network has deteriorated beyond reprieve. At this point of time, the maintenance grant is only 24 per cent of the requirement. If maintenance funds are not enhanced, the entire network would require reconstruction at an enormous cost; (b) efforts made in the past for the induction of the private sector in the field of road development have not been successful. The Policy Framework and Package of Incentives for private sector participation which has been approved should be implemented to encourage greater private sector participation.

Institution Building

16.16 The following measures should be taken: (a) a high degree of professionalism should be developed in the various departments/agencies responsible for the planning, execution, and maintenance of highway projects. High priority should be assigned to human resource development; (b) procedures for tendering, award of contracts, and construction supervision of road projects should be made more transparent; (c) a proper data base should be established by the Provincial and the Federal road authorities for all kinds of information relating to roads and their classification, traffic volumes, development and maintenance expenditures, etc. The information should not only be available, it should also be made accessible as far as

possible to a large number of people. The information should be reliable; and (d) a rigid system of accountability should be established; (e) project management modules should be developed and observed by the Federal and Provincial governments, consultants, and contractors for each phase of project implementation. Standard operating procedures for project management, contract administration, cost control and quality control should be prepared for use by the project staff.

Maintenance Requirement

16.17 A crucial issue is that of maintenance in the roads sector. Roads in the country are not being properly maintained due to inadequate maintenance funds because of overall resource constraint. The bulk of investment in the roads sector is made for development programmes. In order to overcome the problem of deficiency of maintenance funds and clear the backlog of maintenance, the NHA formulated the 'Resurfacing and Strengthening' and 'Maintenance Backlog Reduction' programmes. These projects which were co-financed by the World Bank were reflected in the Development Budget.

16.18 During the last Plan period, the Government, under the Fourth Highway Project co-financed by the World Bank, agreed to implement an Action Plan for improvement of Highways. The Action Plan was designed to improve the maintenance system of the National Highways System by replacing the yardstick system with a two-tier system based on the demonstrated actual needs of each Highway Section. However, as can be seen from Table 16.3 actual releases on maintenance have not been at par with the maintenance requirement. At this stage, the maintenance grant is only 24% of the requirement.

Table-16.3
Road Maintenance Requirement

(Rs.Million)

Year	Demand Based on Actual Needs	Amount Allocated	Percentage Allocation (%)
1996-97	1760.00	522.0 0	30
1997-98	2000.00	600.00	30
1998-99	2200.00	783.00	35
1999-2000	6000.00	660.00	11
2000-2001	3000.00	720.00	24

16.19 According to the NHA, if maintenance funds on the national network are not enhanced in the Three Year Programme, some 45% to 55% of the present National Highways network of 7,200 kms would require reconstruction by 2003-04 at an enormous cost. Deferred maintenance is future capital cost and, as such, a comprehensive package of maintenance and development expenditure needs to be negotiated even if the development programme is curtailed to adjust for the maintenance requirements.

Strategy/Policy

16.20 Keeping in view the system's deficiency and serious capacity and structural deficiencies in about 8,000 km of existing roads the following strategy is proposed for the Three Year Programme: (a) according the highest priority to optimal utilization of the existing road system through proper maintenance, capacity improvement, and rehabilitation; (b) according priority to the early completion of on-going projects; (c) modernization of the maintenance system and rationalization of the maintenance budget by providing maintenance funds on the basis of actual field measurements and monitoring of field parameters; (d) establishment of a dedicated fund for highway maintenance to ensure proper maintenance of the existing road network to prevent its further deterioration leading to a complete loss of the network; (e) broadening the mode of financing for the highway development programmes by the introduction of toll financing. The concept

of the financing of roads through tolls and auction of the franchises for service centers along the highway should be developed; (f) development of a modern road construction industry in the country and improvement of road construction technology; (g) improvement of highway safety through enforcement; (i) priority to special programmes warranted by the rapidly changing geopolitical and geo-economic developments in the regions surrounding Pakistan, keeping in view their long-term potential; (j) improvement of the existing system on the basis of evaluation reports both structurally as well as capacity wise, so as to cater for the present growth and future traffic requirement; (k) making mandatory for the concerned departments at both Federal and Provincial levels to make a provision for at least 1% of the new construction in their annual budget to be devoted to research on the subject; (l) encouragement of the private investment in the highway construction, and (m) checking of overloading of vehicles. Weigh bridges should be installed at critical locations to identify and penalize the defaulters to ensure compliance of the load restrictions.

Traffic

16.21 The forecast for the Three Years Programme road traffic is given in Table 16.4.

Table 16.4
Road Traffic Forecast

Unit	Mode	Benchmark 2000-2001	Forecast 2003-2004	ACGR (%)
BPKm	Passenger	185.27	214.90	5.07
BTKm	Freight	107.75	138.81	8.80

Investment

16.22 The Government should encourage private sector participation in the road construction programme and, as such, future motorway projects should be assigned to the private sector on mutually agreeable terms. Construction of motorway M-I (Islamabad-Peshawar), however, would be financed through the budgetary resources.

16.23 An investment of Rs.63.664 billion is envisaged for the National Highways Three years Public Sector Programme. On-going works like the Islamabad - Peshawar Motorway, dualization of the National Highway N-5 and upgradation of Indus Highway (N -55) (Phase-I & II) including Kohat Tunnel would be completed. On-going improvement works including those being carried out in Baluchistan would be completed. The provincial road projects being funded under NHA's programme would also be completed. Provision has been made under new schemes for improvement of the National Highways network in Baluchistan. Work on the Makran Coastal Road project and the project for Maintenance and Rehabilitation of National Highway N-5 would be carried out. Work on Phase-III of the Indus Highway (N-55) project, which includes the Sehwan – Ratodero (204 Km) and Rajanpur –DG Khan (108 Km) Sections would be launched. Major components of the programme to be taken up under the public sector are listed in Table 16.5.

Table 16.5

NHA: Budgetary Programme	(Billion Rs)
Motorways	13.131
Construction of additional carriageway on N-5	7.004
Rehabilitation of National Highway N-5	7.200
Improvement and Widening for Capacity Increase	19.007
Indus Highway including Kohat Tunnel	10.122
Makran Coastal Road	7.200
Total NHA:	**63.664**

Cost Recovery

16.24. According to projected cash flow for ten years prepared in August 1999, the toll receipts was expected to come to Rs.14.84 billion only, against which

repayments due to cash development loans disbursed to NHA till 1997-98 after 10 years had accumulated to Rs.75.01 billion leaving a net deficit of Rs.60.17 billion. Repayment of loans for the M-1 and M-2 Motorways loans would have a cumulative incidence of Rs.108.54 billion bringing the total deficit to Rs.168.71 billion. If annual development in future continues to be financed through interest bearing CDL, the total deficit would reach Rs.433.91 billion by the year 2007-2008. There is, therefore, no scope of cost recovery by NHA through its expected projected revenue.

Ports

Traffic

16.25. The traffic projection for the Three Years Plan is an follows:

Table-16.6
Ports: Traffic Projection

(Million Tons)

Cargo	Benchmark 2000-01	Target 2003-04	ACGR (%)
General Cargo	8.4	10.68	8.33
Dry Bulk	9.6	12.24	8.43
Liquid Bulk	22.0	27.58	7.83
Total	40.0	50.50	8.08
Containers(TEUs)	650,000	800,000	7.17

Institution Building

16.26. The following measures should be taken: (a) a high degree of professionalism and managerial expertise should be developed in the organizations responsible for the planning, infrastructural development, port operations, and administration. Human resource development should be assigned high priority; (b) Both Karachi Port and Port Qasim should function on the concept of Landlord ports, i.e. the infrastructure would be provided by the port authorities and all port operations including tugging, pilotage, dredging and provision of services/facilities would be carried out by the private sector, (c) Use of IT should be made in the ports for promoting paperless commerce, i.e. E-commerce, (d) Port Authorities should be made autonomous to the extent possible, with a view to expediting decision making and implementation. Decision-making process should be made transparent, (e) A proper data base should be established for information on ship movements, port tariff, wharfage, cargo handled, cargo forecasts, infrastructural specification etc. The information should not only be available but be as accessible, as far as possible, to a large number of people, and it should be reliable and timely; and (f) The time and cost of transit through the ports should be reduced by simplification and modernization of customs and port clearance procedures and infrastructural development deemed necessary for enforcement of these procedures. The Dock Labour Board, which is currently causing substantial additional cost in the cargo handling operations, should be abolished. These measures of taken would reduce the costs of imports and enhance the competitiveness of the country's exports.

Strategy/Policy

16.27 The following stategy is proposed to be followed for the Three Year Programme: (a) Both Karachi Port and Port Qasim should be made user-friendly, efficient and mechanically fit through modernization of machinery and equipment for quick turn-around of vessels and cargo, (b) Both Karachi Port and Port Qasim should function on the concept of Landlord ports whereby all port operations should be carried out by the private sector and use of IT should be made in the ports for promoting E-commerce, (c) the infrastructure at Karachi Port and Port Qasim should be developed. The depths/drafts at both ports should be improved and facilities for night navigation established to reduce transit time; (d) The tariffs at the two ports should be rationalized; (e) The oil handling facilities at both the ports should be expanded/utilized to

the maximum. (f) The procedure of documentation and Trade Facilitation should be simplified as recommended by the ESCAP/UN, etc. (g) Legislation covering the port and shipping sector should be amended and improved. The Dock Labour Board at Karachi Port should be abolished, as has been done in a number of countries. The strength of port labour should be rationalized; (h) Construction of roads and highways should be undertaken to make Gwadar Port economically viable; (j) Automation and computerization of all traffic movements at Karachi Port and Port Qasim should be carried out; and (k) An alternate deep sea port at Gwadar to the west of Karachi and Qasim ports should be established. Construction of the deep sea port to the west of Karachi port has been under consideration and Gwadar has been chosen as the optimal and the most appropriate site for the establishment of a deep sea port.

Investment

16.28. An investment of Rs. 38.029 billion is proposed for the Three Year Programme period. This would include Rs.0.066 billion under budgetary financing, Rs.17.963 billion under corporation financing and Rs.20.0 billion under private sector financing. Major work under the public sector programme would include completion of works relating to Gwadar Fish Harbour including the desalination plant, cold storage etc. Port Qasim Authority (PQA) public sector, self-financed & private sector financed works include (a) Construction of 20 MGD Bulk Water Supply Scheme; (b) deepening and Widening of Navigation Channel; (c) Acquisition of Harbour Craft and Equipment, (d) development of infrastructual facilities, (e) Oil, LPG, Liquid cargo, Container, Iron Ore & Coal, Grain and Fertilizer Terminals, (f) Ship repair, Marine & Dry dock workshop facilities, (g) Development of Islands, (h) Development of tourism & marine sports, and (g) Marinas & aqua culture. KPT self-financed/private sector schemes include: (a) Improvement of Navigation Channel; (b) Rehabilitation of NM Bridge and Reconstruction of NMB Wharf; (c) Reconstruction of Oil Pier-II (d) Reconstruction of Berths Nos. 10 to 17 Quay Wall at East Wharves; (e) Pollution Control Measures; (f) Institutional Studies, Training, Engineering Services, etc.;(g) Communication Tower; (h)Reclamation of land at Kemari Groyne;(i) Container Terminal at Berths 6 to 9.; (j) Manora Workshop and dry dock complex; and (k) Desalination plant.

Financial Performance

16.29. The cash flow statements of KPT & Port Qasim indicate that both the ports are now meeting their expenses. KPT is expected to earn a profit of Rs. 1,497 million in 2000-01 and Rs.1,097 million in 2002-03. The net profit of PQA which was Rs.835 million in 1999-2000, has been estimated at Rs.614 million in the year 2000-01. The decline in profitability is on account of the expenditure to be incurred on dredging during 2001-01.

Deep Sea Port at Gwadar

16.30. A Deep Sea Port at Gwadar is proposed to be constructed through private sector investment under the BOT arrangement, and financing outside the budget. The port would serve as a stand-by to Port Qasim and Karachi Port and would provide port, warehousing, trans-shipment, and industrial facilities for trade with the Central Asian States, Afghanistan, neighbouring Gulf States, East Africa, the Red Sea countries, and Northwest India. Implementation of the project would take place in two phases. Under Phase-I, which is proposed to be implemented in 2 years though a mix of private/ public sector outside the budget, construction of three multi-purpose berths to cater for ships of upto 30,000 DWT is envisaged. Under Phase-II, which is proposed to be implemented in 6 years on BOT basis, dedicated terminals for the handling of various commodities would be constructed.

Dry and liquid cargo expected to be handled at the proposed facility has been estimated at 3.25 million tons and 15.62 million tons in the year 2000, which is projected to increase to 5.77 million tons and 18.77 million tons, respectively, by the year 2015. The project is estimated to cost Rs.29.337 billion, including an FEC of Rs.20.536 billion. The Mekran Coastal connecting Gwadar with Karachi has alo been planned to provide a proper inter-connection to the proposed port,

Shipping

16.31. During 1998-2000 PNSC operated liner services mainly on Europe, USA, and Far Eastern sectors. The far eastern sector remained the most profitable sector as the country's major imports were generated there. During 1998-99 PNSC with a fleet of 15 ships of 261,836 DWT lifted 5.891 million tons of cargo consisting of 1.69 million tons of dry bulk and 4.2 million tons of liquid bulk. During the next three year an allocation of Rs. 20.554 billion is envisaged, for the corporation and the private sector programme. The facilities and expertise of the Karachi Shipyard & Engineering Works would be improved to bring it at par with other shipyards in the region.

16.32 An investment of Rs. 5.544 billion is envisaged during the Three Years Programme period under the corporation financing for procurement of 2 second hand and 2 new oil tankers of 80,000 DWT each by the PNSC. An investment of Rs.1500 billion is envisaged under the private sector to cater for the projected traffic procurement of 4 bulk carriers of 40,000 to 80,000 DWT, 4 container ships, 2 multi-purpose cargo ships, 6 oil-tankers, one passenger ship, and 3 general cargo ships would be required.

Air Transport

Civil Aviation Authority (CAA)

16.33 In the modern world of soaring economic competition, industrial and trade activities are rapidly moving towards regionalism and globalization. Europe and USA are already the major developers/producers of technology and products. The Far East is rapidly developing into a big production market. The consumers' market on the globe is now mainly confined to the Middle East, Africa, Central Asia, and South Asia. In the next century, the producers are expected to compete fiercely to capture trade interests in these areas. Pakistan lies in the middle of this mega market and can provide large warehouses and cargo distribution facilities for international trade. For efficient trade effective use of air cargo facilities is likely to increase and would need to be monitored carefully during the Programme period. IATA has predicted rapid growth rates for Asia for which adequacy of infrastructure and cargo handling facilities are essential. The surplus area in the old terminal at Karachi Airport, the new air terminal at Lahore, and the new international airport at Islamabad would adequately cater for this and can, therefore, be effectively utilized. This would help in the realization of full potential of cargo as a contributor towards airline revenues and foreign exchange earnings through increased foreign trade. Full cargo loads are being carried across Pakistan by air to Kabul and the destinations beyond. A planned and organized approach can still make Pakistan a strong competitor. Besides promotion of trade, development of tourism is also planned through this fast moving mode of transport.

Traffic Forecast

16.34 Traffic projections based at all airports for the Three Years Programme are given in Table 16.7

Table 16.7
Air Traffic Forecast

(Million Tons)

	Benchmark 2000-2001	Projection 2003-2004	ACGR (%)
Passenger (Million)			
Domestic	11.41	14.06	7.22
International	5.00	5.67	4.33

Total	16.41	19.73	6.32
Freight (Million Tones)			
Domestic	0.102	0.13	8.45
International	0.167	0.19	3.71
Total	0.270	0.32	5.46

Institution building

16.35 The institutional focus should be in these directions:(a) The administrative and financial powers within CAA be further decentralized with wider authority to lower echelons under a process of fast and timely accountability; (b) CAA should continue to be developed as a financially sustaining autonomous body with no burden on the national exchequer; (c) A strong institutional system be built through regular accounting of failure, weaknesses, search for advanced methods/technologies and timely exploration/exploitation of development opportunities; (d) Participation of private airline in promotion of air services network should be enhanced to boost air transport activity, (e) A healthy economic competition be ensured among the operating airlines to the benefit of the people. (f) Policy of privatization and deregulation be pursued to encourage private sector participation/investment (g) Regular and uninterrupted collection of data be ensured for monitoring of operational activities and effective decision making for development. (h) Electronic dissemi-nation of management information to specialists/decision makers within CAA be further improved Specialists and professionals should invariably be employed on all technical positions. Operational & developmental issues should be decided by high level officials with an extensive corporate experience/vision. All decisions should be persistently tracked down till the successful implementation; (i) A multi-specialty organization with good financial and physical planning, strict controls, and timely investments should be developed; (j) Advancements in the air transport should be closely watched for technological gains and for maintaining international standards within the limited national resources. There should be a complete sense of proportion and weighing of every move; and (k) Demands made for uneconomic and premature investment by public bodies and public representatives should not be entertained in the larger public interest.

Strategy/Policy

16.36 The following strategy for the Three Year's Sectoral Development and Investment Programme is proposed: (a) New international airport at Islamabad should be constructed on BOT basis (b) Construction of new air terminal at Lahore should be completed for timely realization of the investment made; (c) Work on construction of secondary run-way at Karachi should be completed; (d) Terminals, runways, apron and other physical infrastructure at other airports should be improved to meet the users' operational requirements; (e) Future air navigation system (CNS/ATM) should be introduced for greater operational safety; (f) Multan Airport should be developed for Airbus operations mainly for export of fresh fruits (mango etc.); (g) Refrigeration facilities should be established at major terminals for perishable commodities through the private sector to accelerate export of fruit, vegetables, etc.; and (h) Large and small fire crash tenders should be manufactured indigenously through the private sector.

Investment

16.37 An investment of Rs. 28.97 billion envisaged for the Three Years programme. This includes Rs.15.0 billion for construction of new Islamabad International Airport on BOT basis for which bids have been invited. Under the CAA own resources and commercial borrowing, work on construction of Lahore Terminal and reconstruction of secondary runway at Karachi would be completed. Work on infrastructure repair cycle would continue while future air navigation system viz CNS/ATM would be introduced. Details of investment may be seen at Annex 16.2.

Cost Recovery

16.38 The picture of cost recovery on the investment made is not encouraging. Airport-wise separate accounts are not available. CAA are maintaining the loss making airports through cross subsidization. The revenues of CAA would decline with the award/ completion of new Islamabad Airport on BOT basis since the operation on the existing terminal would be discontinued and revenue to CAA would be diverted to the BOT operator. Besides CAA would have to divert their revenues for discharging the financial liabilities on the construction of new Lahore air terminal through commercial loans.

Airlines

16.39 No investment was made by the PIAC on development of infrastructure and induction/ replacement of aircraft during 1998-2000. The private sector airlines also could not make any worthwhile induction of self-owned aircrafts and continued their operation on lease basis. PIAC however inducted used 5 Boeing 747 on dry lease as partial replacement of Boeing 747-200 aircraft.

16.40 Traffic projections for National Airline for the Three Year Plan are given in Table 16.8 below.

Table 16.8
Airlines Traffic Projections

Sub-Sectors	Benchmark 2000-2001	Projection 2003-2004	ACG R (%)
Passenger (MRPKs)			
Domestic	4157	4867	5.4
International	11938	14380	6.4
Total	16095	19247	6.1
Freight (MRFTKs)			
Domestic	55	69	8.3
International	615	724	5.6
Total	670	793	5.8

The required capacity for passenger traffic would be 20,000 MASKS and for freight 1000 MAFTKS.

Strategy/Policy

16.41 The following strategy is proposed for the Three Year's Sectoral Development & Investment Programme (a) there should be continued emphasis on improvement of operational efficiency including cost control, reduction of manpower-aircraft ratio, and higher rate of aircraft utilization in the PIAC; (b) The remaining worn-out fleet of Boeing 747 should be studied for replacement (c) There should be continued emphasis on improvement in the liquidity position to generate funds for financing purchase of new aircraft.;(d) aircraft should be procured on lease basis rather than outright purchase; (e) Induction of private sector should be accelerated/encouraged.(f) Quality airlines should be given incentives to operate in Pakistan, however unilateral open skies policy would not be adopted despite northern gateway remaining open. The regulatory role should be strengthened and the fare structure should be monitored. A selective open skies policy should be adopted to be implemented through reciprocity and bilateral agreements with maximum number of countries Operating airlines having a fleet of less than 3 aircraft should be restricted. However, PIAC and the private airlines should be allowed to operate freely on domestic routes. Eight destination viz Chitral, Gilgit, Skardu, Gwadar, Punjgor, Turbat, Pasni & Jiwani should continue to be treated as socio-economic routes. The fares should be de-regulated.

Investment.

16.42 To meet the Programme Objectives and the anticipated traffic, it is proposed to induct two wide bodied aircraft as replacement on lease basis. Besides, airlines will have to build/develop hangers, workshops, and cargo handling complexes, etc., for smooth functioning of the new fleet

induction. The financial capability of the Airlines does allow any huge investment. It is, therefore, proposed that aircraft should be purchased on lease basis while infrastructural development would be the obligation of the airlines. An allocation of Rs.2.0 billion has been made for infrastructure development only during the Three Year Programme period. The fleet induction programme of the PIAC will depend on acceleration of private sector in the airlines . It would therefore be necessary to monitor the private sector acceleration on a yearly basis and review/adjust the PIAC programme accordingly.

Cost Recovery

16.43 The aging fleet and cash flow of the PIAC would not permit proper cost recovery. PIAC, in the past, suffered due to imbalance with manpower aircraft ratio besides cross subsidization of domestic operations from earnings of international operations. PIAC are presently not in a position to finance replacement of their aging fleet through their own resources. They would therefore have to procure the aircraft either on lease or lease financing. In case of lease of aircraft PIAC would barely be able to pay the agreed lease installments. In case of purchase through lease financing they would be under obligation of discharging pay back liabilities. Thus no cost recovery is expected during the Programme period as well as in the foreseeable future is anticipated.

TELECOMMUNICATIONS

Pakistan Telecommunications Company Limited (PTCL)

16.44 A Telecommunications Division has been set up under the Ministry of Science &Technology, which has taken over the overall administration, planning and management of telecommunications related bodies. An expenditure of Rs. 30.0 billion was incurred under the corporation sector during 1998-2000. Major works include provision of value added services, 700,000 new telephone connections and provision of internet services to 22 cities. The Submarine optical fibre cable was commissioned whereby Pakistan was linked with 40 countries. Card Pay services were established in collaboration with the private sector. At present, there is a pending demand for 298,530 telephones and the real demand might be even greater.

Institution Building

16.45 The following measures should be taken: (a) the monitoring of the tele operators should be centralized through a network; (b) the telecom operators should have to submit their network performance characteristics like network downtime, traffic etc for comparison control and purposes; (c) network management should strictly adhere to the relevant ITO standards for network management; (d) apart from technical matters, matters pertaining to competition and consumers issues should be dealt with by a central body; and (e) the quality of service should be monitored by the Pakistan Telecommunications Authority and the Ministry of Communications.

Strategy/Policy

16.46 The following strategy/policy is proposed to be followed for the Three Year's Sectoral Development Investment Programme : PTCL should be modernized through induction of latest information technology and developed for a competitive role in the face of the challenges posed by the mobile cellular companies. The following strategy is envisaged for the Three Year Programme: (a) Modern, sophisticated, and quality communications services should be provided at an affordable and reasonable cost. Current equipment should be upgraded and plants based on new technologies be installed. Telephone services should be expanded to the rural and urban population; (b) Value-added services and software industry for software export should be encouraged; (c) An Information Technology

Annex 16.1

TRANSPORT AND COMMUNICATIONS
THREE YEAR PROGRAMME (2001-2004) ALLOCATIONS

(Rs.Billion)

Sr. No.	Ministry / Sub-Sector	Public Sector PSDP	Public Sector Corporations		Private Sector	Total
			Budgetary	Non-Budgetary		
FEDERAL						
1.	**Ministry of Railways**	15.800	0.000	0.000	0.000	15.800
2.	**Ministry of Communication**	2.605	63.665	93.517	42.000	201.787
	a). National Highways Authority (NHA)	0.000	63.665	0.000	7.000	70.665
	b). D.G. Ports & Shipping	0.064	0.000	0.000	0.000	0.064
	c). Karachi Port Trust (KPT)	0.000	0.000	7.328	10.000	17.328
	d). Gwadar Deep Sea Port	0.002	0.000	8.000	0.000	8.002
	e). Port Qasim Authority (PQA)	0.000	0.000	2.635	10.000	12.635
	f). Pakistan Telecommunications Authority (PTA)	0.899	0.000	0.000	0.000	0.899
	g). Special Communications Organization (SCO)	0.055	0.000	0.000	0.000	0.055
	h). Pakistan Post Office (PPO)	0.054	0.000	0.000	0.000	0.054
	i). National Transport Research Centre (NTRC)	0.031	0.000	0.000	0.000	0.031
	j). Pak.Telecommunications Company (Ltd)	0.000	0.000	70.000	0.000	70.000
	k). Shipping	0.000	0.000	5.554	15.000	20.554
	l). New Schemes	1.500	-	-	-	1.500
3.	**Ministry of Commerce**					
	Trade and Transportation Facilitation Project.	0.155	-	-	-	0.155
4.	**Ministry of Defence**	0.000	0.000	12.970	217.373	230.343
	a). Civil Aviation Authority (CAA)	0.000	0.000	10.970	18.000	28.970
	b). Airlines	0.000	0.000	2.000	199.373	201.373
	c). Pakistan Meteorological Department	0.000	-	0.000	0.000	0.000
	Total (T&C).	**18.560**	**63.665**	**106.487**	**259.373**	**448.085**

THREE YEARS PUBLIC SECTOR DEVELOPMENT PROGRAMME (2001-2004)

(Budgetary Development Programme)

(Transport & Communication)

(Rs.Million)

Sr. No.	Name of the Scheme	Estimated Cost Total	Foreign Aid	Estimated Exp. upto June 2001 Total	Proposed PSDP						Total Allocation for	
					2001-02 Total	F.Aid	2002-03 Total	F.Aid	2003-04 Total	F.Aid	2001-04 Col.6,8 & 10 Total	Col.7,9 & 11 F.Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
	MINISTRY OF RAILWAYS											
	A. On-Going Schemes											
1.	Track Rehabilitation (Kuwait, OPEC)	3186.77	1100.00	3186.77	-	-	-	-	-	-	0.00	0.00
2.	Rehabilitation of 101 Locos. (OECF) (PC-I under revision)	7659.00	4635.00	4568.50	1600.00	928.00	1000.00	-	491.00	-	3091.00	928.00
3.	Track circuiting at 94 Stations OECF	1322.00	1022.00	1339.00	-	-	-	-	-	-	0.00	0.00
4.	Fitment of Roller bearing to Freight wagons (Appd) (WB)	764.50	350.59	653.60	30.00	-	30.00	-	50.90	-	110.90	0.00
5.	Procurement of 30 Locos (3000 HP) (OECF)	4980.00	3000.00	4966.00	14.00	-	-	-	-	-	14.00	0.00
6.	Procurement of spare parts for Unit Exchange.	1072.00	627.00	897.00	75.00	-	75.00	-	25.00	-	175.00	0.00
7.	Procurement / Rehabilitation of 930 Traction Motors.	799.50	488.00	799.50	-	-	-	-	-	-	0.00	0.00
8.	Replacement of D.C. Sets (Renovation of Coaches)	19.72	-	19.02	0.70	-	-	-	-	-	0.70	0.00
9.	Signalling Works.	17.00	-	16.43	0.60	-	-	-	-	-	0.60	0.00
10.	Bridge Works	37.98	-	37.98	-	-	-	-	-	-	0.00	0.00
11.	Rehabilitation of 240 Caoches.	300.00	-	200.00	100.00	-	-	-	-	-	100.00	0.00
12.	Signalling Works (Various Sections)	219.00	77.00	34.00	100.00	40.00	85.00	40.00	-	-	185.00	80.00
13.	Electrical Works.	99.00	27.00	25.00	30.00	12.00	44.00	14.00	-	-	74.00	26.00
14.	Fitment of Airbrakes to 574 Boggi Wagons. Emergency Repair Plan	327.20	159.48	95.00	100.00	70.00	132.20	19.48	-	-	232.20	89.48
15.	Rehabilitation & Improvement of Track.	599.00	51.00	599.00	240.00	-	128.00	-	-	-	368.00	0.00
16.	Improving Telecom Facilities.	164.00	66.00	42.00	100.00	56.00	22.00	10.00	-	-	122.00	66.00
17.	Bridge Rehabilitation Works.	43.00	-	15.00	28.00	-	-	-	-	-	28.00	0.00
18.	Modifification of 320 Reduntant Tank Wagons & Provision of assemblies for 680 Freight Wagons.	150.00	30.00	87.50	62.50	-	-	-	-	-	62.50	0.00
19.	Procurement of Plant & Machinery for C&W Shops at Moghalpura.	200.00	107.00	106.00	94.00	37.00	-	-	-	-	94.00	37.00
20.	Conversion of 20 Nos. single unit power vans into double unit power vans.	90.00	-	78.00	12.00	-	-	-	-	-	12.00	0.00
21.	Replacement of breakdown Cranes & Procuremnet of Relief Train Equipment.	750.00	453.00	40.00	150.00	125.00	260.00	200.00	340.00	128.00	750.00	453.00
22.	Recommissioning of 55 stabled D.E.Locos. Rehabilitation Programme	956.00	551.00	191.77	300.00	250.00	403.50	182.00	60.80	27.40	764.30	459.40
23.	Rehabilitation of 36 GMU-30 D.E. Locos.	4572.90	2509.87	1.00	100.00	50.00	800.00	600.00	1500.00	209.87	2400.00	859.87
24.	Procurement of 69 Nos. D.E. Locos.	12000.00	6365.49	0.10	130.00	78.00	850.00	510.00	1800.00	1104.00	2780.00	1692.00
25.	Procurement of high capacity 300 bogie oil wagons	1006.00	475.00	0.00	300.00	50.00	350.00	250.00	356.00	175.00	1006.00	475.00
	Sub-Total (On-Going).	41334.57	22094.43	17998.17	3566.80	1696.00	4179.70	1825.48	4623.70	1644.27	12370.20	5165.75
	New Schemes											
	Rehabilitation Programme											
26.	Replacement of 29 Electric Locos.	4420.00	2600.00	-	100.00	50.00	100.00	50.00	100.00	50.00	300.00	150.00
27.	Rehabilitation of 450 Passenger Coaches.	619.00	86.00	-	150.00	-	175.00	-	200.00	-	525.00	0.00
28.	Procurement / Manufacture of 175 passerger coaches.	2900.00	1200.00	-	150.00	120.00	175.00	109.37	200.00	51.00	525.00	280.37
29.	Manufactur of 50 Bogies including transfer of Technology.	232.00	150.00	-	80.00	50.00	60.00	71.00	12.00	-	152.00	121.00
30.	Track Rehabilitation	10590.00	3880.00	-	100.00	60.00	125.00	75.00	425.30	220.00	650.30	355.00
31.	Doubling of Track.	2400.00	670.00	-	1.20	-	1.30	-	400.00	170.00	402.50	170.00
32.	Improvement of Telecom. facilities.	945.00	294.00	-	60.00	50.00	100.00	50.00	200.00	120.00	360.00	220.00
33.	Rehab. / improvement of Signalling Works.	564.00	244.00	-	60.00	40.00	94.00	50.00	104.00	-	258.00	90.00

Sr. No.	Name of the Scheme	Estimated Cost Total	Foreign Aid	Estimated Exp. upto June 2001 Total	Proposed PSDP						Total Allocation for	
					2001-02 Total	F.Aid	2002-03 Total	F.Aid	2003-04 Total	F.Aid	2001-04 Col.6,8 & 10 Total	Col.7,9 & 11 F.Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
34.	Strengthening of bridges.	112.00	-	-	12.00	-	50.00	-	50.00	-	112.00	0.00
35.	Conversion of coaches to A.C.C.	445.00	-	-	10.00	-	10.00	-	45.00	-	65.00	0.00
36.	Electrical Works.	80.00	-	-	10.00	-	30.00	-	40.00	-	80.00	0.00
	Sub-Total (New).	23307.00	9124.00	0.00	733.20	370.00	920.30	405.37	1776.30	611.00	3429.80	1386.37
	Total Railways.	64641.57	31218.43	17998.17	4300.00	2066.00	5100.00	2230.85	6400.00	2255.27	15800.00	6552.12
	PORTS & SHIPPING.											
	(On-Going Schemes)											
37	Development of a Fish Harbour-Cum-Mini Port at Gawader. (CDWP/ECNEC 1992 Rev)	1623.67	830.32	1559.54	64.20	-	-	-			64.20	0.00
	Sub-Total (On-Going).	1623.67	830.32	1559.54	64.20	-	-	-	0.00	0.00	64.20	0.00
	(New Schemes)											
38	Gawadar Deep Water Port (Phase-I) (ECNEC 14.05.1999) (Estimated cost for Ph-I is Rs.10.00 bill. Rs.1.00 bill will be met through PSDP.	10000.00	8000.00	1.00	1.00	-	1.00	-			2.00	0.00
	Sub-Total (New).	10000.00	8000.00	1.00	1.00	-	1.00	-	0.00	0.00	2.00	0.00
	Total P&S.	11623.67	8830.32	1560.54	65.20	0.00	1.00	0.00	0.00	0.00	66.20	0.00
	Special Communications Organization (SCO)											
	On-Going Schemes											
39	Rural Communication (Switches) uplift Programme for NAs (Proj. No.III / 91-92)	625.73	284.99	570.50	55.20	-	-	-			55.20	0.00
	Sub-Total (On-Going).	625.73	284.99	570.50	55.20	-	-	-	0.00	0.00	55.20	0.00
	New Schemes											
40	Provision of Out Side Plant (OSP) (Cable / WLL Network) for AJ&K. (**)	509.41	243.02	10.00	-	-	-	-			0.00	0.00
	(**):- The scheme will be self financed, except for some local cost cpmponent, which has to be worked out by the SCO.											
	Sub-Total (New)	509.41	243.02	10.00	-	-	-	-	0.00	0.00	0.00	0.00
	Total (SCO)	1135.14	528.01	580.50	55.20	0.00	0.00	0.00	0.00	0.00	55.20	0.00
	Pakistan Telecommunications Authority											
	(On-Going)											
41	Pakistan Telecommunications Regulation & Privatization Support Project (WB). (Appd)	1808.62	1285.00	1396.42	400.00	300.00	499.20	266.00	-	-	899.20	566.00
	Pakistan Post Office.											
	On-Going Schemes											
42	5 P.O.Operational / Administrative buildings. Const.of PLI House Lahore (VII/86-87) Const.of Office of Dir.Accounts, PPO, LHR (VI/85-86) Const.of Postal Commercial Complex at LHR.(III/88-89) Exten.of Karachi GPO building for machanised sorting office (I/87-88). Exten.of HPO buldg.at Al-Haidry Karachi, Ph-II (XII/86-87)	36.56	-	42.05	-	-	-	-	-	-	0.00	0.00
	Sub-Total (on-going)	36.56	-	42.05	-	-	-	-	-	-	0.00	0.00
	(New)											
43	Const./Re-Const./Extension of 24 Post Office buildings & 26 Residential Quarters.	60.37	-	20.00	15.00	-	15.00	-	10.40	-	40.40	0.00
44	Purchase of plots & buildings at different places for P.O.Operational / Staff Welfare purposes.	11.00	-	11.00	-	-	-	-	-	-	0.00	0.00
45	Track and Trace system for Express Post for 11 GPOs.	19.47	-	6.00	6.00	-	6.00	-	1.50	-	13.50	0.00
	Sub-Total (New)	90.84	0.00	37.00	21.00	0.00	21.00	0.00	11.90	0.00	53.90	0.00
	Total PPO	127.40	0.00	79.05	21.00	0.00	21.00	0.00	11.90	0.00	53.90	0.00
	National Transport Research Centre											
	(On-Going)											
46	Operational Research Wing. (appd)	50.00	1.00	34.55	6.00	-	6.00	-	3.50	-	15.50	0.00
47	Road Research Wing. (appd. ODA, UK)	51.75	19.13	51.75	-	-	-	-	-	-	0.00	0.00
48	Urban Transport Wing. (appd. BITS, Swedish Government.)	33.30	5.00	24.50	3.00	-	4.00	-	1.80	-	8.80	0.00

Sr. No.	Name of the Scheme	Estimated Cost Total	Foreign Aid	Estimated Exp. upto June 2001 Total	Proposed PSDP						Total Allocation for	
					2001-02 Total	F.Aid	2002-03 Total	F.Aid	2003-04 Total	F.Aid	2001-04 Col.6,8 & 10 Total	Col.7,9 & 11 F.Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
49	Railway Research Wing. (appd)	19.65	-	19.50	3.00	-	3.50	-	-	-	6.50	0.00
	Total NTRC.(On-Going)	154.70	25.13	130.30	12.00	0.00	13.50	0.00	5.30	0.00	30.80	0.00
	M/o Communication's New Schemes	-	-	-	200.00	-	400.00	-	900.00	-	1500.00	-
	Sub-Total (M/o Communication, On-going)	4249.29	2425.44	3698.81	531.40	300.00	512.70	266.00	5.30	0.00	1049.40	566.00
	Sub-Total (M/o Communication, New)	10600.25	8243.02	48.00	222.00	0.00	422.00	0.00	911.90	0.00	1555.90	0.00
	Total (M/o Communication)	14849.54	10668.46	3746.81	753.40	300.00	934.70	266.00	917.20	0.00	2605.30	566.00
	Ministry of Commerce											
	On-Going Schemes		(*)									
50	Trade & Transport Facilitation Project Pakistan. (ECNEC appd on 16.09.1999)	175.00	150.00	20.00	50.00	40.00	105.00	90.00	-	-	155.00	130.00
	(*):- Rs.150.00 million IDA loan ($ 3.00 million @ Rs.50.00 = 1 US $) & Rs.25.00 million will be borne by the Pakistan Shippers Council of FPCC&I.											
	Total on-going (M/o Commerce)	175.00	150.00	20.00	50.00	40.00	105.00	90.00	-	-	155.00	130.00
	Ministry of Defence.											
	Pakistan Meteorological Departmenrt.											
	On-Going Schemes..											
51	Provision of additional Met. Facilities in Northern Region. (appd) (Umbrella project was approved by the ECNEC on 25.02.1974)	13.52	2.80	14.57	-	-	-	-	-	-	0.00	0.00
	Sub-Total Met (On-Going).	13.52	2.80	14.57	-	-	-	-	-	-	0.00	0.00
	Sub-Total T&C (On-going)	45772.38	24672.67	21731.54	4148.20	2036.00	4797.40	2181.48	4629.00	1644.27	13574.60	5861.75
	Sub-Total T&C (New)	33907.25	17367.02	48.00	955.20	370.00	1342.30	405.37	2688.20	611.00	4985.70	1386.37
	Total (T&C)	79679.63	42039.69	21779.54	5103.40	2406.00	6139.70	2586.85	7317.20	2255.27	18560.30	7248.12
	National Highway Authority (NHA)											
	On-Going Schemes.											
	A) Aided Projects.											
52	Fourth Highway Project (Un-appd)	7675.00	3921.00	7617.23	57.80	-	-	-	-	-	57.80	0.00
53	Indus Highway Project (Phase-I&II). (Appd)	14382.00	11933.00	13750.91	380.50	344.00	250.60	226.80	-	-	631.10	570.80
54	Sukkur Bridge. (Un-appd)	2125.85	1097.00	2125.85	-	-	-	-	-	-	0.00	0.00
55	Kohat Tunnel (OECF) (Appd)	6626.75	5954.00	3041.93	1000.00	898.00	1200.00	1078.00	1384.80	1244.23	3584.80	3220.23
	Sub Total (A)	30809.60	22905.00	26535.93	1438.30	1242.00	1450.60	1304.80	1384.80	1244.23	4273.70	3791.03
	B). Dualization of N-5											
56	Hala Moro. (Un-appd)	2170.00	-	1466.50	404.00	-	300.00	-	-	-	704.00	0.00
57	Moro Baberlo. (Un-appd)	4418.00	-	4317.96	100.00	-	-	-	-	-	100.00	0.00
58	Baberlo Ubaro. (Un-appd)	3690.00	-	3320.34	300.70	-	69.00	-	-	-	369.70	0.00
59	Ubaro Rahim Yar Khan. (Un-appd)	1935.00	-	1866.44	68.60	-	-	-	-	-	68.60	0.00
60	Rahim Yar Khan Bahawalpur ACW (166 Km) (Un-appd)	6000.00	-	565.75	700.00	-	1400.00	-	2266.96	-	4366.96	0.00
61	Bhawalpur Multan. (Un-appd)	2209.03	-	2209.03	-	-	-	-	-	-	0.00	0.00
62	Multan Mianchannu. (Un-appd)	3456.67	-	3456.67	-	-	-	-	-	-	0.00	0.00
63	Okara Lahore (Un-appd)	3911.81	-	3867.91	43.90	-	-	-	-	-	43.90	0.00
64	Kharian Rawalpindi. (Appd)	5174.00	-	4739.79	434.21	-	-	-	-	-	434.21	0.00
65	Chablat Nowshera.	2916.00	-	1998.99	355.00	-	562.01	-	-	-	917.01	0.00
	Sub Total (B)	35880.51	0.00	27809.38	2406.41	0.00	2331.01	0.00	2266.96	0.00	7004.38	0.00
	Total (A+B)	66690.11	22905.00	54345.31	3844.71	1242.00	3781.61	1304.80	3651.76	1244.23	11278.08	3791.03
	C. Motorways											
66	Lahore-Islamabad (M-2) (Un-appd)	38923.15	9385.00	38823.15	100.00	-	-	-	-	-	100.00	0.00
67	Islamabad-Peshawar (M-1)	24355.04	9281.00	11323.73	7000.00	-	6031.31	-	-	-	13031.31	0.00
	Sub-Total (C)	63278.19	18666.00	50146.88	7100.00	0.00	6031.31	0.00	0.00	0.00	13131.31	0.00
	D. Other Projects											
68	N-25, Uthal Bela and Sorab Kalat. (Un-appd)	1860.00	-	1810.04	50.00	-	-	-	-	-	50.00	0.00

Sr. No.	Name of the Scheme	Estimated Cost Total	Foreign Aid	Estimated Exp. upto June 2001 Total	Proposed PSDP						Total Allocation for	
					2001-02 Total	F.Aid	2002-03 Total	F.Aid	2003-04 Total	F.Aid	2001-04 Col.6,8 & 10 Total	Col.7,9 & 11 F.Aid
1	2	3	4	5	6	7	8	9	10	11	12	13
69	N-40 Quetta-Dalbandin-Taftan. (Un-appd)	2733.52	-	2733.52	-	-	-	-	-	-	0.00	0.00
70	Improvement of KKH (N-35) (Un-appd)	552.00	-	400.21	151.80	-	-	-	-	-	151.80	0.00
71	Abbottabad - Barian - Nathiagali. (Appd)	1717.00	-	1147.14	569.90	-	-	-	-	-	569.90	0.00
72	Chiniot Bridge. (Appd)	480.91	-	480.91	-	-	-	-	-	-	0.00	0.00
73	Tall Parachinar Road-Tari Mangle. (Un-appd)	545.00	-	533.43	11.60	-	-	-	-	-	11.60	0.00
74	a) Gawadar - Ratodero (Appd) b) Ratodero-Shahdadkot-Khuzdar Road.	1600.00	-	1198.59	401.90	-	-	-	-	-	401.90	0.00
75	Mansehra Naran Jalkhad. (Appd)	3820.98	-	1409.33	400.00	-	879.69	-		-	1279.69	0.00
76	Quetta-Qilla Saifullah-Zhob-D.I.Khan Rd. (N-50) D.I.Khan Mughalkot Section (Un-appd)	2906.00	-	381.09	600.00	-	850.00	-	1075.00	-	2525.00	0.00
77	Feasibility Studies and Design. (Un-appd)	700.00	-	143.60	125.00	-	174.00	-	250.00	-	549.00	0.00
78	Imp.of N-70, Qila Saifullah Road - Bewata (256.5 Km) (Un-appd)	2934.43	-	200.00	300.00	-	400.00	-	1503.86	-	2203.86	0.00
79	Imp.of N-65 Dera Allahyar-Nutal-Sibi (Un-appd)	1358.00	-	225.02	300.00	-	400.00	-	433.00	-	1133.00	0.00
80	Reconstruction/Replacement of existing steel bridges and carriageways (Appd)	122.00	-	33.21	88.69	-	-	-	-	-	88.69	0.00
81	Satra Mile - Murree dual C/way (41 Km) (Un-appd)	4093.00	-	405.82	411.00	-	1250.00	-	2026.18	-	3687.18	0.00
82	Bharakhu - Satra Mile (Un-appd)	155.06	-	143.00	12.00	-	-	-	-	-	12.00	0.00
	Sub-Total (D)	25577.89	0.00	11244.91	3421.89	0.00	3953.69	0.00	5288.04	0.00	12663.62	0.00
	Sub-Total (On-going, A to D)	155546.19	41571.00	115737.10	14366.60	1242.00	13766.61	1304.80	8939.80	1244.23	37073.01	3791.03
	(E) New Schemes											
83	Rehabilitation Existing Carriageway N-5 (Phase-I, WB) (Un-appd)	13500.00	-	400.00	700.00	-	1500.00	429.55	5000.00	2730.25	7200.00	3159.80
84	Makran Coastal Road (Un-appd)	15000.00	-	300.00	1200.00	-	2000.00	-	4000.00	-	7200.00	0.00
85	Bela-Karao (40 Km) N-25 (Un-appd)	263.00	-	0.00	110.00	-	400.00	-	-	-	510.00	0.00
86	Karao-Wadh (130 Km) N-25 (Un-appd)	1366.00	-	0.00	100.00	-	400.00	-	866.00	-	1366.00	0.00
87	Kuchlac-Muslim Bagh (100 Km) N-50 (Un-appd)	800.00	-	0.00	100.00	-	400.00	-	300.00	-	800.00	0.00
88	Bridge over Chenab at Shershah (N-70) (Un-appd)	900.00	-	0.00	100.00	-	400.00	-	400.00	-	900.00	0.00
89	Sehwan-Ratodero Indus Highway (204 Km) Ph-III (Un-appd)	6000.00	4800.00	0.00	100.00	80.00	500.00	400.00	3000.00	2400.00	3600.00	2880.00
90	Rajanpur-D.G.Khan (108 Km) Indus Highway Ph-III (Un-appd)	3000.00	2400.00	0.00	100.00	80.00	518.69	415.00	1687.00	1349.60	2305.69	1844.60
91	Peshawar-Torkham Road (N-5) (Un-appd)	2600.00	-	0.00	10.00	-	600.00	-	1200.00	-	1810.00	0.00
92	Sukkur-Dera Allahyar (90 Km) N-65 (Un-appd)	900.00	-	0.00	100.00	-	600.00	-	200.00	-	900.00	0.00
	Sub-Total (New, E)	44329.00	7200.00	700.00	2620.00	160.00	7318.69	1244.55	16653.00	6479.85	26591.69	7884.40
	Total NHA	199875.19	48771.00	116437.10	16986.60	1402.00	21085.30	2549.35	25592.80	7724.08	63664.70	11675.43
	Sub-Total On-going (T&C + NHA)	201318.57	66243.67	137468.64	18514.80	3278.00	18564.01	3486.28	13568.80	2888.50	50647.61	9652.78
	Sub-Total New (T&C + NHA)	78236.25	24567.02	748.00	3575.20	530.00	8660.99	1649.92	19341.20	7090.85	31577.39	9270.77
	Grand Total (T&C + NHA)	279554.82	90810.69	138216.64	22090.00	3808.00	27225.00	5136.20	32910.00	9979.35	82225.00	18923.55

CHAPTER 17

PHYSICAL PLANNING AND HOUSING

Baseline Conditions

Presently, total population of Pakistan is around 140 million, of which 49 million or 35 percent is residing in urban areas. Human settlements, specially towns/ cities are growing haphazardly and thus becoming a problem rather than facilitating socio-economic development. Very briefly, the situation is as under :-

(i) Out of 35 per cent urban population in 2001, about 50 per cent lives in 7 major cities of Karachi, Lahore, Faisalabad, Hyderabad, Multan, Gujranwala and Rawalpindi/Islamabad. This trend has led to environmental degradation, mushrooming of katchi abadis/slums, break down of infrastructure and municipal services.

(ii) Lack of vision, inadequate institutional set up and weak financial base are the major hurdles in proper development of cities and towns.

(iii) According to Population Census of 1998, there were 19.70 million households, accommodating 131.51 million population @ averagly 6.6 person per household. Considering the World Bank recommended occupancy @ 3 persons per room and 2 rooms per households, the present backlog due to overcrowding in housing stock is 2.3 million units. In addition, 1.70 million old sub-standard dilapidated houses require reconstruction. Thus the overall housing backlog is around 4 million units.

(iv) About 39 per cent of urban population lives in katchi abadis and slums, where basic utility services like water supply, sanitation, electricity and community facilities like schools, parks etc. are almost non-existence, posing serious health, social and governance problems.

(v) Most of the rural houses are katcha and devoid of water supply and sanitation facilities.

(vi) Safe water supply and hygienic sanitation facilities are available to about 63 per cent and 39 per cent of population, respectively. Whereas, in the SAARC Region, the coverage of water supply is around 75 per cent and that of sanitation 55 per cent.

Strategies

(i) New centers of industrial growth and development corridors would be planned and built, to disperse urbanization from bigger cities. Such initiatives would include construction of Gwadar Deep Sea Port, Makran Coastal Highway, improvement of Chaman-Quetta Link, Indus Super Highway and Peshawar – Kabul Link.

(ii) All the Provincial Governments to prepare and regularly update Master Plans and urban renewal programmes of major cities and towns. While doing so, optimal utilization of scarce land resources, technically viable and socially acceptable projects would be prepared through community involvement.

(iii) For minimizing further growth of bigger cities and to stop emergence of katchi abadies, new satellite towns around Karachi, Lahore, Faisalabad etc. will be developed at reasonable distance. Private sector would be encouraged to undertake internal development, while trunk infrastructure to be provided by the Government agencies.

(iv) Private sector's roles will be maximized for provision of general housing through supply of developed sites and services, and adequate credit facilities from existing banks system and DFIs. To mobilize housing finance, legal framework would ensure a balance between the rights of landers and borrowers. Also, Foreclosure and Tenancy laws would be made equitable, alongwith simplification of the documents for mortgage finance, land acquisition and transfer, etc.

(v) Future housing schemes will only develop small size plots. Higher taxes (property tax, conservancy charges, etc) will be levied on bigger plots/houses, to discourage such construction and to narrow down social disparities. To lessen burden on land, the mass construction of small size multi-storey flats would be encouraged. Also, the standardization of house plans and building elements would be promoted for economy, energy conservation and minimum maintenance.

(vi) Coverage of drinking water supply and sanitary sewers will be maximized both in urban and rural areas, on self-sustaining basis, alongwith improving quality of services. In cities / towns, the revenue generation for providing proper O&M and quality service will be increased, by levying incremental water use tariffs and the sanitation charges as per water consumption.

(vii) For rural water supply and sanitation programmes, the unified policy of Social Action Programme would be continued. The O&M of such systems, would entirely be the responsibility of beneficiary community.

(viii) To conserve water, in all cities/towns, water meters will be installed. Also, measures will be taken to curtail the wasteful use of water like washing cars and irrigating lawns etc in houses.

(ix) Considering the water resource not being a personal commodity, wherever possible, the State controls of ground water use for both drinking and non drinking purposes will be exercised.

Programmes

17.2 Specific sectoral programmes are as under.

Housing

(i) Considering limited resource mobilization, the nature and size of housing problem, the private sector will be encouraged to construct houses for middle and high income groups. In this connection, availability of sufficient credit facilities from the banking system would be ensured through mobilization of additional financial resources. Whereas, the housing departments, development authorities and local councils would continue preparing and implementing site and services schemes for low income groups. These groups would also be provided a broad range of community development supports through increasing the supply of developed land and guided area development; motivating NGOs/CBOs to actively involve the community etc in shelter solutions etc.

(ii) In rural areas, new 5-Marla plot schemes for shelterless families will be developed near existing settlements alongwith provision of water supply, sanitation and paved streets. In urban areas, on State land the "site and services" schemes providing 3-Marla plots for low income families, will be developed.

(iii) General housing programmes will make efforts to increase overall houses construction activity @ 0.45 million units in 2001 to 0.60 million units in 2004, in order to meet all the incremental demand. Position of existing housing stock and proposed addition up-to 2005 are given in the Table 17.1.

Table – 17.1

(Million)

Year	Population (National)	Houses (Incremental Demand @ 6 Persons Per House)	Housing Units (Overall Availability)	Shortfall (No. of Houses)
2001	140	23.33	20.98	(-) 2.35
2005	149	24.83	22.60	(-) 2.23

iv) Apart from the overall housing programme, the following programmes of providing shelters to specific groups would continued :

(a) ***Katchi Abadis & Slum Improvement :*** The Government will regularize 2242 Katchi Abadis (established before 23rd March 1985) and grant proprietary rights to the 5.083 million bonafide residents. In order to benefit the urban poor, existing Katchi Abadis and slums will be upgraded through integrated area improvement packages, like Faisalabad Area Upgradation, Community Development Project Peshawar, etc. Also, the models of community participation, self motivation, recovery of cost etc. as implemented in Khuda Ki Basti in Hyderabad, Area Upgradation Project in Faisalabad and Community Infrastructure Improvement Project at Peshawar would be followed, in order to provide additional accommodation to low income population in major cities.

(b) ***Pakistan Housing Authority Programme:*** To increase houses availability, the P.H.A. would enable construction of averagly 1000 urban housing units per annum for low and middle-income groups, in urban areas. Also, the 18 Nos. on-going projects would be completed by 2004, to provide more than 4200 flats in Karachi, Lahore, Peshawar and Islamabad.

(c) ***Government Servants Housing***: Presently, 48 percent demand has been met. The federal and provincial governments will ensure building about 2000 units annually, to maintain 50 per cent availability. The old housing stock at various capitals/big cities would be partly privatised to generate funds, and partly demolished and rebuilt as per present day needs. In this process, sizes of plots and covered areas will be rationalised to construct more units.

(d) ***Housing Foundation Programme***: The Foundation is presently implementing projects at Islamabad, Lahore and Peshawar to provide residential plots to about 8000 government employees, during next five years. This programme will be expanded on the lines of Army Housing Directorate model and construction of houses/flats would be taken up. A part of land/old houses would be allotted to employees on ownership basis out of the privatisation/renewal programmes of old government housing estates/colonies.

(e) ***Housing For Industrial Workers***: Provision of adequate housing to industrial workers is a priority of the Government. The Workers Welfare Fund will ensure regular annual availability of about 3000 small sized residential plots to industrial workers and facilitate construction of about 1000 flats thereon, in properly planned and developed housing estates near industrial conglomerates.

Water Supply and Sanitation

(i) Water supply facilities will be gradually increased to serve 68 percent population of country by 2004. Similarly, the sanitation facilities including water borne system, will be increased to serve upto 44 percent population by 2005, as per Table 17.2.

Table – 17.2

Year	2001			2005		
Population	National	Urban	Rural	N	U	R
(in Million)	140	49 (35%)	91	149	55 (37%)	94
Water Supply						
Population covered (in million)	88	40	48	102	48	54
% of Population	63%	83%	53%	68%	87%	57%
Sanitation/Sewerage						
Population served (in million)	54	29	25	66	36	30
% of Population	39%	59%	27%	44%	65%	32%

(ii) In major cities of Quetta and Karachi, the water supply has become acute problem due to non availability of ground water. Their problems have been extensively reviewed and the Government has already developed water supply projects for immediate implementation in both the cities. For other metropolitan cities, similar projects have been planned and would soon be launched with the assistance of foreign donors.

(iii) In case of small towns/cities, these projects would be implemented as per the resource availability. Participation of private sector in WS&S systems in metropolitan cities like Karachi, Lahore etc will be ensured for better service and efficient recovery of user charges to defray the O&M charges. Also studies to augment existing water sources; assessment of unaccounted water; reduction of system losses; compilation of comprehensive data base for future planning, and updating of design criteria / schedules of rates, etc. would be undertaken by both the Federal and Provincial Governments.

(iv) Key strategy for rural water supply and sanitation programme would be continuation of Social Action Programme's uniform policy, ensuring beneficiary community participation in all stages of development (planning, designing, implementation, O&M). The programme capacity of RWS&S Departments / Agencies will be upgraded by recruitment of adequate staff; regular training in sector planning / management/ monitoring; and training of communities in the administrative, technical and financial skills for better management of completed schemes transferred to them.

Three Year Programme

17.3 Regarding Public Sector Development Programme (PSDP), the overall size of both Federal and Provincial Sectoral Programmes is 93 billion, which includes ongoing and new projects. An expenditure of Rs 46 billion would be incurred upto June 2001. During 2001-2004, most of the ongoing projects would be completed by incurring Rs 40 billion (including provinces). A list of major projects is given in Table 17.3.

Table 17.3

(Million Rupees)

S.No.	Name	Cost	PSDP 2001-2004
FEDERAL			
1.	Sewage Treatment Plants Islamabad	1222	892
2.	Shah Allah Ditta Reservoir/Pipes Islamabad	670	470
3.	Dualization of I.J Principal Road, Ibd.	1050	1000
4.	Third Lane on Islamabad Highway	800	650
5.	Dualization of Islamabad Highway	650	575
6.	Khanpur Water Supply-RCB Component	750	750
7.	Const. of FGEs 5160 Houses/Flats, Islamabad	5000	1000
PROVINCIAL			
8.	Greater Karachi 100 Mgd Water Supply Project (K-III)	6500	3000
9.	Water Loss Reduction and System Strengthening Project Karachi.	1500	1000
10.	Greater Quetta Water Supply and Sewerage Project.	5000	3000
11.	Lahore Urban Water Supply/Sewerage Project	3500	1500
12.	NWFP Urban Water Supply and Sewerage Project for 134 Towns.	2000	1000
13.	Sewage Treatment Plants in 6 Metropolitan Cities	6000	1800

PART IV
Social Infrastructure

CHAPTER 18

HEALTH & NUTRITION

Issues

A number of issues have been persistently affecting the health delivery system. These are:

Domestic

(i) Management Deficiencies – on the top is lack of management information system - a basic tool for planning, week referral system poor financial and administrative management.
(ii) Insufficient and inequitable funding (less than 1% of GNP for Health).
(iii) Insufficient extra sectoral facilities i.e. Safe drinking water, sanitation, environment, safe/un-adulterated food commodities.
(iv) Imbalance of Health Manpower.
(v) Drug Pricing/Quality Control Policy.
(vi) Un-regulated private practice; Quackery.
(vii) Non-existent Health System Research.
(viii) Poor Health Management Information System.
(ix) Increasing trend in drug abuse.

Global / Regional

1. **Malaria:** Malaria is re-emerging problem which was under control some time back.

2. **Hepatitis:** This is a newly emerging problem which aids to the burden of disease and can be prevented by adequate vaccination.

3. **HIV/AIDS:** Though the situation is under control but still it remains a potent threat.
4. Preventable childhood diseases.

5. Malnutrition.

6. Tuberculosis

7. Drug Abuse.

8. Natural Calamities/disasters.

18.2 During the last 50 years health status of the nation has improved very slowly as reflected in the following table :-

DEVELOPMENT OF HEALTH THROUGH TWENTY (20) YEARS

Indicators	Upto 1978	Plan 1983	Plan 1988	Plan 1993	Plan 1998
Infant Mortality Rate	120	110	100	95	90
Crude Death Rate	14	12	10	9.1	8
Maternal Mortality Rate	600-800/ 100,000	600-800/ 100,000	500-700/ 100,000	400-600/ 100,000	300-500/ 100,000
Life Expectancy					
Male	54 years	55	57	61	63.6
Female	53 years	54	56	60	63.3

Objectives

18.3 Health sector will have the following objectives to meet the targets during the Plan period :

- To universalize a health-care system which is acceptable, accessible and affordable.
- To promote the Primary Health Care approach in the light of the global HFA strategy.
- To improve the quality of health-care services in rural as well as urban areas.
- To encourage community and private sector involvement in health-care service delivery.
- To evolve and initiate a strong District Health System.
- To reduce/eliminate use of narcotics/psychotropic drugs.

Short-term Policy Measures

18.4 ***Short term Policy measures include ;***

- Reorganization of District Health Office to make it more community based and locally managed establishment.
- Consolidation of the Existing Primary health-care Network in rural areas and functional integration of vertical programs followed by structural adjustments.
- Promote child spacing as a component of Reproductive Health Services package.
- Improvement in Hospital Administration and Financial Management.
- Establishment of properly regulated Private Health Sector and protection of communities against hazards of quackery.
- To evolve policy for quality drugs at affordable prices.
- Revival of Traditional medicine and quality control center at National Institute of Health (NIH).

Long Term Policy Measures

18.5 In addition to continuation of the above policy measures, the following steps will be taken:-

- Role of Federal and Provincial Governments will be streamlined to give more responsibility to health delivery/ implementation to Provincial Governments.
- Cost recovery for the services rendered; and subsidization for the poor segment of vulnerable population through Zakat, etc.
- Encouraging public-private partnership in health with the NGOs, local bodies, and the private sector.
- Improvement/Efficiency of services through Good Governance.
- Continued efforts towards achievement of self sufficiency in vaccine and Drug production.
- Elimination of malnutrition of all kinds among vulnerable groups.
- The creation of a drug-free Society.

Strategies

18.6 The shift in policy from curative services to preventive, promotive and primary health care will be followed. There will be :-

- Consolidation and upgradation of existing facilities in the public sector, in contrast to expansion, (except in unserved areas).
- Rapid expansion of the private sector with an appropriate legal and regulatory framework.
- Integration of special programs with health services in a manner, which will not jeopardize the fulfillment of the special program objectives.

EQUITY: *AT PRESENT PROVISION OF HEALTH SERVICES IS INEQUITABLE AND INADEQUATE*

18.7 The long-term strategies will address the establishment of primary health outlets in the public sector, only for unserved and under-served population/areas, involvement of NGOs, removal of gender imbalance and

development of public private partnership in service delivery.

EFFICIENCY: ***THE HEALTH SERVICE DELIVERY CURRENTLY IS HIGHLY INEFFICIENT AS SHOWN BY ITS LOW RATE OF UTILIZATION AND POOR MANAGEMENT***

18.8 The long term health sector strategies will address the issue by improving its social environment and management capacity, control of malpractice at all levels, accountability, decentralization, cost recovery, maximizing the role of the private sector, reducing waste and following a Health Sector Reform Agenda:

EFFECTIVENESS: ***EFFECTIVENESS AT PRESENT IS DEMONSTRATED BY POOR HEALTH STATISTICS AND RATE OF UTILIZATION, CONTINUING PROBLEM OF MALNUTRITION AND PREVENTABLE DISEASES***

18.9 The long term health strategies will address the issue by avoiding expansion, focussing on consolidation, linking PHC with other components of the health sector, ensuring quality drugs at affordable price, regulating private sector, checking quackery, involving and empowering community and NGOs/CBOs, strengthening preventive and promotive health services through health and nutrition education.

PROGRAMMES

Social Action Program (SAPP-II)

18.10 Main features are as under:

- Strengthening the organization structure, management, and implementation of health services at the primary health care-level;
- improvement of referral services at primary, secondary, and tertiary levels;
- Sustainability and improvement of utilization of health services at the peripheral level (i.e., BHUs, RHCs and FWCs); and
- Enhancement of the roles of the private sector, NGOs, and the community.

18.11. ***Major Preventive Programs under SAP are as follows: -***

- National EPI Program
- National AIDS Control Program
- National Program for Family Planning and Primary Health Care
- National ARI Control Program
- Malaria Control Program
- Health Promotion and Health Education
- Health System Research
- Mental Health and Drug Abuse Control

New Initiatives

- Immunization against Hepatitus-B.
- High-risk area approach towards elimination of Neonatal Tetanus.
- Improvement of Nutrition.
- Directly observed Therapy strategy (DOTS) for T.B. Control Programs.
- Integrated Management of childhood illnesses (IMCI).

Non-SAP Programme

18.12 Following Non-SAP Programs will be carried out to keep the curative health services within the reach of common man :

a) **Hospitals**

18.13 At the end of the 8th Plan, there are about 90,000 beds both in public and private hospitals. The bed to population ratio of 1,500 is very inadequate. The private sector will be encouraged in the current Plan period to maximize its role in the provision of curative services. The addition of new beds in the public sector in the Plan period will be minimal and highly selective.

b) **Non Communicable Diseases**

18.14 A comprehensive program for the prevention and treatment of non-communicable diseases will be developed. An

integrated approach with the full involvement of the community and a promotional campaign for a healthy lifestyle will be adopted to reduce the incidence of cardiovascular diseases, diabetes, cancer, etc.

c) **Private Sector**

18.15 The Private sector provides more extensive health services than the public sector. But they vary from very poor to good quality and there is some element of quackery.

18.16 To generate a balance between the Public and Private Sector following measures will be adopted :

- Establishing an appropriate legal and regulatory framework to improve the quality of private medical education and health-care.
- Introduction of preventive interventions in private facilities.
- Encouragement of private sector work in rural areas, with incentives through the health foundations.
- Institutionalization of private practice in public hospitals.
- Effective Control on quackery.

d) **Pharmaceutics**

18.17 The pharmaceutical industry in Pakistan has been primarily processing imported raw material into finished products, although some effort has been made to establish units capable of producing basic raw materials. While there was virtually no manufacturing unit in Pakistan at the time of independence (1947) today almost 80% of the drugs market is from local production by almost 304 companies including some 30 multinationals. However the industry still depends on imported raw material. There are more than 23,000 products registered in Pakistan of which almost 40% is imported. The pharmaceutical market in Pakistan is growing at a very fast rate annually for the last one decade (since 1990). The total value of the market was Rs.11 billion in 1990 while in 2000 it is at somewhat Rs.55 billion. However it is growing at a rate of 4% in terms of units of medicines sold. In 1990 the sale of 585.5 million units was recorded while in 2000 almost 820 million units were sold in the market, showing a cumulative increase of 40% during the last decade.

e) **Traditional Medicine**

18.18 In order to steam-line the practice of Hakim and vaids to the maximum benefit of communities following minimum strategy shall be adopted;

- Enactment of a drug act for Unani and Homeopathic medicines and drugs.
- Establishment of a council, as an autonomous body, to regulate both Unani and Homeopathic systems.

f) **Health Care Financing/User Charges:**

18.19 Following two measures will be adopted in the coming years :-

- Public Sector should concentrate on preventive health care, and leave the curative care for private sector. The private sector should be regularized and controlled through the existing rules of Pakistan Medical and Dental Council to check the quality of health care in the Private Sector.
- Reasonable user charges i.e. charges for OPD diagnostic facilities should be imposed. The revenue will be retained by the respective hospitals and utilize it according to their requirements for the hospitals.

g) **Health Insurance and Employees Social Security**

18.20 Third-party health insurance is rare in Pakistan covering only a few upper-income people. But the Employee Social Security Institutions (ESSI) system is a direct provider scheme that is employer-financed and has about one million registered members mainly in the industrial sector. The same system will be strengthened and extended to all business enterprises where low and middle class labour is involved.

h) **Senior Citizens**

18.21 Senior citizens will be provided free anti-diabetic and anti-hypertensive drugs and domiciliary care. Separate beds and dispensing windows will be established in hospitals. Geriatrics will be included in medical curricula.

i) **Health Sector Planning, Organization and Management at District Level**

18.22 Under the present devolution Plan, each District will have a **District Health Organization (DHO)** which will manage the health care system of the district. This authority will also manage the Hospitals in their respective districts. The government will provide funds to these Health Organizations and they will be free to raise additional funds locally. The Board of Governors of the DHO will be elected or nominated from among the representatives of local bodies, local notables, members of the medical profession, and civil servants of the district. The board would be given management and financial authority to oversee the functioning of health care activities carried at all levels i.e. Primary & Secondary Health Care facilities.

j) **Human Resource Development:**

18.23 Rationality will be followed in proper health manpower development, which would be oriented to the community needs, by determining the most appropriate skills for each specific job.

18.24 The gender imbalance will be addressed seriously. Curriculum for under Graduate Medical Education will be redesigned and continuous education and training program for up-gradation of skill and knowledge will be introduced.

k) **Prevention of Drug-abuse, treatment of addicts and rehabilitation program**

18.25 Pakistan is having almost 4 million drug addicts, of these more than 50% are addicted to Heroin and of whom more than 60% are in productive age group (15-35 years). This population is not only an economic burden but also a dangerous source of crimes in the society. According to an estimate the Heroin addicts only are burning Rs.120.00 million daily into ashes.

20.25 During the 3 years plan, the strong resolve of the Government of Pakistan to attain a " Drug Free Society " by eradicating the menace of drug abuse will continue as government policy.

PROGRAMS FOR THE NEXT 3 YEARS (2001-2004)

(i) Demand Reduction, treatment and rehabilitation.
(ii) Control on Illicit Trafficking.
(iii) Control on Illicit Trafficking
(iv) Enhancing International Co-operation in the Fight against Drugs.

18.26 The health sector will deal with strengthening and expansion of detoxification and rehabilitation facilities, training of manpower, monitoring of incidence and prevalence of drug dependence, in addition to measures which will be taken to control production/supply and illicit trafficking. Drug testing laboratories will be established in the health sector for quick and reliable results. Establishment of a Centre of Excellence for Conducting Research n Prevention, Treatment and Rehabilitation of Addicts is also planned.

18.27 Health sector's targets are given at Annex 18.1.

Financial

18.28 An allocation of Rs.13506.5 million has been proposed for health and nutrition sector for three years under Federal PSDP.

NUTRITION

Existing Nutritional Scenario

18.29 Basic indices of prevalence of malnutrition have changed very little over the last 20 years or more. The extent of the problem has further increased at the time of on set of new century 2000, as estimated number of malnourished children would be about 8 million. Iron deficiency anaemia among children and women of reproductive age is problem of serious public health significance. One-third of pregnant women are malnourished, and on an average one fourth of the new born are Low birth weight babies. Material malnutrition affects 34 percent of pregnant women who are severely underweight and 48 percent of lactating women have a caloric intake less than 70 percent of the recommended level. Recent data on Iodine Deficiency indicate that over 70 percent of the northern areas population suffer from IDD (Iodine Deficiency Disorder) and country as a whole may be affecting about 40 million people.

THREE YEAR PROGRAMME:

18.30 Malnutrition is an impediment to human development, a major constraint in the national development efforts. Continued efforts, however, fragmented and low profile, in the last two decades were not able to show any change in the nutritional status of the nation. Malnutrition continues to be a major problem in Pakistan. Inadequate food intake contributes substantially to childhood death and disease but often goes unrecognized as such. Malnutrition is complex manifestation which occurs in different ways, therefore roots into development of various other sectors. Self sufficiency in food at national level does not confirm recommended dietary intake for correction of malnutrition. At the same time simply inclusion of nutrition into the primary health care proved ineffective to reach low profile segment of the population. Therefore, there is a need for designing and adoption of a Model that could consider all relevant factors, and relate changes in the system, both joint and derived, particularly in terms of ultimate effects on the nutritional status of low-income groups.

18.31 The action to achieve are summarized as under:

a) Development capacity at all levels to address nutritional problems.
b) Control of nutritional disorders through supplementation, fortification and food diversification.
c) Universal accessibility to safe and balanced food.
d) Awareness through education for healthy lifestyle adopting improved nutritional practices.
e) Initiation of community based growth monitoring policy for young child and maternal nutrition.
f) Promotion and protection of breastfeeding.

STRATEGIES

18.32 For the multi-disciplinary nature of the nutritional problems, the technical basis for action within each Sector and inter-sectoral level are well known. Strategies are needed to develop national capacity to apply this technical knowledge in situation of adverse economic conditions.

18.33 Following strategies in efforts to improve the nutritional well-being of the population will be pursued during the Plan period.

1. Incorporating nutritional objectives, considerations and components into development policies and programmes.
2. Improving household food security through improved food quality and safety.
3. Preventing and managing infectious diseases.
4. Promoting breastfeeding and better weaning and feeding practices.
5. Caring for the socio-economically deprived and nutritionally vulnerable groups of population.

6. Controlling specific micronutrient deficiencies.
7. Assessing, analyzing and monitoring nutrition situation.

POLICY INITIATIVES:

18.34 Following policy initiatives would guide to design programmes to address nutritional problems at all levels.

- Establishment of a partnership among public and private sector and civil societies to promote good nutrition.
- Systematically incorporate knowledge of food and nutrition in information and education programs.
- Enhanced awareness of nutrition problems and a healthy nutritional practices in professional education, public policy forums, non-governmental bodies.
- Influence production, employment and income distribution policies.
- Launch and strengthen on-going nutrition intervention programmes for micro-nutrient deficiencies, e.g. iodine deficiency disorders (goiter control) and control of iron deficiency anemia (fortification and prophylaxis) and vitamin-A deficiency control programme.
- Monitor policy inputs, operations and impacts.
- Maintain an early warning nutrition surveillance system to detect the incidence of malnutrition; i.e. extension of growth monitoring and development of national standards.
- Initiate district level planning and programming to address nutrition issues through local entrepreneurs.

OBJECTIVES AND TARGETS

18.35 The specific objectives and targets are listed below and details given in Annex 18.2.

- Institutionalize nutrition planning and enhancing implementation capacity at grass root level.
- Reduce number of Households with less than 70% of the Recommended Daily Allowance (RDA) for Calories, from 34% to 30% in 3 years.
- The prevalence of third degree malnutrition among children to be reduced from 5% to 3% in 3 year plan.
- New cases of IDD will be prevented, and prevalence to be reduce from 60% to 20% in Northern endemic areas of Pakistan.
- Control of vitamin-A deficiency in children under five years of age through mass scale distribution of vit-A capsules, food fortification and diversification.

MAJOR PROGRAMMES

18.36 The major programs of the Three-Year Plan are given below, the details program targets are given in Annex 18.3 and financial allocation enclosed at Annex 18.4.

1. Nutrition Policy Planning, Coordination, Monitoring and Support Program.
2. Micro-nutrient Deficiency Control Programs:
3. National Nutrition Survey:
4. Nutrition in Primary Health Care (PHC).
5. Mass Nutrition Awareness Program:
6. Community Nutrition Program:

Consumption plan: in the Plan Nutrition based basic minimum requirement approach has been adopted as a goal of the consumption plan.

18.37 Food intake will meet energy expenditure of an individual in accordance with the physiological needs and level of his activity. This will ensure good health; and also for the maintenance of economically vibrant and socially desirable physical active life.

18.38 The concept of consumption planning was introduced in the fourth five year plan, adopting projection type plan and not following nutrition guidelines owing to inadequacy of the available data. While adopting nutrition based approach, the target is basic food items available and accessible to the people, so as to keep people Economically and Socially active, Physically Healthy and Enjoying a good nutritional status. As a result of such a change the conventional consumption plan would have to undergo few changes so as to match the ground realities. Therefore for the three-year Plan some innovative approaches have been introduced which are given below:

FIRST consider the desired or adopted norms for consumption, taking these as a basis of requirement.

SECOND review of the prevailing consumption pattern of the population, based on the market basket or consumption/nutrition surveys etc.

THIRD projection of demand from individual to the national level for the target year based on the food requirement and population growth.

OBJECTIVES

(i) Broad objectives of the consumption plan are as under;
(ii) Ensure food security, the growth rate of agriculture be well above population growth to attain self-sufficiency.
(iii) Increase in productivity of crops, livestock, poultry and fisheries etc.
(iv) Establishment of adequate storage capacity for buffer stocks.
(v) Adequate distributional system at all levels and farms to market road.
(vi) Rational income/wage policy to enable people to have reasonable purchasing power
(vii) Availability of food items throughout the year at reasonable prices.
(viii) Proper inter and intra household distribution according to nutritional requirement.
(ix) Reducing post harvest losses to minimum level.
(x) Balance between consumption and cash crops.
(xi) Consumer awareness through nutrition education.

Health Sector's Targets
(2001 – 04)

Sl. No	Indicators	Inter National Standard	Existing situation as of 1999-2000	Targets for 2004
1.	Infant Mortality Rate per 1000	5	90	65
2.	Under 5 Mortality rate per 1000	10	111	77
3.	Maternal Mortality Rate per 100,000	10	400	300
4.	Life Expectancy (in years)	70	62	64
5.	Percentage of children below 1 year fully immunized	100	51	80
6.	Percentage of expectant mothers fully immunized against tetanus.	100	40	60
7.	Trained personnel attending Pregnancy & child health (percentage)	Universal	30	60
8.	Population With access to Health Services	Universal	55	75
9.	Hospital beds per 1,000 people	NA	0.645	0.874
10.	Doctors per 10,000 population	15	6.9	7.6
11.	Dental Surgeons Per 10,000 people	NA	0.330	0.394
12.	Nurses per 10,000 population	45	2.09	2.8
13.	Exp. on Health as % of GNP.	5	0.5	0.7
14.	Expenditure On Health as per PSDP allocation.	NA	2.31%	2.35%

- Provisional figures of PDS (Pakistan Demographic Survey)

Annex 18.2

QUANTITATIVE NUTRITIONAL TARGETS –THREE YEAR PROGRAMME

Sl. No.	Indicator	2001 Bench Mark	2004
1.	**Low Birth Weight Babies %**	25	20
	- Weight for age (5 years) Moderate to severe Malnutrition % (Pre-School)	39	35
	- Severe malnutrition % (Preschool)	5	4
	- Goitre prevalence % average	3	2
	- Goitre prevalence endemic areas	60	20
2.	**Iron Deficiency Anaemia (HB. Level (%)**		
	- Women of Child-bearing age (15-45 years)	65	52
	- Children (5-14 years age)	45	40
3.	**Mass Awareness**		
	- Percentage of mothers:		
	-Exclusively Breastfeeding	22	70
	-Introducing weaning foods 4-6 months	29	60
4.	**Infant Weaning Practices**:		
	- Mean age of introduction of weaning food (months)	9	7
5.	**Maternal Nutrition Status**:		
	- Under-weight mothers (%)	34	25
	- Access to iodized salt (%)	40	75

Annex 18.3

NUTRITION

PROGRAMME TARGETS (2001-2004)

SlNo	Programmes	Unit	2001	2004
1.	**Nutrition in Primary Health Care Activities:**			
	a) Establishment of Nutrition Clinics at BHUs/RHCs.			
	b) Establishment of Growth Monitoring Centres.	No.	100	700
	-Growth Monitoring of Children upto 3 years.	No.	100	350
	c) Iron Supplementation Coverage			
	-Women of child-bearing age.	Million .No.	0.42	1.5
	-Children under 5 years	Mill.Nos	0.1	0.25
		Mill Nos.	0.7	0.3
2.	**Iodine Deficiency Diseases Control Programme through Universal Iodization of Salt.**			-
	a) Iodized Salt Production Capacity	Mill.Tonnes/Annum	0.184	0.35
	b) Iodized Salt Consumption.	Percent Population	23	60
	c) Vitamin-A Supplementation	% of Population below 5 years.	60	95

Annex 18.4

NUTRITION

THREE YEAR PROGRAMME ALLOCATIONS

(Million Rs.)

S.No	Programs	2001-2002	2002-2003	2003-2004	Total
PLANNING & DEVELOPMENT DIVISION					
(On-going)					
1.	Salt Iodization Program	7	8	6	21
(New)					
2.	Pakistan Nutrition Project	50	50	50	150
	Development of Nutrition Policy Guidelines and Support to Provinces.	3	3	3	9
ii)	Capacity Building - Development of Service Guidelines - Training of Provincial Trainers	3	3	3	9
Combating Micro-nutrient Deficiency.					
a)	Food Fortification				
	Iodine				
	Iron	4	4	4	12
	Vitamin-A	21	21	21	63
b)	Quality Control	7	7	7	21
	Mechanism	10	10	10	30
	Coordination Monitoring and Evaluation	2	2	2	6
	Total:	**57**	**58**	**56**	**171**
HEALTH DIVISION					
3.	Mass Nutrition Awareness Program	20	20	25	65
4.	Community Nutrition Program	30	40	50	120
5.	Nutrition in Primary Health Care (PHC)	45	50	60	155
	Total:	**152**	**168**	**191**	**511**

CHAPTER 19

POPULATION AND DEVELOPMENT

The population programme at the start of the Three Year Development is under going the following changes:

- The Government has decided to merge both the Ministries of Population Welfare and Health at federal level and also in the provinces. All operational activities at present undertaken at federal level will be provincialised and further de-centralized to district level and below.
- The Community Based Workers of both the Ministries will become on cadre and all deficiencies will be removed by imparting necessary training/orientation.
- The existing family welfare centers of population programme and MCH Centers of health departments will be merged to offer a quality reproductive health package.
- To meet demand of Community Based Workers a new cadre of mid-wives will be created by upgrading the skills of existing lady health workers. They will be provided the prescribed training.
- All service outlets of health departments after merger will offer reproductive health services including family planning as a primary health care activity.
- The NATPOW is being restructured to run professionally and transparently. The capacity of NATPOW will be enhanced and role expanded. The performance and involvement of NGO's/civil society organizations including social marketing projects will be improved and integrated.

POLICIES ISSUES

(i) Programme Dichotomy and Accountability. Population Programmes are funded and controlled federally and administered provincially.

(ii) Inability of health sector to deliver population planning services in accordance with its mandate due to incoordination and lack of ownership.

(iii) Narrow focus of services confined to family planning rather comprehensive reproductive health approach.

(iv) Service not compatible with demand both quantitatively and qualitatively.

(v) Public Private partnership is inadequate, private sector and NGO's not fully involved in sharing responsibility.

19.2 Population growth rate is expected to be reduced from 2.17% in 2001 to 1.82% in 2004.

STRATEGIES

19.3 For achieving its long-term objectives, the programmes will focus on the new initiatives and priority programmes;

a) Implement a Comprehensive Reproductive Health (RH) Package and improve coordination of the RH programmes among the government; multinational, bi-lateral agencies and Civil Society Organizations including NGOs;

b) Involve women organizations and other groups working for women's needs in the planning, implementation, and monitoring of RH services and programmes;

c) Promote men's participation in RH programmes and motivate them for responsible reproductive behaviour

in relation to women's health and overall prosperity of the family;

d) Assure the high level of quality of care in providing information and services;

e) Promote an approach that provides a constellation of linked or integrated services to meet the needs of clients;

f) Make available as wide a range as possible of safe and effective modern methods of family planning and provide advice on safe practice of traditional methods; and

g) Create a better understanding of the social, cultural and behavioral context through quality of care in providing information and services within which reproductive ill health occurs.

NATIONAL REPRODUCTIVE HEALTH POLICY

19.4 A National Reproductive Health Policy has been formulated to improve the reproductive health status of the women of Pakistan within our cultural and religious milieu. This policy is guided by the existing commitments of the Government of Pakistan in the areas of health, population welfare, women and development and education. The Reproductive Health Policy aims to (a) provide reproductive health services universally (for all ages and both genders) through all tiers of health, population and other service delivery systems, (b) ensure equity in terms of access and affordability of such service, especially for the poorest and most vulnerable segments of the population, (c) address and enhance the quality and range of such services to meet the minimum standards, (d) increase awareness of reproductive health need and ensure information about the availability of these services across all sectors of the population, (e) ensure reproductive rights for all.

REPRODUCTIVE HEALTH PACKAGE

19.5 The international conference on Pakistan and Development (ICPD) in 1994 at Cairo has adopted a Reproductive Health Package to which Pakistan is a signatory, the salient features are as follows:-

a) Provision of comprehensive family planing services based on the life cycle approach;

b) Safe motherhood (maternal health care pre and post-abortion management);

c) Child Health Care;

d) Treatment of minor ailments;

e) Control of HIV/AIDS and STDs/RTIs;

f) Infertility management;

g) Cancer detection;

h) Management of RH related problems of adolescents and elderly;

i) Enhanced male involvement.

THREE YEARS PROGRAMME (2001-04)

19.6 As a follow up of International Conference on Population and Development (ICPD) decisions, a package of reproductive health has been introduced to target population through health and population departments, Single focused family planning as pursued in the past discontinued and a comprehensive reproductive health (including family planning) approach has been adopted. A holistic approach for population welfare programme will be focused to ensure community participation. The community based workers (VBFPWs and LHWs) of both population and health sectors will be brought under one umbrella to avoid duplication/overlapping of training and service delivery. A missing link of first referral system for the community-based workers will be established.

19.7 The young population, under15 years of age, will be focused. The youth will be informed about the consequence of rapid growth of population. Concerted efforts would be made for behavioural change of the males and to put more responsibility on this segment of the society. Topics related to gender issues, and

environmental problems in relation to population and cross cutting policy concerns will be included in the research programme. The mapping of facilities, will be undertaken to avoid duplication and wastage of resources. Efforts will be made towards the commercialization of the family planning programme in the long run for sustainability. Inter-linkages amongst different sectors, programmes actors and public and private sector will be created and strengthened through a regular monitoring system.

19.8 The need for a broad-based integrated reproductive health approach to replace the narrow focus on family planning services is considered a prerequisite for achieving any further breakthrough in the population sector under greater coordination between the population welfare programme and health sector services. Measure taken to achieve functional integration between the outreach activities of the Village Based Family Planning Workers (VBFPWs) and Lady Health Workers (LHWs) will need to be institutionalized. Greater linkages between population activities and health services as a whole will become mandatory with the proposed adoption of the reproductive health package services approach. The key issue of integration between national vertical programmes, including family planning and the provincial health services delivery system will be addressed. Likewise, the extensive network of family welfare centres lack linkage will be linked with health outlets. For making a dent on poverty amongst the vulnerable target-groups of women and children, the integration of these two services will receive priority.

19.9 The existing mechanism for ensuring expanded NGO participation with donor support is in a state of crisis, as donor support has been withdrawn. It is important to recognize this mechanism on more effective lines to ensure NGO participation.

FINANCIAL

19.10 An allocation of Rs.9.5 billion will be earmarked for the population welfare activities in Pakistan. Sub-programme wise allocations appear at Annex-19.1.

19.11 The sub-sector-wise major programmes are as under:

a) Service delivery

i) Community Based Workers (CBW)
The 12000 Village Based Family Planning Workers of Ministry of Population (MOPW) and 43000 Lady Health Workers of Ministry of Health will be unified as one cadre of 55000 Family Health Workers.

A missing link of first referral system for the community based workers will be established by upgrading the skills of community based workers through training as midwives to address the issue of high rates of maternal mortality and fertility;

ii) Family Welfare Centres (FWC)
The number of Family Welfare Centres will be increased from 1680 (2001) to 2100 by the year 2004.

iii) Reproductive Health Services Centres
The number of these centres will be increased from existing 106 (2001) to 160 by the year 2004.

iv) Mobile Service Units (MSU)
There will be no increase in existing 131 MSUs.

b) **Target Group Institutions(TGIs)**
Their number will be increased from 480 to 720 in a phased manner upto 2004.

c) **Health Outlets; of Provincial Line Departments (PLDs)**
All service outlets of these PLDs will be involved by the year 2004.

d) **Registered Medical Practitioners (RMPs)**

The number of RMPs will be increased from 23000 to 30000 in a phased manner.

e) **Hakeems and Homeopaths**

The number of Hakeems and Homeopaths will be increased from 21000 to 31,000 in 2004 in a phased manner.

f) **Information, Education and Communication (IEC)**

During 2001-04, effective demand for family planning services will be increased by a strong mass media campaign. The information, education and communication programme will be improved, strengthened and updated.

g) **Research**

Efforts will be made during 2001-2004, to strengthen research in the areas of clinical studies, field methodology studies , data analysis, surveys and birth and death registration.

Annex 19.1

SUB-PROGRAMME WISE FINANCIAL ALLOCATIONS

(Million Rs.)

Sub-program	2001-2002	2002-2003	2003-2004	2001-2004
Federal Programs				
a) Ministry of Population Welfare	523.000	637.762	735.481	1896.243
b) Population Welfare Services in the Federal District of Islamabad(ICT)	16.000	19.000	21.485	56.485
c) Target Group Institutions.	3.000	3.692	4.175	10.867
d) Population Welfare Services in AJK	22.000	28.000	33.185	83.185
e) Population Welfare Services in Northern Areas (NA)	15.000	19.000	21.969	55.969
c) National Institutes of Population Studies(NIPS)	32.000	42.000	50.563	124.563
Population Welfare Program – Federal	611.000	749.454	866.858	2227.312
Population Welfare Program- Punjab	1018.680	1255.847	1449.023	3723.550
Population Welfare Program- Sindh	463.272	567.994	657.123	1688.389
Population Welfare Program- NWFP	338.185	416.650	483.650	1238.485
Population Welfare Program- Balochistan	168.863	210.055	243.346	622.264
Total Provincial Programs	**1989.000**	**2450.546**	**2833.142**	**7272.688**
Grand Total (Population Welfare)	**2600.000**	**3200.000**	**3700.000**	**9500.000**

CHAPTER 20

GENDER AND DEVELOPMENT

I. INTRODUCTION

The Constitution of Pakistan guarantees the equality of men and women and also contains special provisions for affirmative action towards equality of opportunity for women. Based on this Constitutional mandate, the Government of Pakistan is committed to ensure equality, empowerment and development of women to bring them at par with men, in all sectors and at all levels of individual and national life.

20.2 Women are almost half of the nation's Population, a great potential, but in the past this segment of society remained neglected. As such their socio-economic conditions and status of life remained low restricting their role in the activities of socio-economic development of the country. Some important social indicators have been developed to verify the status of women and their contribution towards national development activities. However, there still remains an urgent need for focussing on women's issues at the policy and institutional levels, for moving away from piecemeal, ad-hoc statements, initiatives, programmes or projects at the micro-level for channeling them into mainstream of national development. The objective of mainstreaming gender concerns into the overall planning, implementation and sectoral programming framework for improving the women's status continues to be a challenge.

20.3. Enhancement of the status of women is essential not only on grounds of equity and human rights but also to meet the development goal of sustained growth, human resource development and poverty alleviation. Evidence for Pakistan indicates that the benefits of investing in women, extend beyond the target group, and have important ramifications for the human resource potential of society. In this regard female education is only the most cost effective route to reduce fertility, improving women's health, improve the chances of child survival, enhance child schooling, as well as, enhance women's access to the labour market. Women's employment in the formal sector has exerted an independent and positive influence on the above factors. In addition to this, improving employment prospects for women is also critical to any strategy for reducing poverty since it is well documented that families living in poverty are becoming increasingly dependent on women's earnings. To release the burden, the Government of Pakistan is committed to ensure equality, empowerment and development of women to bring them at par with men, in all sectors and at levels of individual and national life for achievement of goals of sustainable social and economic development.

II. THREE YEAR DEVELOPMENT PROGRAMME

a) Objectives and Targets

20.4. There is currently no established official policy for women development. Recognizing that women's development is a cross-cutting, inter-sectoral issue, the Government should ensure that for the successful implementation of the proposed WID Policy and Plan of Action (a) provincial WDDs be set up, and (b) Gender Advisers be recruited, in addition to technical representation obtained from the MoWD and both to be included in all federal and provincial, Inter-Ministerial, Inter-Sectoral,

Technical and other Task forces, committees, sub-committees and units pertaining to, e.g. the Government's Social Action Programme (SAP), national and provincial Rural Support Programmes, and ICPD Follow-up Task Programme, the National Conservation Strategy (NCS) and EFA/2000, as well as other sectors of national development included in the Five Year Plans and perspective Plan. Despite a measure of policy-level support for women's development and fairly well-defined objectives, hitherto the greatest obstacle has been a lack of adequate management and technical expertise in implementation. There is thus an urgent need for:

(i) WID Policy formulation for mainstreaming of gender concerns into the overall planning and sectoral programming framework,
(ii) gender dis-aggregated socio-economic development data;
(iii) Clear gender-differentiated objectives, targets and strategies in macro-level plans;
(iv) A gender focus through orientation, sensitization and training on women's issues for personnel of all development programmes and institutions;
(v) An explicit gender focus in the Government's annual reports at international for;
(vi) Recognition that improved mainstreaming of gender concerns will not only improve women's role and status per se, but will also ensure the achievement of National Development Plan goals with enhanced capacity of the district administrations to address WID issues.

20.5. The long term vision of women's development is based on the principle of gender equality in all aspects of national life. The economic, social and political empowerment of women is necessary not only to enhance the quality of their lives but is a basic condition for bringing socio-economic change in the society. The ultimate aim of the strategy is to ensure women's participation on the basis of equality with men as active agents for change and as beneficiaries of programmes and services.

20.6. The key objectives of the Plan for women's development are:

(i) To mainstream women's issues by integration into all sectors of national development;
(ii) To ensure that Government's policies, plans and programmes are made pro-gender and that women participate equally in decision making, as well as in the implementation and benefits of national development efforts;
(iii) To recognize, acknowledge, count and make visible in national economic indicators women's real economic contribution and productivity in both formal an informal sectors of the economy, especially the rural agriculture sector; and;
(iv) To ensure those women's human rights including legal, political and socio-cultural are not marginalized through focussing solely on socio-economic indicators of women's development.

Strategy

(i) The planned strategy for women's development is to focus on mainstreaming through an integrated approach, to be taken up collectively by all Ministries/Departments. The Ministry of Women Development will act as an advocate and catalyst; to ensure that instead of marginalizing and restricting women's participation, they adequately address all women's concerns.

(ii) To establish and strengthen horizontal and vertical linkage, at all levels and institutionalizing the plan of action for achieving sustainability of women cause.

(iii) Attract collaboration of NGOs and the private sector for ongoing and new activities.

20.7. For integration of salient feature of National Plan of Action (NPA), during the Plan following will be priority areas for advancement of women:-

(i) Women, poverty and the Economy;
(ii) Issues of Rural Women;
(iii) Education and Training;
(iv) Basic and Reproductive Health;
(v) Women and the Media;
(vi) Women and the Environment;
(vii) The girl child, girls and women with disability;
(viii) Indicators of women's status: empowerment and human rights including political representation and legal issues and violence against women;
(ix) Institutional mechanisms for the advancement of women focussing on the creation and strengthening of specific national institutions.

Financial Outlays

20.8. The allocation for three years (2001-2004) for the new programmes the new programmes for women Development by the Women Development Wing of Ministry of Special Education, Social Welfare and Women Development has been proposed to be Rs 225 million which will be spent on development projects. Year-wise detail is given in Annex 20.1.

V. Key Sectoral Issues and Challenges

i) Situation of Rural Women

20.9. Situation of rural women in Pakistan is far worse than their urban counterparts. They have little or no access to productive inputs. Facilities and opportunities available to rural women are minimal and their status is low compared to urban women. They suffer due to poverty, lack of basic infrastructure and the limited coverage and poor quality of social services, especially education, primary and reproductive health care. The literacy rate of rural women is 20.8%, which is the lowest in the world. The main factors of low literacy rate are poverty, domestic and farming responsibilities, lack of access to schools, early marriages and biased socio-cultural attitude.

ii) Women's Education

20.10. Despite some improvement over the past decade, there is substantial disparity in the literacy rate of male and female. The Census 1998 declares literacy rate in Pakistan 45%, of which 56.5% for male 32.6% for female. The literacy rate of rural women was only 7.3% during 1981 now has improved to 20.8%. Participation rate of Girls at primary level was 60.5% compared to 89% of boys. Similarly at middle level, participation rate of boys was 62% and of girls 36%. At the secondary level, the participation rates of boys and girls were 40% and 23% respectively.

iii) Women's Health

20.11. Pakistani women particularly in rural areas suffer due to malnutrition, inadequate primary and reproductive health care services, shortage of female doctors and female para-medical staff, high birth rates, unawareness of health measures, lack of access to family planning services, overburden, violation, poverty, lack of clean water and sanitation. All these factors have negative effect on the health of women and maternal mortality 400/10000 and infant mortality 90/1000 remain high.

iv) Women and Economy

20.12. Women's share in the economy is not in proportionate to their share in the

population. The following table shows labour force rates of male and female in 1997-98:-

Table-1: Labour Force Participation Rates By Sex and Areas

	Crude Activity Rate			Refined Activity Rate		
	Pakis-tan	Rural	Urban	Pakis-tan	Rural	Urban
Both Sexes	29.40	30.60	27.00	43.30	46.40	37.70
Male	48.00	48.40	47.10	70.50	73.40	65.20
Female	9.40	11.50	5.30	13.90	27.40	7.40

Source: Labour Force Survey, 1997-98

20.13. It is obvious from the above table that labour force participation rate of female is much lower than that of male.

V. IMPLEMENTATION PLAN

20.14. The key elements of future programmes may include the following:-

- Accurate database and baseline surveys;
- Advocacy, lobbying and political support mechanisms;
- Establishment, strengthening and institutionalizing of horizontal and vertical linkages;
- Involvement of technical, sectoral experts for conceptualization, formulation, implementation, monitoring and evaluation of women's development programmes;
- Adequate research and development support;
- High priority to non-formal programmes, especially through NGOs.

20.15. The Plan while addressing the concerns of all women will indicate a special focus on the needs of rural women and of low-income women in urban areas. In addition, relevant sectoral programmes will specifically address problems of women with disabilities.

20.16. The Plan reaffirms the principle of an integrated approach adopted in earlier plans through incorporating women's concerns in the policies and programmes of each sector. In a departure from past practice specific interventions are included in the sectoral chapters. The focus here is on emphasizing priority areas and cross cutting issues, which are essential to meeting the Ninth Plan objectives of women's development.

20.17. **Economic Empowerment of Women** is a primary thrust of the Plan Strategy for several reasons. Increasing women capacity to earn is necessary to release them from their dependent status; as active participant in key sectors of the economy raising their productivity is critical to the attainment of the objective of sustained growth; improving women's access to sources of livelihood is a strategic objective of any poverty alleviation effort given their significant contribution to household subsistence in poor households; and equal opportunities for paid employment generate strong economic incentives at the household level to invest in women, particularly female schooling. A special emphasis is also necessary to redress the neglect of women's productive needs over several decades of development.

20.18. A wide range of interventions is required to support women's employment. Since the overwhelming majority of women are concentrated in agriculture and livestock production, development efforts in this sector will be made more responsive to women's productive needs. Specific provisions will be made to incorporate women's concerns in all rural development programmes including those related to training, small farmer assistance, livestock management, and credit. Greater efforts will be made to disseminate information on improved techniques to women farmers and livestock workers through recruitment of female extension agents for provision of services which address the technological needs of women in these sectors. In addition to enhancing their efficiency in existing productive activities,

they will be trained to enter new, more profitable avenues of employment such as dairying, sericulture, bee keeping from which they can earn cash income. A concurrent effort will be made to reduce the burden of their domestic task through increased allocation for basic infrastructure as well as through dissemination of appropriate household technology.

20.19. Credit essential to generating self-employment both in the urban and rural sector. Women will have equal or greater access to micro-credit through recently established programmes such as the Pakistan Poverty Alleviation Fund (PPAF) and Punjab Rural Support Programme (PRSP) as well through existing financial, institutions such as the First Women's Bank , the Agricultural Development Bank and Khushali Bank(Micro Credit Bank). These programmes will strengthen the capacity of intermediaries to provide micro-credit to women based on principles, which have been associated with successful efforts elsewhere in South Asia. These include the use of group guarantees instead of land or asset based collateral, commercial interest rates, a parallel emphasis on savings, and recruitment of female field staff. Credit by itself will not be sufficient to generate self-employment; the PPAF will also support organizations, which provide an integrated package of services including credit, training and marketing assistance.

20.20. A critical intervention for the economic empowerment of women is the formation of women's organizations. Women's groups facilitate delivery of inputs particularly credit, extension services, information, and marketing as well as enhancing the capacity of women to interact with bureaucratic structure and raising their bargaining power. NGOs have a comparative advantage in organizing women's groups. The government will support capacity building and training of NGOs to undertake this activity.

20.21. Special efforts will also be made to promote women's participation in the formal sector. Vocational training programmes for women, which are provided by various provincial departments, will be reviewed with the objective of making the entire system more responsive to the job market. Access to vocational training institutions will be enhanced through lowering entry requirements related to age and where possible qualifications. Affirmative action is necessary in the medium term to correct gender imbalances in public sector employment. The Plan will enhance the minimum quota of women in public sector from 5 percent to 20 percent by the year 2004. Increased recruitment of women at all levels in social services will be pursed on a priority basis. A concerted effort will be made to increase representation of women in supervisory and managerial positions initially in sectors where a large number of women are employed.

20.22. **Improving Women's Access to Social Services**: The persistence of high levels of fertility and mortality and low levels of female schooling necessitate a special focus on women in the education, health and population sectors. Improving women's access and quality of basic social services is a major objective of the Social Action Programme. It will be necessary to supplement SAP with additional initiatives to ensure promotion of women's needs in the social sectors.

20.23. In the education sector, a greater emphasis is required on secondary schooling for girls especially since the social returns to female education accrue at the post primary level. Scholarship and subsidies for girls education will be provided to low income households, or on a geographical basis in regions with high concentration of poverty to encourage continuation of education beyond the primary level. Other forms of incentives for attracting girls to middle and higher levels of schooling is to link it with further training to become school teachers or paramedics.

20.24. The content of education will be made more relevant to the practical needs of

rural girls through inclusion of subjects such as agriculture, health science etc. in the curriculum. Gender stereotypes will be replaced by positive portrayal of women in textbooks. Facilities for science teaching will be strengthened particularly in high schools in rural areas, which are particularly deficient in this respect, and girls will be encouraged to take science subjects through special scholarships. Increasing the number of girls with a science education is necessary for further training in health services.

20.25. The low literacy rates of women require urgent attention. Non-formal education will form an integral part of education policy particularly targeting women outside the formal system. As NGOs constitute potentially effective means of delivering non-formal education, the government will seek opportunities for greater collaboration with NGOs.

20.26. Population policies and programmes will be broadened to focus on women's reproductive health concerns rather than simply on the need for population control and achievement of population reduction targets. Interventions to extend outreach through expansion of village based Lady Health Workers and Family Welfare Workers will be supported by concurrent initiatives to strengthen tehsil and district level facilities as obstetrics emergency referral currently regarded as the major preventive factor in maternal mortality. These facilities will be better equipped to handle emergency and referral cases related to maternity. Tradition midwives will be trained in more hygienic and sound delivery practices and will be provided clean kits. Nutritional services, including food supplements as well as iron and vitamins, targeted to pregnant and lactating mothers will be available in primary health facilities and through village based lady health workers.

20.27. Information, Education and Communication (IEC) are a critical component of the health and population policy. Women will be provided basic health information related to safe drinking water, nutrition, hygiene, immunization, transmission of illness through the media, through community based workers and through inclusion of courses in health education courses in school curriculum and non-formal education programmes. Since their husbands and families mediate women's choices, the IEC campaigns will be directed at men as well as women.

20.28. **Awareness Raising Campaign:** The media is a powerful instrument of social change and removing attitudinal barriers to women's empowerment. In addition to using the media as a means of education, a systematic nationwide media campaign will be launched to raise awareness on women's issues to build public support for full participation of women in all aspects of national life. The social and economic benefits of raising women's status through education, employment, better health, small family etc will be widely disseminated through all means of communication. An important objective of the campaign will be to inform the women, themselves, of their legal and political rights and their potential contribution to development and to dispel stereotypes of males as the sole providers which is used to justify discriminatory policies in the labour market.

20.29. **Strengthening Institutional Mechanisms for Women's Development** is fundamental to ensuring implementation of the Plan Strategy. A major weakness of past efforts at women's development has been the failure to translate plans and policies into effective action. The three year development Plan marks a departure from past plans in specifying changes in institutional mechanisms which are essential to mainstreaming women's concerns in the development process.

20.30. The Ministry of Women's Development will revert to its original

mandate of a catalytic and watchdog role of influencing policies and programmes of all relevant agencies. To enable the Ministry to effectively pursue this objective, horizontal and vertical linkages with the government machinery will be institutionalized. Focal points will be established at an appropriately senior level in all relevant ministries and departments of the federal and provincial governments. The Technical Wing of the Ministry and the provincial Departments of Women's Development will be strengthened through adequate allocation of financial and technical resources to enable them to coordinate and provide guidelines to the focal points. All government functionaries in the concerned ministries/departments will receive training on issues of women's development and their linkages with sectoral objectives.

20.31. In addition, women's concerns will be addressed in project preparation, approval and implementation. Special questions on the impact of the projects on women will be included in the PCI forms. The Ministry will be represented in various forums concerned with reviewing projects of all sectors including the Development Working Parties at both the federal and provincial levels and in the Executive Committee of the National Economic Council. Implementation at the local level will be monitored through focal points, which will be instituted at the tehsil level. Further, women will have equal representation in grass roots community groups for maintenance and monitoring of programmes such as School Management Committees, Village Health Committees and Rural Water Supply and Sanitation Groups.

20.32. A scientific data and research base is a prerequisite for designing effective policies and programmes as well as for monitoring their impact on women's situation. The Ministry will coordinate with the Federal Bureau of Statistics, research and academic organizations to ensure collection of accurate information dis-aggregated by gender, age, socio-economic class and region and its analysis by relevant agencies. A special effort is required to generate factual estimates of women's labour force participation, which is grossly under-reported in official surveys. The Federal Bureau of Statistics will hire female enumerators to gather more accurate information of women's productive and reproductive activities. The data and research findings will be disseminated widely to policy makers and the public at large.

VI.CROSS SECTORAL PROGRAMMES

A. Social Action Programme

20.33. In SAPP-II gender issues would be addressed as a major theme. A primary objective of the entire SAP is to provide women and girls greater access to basic education, health and family planning services. The SAP effort to expand access to clean water and sanitation will also matter especially for women, who bear the responsibility for finding the family's water and for ensuring sanitation. Specific efforts will be made to open up access to social services for women; these efforts will be fully integrated into the social service programmes. For instance, more women teachers and health care providers will be hired and trained, more women will be given managerial responsibility, service points will be cited in communities to make it easier for women to reach them, and women will be included in the village committees to oversee social services.

B. Social Agenda for Poverty Alleviation

20.34. The Government has provided priority to poverty eradication as the main goal of social agenda. Pakistan has adopted a programme for reduction of poverty through an integrated approach of income generation, well-dispersed access to social and community services, population welfare and social programmes for targeted groups of rural areas. The government social agenda has several dimensions. A basic needs dimension - people must get education,

health services, housing and other basic facilities. A basic income and employment opportunities dimension - transition of people living below poverty line because of lack of resource and skills to move vertically. Basically the government agenda of poverty alleviation has three dimensions:

(i) Poverty alleviation programme to support institution building. The programmes will encourage National Rural Support Programme or other programmes and NGOs whosoever can mobilize and organize people. It will provide them support and lead to some kind of networking over time.

(ii) The programme will create a system under which organizations dealing with poverty alleviation learn from each other. This dimension will create an enabling environment to develop dialogues with organizations at district and provincial level. The national and international programmes will interact.

(iii) The Pakistan Poverty Alleviation Fund and other programmes will provide line of credit to those NGOs that want to have their own credit programmes. Macro enterprise loans will be provided. It will channel micro lending through partner organizations, which have a field presence and capacity to work through communities.

C. Education

20.35. In education sector, apart from primary education, non-formal education and middle schooling with vocational education would be additional components of SAPP II. There shall be greater emphasis on expansion of basic education for girls. During the Plan, 60 percent of the new seats in schools will be allocated to girls. Incentives such as nutrition for girl's students, security and transport for female teachers in rural areas will be provided. Co-education at primary level under female teachers wherever feasible will be introduced. In provision of buildings, shelterless schools will receive priority and improvements and addition of class rooms in existing schools will also be made. Female teachers will be given preference for appointment at primary level. Female teachers working away from their place of domicile will be posted in nearest schools or given special incentives. Female literacy rate will be raised from 32.6% in 1998-99 to 45.6% and the end of the Plan will enhance Primary school participation rate of female from 61% in 1997-98 to 81.27%.

D. Health & Nutrition

20.36. Primary Health Care for women particularly in rural areas will be expanded and improved by establishment and strengthening of BHUs/RHCs. Female Doctors and paramedical staff will be posted in these centres. The programme will focus on equity, efficiency and quality of service delivery. Reproductive Health Programme will be integrated into Primary Health Care (PHC) System. During the Plan all Tehsil HQ Hospitals and District HQ Hospitals will be made functional to provide reproductive health service and the concerned staff will be provided proper training. BHUs/RHCs, which are not functioning, would be contracted to the private parties for providing health services. Women would be involved at all levels of Health Care System. Professional women will be given representation in planning, decision making, management, implementation and evaluation of services.

20.37. **Mental Health and Nutrition**
Curative and rehabilitative services will be provided for mentally ill and drug addicted women. In addition to this, the Health Programme will take account of women's nutrition, health and child hearing etc. Mass awareness would be launched about women's nutritional problems and healthy nutritional practices. Specific diseases of nutritional origin e.g. iron deficiency, Anaemia, Iodine deficiency disorders etc would be controlled.

20.38. **Nursing Development:** The nursing profession in the country faces a lot of issues, which need to be addressed. They are related to standard of nursing education, supply of adequate nursing and para medical work force, employment opportunities, career structure, nursing leadership, research etc. During the Plan, the nursing institutions will be strengthened, a better career structure will be laid down, working conditions for nurses will be improved, training and higher education in nursing will be emphasized and nursing leadership will be developed.

20.39. **Training of Para-medical Staff** With a view to provide high quality preventive, primary and reproductive health services to rural women training institutions would be strengthened to increase the number and improve the quality of training of TBAs, LHWs, LHVs and lead trainers.

E. Family Planning

20.40. The programme for Family Planning and Primary Health Care was launched in 1994 to extend outreach services to communities at their doorsteps through the Lady Health Workers (LHWs). These LHWs are a vital link between the community and the health facilities. They provide essential health services like reproductive health, MCH, health education, treatment of minor ailments, family planning motivation, advice & supplies and referral of high-risk cases to the health facilities. The main programme strategies for the Plan include improvement in the quality of services, expansion of coverage by selection 100000 LHWs, and better management, cost sharing through community and private sector involvement and strengthening family planning and reproductive health components.

F. Employment and Training

20.41. At present vocational & technical education facilities for females are not adequate. Vocational & technical education programme for girls will be expanded specially in those skills, which have market potential. The present availability of vocational training, though far from being adequate, is overwhelmingly urban biased. The rural women who are reported to be more in the labour force have almost been completely neglected. Special types of programmes will be initiated to equip them with skills, which would enable them to discharge their normal functions with efficiency and greater competence so as to raise the level of productivity. Programmes will be initiated to train women in activities related to agriculture, livestock, poultry, fisheries and cottage industries as well as in production and marketing of handicrafts through cooperatives. To improve access of women to extension services, female extension workers will be recruited.

20.42. More technical and trade level courses in urban areas will be introduced enabling the girls and women to pursue modern trades and technologies i.e Architecture Town Planning, Electronics, Interior Decoration, Banking, Commercial Arts, Advertising, Cosmetology, Radio / TV Production and Maintenance, Hotel Management, Precision Mechanics, Photography, Pharmaceutical, Para-medical, Garment Making etc. Special education & training facilities will also be provided to disabled girls & women to integrate them into the mainstream programmes.

20.43. The government has initiated number of projects and programs in various sectors for education, training and skill development and facilitating income generation activities for women. For this purpose, many training centres and institutions have been set up throughout the country. All such programmes are coordinated at the federation level by the Ministry of Women Development. The international donors and non-government organizations (NGO's) also supplement the governmental efforts. Major donors aided programmes for women employment, however, aim at strengthening the government institutions and assist in the

integration of women into the main stream of development.

20.44. The Important Training Centres set up in different sectors, imparting training in the areas; (**a**) Rug making, embroidery, knitting and garment making, (**b**) Field assistants, livestock assistants and agricultural extension workers, (**c**) Nurses and medical technicians, (**d**) Skill training in computer, telex, radio, television, (**e**) Social forestry, vegetable gardening, livestock farming, Food Processing & Fruit Preservation and Teachers training etc.

20.45. In addition to above the basic strategy of the Plan for increasing women employment is to recognize the contribution of women for national development, to create awareness for integrating women in development, and to promote women employment through suitable measures by providing more opportunities to them. The specific sectoral programs and measures to be pursued during the Plan. The education, training and skill development of women, promotion of female labour based industries (i.e. ready-made garments, electronics, and pharmaceutical) and occupations should be given priority in the development programme.

20.46. To enhance women participation new avenues of employment for women will be explored in all sectors of the economy. Income generating activities through self employment will be encouraged by increasing women's access to credit and other inputs alongwith advisory facilities about finance, marketing, management and technical requirements. Efforts will also be made to simplify the credit procedure

G. Environment

20.47. Women would be equal partners in formulating and implementing the national environmental policies, plans and programmes and the Pakistan National Conservation Strategy.

H. Energy

20.48. Energy policies aiming at to make Pakistan an energy efficient country would be equitable and gender sensitive. To implement an efficient conservation programme, linkages would be established between all relevant departments, NGOs, Universities and Women's Studies Centres to create awareness in students and in the general public on women's current and potential role in the energy sector.

I. Social Welfare Programmes

20.49. Welfare homes will be set up, financial assistance will be provided to destitute and under-privileged women for rehabilitation. The institutional care would be restricted only to the homeless women without support. Legal aid, counselling and guidance would be provided to those women who become victim of exploitation and social violence. The existing number of rescue homes (Dar-ul-Amans), Vocational training Centres for women prisoners will be increased. More hostel for working women and Day Care Centres will be established to facilitate the participation of women in economic activity. On the basis of recommendations made by the "Technical group on Dar-ul-Aman" and sufficient funds from Bait-ul-mall and Zakat will be earmarked during the plan.

Non-Governmental Organizations

20.50. NGOs have an important role to play in supplementing public efforts aiming at improving women's access to social and productive resources by using a demand driven approach to women's development. NGOs are flexible in experimenting with innovative mechanisms for reaching women and tend to have easy access to contact communities. As such they are in a better position to assess women, generate demand for social services and provide advice to line agencies on designing more effective delivery mechanisms. Closer government and

NOGs collaboration will be useful for establishing a wide range cooperation in the areas i.e. health, family planning, financial services and dissemination of technology. Institutional mechanisms for promoting partnerships between the government and NGOs include the Participatory Development Programme (PDP) and the Pakistan Poverty Alleviation Fund (PPAF) aiming to provide financial and technical support to NGOs active in the social sectors and in the provision of micro-credits to the poor. Priority will be given to organization, which cater to the requirement of women.

20.51. **Political and legal Mechanisms:** All forms of overt discrimination will be removed. The repeal of discriminatory legislation is an essential first step to raising the status of women and creating an environment of equal opportunity for all citizens, which is in line in keeping with the constitutional mandate. The government is a signatory to UN's Convention of Elimination of all forms of Discrimination against Women (CEDAW) and will initiate action towards the implementation of the Convention. A Permanent Commission on the status of Women has been set up to address the women's rights issues. The new devolution plan ensured adequate representation of women at all levels of local government. 33% seats have been reserved for women in local Government set up under the new devolution plan.

CONCLUSION

20.52. The constitutional provision for development, establishment of adequate institutions and policies for relief to Pakistani women's in the society was pursued since Sixth Plan. During the Seventh and Eighth Plan the national development programmes through various sectors initiated a number of complementary measure aiming at promotion of assess to women i.e. education, health, family planning and water supply and sanitation sectors shared to improve literacy level, health and reproductive health status, safer drinking water and arranged sanitation and drainage are made available. The employment ratio of the women in teaching, health care, office and business also improved and put pressure on the society to enhance their due share in the nation construction activities. Realizing the fact the government has also enhance women quota in the all major jobs in order to enhance their partnership. The three-year development plan and perspective plan also has accorded top-priority to the women development cause and policy will be developed to institutionalize the women's participation and recognize their efforts in nation building endeavor

GENDER AND DEVELOPMENT

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**WOMEN DEVELOPMENT, SOCIAL WELFARE AND SPECIAL EDUCATION**							
1	Public Sector Programme (PSP)	267.9	0.0	216.9	30.5	25.0	0.0	0.0
2	Special Women Action Programme (SWAP)	73.6	0.0	54.6	20.8	10.0	0.0	0.0
3	New Programmes	-	0.0	0.0	0.0	30.0	75.0	85.0
	Total	**341.5**	**0.0**	**271.5**	**51.3**	**65.0**	**75.0**	**85.0**

CHAPTER 21

ENVIRONMENT AND DEVELOPMENT

Introduction

Higher population growth rate (2.4% in 1998), together with increasing demands for socio-economic development have put tremendous burden on natural resources including energy, water, land and forests etc. Emissions of noxious Nox, SO_2, heavy metals and PM_{10} have impaired air quality over major part of Pakistan and as such air pollution is costing Rs. 25 billion annually in terms of treatment of resultant diseases. Fresh water quality parameters are alarming; for example during low flows, the Ravi and Kabul rivers have concentrations of total suspended solids and fecal coliform as high as 1650 mg/l and 1800 bacteria/100 ml respectively. Headwater denudation has also impaired the down stream water quality besides inducing large scale erosion and land sliding. Current extent of siltation in Tarbela reservoir is 27 MAF per year. High level of contamination of Indus waters, resulting collectively from sediment load and effluent discharge, has caused about 80% of riverine forest to disappear. Desertification process has affected 43 million hectares of land, whereas land reclamation programmes, like National Drainage Programme, are covering only 1.0 million hectares. Forest cover could not be increased beyond 4.8% since 1992 despite all efforts. Only 24% of rural population have access to adequate sanitation, and 25% of urban solid waste is collected. Marine resources are being polluted from discharge of industrial and sewerage effluents at the rate of 200 mgd through Lyari River alone. An estimated 90,000 tons oily discharge is also contaminating seawater at Karachi port and harbor. Above all, enforcement of environmental legislation and NEQS are not up to the mark, owing primarily to institutional weaknesses. Two environmental tribunals are functioning in Lahore and Karachi, which are currently understaffed.

21.2 In fact above situation has arisen due to a multitude of factors including mismanagement of water and other natural resources and unplanned urban and industrial expansion. Unfortunately, these human activities have enhanced poverty, and degradation of natural resources, which collectively marred Pakistan's development made during last 53 years. Environmental considerations started getting into national development planning process during the formulation of 7th Five-Year Plan (1988-93). Despite the fact that environmental agendas were framed in 1992 i.e. UN Conference on Environment & Development, and Pakistan National Conservation Strategy (NCS), activities remained confined to stand-alone projects in environment sector. Other sectors namely energy, agriculture, water, industry and social sectors paid ample consideration to environmental aspects in their programmes, independently. However, environmental management system in totality was not imbibed in development process and production sectors, mainly due to lack of multi-sectoral coordination. During the last decade, remarkable progress has been made in the following areas of environment sector:

- Mass awareness (NGOs, private sector, media and primary education departments have been enthusiastically involved in dissemination of environmental information)
- Institutional strengthening/capacity building of policy and planning institutions such as Pakistan Environment Protection Agency (EPA),

Provincial Environment Protection Departments, Ministry of Environment and Planning & Development Division.

- Improvements in environmental enforcement by promulgation of National Environment Quality Standards (NEQS) and formulation of environmental legislation i.e. Pakistan Environment Protection Act 1997 and regulations therein to legalize environmental assessment, for example, "*Pakistan Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations, 2000*".
- Formulation of Forest Sector Master Plan (FSMP 1992), and its partial implementation during the last eight years and revision of national forest policy.

21.3 Various political, institutional and structural barriers have been identified, which constrained environmentally sound sustainable development in Pakistan. At national level, lack of political commitments to NCS implementation is ranked on the top. The efforts should have been made during the last eight years for dovetailing NCS with normal planning, programming and budgeting processes, and persistent coordination with the key players i.e. concerned ministries / agencies, Provincial Governments implementing projects in these 14 Programme areas. Partial fulfillment of donors' commitments has been marked as important constraints, in the NCS Mid-Term Review. Institutionally, there is lack of clarity regarding functions and responsibilities of national, provincial and local governments and institutions concerned with environmental planning, implementation and law enforcement, so is ambiguity regarding roles of community. The reasons for above barriers include lack of conceptual realization and inadequate institutional capacities of concerned institutions, besides unavailability of environmentally safe technologies.

21.4 Pakistan as signatory of many international protocols and conventions, is meeting various obligations with the technical and financial assistance of developed countries. Under the obligation of Montreal Protocol, the CFC-based industry is under renovation and consumption of ozone depleting substances will be eventually phased out before the year 2005. Government has imposed ban on import of used equipment, and maximum duties are levied on import of new CFC-based equipment. Similarly, Pakistan is also responding to UN Framework Convention on Climate Change by preparing national GHG inventories and national communication report. Similarly some initiatives have been undertaken under the UN Convention on Biological Diversity and UN Convention on Desertification such preparation of Biodiversity Action Plan (BAP) and Desertification Combat Action Plan. However, the pace of implementing international obligations is not up to the mark, which is largely due to partial fulfillment of commitments by the developed countries.

21.5 During the Eighth plan (1993-98) period PSDP allocation was Rs. 4.656 billion, against an allocation of Rs. 21.585 billion proposed in the NCS, whereas actual utilization was Rs. 3.798 billion. This was primarily due to limited commitment by the government to extend its share with international grants and limited capacity of implementing agencies to absorb development funds in environment sector. During the fiscal years 1998-99 and 1999-2000, actual utilization out of federal PSDP during was Rs. 573.00 millions. Major environment-sector projects during this period were implemented in the programme areas of environmental protection, resource conservation, watershed management, social forestry, solid waste management, fuel efficiency, tannery pollution control and protected areas management. In future, national development planning will deviate from traditional approach of treating "Environment" as a stand-alone sector. Rather environment will integrate with all the development, economic and social sectors with the prime objective of poverty

alleviation and improvement of quality of life. In national development planning, strategic environmental assessment (SEA) has been already initiated and a gradual shift towards this approach in the coming years will ensure such an inter-sectoral coordination for environmental safeguarding and sustainability of sectoral development programmes.

Priority issues

Declining fresh water resources

Availability of fresh water for drinking and irrigation purposes has declined significantly during the last decades. Underlying reasons for diminishing water quantity and broken regimen include climate change, increase in demands and mismanagement of water storage & application. High rates of siltation from denuded catchments and deterioration of water quality due to discharge of untreated industrial, agricultural and sewage effluents into water bodies are also posing serious threat to most parts of Pakistan.

Inadequate clean drinking water and sanitation

The quality of water supplied through existing networks of water supply schemes does not meet WHO standards. Furthermore, large proportion of urban and rural population is yet deprived of accessibility to clean drinking water sources. Unplanned urban expansion and settlements without proper sanitation are common sight in the country. Tannery industry in Kasur and industrial clusters around cities of Karachi, Lahore, Gujranwala, Sialkot, Faisalabad and Peshawar generate huge quantities of untreated effluents which are ultimately discharged into fresh water lines. The level of accessibility to adequate sanitation in urban and rural areas is disappointedly low.

Air pollution

Air pollution is largely caused by industrial / vehicular emissions, dust, and suspended particulate matter. Contribution of indoor pollution and biological agents i.e. pollens have significantly increased their share in air-borne ailments and rate of mortality.

Declining land productivity

Nearly all arable lands of Pakistan have either undergone or threatened to loss of productivity due to crop maximization activities demanding heavy inputs of chemical fertilizers and pesticides and intensive irrigation. The problems of salinity, waterlogging, droughts, erosion and desertification will be intensified, if remedial measures are not taken using fire fighting approach. Absence of land use plan has been a prime reason of not utilizing the land resources according to their capability and potential.

Deforestation and loss of biodiversity

Scarcity of supplies, particularly of food and fuels, to meet ever-increasing demands has resulted in clearing of large areas of native species. The situation is worsening due to illegal encroachment of state-owned forestlands. The process of degradation needs immediate halt, before it becomes irreversible.

Solid waste management

Drastic expansion of population and industrial clusters, coupled with increase in per capita consumption generates solid wastes far more than the existing capacities of municipalities collecting them.

Inefficient utilization of fossil fuels, greenhouse gas emissions and global warming

Over-use and misuse of fossil fuels are sources of greenhouse gases emissions. Although Pakistan contributes negligibly to total global emission, it is potentially exposed to impacts atmospheric warming and climate change in terms of droughts and floods.

Mismanagement of coastal resources and marine pollution

Abrupt and unplanned development of coastal cities, discharge of effluents and oil spills are threatening marine life and other resources. Reduced fresh water supply from Indus River has vanished mangroves on large part and shrunk deltas. Resultantly, fish/shrimp catch has significantly reduced.

Objectives

21.6 The Three Year Development Programme (2001-2004) will achieve medium-term targets of the following three objectives:

(i) Conservation of biophysical environment for sustainability of natural resource base.
(ii) Rationalization of production processes and consumption patterns for making them least cost and least detrimental to air, water and land resources.
(iii) Reduction of pollution of living and working environment to bring within NEQS.

Strategies

21.7 The strategies proposed herein are governed by the following overriding principles:

- **Community participation through decentralization**: implementation of programmes and projects through potential participation by the beneficiary communities within the decentralized institutional framework. The institutional framework of implementation is diagrammatically shown in Annex 21.1

- **Multi-sectoral approach:** environment as an over-arching sector connecting all development and economic sectors aimed at poverty alleviation. This approach will integrate environment with economic growth and human resource development. The strategies and plans of major investors in Environment sector e.g. World Bank, UNDP, are also inclining more towards integrated activities aiming at poverty alleviation and socio-economic uplift of beneficiary communities.

- **Sustainability of actions:** traditional approach of project-based development does not ensure perpetuity of the activities after the project life. In the current Programme, continuity and sustainability of environmental and development activities will be ensured through establishing various funds such as FERTS Revolving Loan Fund (investing in fuel energy conservation), MACP Conservancy Fund (investing in community-based management of protected areas), PAMP Trust Fund, Wildlife Fund, Desertification Fund. Wetland Management Fund, Municipal Fund etc.

21.8 To achieve the ultimate objectives, several strategic actions are proposed, which will be initiated during the period 2001/02-2003/04.

Implementation policies and action plans

21.9 Following set of implementation policies and action plans will be put in place.

Sustainable Development Policy: This policy will be formulated to provide guidelines to all development sectors including provinces, and builds institutional frameworks for effective and efficient implementation. The outcomes of the policy would be multi-sectoral integrated programmes, strategies and action plans aimed at overall socio-economic development, ensuring resource conservation and environmental safeguards. **National Resettlement Safeguard Policy (NRSP)**: The NRSP will be promulgated to minimize negative environmental and social impacts of

land acquisition and rehabilitation for national projects, and displacement of native people.

(i) **National Sustainable Development Programme (NSDP):** The programme is currently under preparation, in the light of NCS Review, and will culminate at a five-year National Environment Action Plan, taking care of priority-areas in relation to resource position with firm commitments by the donors.

(ii) **National Response Strategy on climate change:** This policy guiding document is also nearing completion, which envisages policies and action plans to combat adverse impacts of climate change on different sectors of economy, with existing sources of technical and financial cooperation.

(iii) **National Land Use Plan:** This plan will categorize the country into capability classes for suggesting best use of each land unit. It is under preparation with M/o Environment.

(iv) **Forest Sector Master Plan (1992), Biodiversity Action Plan** and **Desertification Combat Action Plan** will also be implemented. **Maritime Policy** is currently under preparation, which will be finalized and implemented. **Integrated Coastal Zone Management Plan** will be formulated.

Conserving natural resources

21.10 Conservation will focus on following areas:

(i) **Energy efficiency and renewable energy:** Energy efficiency will be significantly improved by implementing efficiency plan. Conventional sources of energy will be conserved. The proportion of renewable sources will be increased incrementally in the coming decades. Feasibility studies for establishing wind-power plants along the coastal areas is currently underway. Pakistan Council for Renewable Energy Technology (PCRET) would undertaker a comprehensive implementable action plan for development of non-conventional technology. After these studies, sufficient grants would be available from UNDP/GEF sources to materialize the feasible proposals.

(ii) **Land and Water:** Waterlogging and salinity are affecting over 9.0 million hectares of arable land in Punjab and Sindh. Irrigation and water management system need both short term and long term rectification to minimize water distribution losses. The overriding principle of on-going national drainage programme (NDP) is not to pollute Indus Basin System and fresh water reservoirs by discharging saline effluents. On-farm water management (OFWM) programme will line and renovate existing 90,000 watercourses to enhance irrigation efficiency up to 75 %. Efficient irrigation methods i.e. trickle and sprinkle, along with lining of existing canal networks, will be adopted to economize water use and to control waterlogging & salinity.

(iii) **Forests:** State-owned forests will be regenerated and protected with intimate involvement of local communities in forest management. Local governments and union councils would bring in more private marginal lands under forest cover within a defined legal framework to avoid alienation of land use. State-owned wastelands may be leased out to tenants for expansion of forest cover to maintain as carbon sink. Fellow land pricing system will be introduced as a source of compensation to mountain communities in lieu of alienating their lands for watershed management.

Pproduction systems and consumption patterns

21.11 Production systems and consumption patterns will be rationalized through following measures:

(i) **Rational pricing systems:** The input and output prices for will be rationalized to achieve minimal unit cost of production ensuring sustainability of agriculture sector. Agricultural and industrial pricing systems will be reformed to consider the costs of natural resources (land, water and air), for estimating real cost of production per unit.

(ii) **Environmental accounting and auditing:** In industrial sector, environmental economics, accounting and auditing would be introduced, which on one hand would ensure cleaner production and standards certification e.g. ISO 14000 series, and on the other, determine actual cost of production including hidden environmental costs. These will be initially practiced by multi-nationals who have more consciousness regarding environmental accounting and auditing.

(iii) **Agro-eco-zoning**: The under-preparation land use plan will facilitate agro-eco-zoning of Pakistan in relation to comparative advantages of crops. Production of high water demanding and susceptible crops such as paddy will be discouraged and environmentally valued crops such as legumes will be promoted.

Air and water pollution

21.12. Air and water pollution will be managed in following ways:

(i) **Fuel switching and clean fuels:** Emissions of air pollutants will be gradually brought within the safe limits, through promoting unleaded gasoline, low sulfur fuel oil/diesel, and gradual switching to natural gas and CNG. Number of CNG-operated vehicles is expected to be tripled in the coming three years. In this connection provincial governments and CDA have already announced switching of their fleets to CNG. Consequently, health hazards and costs of air pollution will be gradually reduced. Promoting energy-efficient and clean technologies will bring emission levels well within admissible limits of 1,14,000 Gigagrams (Base Year 1994 level for developing countries). and greenhouse gases (GHGs)

(ii) **Water quality monitoring:** EPAs with the collaboration of district and local governments will effectively monitor urban wastewater and industrial effluent discharge into rivers/water bodies to check water pollution.

Good governance and institutional strengthening

21.13 Governance will be improved and institutions strengthened through the following set of actions.

(i) **Legislation enforcement:** Strengthening of Pakistan Environmental Protection Agency (PEPA) and provincial Environment Protection Departments by diverting ample financial and technical resources, both from national and foreign sources, in order to facilitate them perform their functions mandated under the Act 1997. Local governments under the new setups will be strengthened and administratively empowered to enforce legislation and to monitor natural resources. Enabling institutional and legal frameworks for NEQS enforcement, implementing EIA and strategic environment assessment (SEA) will be established.

(ii) **Environmental tribunals:** Currently, two tribunals are functioning in Lahore and Karachi. During the coming three

years full financial and manpower support will be extended to make them fully functional to prosecute environmental violations.

(iii) **Institutional strengthening:** Strengthening of institutions in public, private and NGO sectors, concerned with planning, project formulation and implementation of projects through training and capacity building programmes. The district and local governments, under the new devolution setup, will be specifically focussed for capacity building programmes on environment.

(iv) **Awareness and education:** Electronic and print media will be potentially used for enhancing environmental awareness, dissemination of Government's policies, plans and programmes for invoking participation of district and local institutions in implementing them. Formal environmental education will also be promoted through building human resources capacities, and technological supports of national academia.

(v) **Participation of NGOs and communities:** Programmes for community mobilization for sustainable management of natural resources, through active involvement of custodian communities in planning, implementation, and monitoring and evaluation processes. The NGO Fund already established with the Ministry of Environment will be further strengthened to support grass-root NGOs.

Establishing Environmental Database

21.14 Contrarily to other economic and development sectors, investments and achievements in environmental activities are difficult to plan and monitor, primarily because unavailability of reliable databases. During the coming three-year period, a centrally coordinated, inter-sectoral database will be established to overcome this shortcoming. The framework to make the environmental database fully operational with wide spectrum of users is under preparation. The strategy also includes integration of these databases with Geographical Information Systems to facilitate national and provincial planners and decision-makers. During the same period, non-restricted information will be publicly available on Planning Commission's Internet web site.

Regional and international cooperation

21.15 The current Programme stresses, potential participation of all the domestic players, including public, private and NGO sectors as Pakistani counterparts in regional and global initiatives under different international environmental conventions, and protocols. This will be achieved by identifying Pakistani stakeholders, disseminating provisions of these protocols to the public, nominating national focal points, and establishing functional liaison and negotiating with Secretariats following conventions/protocols and investor parties;

- Montreal Protocol on Phasing-out of Ozone Depleting Substances
- UN Framework Conventions on Climate Change
- Convention on Biological Diversity
- UN Convention to Combat Desertification
- Basel Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposal
- Convention on International Trade on Endangered Species of Wild Fauna & Flora (CITES)

Major Programmes / Projects

21.16 Three Year Development Programme (2001-2004) concentrates on fewer, clustered programmes with achievable goals. It is worth mentioning that various programmes and projects bearing environmental repercussion are covered under other development sectors. For example, land reclamation projects reflected under under National Drainage

Programme (NDP), targeting an area of 1.00 million hectare are being undertaken by water sector. Energy sector has been successful to switch to natural gas and low Rating Octane Number (RON) gasoline. Similarly crop-water efficiency programmes are covered under the Agriculture Sector. Supply of clean water and adequate sanitation to deprived communities will be undertaken out of non-development budgets of local governments and municipalities, supplemented with development grants under Social Action Programme (SAP-II). Social sector initiatives, as SAP component will also improve environmental health, particularly of rural communities. The missing link, which has been identified and stressed during the last decade, is the 'coordination' among environmental programmes, plans and projects executed by different sectoral ministries and department.

21.17 The capacity of existing local institutions for incepting, formulating, approving, implementing and monitoring of environmentally-sensitive development projects is still limited, and there is an emerging need to launch capacity building projects in all the sectors to ensure sustainable development. The dilemma of the Environment sector is its focus on giant / mega project planning, with little or no consideration of the community needs. The line of direction in future should shift to poverty alleviation, socio-economic uplift, and improving human health ensuring conservation of natural resources and environmental protection. Lessons learnt from the last eight years of environmental planning of mega projects dictate the planners and decision-makers to opt for small scale, manageable projects with minimum but achievable objectives. List of on-going and new projects is provided in Annex 21.2.

21.18 The implementation of this Programme will mitigate adverse environmental impacts inflicted by water & irrigation mismanagement, agricultural malpractices and haphazard urban and industrial development. Furthermore, future development will be streamlined with the environmental safeguards. The programmes of other development sectors, bearing environmental components are described in various sectoral chapters of this Three-Year Development Programme. The areas, which will be dealt with specifically under the Environment sector and proposed physical targets against each of these programme areas are given in the table 21.1.

Table 21.1
Physical targets for Three-Year Development Programme (2001 - 2004)

S#	Programmes	Unit	Punjab	Sindh	NWFP	Balochistan	Nas	AKJ	Total
Institutional Strengthening & Capacity Building									
1	Institutional Strengthening / Capacity Building Projects	Number	1	1	1	1	1	1	6
2	Environmental Education	Number	1	2	1	1	1	1	7
Forestry & Watersheds									
4	Conifer Forests	000 ha	4		15	2	3	6	30
5	Irrigated Plantations	000 ha	2	1	-	-	-	-	3
6	Afforestation in Riverine Forests	000 ha	1	2	-	-	-	-	3
7	Afforestation on other lands	000 ha	1	1	1	-	-	-	3
8	Afforestation in Mangrove Forests	000 ha	-	2	-	1	-	-	3
9	Amenity Planting	000 ha	1	1	-	-	-	-	2
10	Farmland Planting	000 ha	10	1	4	1	1		17
3	Watersheds Rehabilitation	000 ha	2		15	1	1	4	23
11	Range Management Projects	Number	1	1	1	1	-	-	4

12	Sand Dune Stabilization	000 ha	1	1	-	-	-	-	2
Land Use & Desertification									
13	Combating Desertification projects	Number	1	1	-	-	-	-	2
Biodiversity & Protected Areas									
14	Biodiversity Projects	Number	1	1	2	1	1	1	7
Ozone & Climate Change									
15	Climate Change Projects	Number	1	2	-	-	-	-	3
Energy Use / Efficiency									
16	Fuel Efficiency Projects	Number	1	2	-	-	-	-	3

Monitoring implementation of Development Programme

21.19 Successful implementation and monitoring of Development Programme (2001-2004) will be ensured through verifiable environmental performance indicators (EPIs). These indicators have been identified through a broad-based consultation process involving Ministry of Environment, Pakistan Institute of Development Economics, and environmental NGOs such as IUCN, and PIEDAR. The Programme stresses more effective application of existing legal and financial instruments, besides proposing new instruments (shown with asterisk marks*) for expeditious achievement of goals. The pace of achievement of these goals can be monitored by some quantifiable variables given against each of these goals.

Financing

21.20 For fiscal year 2000-2001, PSDP allocation for on-going projects is Rs. 287.0 million. During three-year development programme (2001-2004), projects under different public sector programmes will be launched, with a major aid component under different international environmental protocols and conventions. Prospective donors include UNDP, Global Environment Facility (GEF), European Union, and CIDA. Total federal allocation is Rs. 1093.0 million, of which Rs. 720.5 million will be spent on on-going projects and Rs. 372.5 million on new projects. Foreign aid component will be Rs. 673.3 million.

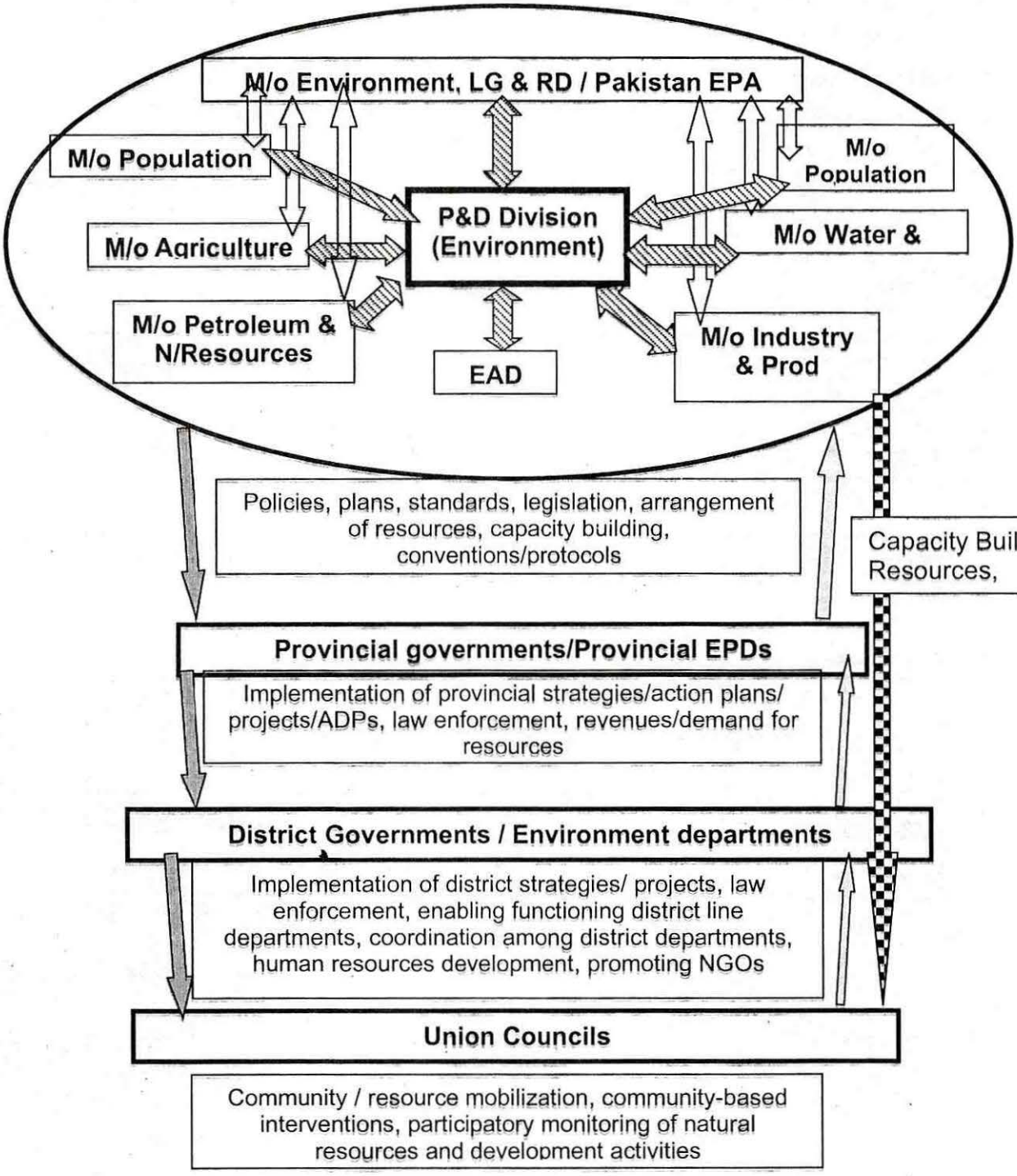
21.21 In addition, some projects bearing environmental repercussions in water resources sector, particularly in sub-sector drainage and reclamation, will be implemented at cost of Rs. 27.340 billion during the same period. These projects include Left Bank Outfall Drainage (LBOD), Right Bank Outfall Drainage (RBOD), Drainage-IV, NDP and SCARP as referred in chapter on water resource development. Major share of energy sector's three-year allocation of Rs. 59.85 billion will be spent on gas-led energy development, which has several positive environmental repercussions. The three year programme of physical planning has been proposed at Rs. 40.0 billion, out of which federal PSDP allocation is Rs. 9.453 billion. Major components of these programmes include water supply and sanitation aimed at social and environmental amelioration. Population welfare sector has proposed its three-year programme at a cost of Rs. 9.5 billion, with the ultimate objective of achieving replacement level by the year 2020. In environmental contexts, these efforts are highly conducive to support long term vision of resource conservation and environmental protection. Various NGOs would also spend handsome amount for the betterment of environment. The NGO fund worth Rs. 12 millions, operated by the Ministry of Environment will support the environmental NGOs. Several projects of greenhouse emission control will be implemented through bilateral arrangements with developed countries or market-based Clean Development Mechanisms (CDM) proposed under the Kyoto Protocol, the estimated cost of which has not been reflected in the Plan. Several specific funds, as

discussed in Para 14.10 will also generate lots of perpetual activities towards sustainable development.

Conclusion

21.22 Under the Three Year Development Programme (2001-2004), development activities under various sectors would be environment-friendly, ensuring sustainability. This is being achieved through institutional strengthening and capacity building, public awareness and participation, effective policing i.e. enforcement of NEQS & legislation, and safeguarding environment in development process. The Plan stresses an effective coordination among different stakeholders involved in planning, implementation, and monitoring of development programmes and projects. It also reaffirms Government's obligations under international Conventions and Protocols to participate in regional and global initiatives on environmental amelioration.

Tasking of different levels of functionaries under decentralized setup



Annex 21.2

PUBLIC SECTOR DEVELOPMENT PROGRAMME 2001-2004
(ENVIRONMENT SECTOR)

(Million Rupees)

S.No.	Name, Location by district and status of the Scheme with donor agency	Estimated Cost		Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	On-going							
	A. Ministry of Environment, LG&RD							
1	Tarbela Watershed Management Project (Phase-II), Abbottabad (1993-2001)	753.122	593.665	501.503	146.810	85.000	78.772	0.000
2	Estt. of Ozone Cell to implement Protocol in E&UAD (UNDP) (1996-Dec 2000)	9.610	8.445	4.963	1.570	3.077	0.000	0.000
3	Fuel Efficiency in Road Transport Sector (1997-2002)	230.853	220.500	70.690	51.200	35.000	15.000	0.000
4	Strengthening of Forestry Wing at Federal Level for sustainable Monitoring of Implementation of Forestry Sector Master Plan (1996-2002)	48.360	39.060	20.473	10.850	10.000	7.037	0.000
5	Rachna Doab Afforestation Project (1995-2001)	485.382	0.000	189.600	50.000	60.000	65.800	80.000
6	Sand Dune Stabilization in Ladgasht Mashkel (KHARAN) Balochistan (1995-2001)	3.865	0.000	3.044	0.450	0.371	0.000	0.000
7	Establishment of Green Library and Documentation Centre in Pak-EPA, Islamabad (1995-2001)	4.770	0.000	1.933	1.000	1.837	0.000	0.000
8	Preparation of Master Plan for Urban Waste Water in selected cities of Pakistan (1997-2002)	4.462	0.000	2.500	1.250	0.500	0.212	0.000
9	Protected Areas Management Project (PAMP) (2000-2005)	648.550	610.000	0.000	0.500	50.000	75.800	110.000
10	Support to the Preparation of National Biosafety Framework, M/o Env., LG&RD (2000-2001)	5.800	5.800	0.000	4.000	1.800	0.000	0.000
11	Hospital Waste Management in Pakistan (Major Cities of Pakistan (Including Federal Territory) (2000-2002)	4.462	0.000	0.000	1.850	2.612	0.000	0.000
12	Preparation of Land Use Plan (2000-2003)	16.000	0.000	0.000	3.500	4.500	4.500	3.500
13	Preparation of National Country Report (2000-2001)	0.500	0.000	0.000	0.500	0.000	0.000	0.000
	B. Ministry of Water & Power							
14	Mangla Watershed Management Project (1994-2001)	97.689	0.000	70.815	13.500	13.374	13.374	0.000
	Total On-going	2313.425	1477.470	865.521	286.980	268.071	258.895	193.500
	New Projects							
15	C. M/o Environment, Local Government & Rural Development (ELG&RD) Projects in the areas of Environmental Management, Desertification, Wetlands, Coastal Areas Management, Hazardous and Liquid Waste Management, Landuse Planning and Management, Watershed Management, Irrigation Efficiency Management, Rehabilitation and Conservation Management of Critical Habitats and Eco-systems, Rehabilitation of Riverine Forests, Rehabilitation and Conservation of Pastures Range Areas and Strategic Afforestation etc 1/3 cost through local funding	200.000		0.000	0.000	34.528	54.335	108.833
16	D. M/o Water & Power Watershed Management, Inchatchment areas of major reservoirs, Rehabilitation of Waterlogged and Saline areas, Soil Erosion Management, Feasibility Studies Inchatchment Areas for Silt Load calculations, etc 1/3 cost through local funding	100.000		0.000	0.000	20.112	34.335	43.927
17	E. Projects of Provincial/AJK Government to be co-financed by Federal Government In the areas listed at C & D above (on matching financing basis)	80.000		0.000	0.000	13.389	29.335	33.740
	Total New	380.000	0.000	0.000	0.000	68.029	118.005	186.500
	Grand Total (On-Going + New)	2693.425	1477.470	865.521	286.980	336.100	376.900	380.000

PART V
Public and Private Sector Investment

CHAPTER 22

INVESTMENT PROGRAMME 2001-04

Introduction

The Three Year Development Programme for 2001-04 envisages a gross investment of Rs 2140.4 billion including Rs207.0 billion for changes in stocks, yielding an average investment/GDP ratio of 16.5 percent in the three year period and 17.0 percent for its terminal year against 15.5 percent in 2000-01. Fixed Investment GDP ratio would improve to 15.4 percent in 2003-04 as against 13.9 percent in the base year.

22.2 The total fixed investment at current prices is expected to rise from Rs 489.3 billion in 2000-01 to Rs 733.1 billion in 2003-04 the terminal year of the medium plan. However, as a result major policy shifts the private sector will have to carry out most of the investment in this period. Consequently the share of private sector investment in the total investment will rise from about 61 percent in 2000-01 to roughly 63 percent in 2003-04, while the share of public sector will decline from 39 percent to 37 percent in the same period. During the medium term, the budgeted public sector investment will rise to 25 percent but the non-budgeted investment mostly undertaken by the autonomous corporations will decline from 15 percent to 12 percent

22.3 Whereas the investment by the public sector will fall relative to private investment, the Plan projects an increase in public investment from 5.4 percent of GDP in 2000-01 to 5.9 percent in 2003-04. As a ratio of GDP the private investment will rise from 8.5 percent of GDP in 2000-01 to 9.5 percent in 2003-04.

22.4 In line with the government initiatives of deregulation, privatization and liberalization, almost all the areas of investment will be open to private sector which will include physical and social infrastructure, social welfare and rural development etc.

22.5 Special efforts are being made to attract foreign private investment especially in the export-oriented industries. The Board of Investment has already formulated a detailed policy package to facilitate the broadening of investment areas etc.

22.6 The average annual level of private sector investment during the three year period of 1997-2000 has been about Rs 250 billion (8.5 of GDP). The major share of (26.3 percent) out of this investment has been claimed by the manufacturing sector with the large-scale and small-scale manufacturing sectors having a share of 19.7 percent and 6.6 percent respectively. Ownership of dwelling is the second largest sector which had a share of 21.2 percent in the total private investment. This is followed by agriculture (11.3 percent), transport, storage and communication (11.2 percent) and services sector (10.2 percent) – these three sectors claiming roughly one third of the total private sector investment. Electricity and gas distribution had a share of about 8.2 percent followed by construction sector with a share of 4.4 percent, wholesale and retail with a share of 2.4 percent and mining and quarrying with a share of 2.1 percent.

22.7 The sectoral distribution of private investment is expected to undergo certain transformation during the period 2001-04 as larger private private sector is envisaged in sectors such as tourism, housing and construction resulting from various fiscal

incentives being provided to these sectors under the dispensation of new investment policies.

22.8 Fiscal and other concessions have been liberally given by the government with a view to making the investment climate in Pakistan more attractive for investment in industrial, agriculture, infrastructure, social and services sectors by both domestic and foreign investors.

22.9 The current investment policy of Pakistan provides liberal fiscal incentives and other concessions for both domestic and foreign investors to attract investment in agricultural, industrial, infrastructural, social and services sectors. In this regard specific measures have been adopted to ensure larger inflow of foreign investment especially in services sectors. In the earlier policies only manufacturing sector was open to foreign investment whereas the current policy is much more liberal, for foreign investment in other sectors for example, foreign investors are permitted to hold 100 percent of equity of industrial projects without any permission of the government. At the same time, no government sanction is required except for projects of arms and ammunitions, high explosives, radioactive substances and security printing, currency & mints.

22.10 There is no requirement for obtaining No Objection Certificates (NOC) from the provincial governments for locating the project anywhere in the country except in areas that are notified as negative areas.

22.11 Tourism and housing and construction have been given the status of industry. Computer Software and Information Technology (IT) activities have been declared as Industry and placed in Category 'B' of Industries i.e. value added industries.

Public Investment Programme 2001-04

22.12. The last decade of twentieth century witnessed major policy changes in the patterns of public sector investment when the government started to withdraw from production sectors through the process of privatization and deregulation. During this period a major chunk of public money was pumped into creation of new infrastructure followed by social sectors. However, a careful assessment reveals that expected material and social benefits of these huge investments in physical and social sectors have not trickled down to the common man. In fact, Pakistan has deeply sunk into poverty problem over the past few years.

22.13. To address this problem, poverty alleviation programme together with information technology will top priority list of new future planned outlay. These programmes will receive larger share of public spending during next three years.

22.14. During the three years programme, the total budgetary public sector outlay is estimated at Rs.492.0 billion of which Rs.318.9 billion is proposed to be allocated to Federal Ministries Development programme including Special Areas Programme and Special Programme and Rs.173.1 billion would be allocated to Provinces including their poverty alleviation programme. The position is summarized in Table-8.1 below. The detailed sectoral allocations of the Public Sector Investment Programme are shown in Annexure-22.1.

Table-22.1

(Billion Rupees)

S. No.	Agency	Allocation	
		Total	Foreign Aid
I	Federal Ministries	293.65	121.26
II	Special Areas	24.85	2.0
III	Special Programme	0.37	0.0
IV	Provincial	173.13	49.1
	Total:	**492.0**	**172.27**

22.15. The annual phasing of the proposed 3 years Public Investment Programme budgetary outlay is given in Table-8.2 below:-

Table-22.2

(Billion Rupees)

Years	Allocation	
	Total	Foreign Aid
2001-2002	136.0	46.4
2002-2003	163.0	55.6
2003-2004	193.0	70.3
Total:	**492.0**	**172.3**

22.16. The provincial governments are proposed to be provided Rs173.1 billion including Rs59.5 billion for poverty alleviation. Allocations for the special areas (AJK, FATA & Northern Areas) have been kept at Rs 25 billion out of which 4 billion will be spent for poverty alleviation programme.

22.17. During three year plan period, Transport & Communications Sector will receive an allocation of Rs 82.2 billion followed by Energy Sector (Rs 71.5 billion), Poverty Alleviation (Rs 63.5 billion), Water Resources sector (Rs 53.1 billion) and Science & Information Technology (Rs 26.3 billion).

PRIORITIES AND MAJOR DEVELOPMENT PROJECTS

22.18 Public Investment programme (2001-04) clearly indicates major policy shifts with regards to future development strategy. Information technology and poverty reduction programmes are new initiatives which together claim highest priorities (18%) in the public investment outlay, followed by transport and communications (14.5%), energy (12%) and irrigation resources (10.8%). These priorities reflect policies to promote economic growth and reduce poverty through improvements in the infrastructure and major investments in oil and gas exploration and water resource development.

22.19 The development strategy has been designed to ensure sustainable growth of the economy keeping a focus on poverty reduction and employment generation as the supporting objectives. To ensure success in obtaining these objectives, the priorities in the PSDP have been defined such that the resources are utilized to their optimal level. In this regard, the priority to water resources development and irrigation related projects comes at the top of the agenda of the public sector investment plan. Since agriculture is the mainstay of the economy of Pakistan, the major share of resources will be diverted to eliminate the constraint imposed by rapidly depleting water resources of the country that justifies largest investment in the water resources projects.

22.20 The problems of poverty and unemployment have grown disproportionately in Pakistan in recent years. It is perceived that only a frontal attack on these problems can bring about a solution of these problems. For that reason poverty alleviation and employment generation are now the issues which are pivotal in the medium and long-term plans of Pakistan. The social sectors will be developed in a consistent and harmonious manner to meet the growing demands of these sectors especially in primary education, health services, sanitation, etc.

22.21 The development of infrastructure, which includes roads and communications, telecommunication, information technology, energy resource development is also being fully taken care of to provide necessary environment and resources for long-term growth.

22.22 The projects being processed in the

Planning Division reflect these priorities. For that reason the development efforts are being decentralized and provincial governments have been encouraged to conceive and put-up development projects for their respective provinces. In this regard the Central Development Working Party (CDWP) in recent meetings have approved the concept of projects like Quetta Water Supply and Sanitation Project and Mekran Coastal Highway Project. The two projects which have an interface of water resource requirements as well as infrastructure needs of the province of Baluchistan will be supplemented by other priority projects.

22.23 For NWFP the concept of Gomal Zam Dam Project with an estimated cost of Rs 13 billion has been cleared and the work on feasibility study of this project will be started very soon. Government of NWFP is also working on mega projects to meet the infrastructure and social sector needs of the province. As regards the Government of Sindh, they are already implementing large irrigation project like Left Bank Out-fall Drainage Project with large investment which will ensure extensive irrigation of agricultural land in the province of Sindh. The Government of Punjab is also preparing projects which will augment their water resources. These include Punjab Barrages Modernization Project, Lining of Channels and Improvement of Environment and Sanitation for Water Supply in Faisalabad. The estimated cost of these projects is around Rs. 53 billion.

22.24 The major infrastructure projects envisaged for the public sector for The Three Year Programme are discussed below. In line with the Plan priorities most of the projects pertain to Water Sector (Irrigation as well as drinking water) and the Transport and Communications Sector.

WATER RESOURCES SECTOR

1. GREATER KARACHI WATER SUPPLY PROJECT FOR ADDITIONAL 100 MGD PHASE-V – PART-II (K-III)

22.25 According to 1998 Census population of the Karachi was 9.98 million which is now estimated at about 11 million and growing @ 5 percent annually. Presently, against water demand for Karachi of 600 Mgd (including losses), Karachi Water & Sewerage Board (KWSB) is supplying 435 Mgd, with a current short fall of 165 Mgd.

22.26 Karachi water supply system is mainly dependent on Indus and Hub source, but presently there is no water supply from Hub. Present water supply from Indus is about 380 Mgd and 55 Mgd from Haleji Lake & Pipri. Water is drawn from Kinger Lake fed by a Canal from Kotri Barrage at Indus River. The total capacity of Kinger Gujjo Canal is about 648 Mgd (1200 cusec); out of which about 380 Mgd water is being drawn.

22.27 The project is a part of Greater Karachi Water Supply Master Plan prepared in 1986 with World Bank assistance. Under the said Master Plan K-I (280 Mgd) stand completed by 1988. Thereafter K-II project for 100 Mgd (IDA credit 1987 – Pak) was completed in 1998. Now KWSB has proposed to implement K-III with the objective to bring additional 100 Mgd water from Gujju Head Works to Karachi which include; (I) expansion of existing transmission system to convey additional 100 Mgd water from K. G. Canal to North-East Karachi, through a network of transmission, pumping, treatment and distribution system, (ii) detailed designing and consultancy, and (iii) procurement of additional land etc.

22.28 The cost of the project is Rs.6000 million and will complete in 36 months.

2. Quetta Water Supply Expansion Project

22.29 At present about 11 Mgd Water is being supplied to Quetta city having a population of about 0.607 million, which is increasing at a rate of 4.04 per annum. It is estimated that the population of Quetta city will be about 0.740 million in 2005 and will exceed 0.902 million in 2010. Presently water is being supplied at a rate of only 9 gallons per capita per day (gpcd), due to low availability of water, against minimum required 20 spcd.

22.30 At first step to overcome the shortage of water in Quetta City on sustainable basis detailed investigations are to be carried out for the availability of ground water in east and north east of Quetta valley. Subsequently a project would be prepared for source development, storage and conveyance etc would be prepared for supplying of water to Quetta city.

22.31 Asian Development Bank has already prepared a comprehensive plan for Quetta Water Supply, Sanitation and Solid Waste Disposal which is proposed to be implemented in phases. Phase-I of the project is roughly estimated to cost Rs.7300 million. However before taking up its execution ADB's consultants have suggested to carry out detailed investigation & test drilling to asses the quantity of underground water. Consequently PC-II was prepared and its scope includes consultants services, geographic investigations and test bores at 90 locations.

3. CHASHMA RIGHT BANK IRRIGATION PROJECT, PHASE-I (GRAVITY FLOW SYSTEM) (4TH REVISION).

22.32 The Project has been prepared by Ministry of Water & Power. It is located in D.I. Khan and D.G. Khan. The project is being implemented in three stages. As Stage-I CRBC included construction of the main canal with a total length of 52 miles (24 miles earthen and 28 miles concrete lined) with a capacity of 1226 cusecs to command 140,000 acres. The area is served through a net work of 13 distributaries including the area commanded by the remodeling Paharpur canal. Work on Stage-I commenced in July, 1978 and completed in Dec 1`986 at a cost of Rs.2292 million. Asian Development Bank financed 79% of the project cost whereas the remaining 21% share was bome by Govt. of Pakistan. Stage-II of CRBC included construction of 24 miles long main concrete lined canal with 800 cusecs capacitys to command an additional area of 90,000 acres through a network of 15 distributaries. Stage-II was completed by a joint venture of chinese and two Pakistani firms. Work on main canal and distribution system commenced in Aug, 1988 and completed in June, 1992 whereas flood carrier channels were completed in September, 1994 at a cost of Rs.2447 million. Stage-IIII in order to maintain the continuity of the momentum gained at the completion of Stage-II and to take advantage of the intervening period prior to commencement of Stage-III, it was prudent to take up construction of the main canal from end of Stage-II at Rd 377 to RD 385 (i.e. Dove-tailing). The contract was awarded to contractors already engaged for Stage-II through a variation order. Stage-III of CRBC includes construction of 94 miles long main canal which traverses 30 miles in D.I Khan and 64 miles in D.G. Khan, total area commanded by the canal in Stage-III is 326,000 acres which includes 110,000 acres of D.I. Khan and 216,000 acres of D.G. Khan.

4. KALA BAGH DAM

22.33 The Kalabagh Dam site is located 193 KM down stream of Tarbela Dam, and 265 KM upstream of Jinnah Barrage at Kalabagh. The project is modified version of the "Kalabagh Dam Project Stage – III" already recommended by the CDWP for

submission to ECNEC. Following stages of studies and investigations have already been completed.

Stage-I: Detailed investigation and preparing of Project Planning Report

Stage-II: Detailed design and preparation of tender documents for civil works.

22.34 Stage-I, was approved at a cost of Rs.399.707 million (FEC of Rs.70.859 million) and PC-II stage-II at Rs.358.89 million with FEC of Rs.61.394 million. UNDP financed these studies with an input of $8.9 million Stage-III in an extension of these studies & investigations. PC-II for Stage-III was considered by CDWP on 31-7.1986 and was recommended for submission to ECNEC at a cost of Rs.174.353 million with FEC of Rs.44.634 million. The project was however, withdrawn from agenda of the ECNEC and has now been indefinitely suspended pending national consensus on its construction.

5. BASHA DAM

22.35 The Feasibility Study of Basha Dam has been prepared by the WAPDA. This Dam is located on Indus river, about 314 km Upstream of Tarbela and some 165 km below the town of Gilgit.

22.36 Basha Dam is proposed to be a 200m high rock-fill dam with a total storage Capacity of 7.3 MAF and live storage capacity of 5.7 MAF. It will comprise of 12 generating Units with an installed capacity of 3,360 MW. M/s Montreal Engineering Company Limited completed feasibility study of Basha Dam in 1984 with the assistance of Canadian International Development Agency (CIDA). This feasibility study, however, was considered deficient by some experts in a number of areas such as optimistic time schedule. In order to complete the feasibility study including design and tender documents of project, some additional investigations were considered necessary. Consequently, a Panel of Experts was appointed by the World Bank and Government of Pakistan to review and assess the quality of feasibility report, advise on a practicable time schedule and establish reasonable cost estimates.

22.37 The main objective of current work being undertaken on the proposed project is to carry out a detailed engineering design and tender preparation study for Basha Dam Project. The proposed study will be carried out in two stages. During stage-I, up-gradation of previous feasibility study will be done whereas during stage-II, activities related to detailed engineering and design, laying down of specifications, preparation of tender document and preparation of PC-I will be undertaken.

22.38 The ECNEC has approved the Basha Dam Project – Feasibility Study (PC-II) at a cost of Rs.900.65 million including FEC Rs.96.59 million.

6. GOMAL ZAM DAM MULTIPURPOSE PROJECT

22.39 The Gomal Zam Dam is located at Khajuri Kach on Gomal River in South Waziristan Agency, about 100 km west of Dera Ismail Khan in NWFP.

22.40 The history of the Gomal Dam dates back more than 100 years as it was identified during 1880 by the British Administration at the time of first settlement of D.I Khan. Field investigations were carried out from 1908 onwards but were terminated during 1914 at the start of world War-I. During 1922, a survey Circle for the project was established and it was also wound up in 1933. These studies were resumed in 1944 and a flood control cum-irrigation scheme was proposed during 1951-52. The F.A.O. experts prepared documents for a 250 feet high concrete dam at Gulkach, which was

approved by the Government during 1957. The work on the construction of preliminaries was undertaken & continued upto 1959.

22.41 In 1963 M/S Energo Project (Consulting Firm of Yugoslavia) prepared feasibility of the project (new site), which was approved by the Government of Pakistan in August 1963 at cost of Rs.200.00 (M). M/S Harza Engg. Co. (General Consultants to WAPDA) reviewed the project & did not agree with the proposal of Yugoslavian Firm. An international panel of consultants was arranged for opinion on the type of the dam who gave their views in favour of a concrete gravity dam. Due to the Indo-Pak War of 1965, serious constraint of resources was felt and the entire activity on the site was suspended and remained dormant for almost 17 years.

22.42 The proposed project is aimed at providing irrigation water supplies to 163,086 acres of culturable command area (30888 acres with perennial supply and 132,198 acres with flood water supplies), generating 17.4 MW of electricity and mitigating flood damages in areas downstream of the proposed dam.

22.43 The CDWP has recommended to ECNEC that the detailed feasibility and engineering design for the project be approved.

NATIONAL DRAINAGE PROGRAMME

1. LEFT BANK OUTFALL DRAIN

STAGE-I

22.44 The project was approved by ECNEC at a cost of Rs. 31.039 billion in 1994 and is expected to be completed upto June 2002. The project is located in districts of Nawabshah, Sanghar, Mirpurkhas and Badin in Sindh. The main objective of the project is to control the twin menace of waterlogging and salinity of about 1.28 million acres cultivable land. The scope envisages excavation of 2187.28 Mcft for surface drain, installation of 1260 tubewells, laying of 1083 miles tile drains and construction of 198 miles interceptor drains and 2905 structures (major). An amount of Rs. 21.212 billion have been incurred upto December 2000. Overall physical progress is 96%. The major donor agencies of the project are IDA, ADB, ODA, IDB, CIDA and Saudi Fund.

2. RIGHT BANK OUTFALL DRAINAGE PROJECT (RBOD)

Stage I

22.45 The project has been approved by ECNEC in its meeting held on 18-9-1994 billion and is expected to be completed in 2002. Presently, stage-I of the project is being implemented through local financing. External financing is required for the balanced works of the current phase amounting to Rs. 2404 million (US $46.32 million) in addition to the remaining phases to be implemented later.

22.46 The project aims at providing Outfall facilities for the existing and proposed drainage projects on the Right Bank of the Indus River in the lower Indus basin. It includes rehabilitation of existing drainage projects and improving environmental conditions of Manchar and Hamal lakes. Major physical works of the project include construction of 17 mile long RBOD-Indus Link, remodelling and extension of 90 miles long Main Nara Valley Drain, earthwork of 713.4 million cubic feet, construction of 2464 structures and installation of a pumping station has been envisaged. An amount in excess of Rs. 2784.393 million (all in local) has been spent up-to December 2000. Physical and financial progress is 42 % and 61 % respectively upto December 2000.

Stage II

22.47 A new project is being prepared to discharge all RBOD effluents directly in the sea without crossing the Indus River. This is expected to be initiated in the 2001-04 period.

3. NATIONAL DRAINAGE PROJECT

22.48 The project costing Rs.31.400 billion was approved by ECNEC. The major donor agencies of the project are IDA Rs.114000 million (36%), ADB Rs. 5600 million (18%), OECF Rs. 4000 million (13%), GOP Rs. 1088 million (3%). The program aims at restoring the substantiality of irrigated agriculture in an environmentally sound manner by minimization of the drainage surplus and evacuation of drainable surplus from the Indus Basin to the Sea. An amount of Rs.4890.27 million have been incurred upto December 2000.

TRANSPORT AND COMMUNICATIONS SECTOR

1. ISLAMABAD - PESHAWAR MOTORWAY.

22.49 The Islamabad-Peshawar Motorway Project was awarded to M/S Bayindir of 'Turkey on 18th March, 1993 for a 6-lane and 188 Km long facility at a cost of Rs.16.82 billion. During the tenure of Caretaker Government, the project was scaled down to 4 lanes and a length of 154 Km. However, the contract was terminated on 16th January, 1994. It was revived again and an agreement was signed on 3rd July, 1997.

22.50 On 25th November, 1999 it was decided that since 30% of the project cost had already been spent, the project may not be stopped. The Committee unanimously recommended that the motorway should be constructed as a 4-lane facility.

22.51 The total cost of the project for a 6-lane facility as per PC-I cleared by the NHA Board, is of the order of Rs.26.862 billion, which includes a construction cost of Rs.21.8 billion (including escalation). However, the revised cost for a 4-lane facility worked out by the NHA is Rs.22.678 billion which includes a construction cost of Rs. 18.6 billion giving a saving of Rs.4.184 billion. The revised Contract Completion Date is 31st December 2002.

2. MAKRAN COASTAL ROAD PROJECT LIARI TO PAK-IRAN BORDER (653 Kms),

22.52 This scheme costing Rs 15,011 million (FEC: Rs 3,511 million) provides for the construction of a 653 Km long road from Liari about 100 Km north of Karachi on the existing RCD Highway to the Pak-Iran border near the town of Gabd. The scope of work includes construction of 53 Km of link roads to Ormara, Pasni, Gwadur and Jivani and construction of bridges, culverts, drainage & erosion works.

22.53 Construction of the proposed road will facilitate development of important fishing towns like Gwadur, Pasni and Ormara into major ports, provide link between proposed deep sea port at Gawadar & the National Highway network, thereby providing access of the land locked Central Asian States to the sea, facilitate economic development of the Mekran Coastal area & provide access through land route to the traffic from Eastern Iran to the Mekran Coast & Karachi.

3. Rehabilitation of N-5

22.54 The cost of the project is Rs.13.500 billion and the foreign exchange required is (US $) 104 million. The completion period is 10 years.

22.55 The project provides for the

rehabilitation of the existing carriageway of 1600 Km long National Highway N-5, which carries 65% of the total inland traffic. Improvement of the project will increase the efficiency of Pakistan's National Highway Network and help significantly lower the cost of inland transportation of goods and passengers, by the year 2010.

22.56 The Project will improve the conditions of National Highways, lower transportation costs and travel time. This would increase export competitiveness, accelerate export oriented growth and contribute to sustained economic development. The project will assist Pakistan's overall fiscal position by mobilization of additional resources from road users, that would eliminate the need for increased funding for maintenance from the recurrent budget in future years. It will promote private sector investments and tap its efficiency rehabilitation, operations and maintenance, where justified, by traffic and other considerations.

4. REHABILITATION PROGRAMME OF RAILWAYS

22.57 The NSC/Cabinet decided that the Pakistan Railways should be declared as the main system of transportation for the country and further decided that it should be accorded requisite priority in planning and resource allocation. An Emergency Repair Plan (ERP) was approved. NSC/Cabinet also approved a Rehabilitation Plan amounting to Rs.40.8 billion (FEC Rs.19.0 billion equivalent to US $380 million).

22.58 Pakistan Railways own 560 diesel locomotives out of which 331 locomotives i.e. 58% have completed their economic life, 29 electric locomotives are also overage. As the replacement of all the locomotives would not be possible, it is proposed to phase out 169 locomotives (140 diesel and 29 electric) by 2002-03.

22.59 Pakistan Railways own 1925 passenger coaches out of which 210 passenger coaches are above 35 years of age. These coaches were manufactured with German Technology acquired in the early sixties. The design permits maximum speed of 105 km/h. It is planned to manufacture coaches with a maximum speed of 140 km/h. In the first instance, due to resource constraint, it is planned to procure/manufacture 175 passenger coaches along with the acquisition of their technology. After initial procurement of 40 coaches, bulk of the remainder would be manufactured in country.

22.60 It is proposed to procure/ manufacture the following type of freight wagons of power design for efficient transportation of different types of cargo:

High capacity tank wagon:		300
Flat containers	:	300
Open wagons	:	500
Covered wagons	:	500

22.61 50% of rails and 54% of sleepers are overage. It is proposed to renew 1300 kms of track during the next 3-5 years. This will require import of approximately 150,000 tonnes of rails of UIC-54 Standard. In order to meet the requirement of concrete sleepers, a sleeper factory and a track-fastening factory of one million capacity each will be set up as the old factories have completed their life and are un-economical to maintain.

22.62 Main line corridor from Karachi to Peshawar is 1730 kms in length. Out of this, 843 kms in length from Karachi to Lodhran is double line with small bits elsewhere. Approximately 70 to 75% of railway traffic moves on this corridor. With the setting up of power plants in the vicinity of Multan, the capacity between Lodhran to Khanewal via Multan has chocked. It is, therefore, proposed to dualize the track from Lodhran to Khanewal via Multan.

22.63 Pakistan Railways has signalling system of all vintages. These systems need to be replaced with more modern and reliable system. It is proposed to provide signalling and telecommunication system on the main line and important Commercial Branch lines. This acquisition will also be done in phases. The total cost of the project is Rs.40,8000 million. The requirement in foreign exchange works out to Rs.19,000 million equivalent to US $380 million.

PUBLIC INVESTMENT PROGRAMME 2001-04

Annex 22.1

Summary of the Budgetary Programme

(Million Rupees)

Sl No	Sectors/Executing Agencies	PSDP 2001-02		PSDP 2002-03		PSDP 2003-04		Total 3 Year Plan	
		Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid	Total	Foreign Aid
1	2	3	4	5	6	7	8	9	10
A	FEDERAL GOVT. (By Sectors)	79707.8	31984.0	97432.2	38665.7	116515.0	50608.4	293655.0	121258.1
1	Agriculture	1014.2	264.6	1311.8	266.5	1674.0	335.8	4000.0	866.9
2	Industry	526.1	383.6	581.0	403.0	525.0	415.8	1632.1	1202.4
3	Minerals	50.0	12.0	80.0	19.2	109.0	28.0	239.0	59.2
4	Water	14016.4	8830.0	18370.7	11647.0	20729.0	12645.0	53116.1	33122.0
5	Energy	19052.9	13732.9	22992.9	16072.9	29479.3	20981.3	71525.1	50787.1
	(a) Power	15827.9	13669.9	18706.0	16010.0	24121.3	20911.3	58655.2	50591.2
	(WAPDA)	15658.9	13658.9	18501.0	16001.0	23899.3	20899.3	58059.2	50559.2
	(b) Fuel	3225.0	63.0	4286.9	62.9	5358.0	70.0	12869.9	195.9
6	Transport and Communications	22090.0	3808.0	27225.0	5136.2	32910.0	9979.4	82225.0	18923.6
	(NHA)	16986.6	1402.0	21085.3	2549.3	25592.8	7724.1	63664.7	11675.4
7	Physical Planning and Housing	2944.6	435.0	3218.9	315.0	3290.0	428.0	9453.5	1178.0
8	Education and Training	1452.8	139.9	1950.4	135.0	2527.7	158.0	5930.9	432.9
9	Information Tech. & Science (Poverty Alleviation/HRD)	7266.1	502.2	8830.0	124.0	10222.0	185.0	26318.1	811.2
10	Health and Nutrition	3867.4	90.0	4433.1	140.0	5206.0	160.0	13506.5	390.0
11	Rural Development	2969.3	2494.2	3385.3	2843.7	3877.0	3256.7	10231.6	8594.5
12	Mass Media	211.8	72.6	250.0	143.0	305.0	155.0	766.8	370.6
13	Culture, Sports, Tourism & Youth	183.0	0.0	243.0	0.0	273.0	0.0	699.0	0.0
14	Manpower and Employment	54.0	0.0	105.0	78.0	180.0	135.0	339.0	213.0
15	Women Development	65.0	0.0	75.0	0.0	85.0	0.0	225.0	0.0
16	Population Welfare	2600.0	450.0	3200.0	575.0	3700.0	793.0	9500.0	1818.0
17	Social Welfare	115.0	0.0	155.1	0.0	175.0	0.0	445.1	0.0
18	Research, Statistics & Planning	893.1	558.4	648.1	536.5	868.0	720.4	2409.2	1815.3
19	Environment	336.1	210.6	376.9	230.7	380.0	232.0	1093.0	673.3
B	SPECIAL AREAS	6663.2	540.0	8292.8	665.0	9890.0	791.0	24846.0	1996.0
	(Poverty Alleviation)	1260.0	0.0	1323.0	0.0	1389.0	0.0	3972.0	0.0
C	SPECIAL PROGRAMMES	100.0	0.0	120.0	0.0	150.0	0.0	370.0	0.0
	Total (Federal)	86471.0	32524.0	105845.0	39330.7	126555.0	51399.4	318871.0	123254.1
D	PROVINCES	49529.0	13870.0	57155.0	16300.0	66445.0	18930.0	173129.0	49100.0
	(Poverty Alleviation)	18900.0	0.0	19845.0	0.0	20837.0	0.0	59582.0	0.0
	Total (3 Years Budgetary PSDP)	136000.0	46394.0	163000.0	55630.7	193000.0	70329.4	492000.0	172354.1
	(Poverty Alleviation)	20160.0	0.0	21168.0	0.0	22226.0	0.0	63554.0	0.0

AGRICULTURE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	FOOD, AGRI. & LIVESTOCK DIVISION (On-going)							
1	Oilpalm Development Pilot Project Sindh and Balochistan	90.0	0.0	24.5	11.9	22.0	22.0	9.6
2	Increasing Productivity of Kitchen Crops (All Pakistan)	142.2	0.0	62.3	18.0	25.0	25.0	12.0
3	Establishment of Seed Testing Laboratory at Mingora (Swiss Govt.)	7.0	2.8	1.9	2.3	2.8	0.0	0.0
4	National Arid Land Development & Research Programme (All Pakistan)	85.0	0.0	10.0	15.0	25.0	35.0	0.0
5	Establishment of Hatchery Complex for Production of Fish and Shrimp Seeds	18.9	0.0	14.9	2.0	2.0	0.0	0.0
6	Oil-Crops Cultivation in Cholistan R.Y. Khan	12.2	0.0	7.3	2.3	2.6	0.0	0.0
7	Productivity Enhancement and Sustain-ability of Rice Based Cropping System (Islamabad, Punjab, Sindh & NWFP)	19.5	0.0	8.1	1.0	5.0	5.4	0.0
8	Tea Research & Development Programme (Manshera)	58.5	0.0	7.0	5.0	20.0	26.5	0.0
9	National Sugar Crops Research Institute Thatta	18.8	0.0	6.5	6.2	6.2	0.0	0.0
10	Seabuckthorn Exploitation and Development in Pakistan	28.1	0.0	8.0	6.0	7.0	7.1	0.0
11	Coastal Zone Agri. Development and Research Institute Thatta	22.4	0.0	4.7	7.3	10.4	0.0	0.0
12	Potash Use for Enhancing Crop Productivity	6.0	0.0	2.5	2.0	1.5	0.0	0.0
13	Establishment of National Veterinary Laboratory at Islamabad (DB)	153.8	109.0	11.5	40.0	62.0	41.5	0.0
14	Monitoring of Cotton Crop Using Satellite Remote Sensing Data	2.7	0.0	0.0	0.8	1.9	0.0	0.0
15	Olive Cultivation and Development in Rainfed Areas	17.0	0.0	0.0	2.0	5.0	5.0	5.0
16	Use of True Potato Seeds for Seed Tuber Production	19.9	3.1	0.0	2.0	5.0	5.9	7.0
17	Promotion of Bamboo Production and Utilization	8.2	0.0	0.0	1.0	3.0	4.2	7.0
18	Development of Quarantine Facilities at Karachi	5.9	0.0	0.0	2.5	3.4	0.0	0.0
19	Establishment of Animal Quarantine Station at Sialkot	4.5	0.0	0.0	2.0	2.5	0.0	0.0
20	Agriculture Sector Investment Project	2345.1	1979.8	0.0	100.0	500.0	500.0	800.0
	(New)							
21	Project for Olive Plantation in NWFP and Balochistan	33.0	0.0	0.0	0.0	4.0	6.0	8.0
22	Streamlining Export of Fruits and Vegetables through Vapour Heat Treatment	16.0	0.0	0.0	0.0	3.0	4.0	6.0

AGRICULTURE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
23	Oilseed Model Farming in Balochistan	38.3	0.0	0.0	0.0	18.2	10.3	9.8
24	Promotion and Multiplication of Pre-basic and Basic Cottonseed CRIS Varieties for Sindh	29.7	0.0	0.0	0.0	2.0	5.0	7.0
25	Expansion of Plant Quarantine Section	150.8	108.8	0.0	0.0	29.0	50.0	55.0
26	Block allocation for other new schemes	0.0	0.0	0.0	0.0	66.5	366.4	668.9
	Total (M/o Food, Agri. & Livestock)	**3333.5**	**2203.5**	**169.2**	**229.3**	**835.0**	**1119.3**	**1595.3**
B	**M/O EDUCATION (On-going)**							
27	Establishment of Z.A. Bhutto Agriculture College, Dokri, Larkana	199.9	0.0	118.6	20.0	30.0	31.3	0.0
28	Improvement of Existing Facilities and other Development Activities at the University of Agri., Faisalabad	116.6	0.0	33.8	19.0	30.0	34.1	0.0
29	Immediate Need for Repair & Renovation of Old Building of University of Agriculture, Faisalabad & CVS Lahore	19.2	0.0	6.0	8.2	5.0	0.0	0.0
30	Development of Academic Facilities at University of Arid Agriculture, Rawalpindi	49.7	0.0	20.0	15.0	14.7	0.0	0.0
31	Immediate Repair of Hostels, Residences and Academic block at University of Agriculture, Peshawar	5.4	0.0	3.0	2.4	0.0	0.0	0.6
32	Establishment of Agriculture College at Dera Ghazi Khan as Constituent College of University of Agri., Faisalabad	99.7	0.0	0.0	2.0	30.0	35.0	32.7
33	Strengthening the Facilities for Education and Research at Sindh Agriculture University, Tandojam	170.6	0.0	0.0	1.0	53.6	76.6	45.4
	Total (M/o Education)	**661.1**	**0.0**	**181.4**	**67.6**	**163.3**	**177.0**	**78.7**
C	**INTERIOR DIVISION (On-going)**							
34	Establishment of Fish Seed Production Farms for Expansion of Fish Culture activities in Small/Mini Dams	17.1	0.0	5.9	1.0	5.0	5.1	0.0
35	Purchase/Replacement of Agriculture Machinery and Equipment in ICT	19.8	0.0	3.9	3.1	6.8	6.0	0.0
36	Sheep and Goat Development in Rural Areas of Ibd.	3.2	0.0	0.0	0.4	1.0	1.8	0.0
37	Livestock Diseases Control in ICT	0.7	0.0	0.0	0.5	0.2	0.0	0.0
	Total (Interior Division)	**40.8**	**0.0**	**9.8**	**5.0**	**13.0**	**12.9**	**0.0**
D	**PLANNING AND DEVELOPMENT DIVISION**							
38	Monitoring of Pesticide Information Project	4.0	0.0	0.0	1.0	1.5	1.5	0.0
E	**STATISTICS DIVISION**							
39	Agriculture input output survey	2.5	0.0	0.0	0.0	1.4	1.1	0.0
	Total (Agriculture)	**4041.9**	**2203.5**	**360.4**	**302.9**	**1014.2**	**1311.8**	**1674.0**

INDUSTRY

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**INDUSTRIES DIVISION** (On-going)							
1	Balancing and Modernization of Workshop Facilities at PITAC, Lahore	739.2	728.0	0.0	83.2	300.0	231.0	124.8
2	Institutional Strengthening/ Capacity Enhancement of BOI	58.4	44.8	0.0	16.6	41.8	0.0	0.0
	(New)							
3	Horticulture Cool Chain	2514.1	1737.2	0.0	0.0	50.0	150.0	100.0
4	National College of Textile Engineering Faisalabad	407.3	316.1	0.0	0.0	100.0	100.0	150.2
5	Other Projects	500.0	0.0	0.0	0.0	25.2	100.0	150.0
	Total (Industries Division)	**4219.0**	**2826.1**	**0.0**	**99.8**	**517.0**	**581.0**	**525.0**
B	**COMMERCE DIVISION** (On-going)							
6	Technical Assistance Project for Institutional Support for the Trade Regime	30.4	23.2	0.0	21.3	9.1	0.0	0.0
	Total (Commerce Division)	**30.4**	**23.2**	**0.0**	**21.3**	**9.1**	**0.0**	**0.0**
	Total (Industry)	**4249.4**	**2849.3**	**0.0**	**121.1**	**526.1**	**581.0**	**525.0**

MINERALS

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**M/o PETROLEUM & NATURAL RESOURCES (Geological Survey of Pakistan)**							
	(New)							
1	Regional Geological Mapping/ Geophysical & Geochemical Surveys of un-explored areas of Pakistan	150.000	50.000	0.000	0.000	25.000	20.000	59.000
2	Establishment of National Geo- data Centre of Pakistan	200.000	75.000	0.000	0.000	25.000	60.000	50.000
	Total (Minerals)	**350.000**	**125.000**	**0.000**	**0.000**	**50.000**	**80.000**	**109.000**

WATER

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	7	8	9	10
A	M/o WATER AND POWER							
	Surface Water Development Schemes (On-going)							
1	Chashma Right Bank Canal, Stage I+II+III (ADB)	17690.0	8379.5	12061.5	2500.0	3128.5	0.0	0.0
2	Khanpur Dam (Safety Works)	49.1	0.0	25.1	4.0	20.0	0.0	0.0
	Total (Surface Dev.)	**17739.1**	**8379.5**	**12086.6**	**2504.0**	**3148.5**	**0.0**	**0.0**
	Drainage and Reclamation (On-going)							
	Punjab							
3	Fordwah Eastern Sadiqia Subsurface Drainage (IDA)	3488.2	1981.9	1346.6	305.0	0.0	0.0	0.0
4	Fordwah Sadiqia Remaining Phase-I	2054.1	0.0	1909.1	190.3	0.0	0.0	0.0
5	SCARP Gojra Khewra Phase-II	1067.0	0.0	820.4	300.0	0.0	0.0	0.0
6	Shorkot Kamalia (Saline)	1195.0	0.0	797.2	200.0	197.8	0.0	0.0
7	Upper Rechna Remaining Deg Basin	1040.0	0.0	591.0	150.0	299.0	0.0	0.0
8	SCARP Punjnad Abbasia - II	1383.5	0.0	131.1	0.0	0.0	0.0	0.0
	Total (Punjab)	**10227.7**	**1981.9**	**5595.6**	**1145.3**	**496.8**	**0.0**	**0.0**
	Sindh							
9	Left Bank Outfall Drain Stage-I (IDA,IDB, Saudi Fund, ADB, CIDA, ODA and SDC)	23425.0	16610.0	20591.9	1950.0	883.1	0.0	0.0
10	Lower Indus Right Bank Irrigation & Drainage Project	5439.0	1863.0	2468.0	1000.0	1000.0	970.9	0.0
	Total (Sindh)	**28864.0**	**18473.0**	**23059.9**	**2950.0**	**1883.1**	**970.9**	**0.0**
	NWFP							
11	Swabi SCARP (ADB)	6273.2	3698.9	5209.2	70.0	0.0	0.0	0.0
12	Mardan SCARP	3393.4	1425.9	2258.3	100.0	0.0	0.0	0.0
	Total (NWFP)	**9666.6**	**5124.8**	**7467.5**	**170.0**	**0.0**	**0.0**	**0.0**
	Total (Prov. Drainage)	**48758.3**	**25579.7**	**36123.0**	**4265.3**	**2379.9**	**970.9**	**0.0**
	National Drainage Programme							
13	National Drainage Prog. (WAPDA, GOP, Provinces, WB, ADB, OECF)	31400.0	21000.0	4482.0	1750.0	5200.0	6300.0	7500.0
	Total (NDP)	**31400.0**	**21000.0**	**4482.0**	**1750.0**	**5200.0**	**6300.0**	**7500.0**
	Total (Drainage)	**80158.3**	**46579.7**	**40605.0**	**6015.3**	**7579.9**	**7270.9**	**7500.0**

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	7	8	9	10
	General Investigation (On-going)							
14	International Waterlog- ging & Salinity research Institute Lahore (UNDP)	267.0	168.1	255.9	12.0	0.0	0.0	0.0
15	Ground Water Development in Barani areas of Gujrat District	39.0	0.0	25.3	3.0	10.7	0.0	0.0
16	Mona Reclamation and Experimental Project	19.9	0.0	1.0	1.0	5.0	6.0	6.9
17	Lower Indus Water Management and Reclamation Research Project Hyderabad	20.0	0.0	1.0	1.0	5.0	6.0	6.9
18	Management and Rehabilitation of Saline and Waterlogged Soil (Australia)	191.5	170.4	0.0	[illegible]	70.0	76.6	0.0
	Total (Investigation)	**537.4**	**338.4**	**283.2**	**62.0**	**90.7**	**88.6**	**13.8**
	Flood Sector Projects (On-going)							
19	Second Flood Protection Sector Project (ADB)	8000.0	6000.0	14.3	1140.0	1500.0	1700.0	2100.0
20	Normal/Emergent Flood Programme	3000.0	0.0	0.0	200.0	500.0	800.0	1500.0
	Total (Flood Sector)	**11000.0**	**6000.0**	**14.3**	**1340.0**	**2000.0**	**2500.0**	**3600.0**
	Provincial Projects (On-going)							
21	Flood Management of Muri Bugti Hill Torrent	125.0	0.0	33.0	15.0	35.0	42.0	0.0
22	Munda Dam Multi- purpose Project Feasibility Study & Detailed Design	258.8	193.0	49.7	7.0	90.0	112.0	0.0
23	Ground water recharge of Pishin, Quetta, Mastung and Mangocher valleys	436.5	0.0	50.0	20.0	100.0	100.0	167.2
24	Feasibility Study for Utilization of Additional Perennial Water as a result of Indus Water Accord (Kachhi Canal)	20.0	0.0	4.0	5.9	10.1	0.0	0.0
	Total (Provincial)	**840.4**	**193.0**	**136.7**	**47.9**	**235.1**	**254.0**	**167.2**
	Others							
25	Raising of Mangla Dam Ph-I	42.7	0.0	0.0	43.0	0.0	0.0	0.0
26	Nucleus Clearance Cell (IBP/Tarbela)	60.4	0.0	49.7	3.5	11.5	0.0	0.0
	(New)							
27	New Dams (Including Glomal Zam Dam)	634100.0	0.0	0.0	0.0	822.0	6851.0	7400.0
28	Other Irrigation projects	0.0	0.0	0.0	0.0	0.0	1030.0	1521.0
	Total (Others)	**634203.2**	**0.0**	**49.7**	**46.5**	**833.5**	**7881.0**	**8921.0**
	Total (Water & Power)	**744478.3**	**61490.7**	**53175.5**	**10015.7**	**13887.7**	**17994.5**	**20202.0**

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	7	8	9	10
B	**M/o FOOD, AGRICULTURE & LIVESTOCK (On-going)**							
29	OFWM (OECF - Japan)	3326.6	2758.3	2720.0	1.0	0.0	0.0	0.0
30	Rod-Kohi System Development and Management	50.0	0.0	21.9	10.5	9.0	8.1	0.0
31	Testing of Geo- Synthetic Liner for Lining of Canal & W/courses in Punjab and Sindh	319.0	0.0	16.1	1.0	0.0	0.0	0.0
32	OFWM - IV (WB)	134.0	120.0	4.0	20.0	28.0	28.0	27.0
33	Chaghi Water and Agricultural Develop-ment Programme	900.0	0.0	0.0	10.0	50.0	340.0	500.0
	Total (M/o Agriculture)	**4729.6**	**2878.3**	**2762.0**	**42.5**	**87.0**	**376.1**	**527.0**
C	**FINANCE DIVISION (On-going)**							
34	Kotri Surface Drainage Scheme Ph-I, Part-II, St-II	612.2	0.0	591.3	49.0	25.0	0.0	0.0
	Total (Finance Division)	**612.2**	**0.0**	**591.3**	**49.0**	**25.0**	**0.0**	**0.0**
D	**MINISTRY OF DEFENCE (On-going)**							
35	Installation of T/Wells in Survey Training Institute in H-8, Ibd.	3.3	0.0	0.0	1.0	2.3	0.0	0.0
36	Drilling of New Bore for the T/Well at SOP, Rawalpindi	1.7	0.0	0.0	1.7	0.0	0.0	0.0
37	Establishment of National Weather Forecasting Centre for Agriculture	18.5	8.9	0.0	10.0	8.5	0.0	0.0
39	Construction of Office Building Director Southern Circle, SOP Karachi	20.0	0.0	11.2	3.0	5.8	0.0	0.0
	Total (M/O Defence)	**43.6**	**8.9**	**11.2**	**15.7**	**16.7**	**0.0**	**0.0**
	Total (Water)	**749863.6**	**64377.9**	**56540.0**	**10122.9**	**14016.4**	**18370.7**	**20729.0**

POWER

(Million Rupees)

Sl No	Name, Location and Status of the scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**PAKISTAN ATOMIC ENERGY COMMISSION** (On-going)							
1	Nuclear Minerals Survey, Phase-IV Lahore	168.0	0.0	82.9	30.0	35.0	30.0	0.0
2	Detailed Exploration of Uranium in DG.Khan Phase-V	251.6	0.0	40.0	50.0	91.0	90.0	0.0
	(New)							
3	Chashma Nuclear Project Unit-II	31019.0	0.0	0.0	0.0	43.0	85.0	222.0
	Total (PAEC)	31438.5	0.0	122.9	80.0	169.0	205.0	222.0

FUEL

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**M/o PETROLEUM & NATURAL RESOURCES**							
	Geological Survey of Pakistan							
	(On-going)							
1	Systematic Evaluation and Appraisal of Coal Resources of four specific Tracts in Thar Coal field, Mithi District, Sindh	347.2	0.0	140.7	40.0	40.0	60.0	67.0
	(New)							
2	New Projects	436.0	280.0	0.0	0.0	118.0	127.0	150.0
	Total (GSP)	**783.2**	**280.0**	**140.7**	**40.0**	**158.0**	**187.0**	**217.0**
	D.G. Petroleum Concession							
	(On-going)							
3	On-Going	N.A	N.A	11669.7	1993.6	2425.0	3000.0	3696.0
4	New	N.A	N.A	0.0	0.0	200.0	470.0	1000.0
	Total (DGPC)			**11669.7**	**1993.6**	**2625.0**	**3470.0**	**4696.0**
	Total (M/O Pet. & NR)			**11810.4**	**2033.6**	**2783.0**	**3657.0**	**4913.0**
B	**Finance Division**							
5	Special Social Welfare Schemes in Murree-Bugti and Maingal Areas in Balochistan	100.0	0.0	0.0	15.0	10.0	15.0	20.0
	Total (Finance Division)	**100.0**	**0.0**	**0.0**	**15.0**	**10.0**	**15.0**	**20.0**
C	**INDUSTRIES & PRODUCTIONDIVISION**							
6	Pak-Iran Refinery Project (GOP's equity only)	3342.0	0.0	0.0	181.5	417.0	600.0	425.0
	Total (M/o Industries)	**3342.0**	**0.0**	**0.0**	**181.5**	**417.0**	**600.0**	**425.0**
D	**LAW AND JUSTICE DIVISION**							
7	Gas Regulatory Authority (GRA)	30.0	26.0	0.0	0.1	15.0	14.9	0.0
	Total (Law & Justice Division)	**30.0**	**26.0**	**0.0**	**0.1**	**15.0**	**14.9**	**0.0**
	Total (Fuel)	**3472.0**	**26.0**	**11810.4**	**2230.2**	**3225.0**	**4286.9**	**5358.0**

TRANSPORT & COMMUNICATIONS

(Million Rupees)

Sl No	Name, location and Status of the Scheme	Total Cost		Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	MINISTRY OF RAILWAYS (On-going)							
1	Track Rehabilitation (Kuwait, OPEC)	2950.0	1100.0	2939.8	247.0	0.0	0.0	0.0
2	Rehabilitation of 101 DE Locos (OECF)	7659.0	4635.0	3093.5	1475.0	1600.0	1000.0	491.0
3	Track Circuiting of 94 Stations (OECF)	1322.0	1022.0	1329.0	10.0	0.0	0.0	0.0
4	Fitment of Roller Bearings	875.6	469.0	647.6	6.0	30.0	30.0	50.9
5	Procurement of 30 Locos (3000 HP) (OECF)	4980.0	3000.0	4952.0	140.0	14.0	0.0	0.0
6	Procurement of Spare Parts for Unit Exchange	1072.0	627.0	881.0	16.0	75.0	75.0	25.0
7	Procurement/Rehabilitation of 930 Traction Motors	799.5	488.0	798.5	1.0	0.0	0.0	0.0
8	Renovation of Passenger Coaches	19.7	0.0	17.0	2.0	0.7	0.0	0.0
9	Signalling Works	17.0	0.0	16.1	0.3	0.6	0.0	0.0
10	Bridge Works	36.5	0.0	31.7	6.3	0.0	0.0	0.0
11	Rehabilitation of Tracks	599.0	51.0	368.0	231.0	240.0	128.0	0.0
12	Rehabilitation of 240 Coaches	300.0	0.0	50.0	150.0	100.0	0.0	0.0
13	Signalling Works (Various Sections)	219.0	77.0	0.0	34.0	100.0	85.0	0.0
14	Improving Telecom Facilities	164.0	66.0	0.0	42.0	100.0	22.0	0.0
15	Bridge Rehabilitation Works	43.0	0.0	0.0	15.0	28.0	0.0	0.0
16	Electrical Works	99.0	27.0	0.0	25.0	30.0	44.0	0.0
17	Modification of 320 Redundant Tank Wagons & Provision of assemblies for 680 wagons	150.0	30.0	0.0	87.5	62.5	0.0	0.0
18	Procurement of Plant & Machinery for C&W Shops at Mughalpura	200.0	107.0	0.0	106.0	94.0	0.0	0.0
19	Fitment of Airbrakes to 574 Bogie Wagons	327.2	159.5	0.0	95.0	100.0	132.2	0.0
20	Conversion of 20 single unit power vans into double unit power	90.0	0.0	0.0	78.0	12.0	0.0	0.0
21	Replacement of Brakedown Cranes and Procurement of Relief Train Equipment	750.0	453.0	0.0	40.0	150.0	260.0	340.0
22	Recommissioning of 55 Stabled DE Locos	956.0	551.0	0.0	191.8	300.0	403.5	60.8
23	Rehabilitation of 36 GMU-30 Locos	4572.9	2509.9	0.0	1.0	100.0	800.0	1500.0

TRANSPORT & COMMUNICATIONS

(Million Rupees)

Sl No	Name, location and Status of the Scheme	Total Cost		Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
24	Procurement of 69 DE Locos	12000.0	6365.5	0.0	0.1	130.0	850.0	1800.0
	(New)							
25	Procurement of high capacity 300 bogie oil wagons	1006.0	475.0	0.0	0.0	300.0	350.0	356.0
26	Other new projects					733.2	920.3	1776.4
	Total (Railways)	**41207.4**	**22212.8**	**15124.2**	**3000.0**	**4300.0**	**5100.0**	**6400.0**
B	**M/o COMMUNICATIONS** (On-going)							
25	Gawader Fish Harbour - cum - Mini Port at Gawadar	1623.7	830.3	1497.5	62.0	64.2	0.0	0.0
26	Gawadar Deep Water Port (Ph-1)	10000.0	8000.0	0.0	1.0	1.0	1.0	0.0
	Total (DG P&S)	**11623.7**	**8830.3**	**1497.5**	**63.0**	**65.2**	**1.0**	**0.0**
	Special Communication Organization (SCO) (On-going)							
27	Rural Communication (Switches) uplift Programme for NAs (Proj. No.III/91-92)	625.7	285.0	300.5	270.0	55.2	0.0	0.0
28	Provision of Outside Plant (Cable/ WLL Network) for AJ&K	509.4	243.0	0.0	10.0	0.0	0.0	0.0
	Total (SCO)	**1135.1**	**528.0**	**300.5**	**280.0**	**55.2**	**0.0**	**0.0**
	Pakistan Tele-communication (On-going)							
29	Pakistan Telecommunications Regulation and Privatization Support project (WB)	1808.6	1285.0	759.4	637.0	400.0	499.2	0.0
	Total (PTC)	**1808.6**	**1285.0**	**759.4**	**637.0**	**400.0**	**499.2**	**0.0**
	Pakistan Post Office (On-going)							
30	Const. of 5 P.O. Operational and Administrative buildings	36.6	0.0	36.7	5.3	0.0	0.0	0.0
31	Extension of 24 P.O. Buildings and 26 Residential Quarters	60.4	0.0	0.0	20.0	15.0	15.0	10.4
32	Purchase of Plots & Buildings at different places for Operational/ Staff Welfare purposes	11.0	0.0	0.0	11.0	0.0	0.0	0.0
33	Track and Trace System for Express Post for 11 GPOs	19.5	0.0	0.0	6.0	6.0	6.0	1.5
	Total (PPO)	**127.4**	**0.0**	**36.7**	**42.3**	**21.0**	**21.0**	**11.9**

TRANSPORT & COMMUNICATIONS

(Million Rupees)

Sl No	Name, location and Status of the Scheme	Total Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	National Transport Research Centre (On-going)							
34	Operational Research Wing	50.0	1.0	27.5	6.5	6.0	6.0	3.5
35	Road Research Wing (ODA)	51.8	19.1	49.0	1.8	0.0	0.0	0.0
36	Urban Transport Wing (BITS) (Swedish Government)	33.3	5.0	22.0	1.5	3.0	4.0	1.9
37	Railway Research Wing	19.7	0.0	9.5	3.0	3.0	3.6	0.0
	Total (NTRC)	**154.7**	**25.1**	**108.0**	**12.8**	**12.0**	**13.5**	**5.3**
38	Ministry's New Schemes					200.0	400.0	900.0
	Total (M/o Communications)	**14849.5**	**10668.5**	**2702.1**	**1035.1**	**753.4**	**934.7**	**917.2**
C	**COMMERCE DIVISION (On-going)**							
39	Trade and Transport Facilitation Project, Pakistan	175.0	150.0	0.0	20.0	50.0	105.0	0.0
	Total (Commerce Division)	**175.0**	**150.0**	**0.0**	**20.0**	**50.0**	**105.0**	**0.0**
D	**DEFENCE & AVIATION DIVISION** **Pakistan Met Department (On-going)**							
40	Provision of Additional Met Facilities in Northern Areas	13.5	2.8	12.6	1.9	0.0	0.0	0.0
	Total (Def. & Aviation Div.)	**13.5**	**2.8**	**12.6**	**1.9**	**0.0**	**0.0**	**0.0**
	Total (Transport & Comm.)	**56245.5**	**33034.1**	**17838.9**	**4057.1**	**5103.4**	**6139.7**	**7317.2**

PHYSICAL PLANNING & HOUSING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**MINISTRY OF INTERIOR**							
	a) CDA							
	(On-going - Projects)							
1	Improvement of Existing Sewage Treatment Plants I-II-III & Construction of new STP-IV Islamabad (French)	1222.1	913.0	5.0	330.0	450.0	217.1	220.0
2	P/L of Water Supply from Shah Allah Ditta Reservoir (Khanpur-I) to various Sectors in Ibd. (2/3rd by Govt.)	670.2	0.0	150.0	200.0	200.0	120.0	0.0
3	Additional works for the Safety of Simly Dam (2/3rd by Govt.)	94.6	0.0	35.0	32.0	27.0	0.0	0.0
4	Repair and Replacement of Air-conditioning Systems in 8 blocks Pak Sectt. Islamabad	168.0	55.0	10.0	25.0	100.0	33.0	0.0
5	Dualization of IJ Principal Road from Faizabad to Pirwadhai, Islamabad	1043.9	0.0	25.0	50.0	200.0	387.0	382.0
6	Construction of 3rd Lane from Faizabad Crossing to Flying Club Turning, Ibd.	783.5	0.0	150.0	150.0	250.0	233.0	0.5
7	Dualization of Islamabad Highway from Gurah bridge to Rawat, Ibd.	645.0	0.0	250.0	74.0	150.0	171.0	0.0
8	Dualization of Kashmir Highway from Zero Point to GT Road	536.0	0.0	435.0	50.0	50.0	0.0	0.0
9	Const. of Central Pumps/ Overhead Tanks and P/L M.S Conduction Ine in various Sectors, Islamabad	99.7	0.0	0.0	15.0	30.0	55.0	0.0
10	Replacement of PRCC/AC Water Supply line with MS lines in Blue Area G-6 & G-7, Islamabad	53.3	0.0	0.0	15.0	20.7	17.6	0.0
11	Replacement of 12" dia Water Supply line from one MGR to Aiwan-e- Sadr.	13.1	0.0	0.0	10.0	0.0	3.5	0.0
12	Renovation of 32 Nos. Lifts in Pak Secretariat Blocks, Islamabad	150.0	0.0	0.0	10.0	50.0	50.0	40.0
13	Rehab. of Govt. Houses in Sec. G-6, Ibd.	19.3	0.0	0.0	15.0	4.3	0.0	0.0
	Total (CDA)	**5498.7**	**968.0**	**1060.0**	**976.0**	**1532.0**	**1287.2**	**642.5**
	b) INTERIOR DIVISION							
	i) FC NWFP							
14	Provision of Trunk Infrastructure facilities FC Complex at Hayatabad, Peshawar	17.3	0.0	1.0	2.0	5.0	9.3	0.0
	Total (FC NWFP)	**17.3**	**0.0**	**1.0**	**2.0**	**5.0**	**9.3**	**0.0**

PHYSICAL PLANNING & HOUSING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	iii) Pak Rangers, Punjab							
15	Const. of 100 Border Out-posts (Punjab)	168.5	0.0	61.6	35.6	35.0	36.2	0.0
	Total (Punjab - Rangers)	**168.5**	**0.0**	**61.6**	**35.6**	**35.0**	**36.2**	**0.0**
	iv) Pak Rangers Sindh							
16	S.M. Barracks incl. Cook House, Dinning Hall and Recreation room for 70 Wing Sachal Rangers at Karachi	42.0	0.0	12.8	10.2	19.0	0.0	0.0
17	S.M. Barracks incl. Cook House, Dinning Hall and Recreation room for HQ Pak Rangers at Karachi	42.2	0.0	20.5	13.4	8.3	0.0	0.0
18	Office Block for HQ Pak Rangers and Inspector Mess, Bachelor Inspec- tors Accommod- ation for 70, 71, 72 & 73 Wings Sachal Rangers at Karachi	17.3	0.0	9.1	7.2	1.0	0.0	0.0
19	Const. of Infrastructure (Electricity & Sui Gas) for HQ Pak Rangers Sindh at Karachi	9.4	0.0	0.0	8.5	0.9	0.0	0.0
20	Const. of Infrastructure (Water Supply & Sewerage System) for HQ Pak Rangers Sindh at Karachi	19.4	0.0	0.0	2.0	17.4	0.0	0.0
	Total (Sindh - Rangers)	**130.3**	**0.0**	**42.5**	**41.2**	**46.6**	**0.0**	**0.0**
	vi) FIA							
21	Construction of Residential Accommodation at Quetta	9.6	0.0	5.5	1.5	2.7	0.0	0.0
22	Const. of Inter Agency Complex at Khunjrab Pass	7.1	0.0	2.1	1.5	3.5	0.0	0.0
	Total (FIA)	**16.7**	**0.0**	**7.5**	**3.0**	**6.2**	**0.0**	**0.0**
	vii) Civil Defence							
23	Const. of Civil Defence Hostel/Training School, Quetta	15.0	0.0	11.2	2.8	1.1	0.0	0.0
	Total (Civil Defence)	**15.0**	**0.0**	**11.2**	**2.8**	**1.1**	**0.0**	**0.0**
	c) Islamabad Administration (ICTA)							
	i) Water Supply							
24	Institutional Monitoring & Research Capacity for SAP in ICTA	2.7	0.0	1.6	0.3	0.8	0.0	0.0
25	Low Cost WSS in ICT	15.4	0.0	6.0	3.0	6.4	0.0	0.0

PHYSICAL PLANNING & HOUSING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
26	Establishment of Community Relation Unit	5.1	0.0	2.9	1.2	1.0	0.0	0.0
	Total (Water Supply)	**23.1**	**0.0**	**10.5**	**4.5**	**8.2**	**0.0**	**0.0**
	ii) Islamabad Police							
27	Construction of NPA at H-11, Islamabad	154.0	0.0	79.7	15.0	30.0	29.3	0.0
28	Const. of 2 barracks for 100 men for police HQ wing H-11, Islamabad	16.2	0.0	12.7	1.5	2.0	0.0	0.0
29	Const. of Training Centre, Line Office & 3 Police Barracks in sector H-11 Islamabad	15.0	0.0	7.3	2.0	3.0	2.0	0.7
30	Const. of "C" Type Mosque in Police line, Sector H-11, Ibd.	3.9	0.0	0.2	1.0	2.7	0.0	0.0
31	Const. of ICTA Offices Complex at Ibd.	84.8	0.0	0.0	4.0	20.0	35.0	26.0
32	Const. of Judiciary /Court Complex Ibd.	100.0	0.0	0.0	20.0	25.0	30.0	25.0
33	Construction of Residences for Staff of Sessions Div. ICT, Ibd.	20.0	0.0	0.0	4.5	5.6	10.0	0.0
	Total (Police)	**393.9**	**0.0**	**99.9**	**48.0**	**88.3**	**106.3**	**51.7**
	Total (Interior)	**6263.6**	**968.0**	**1294.3**	**1113.1**	**1722.3**	**1439.1**	**694.2**
B	**M/o HOUSING AND WORKS**							
	a) Govt. Offices/Buildings							
34	Construction of Office Building for FPSC, Islamabad	89.5	0.0	79.6	5.0	5.0	0.0	0.0
35	Procurement of Fire Fighting Equipment and Fire Alarm System in various Buildings at Islamabad	19.3	0.0	6.9	2.0	5.5	5.0	0.0
	Total (GOB)	**108.9**	**0.0**	**86.4**	**7.0**	**10.4**	**5.0**	**0.0**
	b) Govt. Servants Housing							
36	Const. of Residential Accommodation for FGEs at Islamabad (C.E.'s Staff Colony)	275.4	0.0	230.6	20.0	24.9	0.0	0.0
37	Const. of Houses for FGEs at Islamabad, (900 houses)	350.0	0.0	83.5	30.0	40.0	60.0	70.0
38	Const. of 5160 houses for FGE's at Islamabad Phase-I (1170 houses) Cat I-V	419.2	0.0	366.9	25.0	27.4	0.0	0.0
39	Const. of 258 Houses for FGEs at D.S. Wala, Lahore (Ph-II)	113.1	0.0	11.6	8.3	15.0	20.0	25.0

PHYSICAL PLANNING & HOUSING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
40	Const. of 5160 Houses for FGEs (Phase-II) (992 Cat-V Flats)	438.3	0.0	59.6	40.0	45.0	55.4	65.8
	Total (GSH)	**1596.1**	**0.0**	**752.2**	**123.3**	**152.2**	**135.4**	**160.8**
	d) Central Board of Revenue							
41	Const. of Office Building for Income Tax Depart- ment at Gujranwala	7.4	0.0	0.0	0.1	7.3	0.0	0.0
	Total (CBR)	**7.4**	**0.0**	**0.0**	**0.1**	**7.3**	**0.0**	**0.0**
	Total (Works)	**1712.4**	**0.0**	**838.6**	**130.4**	**170.0**	**140.4**	**160.8**
C	**M/o LAW, JUSTICE, HUMAN RIGHTS & PA**							
42	Construction of New Building of Federal Shariat Court, Islamabad	64.1	0.0	9.7	10.0	20.0	24.4	0.0
43	Construction of Rest House for Honourable Judges of FSC. Islamabad	14.5	0.0	8.2	3.0	3.4	0.0	0.0
	Total (Law)	**78.6**	**0.0**	**17.9**	**13.0**	**23.4**	**24.4**	**0.0**
D	**M/o ENVIRONMENT, LG & RD**							
44	Const. of Bagh-e- Quaid-i-Azam Karachi	320.1	6.7	40.0	82.1	95.0	103.0	0.0
	Total (Env. & LG & RD)	**320.1**	**6.7**	**40.0**	**82.1**	**95.0**	**103.0**	**0.0**
E	**M/o KANA & STATES & FR**							
45	Offices & Res. Accommodations for Levies and Khasadars at Various places	67.3	0.0	40.1	12.0	8.2	7.0	0.0
46	Residential Accommodations for FC at Various places	182.2	0.0	132.6	45.9	3.7	0.0	0.0
	Total (KANA & SAFRON Div.)	**249.5**	**0.0**	**172.7**	**57.9**	**11.9**	**7.0**	**0.0**
	Total (On-going)	**8624.3**	**974.7**	**2363.5**	**1396.5**	**2022.6**	**1713.9**	**855.0**
	New Projects							
	INTERIOR DIVISION							
47	Const. of Bulk Water Supply System from Khanpur Dam to Islamabad/ Rawalpindi system Rawalpindi (Japan). share of M/o Defence (RCB)	6818.5	4443.0	6200.0	0.0	705.0	0.0	0.0
	FINANCE DIVISION							
48	Greater Karachi Water Supply Project '(100 mgd) from Indus Source K-III/ Phase-III (Federal Govt share 50%)	6500.0	3250.0	0.0	0.0	117.0	500.0	900.0

PHYSICAL PLANNING & HOUSING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
49	Greater Quetta Water Supply and Sewerage Project (Federal Govt)	4500.0	2250.0	0.0	0.0	100.0	500.0	900.0
50	New Urban Development and Wate Supply/Sanitation Projects	1500.0	0.0	0.0	0.0	0.0	505.0	610.0
	Ministry of KANA and SAFRON							
51	Construction of new office & residences for FC at various places in NWFP and Baluchistan	300.0	0.0	0.0	0.0	0.0	0.0	25.0
	Total (New)	**19618.5**	**9943.0**	**6200.0**	**0.0**	**922.0**	**1505.0**	**2435.0**
	Total (PP&H)	**28242.8**	**10917.7**	**8563.5**	**1396.5**	**2944.6**	**3218.9**	**3290.0**

EDUCATION & TRAINING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	DEFENCE DIVISION (Primary) (On-going)							
1	Award of merit scholarship to students of FGEIs in Cantt and Garrisons	3.8	0.0	1.2	0.8	0.8	0.8	0.9
2	Const. of FG Primary School at Shorekot	4.6	0.0	0.0	2.0	2.6	0.0	0.0
3	Establishment of 2 New FG Primary Schools at Multan and Okara	9.3	0.0	0.0	4.0	5.3	0.0	0.0
4	Estab. of 4 New FG Primary Schools at Bannu, Mardan, Kohat & Rislapur	17.2	0.0	0.0	8.0	9.2	0.0	0.0
5	Establishment of 2 New FG Primary Schools at Quetta	9.3	0.0	0.0	4.0	5.3	0.0	0.0
6	Establishment of 2 New FG Primary Schools at Karachi	9.3	0.0	0.0	4.0	5.3	0.0	0.0
	(New)							
7	Provision of computers in Colleges	50.0	0.0	0.0	0.0	10.0	10.0	10.0
8	Provision of computers in Schools	50.0	0.0	0.0	0.0	10.0	10.0	10.0
9	New schemes for schools and colleges	100.0	0.0	0.0	0.0	15.0	40.0	45.0
	Total (Defence Division)	253.4	0.0	1.2	22.8	63.5	60.8	65.9
B	MINISTRY OF EDUCATION Primary Education (On-going)							
9(a)	Girls Primary Education Project FCU Islamabad (ADB & OPEC)	121.1	93.4	28.0	28.4	30.0	34.9	0.0
10	Estab. of 4 new primary schools in developed sectors of Islamabad	26.3	0.0	24.4	1.9	0.0	0.0	0.0
11	Incentive Scheme for Primary and middle school students and teachers	15.8	0.0	3.0	1.5	1.5	1.6	1.6
12	To improve Infrastructure & Strengthening of Monitoring of Primary/Middle Schools	15.0	0.0	0.0	5.1	10.0	0.0	0.0
13	Provision of additional class rooms required in the Islamabad Model Colleges (Junior Section) Islamabad.	39.0	0.0	0.0	3.3	10.0	12.0	14.0
14	Estt. of Primary Schools in I-8/2&3, G-11/1&2 and F-11, Islamabad	48.1	0.0	0.0	20.0	29.1	0.0	0.0
15	Provision of educational facilities to elementary schools in ICT (SAP)	90.0	0.0	0.0	20.0	25.0	25.0	20.0
16	New Projects	200.0	0.0	0.0	0.0	0.0	50.0	100.0
	Total (Primary)	555.2	93.4	55.3	80.2	105.6	123.5	135.6
	Secondary Education (On-going)							
17	Science Ecucation Project with ADB Assistance, Federal Component	300.0	264.4	33.0	35.0	40.0	45.0	50.0
18	Upgradation of Rural Middle Schools to Secondary level in Islamabad	16.8	0.0	0.0	7.0	5.0	4.8	0.0
19	Middle School Project for Balochistan, NWFP and Sind (FIU) (ADB) (App)]	221.6	204.7	149.9	69.0	20.0	25.0	0.0
20	Provision of additional classrooms in the existing secondary schools located in rural area ICT	17.9	0.0	0.0	5.0	9.9	0.0	0.0

EDUCATION & TRAINING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
21	Special Repair of (Roof treatment, doors, windows,bathrooms, flooring whitewash, painting etc.) of F.G. Secondary & H.S. Schools at Islamabad	18.6	0.0	0.0	5.0	10.6	0.0	0.0
22	Provision of Additional classrooms in the existing over crowded secondary schools in urban area, Ibd.	18.9	0.0	0.0	5.0	10.9	0.0	0.0
23	Establishment of Two F G. Secondary Schools in developing sector I-8/3 (Girls) and I-8/4 (Boys) Ibd	43.6	0.0	0.0	10.0	12.0	15.0	0.0
24	New Projects	300.0	0.0	0.0	0.0	55.0	75.0	120.0
	Total (Secondary)	**937.4**	**469.1**	**182.9**	**136.0**	**163.4**	**164.8**	**170.0**
	Teacher Education							
25	New Projects	40.0	0.0	0.0	0.0	10.0	12.0	15.0
	Total (Teacher)	**40.0**	**0.0**	**0.0**	**0.0**	**10.0**	**12.0**	**15.0**
	Technical Education (On-going)							
26	Estab. of Polytechnic Institute for Boys Islamabad	134.9	0.0	32.3	25.0	25.0	25.0	27.0
27	Community Based Technical Training Project for Bishop House, Lalkurti, Rawalpindi Cantt	14.8	0.0	5.0	5.0	4.8	0.0	0.0
28	New Projects	40.0	0.0	0.0	0.0	10.0	15.0	15.0
	Total (Technical)	**189.7**	**0.0**	**37.3**	**30.0**	**39.8**	**40.0**	**42.0**
	College Education (On-going)							
29	Establishment of Cadet College at Sanghar	102.5	0.0	68.0	15.0	19.5	0.0	0.0
30	Establishment of Federal College of Arts and Design Jamshoro (App)	73.8	0.0	22.6	15.0	18.0	18.0	0.0
31	To extend educational facilities in Islamabad Model College for Boys, F-10/3, Ibd. to Intermediate level	16.6	0.0	5.0	5.0	6.6	0.0	0.0
32	Provision of additional class rooms & strengthening of Existing FG College for Women, G-10/4, Islamabad	17.6	0.0	5.0	7.0	5.6	0.0	0.0
33	Provision of Science Labs. to B.Sc classes and additional classrooms in FG College for Men, F-10/4, Ibd.	18.5	0.0	5.0	7.0	6.5	0.0	0.0
34	Expansion in the existing building of Islamabad Commerce College for Women, F-10/3	11.7	0.0	1.0	5.0	5.8	0.0	0.0
35	Establishment of Cadet College, Pallandri President's Directive) (Rev.)	121.8	0.0	98.5	10.0	13.3	0.0	0.0
36	Sukkur Institute of Business Administration (SIBA) (Rev.)	39.0	0.0	15.7	11.3	12.0	0.0	0.0
37	Special Repair/Maintenance (Roof Treatment, white-washing, panting etc.) of FG Colleges, Islamabad	7.7	0.0	0.0	4.0	3.7	0.0	0.0
38	Installation of language Laboratory system at NIML (Japan)	16.9	16.9	0.0	1.0	15.9	0.0	0.0
39	New Projects	150.0	0.0	0.0	0.0	25.0	50.0	70.0
	Total (College)	**576.2**	**16.9**	**220.9**	**80.3**	**131.9**	**68.0**	**70.0**

EDUCATION & TRAINING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	Literacy							
	(On-going)							
40	Establishment of 82,000 Non-Formal Basic Educa-tion Community Schools	11214.9	0.0	236.5	150.0	200.0	250.0	300.0
41	Crash Literacy Programme	6.4	0.0	0.0	0.9	1.0	1.5	0.0
42	New Projects	200.0	0.0	0.0	0.0	21.0	121.0	129.0
	Total (Literacy)	11421.3	0.0	236.5	150.9	222.0	372.5	429.0
	Scholarships & Loans							
	(On-going)							
43	Allama Iqbal Gold Medal & Scholarship (Revised)	6.0	0.0	3.4	1.0	1.0	1.0	0.0
44	Scholarship to students of IFSTAD, Phase-II	4.7	0.0	1.2	1.0	1.0	1.0	0.0
45	Quaid-i-Azam Scholarship Scheme (Revised)	194.3	0.0	83.2	11.5	15.0	15.0	0.0
46	100 Foreign Scholarships for Talented Students of BPS 1-15 FG Employees	247.0	0.0	189.8	12.5	15.0	15.0	0.0
47	Nishan-e-Haider Scholarships Phase-II	3.9	0.0	3.3	0.3	0.3	0.3	0.0
48	Merit Scholarships to Students of FGEIs, Federal Area (Phase-III)	2.1	0.0	1.1	0.3	0.3	0.3	0.0
49	Scholarships to Students from other countries (Ph-II)	16.9	0.0	2.0	2.0	2.0	2.0	0.0
50	Merit Scholarships for Minority Students for Engg. Medical & Post Graduate studies	1.9	0.0	0.0	0.3	0.3	0.3	0.0
51	3 Merit Scholarships for Minorities students	0.4	0.0	0.2	0.1	0.2	0.2	0.0
52	Allama Iqbal Cambridge Scholarships	5.0	0.0	4.8	1.0	1.0	1.0	0.0
53	Award of Stipend to indigent students (Ph-V)	19.8	0.0	0.0	3.0	4.0	4.0	5.0
54	P.M's Merit Scholarships for Tribal Areas	1.8	0.0	0.0	0.3	0.4	0.4	5.0
54(a)	New Projects	120.0	0.0	0.0	0.0	15.0	50.0	95.0
	Total (Scholarship)	623.8	0.0	289.1	33.3	55.5	90.5	105.0
	Miscellaneous							
	(On-going)							
55	Population Education in Formal and Non-Formal Education through UNFPA Assistance	52.2	44.2	40.9	7.6	3.0	0.0	0.0
56	Improvement of educational facilities in Deeni Madans	20.0	0.0	7.9	5.0	6.0	6.0	0.0
57	Readers Club Scheme by NBF (Phase-V)	20.0	0.0	7.0	3.5	3.5	3.0	3.0
58	IBA National Education Testing Service (NETS)	16.9	0.0	0.0	5.0	5.0	6.9	0.0
59	Strengthening the capabilities of copy rights office in Pakistan (WIPO Aid)	4.3	3.2	0.0	1.0	1.0	2.3	0.0
60	Curriculum Reforms in Pakistan	12.5	0.0	0.0	8.0	4.5	0.0	0.0
61	Curriculum in Deeni Madaris	30.5	0.0	0.0	10.0	10.0	10.5	0.0
62	Provision of Computers in Deen Madaris	41.0	0.0	0.0	10.0	10.0	10.0	10.0
63	Promotion of children's literature (Ph-II)	5.0	0.0	0.0	1.0	1.0	1.0	1.5

EDUCATION & TRAINING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
64	Improvement of National Library of Pakistan Services, Islamabad	3.1	0.0	0.0	1.5	1.6	0.0	0.0
65	Community Support Rural Schools Programme (CSRSP) by National Education Foundation	130.0	0.0	0.0	1.0	10.0	20.0	20.0
66	New Projects	300.0	0.0	0.0	0.0	20.0	100.0	150.0
	Total (Miscellaneous)	635.3	47.4	55.8	53.7	75.6	159.6	184.5
	Universities (On-going)							
67	Improvement of existing facilities at University of Karachi	252.5	0.0	0.0	40.0	50.0	80.0	82.7
68	Development of Bahauddin Zakariya University, Multan (Phase-I) (Rev.)	357.7	0.0	290.7	15.0	15.0	15.0	12.0
69	Establishment of College of Engineering at Bahauddin Zakariya University, Multan	96.3	0.0	49.8	20.0	16.0	0.0	0.0
70	Support to Scientific Talent (financial assistance for 1st class M.Sc., M. Phil and Ph.D Degree holders)	120.0	0.0	21.0	3.0	3.0	3.0	0.0
71	Establishment of 3rd World Centre for Science and Technology in Chemical Sciences HEJ Research Institute of Chemistry, University of Karachi (French)	477.5	217.0	356.7	40.0	30.0	30.0	0.0
72	Estab. of Deptt of Textile Engg. at Mehran UET, Jamshoro (Japan)	88.1	0.0	0.0	15.0	20.0	25.0	28.0
73	Scheme for the develop-ment of Quaid-e-Azam University Phase-III	96.3	0.0	35.0	20.0	20.0	0.0	0.0
74	Development of Shah Abdul Latif University Khairpur	150.0	0.0	101.8	10.0	12.0	13.0	15.0
75	Establishment of Allama Iqbal Open University including ODA Assistance	285.0	76.5	233.9	20.0	26.1	0.0	0.0
76	Dev. of University of Balochistan incl. Computer Science Deptt. Quetta	61.9	0.0	0.0	22.0	20.0	0.0	0.0
77	Establishment of New Campus of NWFP Engineer-ing University at Jalozai	147.6	0.0	19.7	15.0	20.0	30.0	40.0
78	Development and strengthening of academic facilities at NED Engineer-ing University Karachi	99.9	0.0	7.8	20.0	20.0	20.0	20.0
79	Upgradation of Computer Sciences Deptt. into Institute of Information Technology including Inter Net at Q.A. University	71.2	0.0	0.0	20.0	20.0	31.0	0.0
80	AJK University Muzaffarabad	98.4	0.0	0.0	20.0	19.0	25.0	33.0
81	Award for Best University Teachers	7.7	0.0	0.0	2.0	3.7	0.0	0.0
82	Estab. and Dev. of Islamia University Bahawalpur (Ph-II)	60.3	0.0	25.7	20.0	4.6	0.0	0.0
83	Estt. of Pakistan Study Centre, University of Punjab, Lahore (Phase-I)	7.0	0.0	0.0	3.1	4.0	0.0	0.0
84	Dev. Project of Pakistan Study Centre, University of Balochistan, Quetta	5.6	0.0	0.0	1.0	4.6	0.0	0.0
85	Dev. Project of Area Study Centre, University of Balochistan, Quetta	11.2	0.0	0.0	1.0	5.0	5.0	0.0

EDUCATION & TRAINING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
86	Upgradation of Labs for 6 Departments of Dawood College of Engg. & Tech. Karachi	19.6	0.0	0.0	1.0	9.6	9.6	0.0
87	Const. of Teachers Hostel at Balochistan University of Engg. Tech. Khuzdar	9.7	0.0	0.0	1.0	4.7	4.0	0.0
88	Estt. of Centre for Bio-Technology Peshawar University	18.8	9.0	0.0	1.0	7.8	10.0	0.0
89	Dev. of Gomal University, D.I. Khan (Phase-I)	97.7	0.0	0.0	10.0	15.0	20.0	20.0
90	Dev. of Fatima Jinnah Women University, Rawalpindi	53.5	0.0	0.0	30.0	23.4	0.0	0.0
91	Curriculum Dev. by UGC, Islamabad	7.1	0.0	0.0	2.0	2.0	3.1	0.0
92	Estab. of Hazara University	50.0	0.0	0.0	1.0	10.0	30.0	60.0
93	New Programmes	1700.0	0.0	0.0	0.0	200.0	505.0	1000.0
	Total (Universities)	4450.7	302.5	1142.1	353.1	585.5	858.7	1310.7
	Total (M/o Education)	19429.5	929.3	2220.0	917.5	1389.3	1889.6	2461.8
	Total (Education & Training)	**19682.9**	**929.3**	**2221.2**	**940.3**	**1452.8**	**1950.5**	**2527.7**

SCIENCE AND TECHNOLOGY SECTOR

Million Rs

S No	Name, Location and status of the Scheme	Estimated Cost Total	Estimated Cost F.Aid	Expenditure upto June 1999	Revised Estimates 1999-2000	PSDP 2000- PSDP	2000-2001	PSDP ; PSDP F.Aid	2001-2002	PSDP 2(PSDP F.Aid	2002-2003	PSDP 2003-2004
1.	2.	3.	4	5.	6.		7	9	8	11.	9	10
A.	**SCIENCE & TECHNOLOGICAL RESEARCH DIVISION**											
	National University of Sciences & Technology (NUST)											
1.	National University of Sciences and Technology (NUST) (Revised)	498.972	149.623	231.726	45.000	85.845	115.845	50.000	85.000	13.778	21.401	-
2.	National University of Sciences and Technology (NUST) Phase-II	389.156	328.621	0.000	30.000	180.921	195.984	120.000	130.000	27.700	33.172	-
	(NEW)											
3.	Research Centre for Modelling and Simulation (IDB Credit (IBD Credit)	99.900	99.900	-	-	9.900	9.900	70.000	70.000	20.000	20.000	-
4.	Microwave Research Lab. (IDB Credit)	99.900	99.900	-	-	59.940	59.940	39.060	39.060	-	-	-
5.	Institute of Envirnomental Science and Engineering (IESE) Lab. (IDB Credit)	54.000	54.000	-	-	43.200	43.200	10.800	10.800	-	-	-
6.	Establishment of Electronic Class rooms (IGIS)(IDB Credit)	54.000	54.000	-	-	5.400	5.400	35.000	35.000	13.600	13.600	-
7.	Institute of Geographical Information Systems (IGIS) (IDB Credit)	54.000	54.000	-	-	5.400	5.400	35.000	35.000	13.600	13.600	-
8.	Centre for Chemical Engineering and Material Sciences (IDB Credit)	24.732	24.732	-	-	2.470	2.470	22.262	22.262	-	-	-
9.	Institute of Applied Electronics and Computing (IDB Credit	221.940	221.940	-	-	177.550	177.550	44.390	44.390	-	-	-
10.	Institute Telecommunication and Inforamtion Technology (IDB Credit)	108.000	108.000	-	-	86.400	86.400	21.600	21.600	-	-	-
11.	Institute of Manufacturing Engineering and Management (IDB Credit)	105.300	105.300	-	-	63.180	63.180	42.120	42.120	-	-	-
	Sub-Total (NUST)	**1709.900**	**1300.016**	**231.726**	**75.000**	**720.206**	**765.269**	**490.232**	**535.232**	**88.678**	**101.773**	**0.000**
	Pakistan Council of Scientific & Industrial Research (PCSIR)											
12.	Establishment of Technical Training Center in PSTC for Process Control Instrumentation & Engineering, Karachi	130.237	81.692	34.201	3.000	9.000	10.000	81.692	83.034	-	-	-
13.	Establishment of Institute of Industrial Electronics Engineering, Karachi (Swiss Grant)	139.000	74.000	106.329	10.000	-	10.000	-	7.500	-	5.171	-
14.	Establishment of PCSIR Labs. Quetta	91.466	-	47.746	5.000	-	8.000	-	15.500	-	15.220	-
	(NEW)											
15.	Establishment of Precision Mechanical and Instruments Technology Centre, Lahore	199.600	144.900	-	-	-	-	60.000	85.000	84.900	114.600	-
	Sub-Total (PCSIR)	**560.303**	**300.592**	**188.276**	**18.000**	**9.000**	**28.000**	**141.692**	**191.034**	**84.900**	**134.991**	**0.000**
	Pakistan Council of Research in Water Resources (PCRWR) **(On-going)**											
16.	Water Resources Research Centers (WRRC)	35.848	-	32.918	0.000	-	2.930	-	-	-	-	-
	Sub-Total (PCRWR)	**35.848**	**0.000**	**32.918**	**0.000**	**0.000**	**2.930**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	Technology Development Action Plan (TDAP) **(On-going)**											
17.	Dev. Fuel Efficient Brick Kiln (CWHR)Karachi.	2.773	-	0.773	1.000	-	1.000	-	-	-	-	-
18.	Institute of Environmental Sciences and Engineering at at NUST in Collaboration with MSU, USA	13.862	-	6.700	1.000	-	2.000	-	4.162	-	-	-
19.	Consultancy Programme for Industrial Technology Development(NTP)	18.550	-	4.385	7.000	-	2.000	-	3.000	-	2.165	-
20.	Disposal of Solid Waste from Hospitals by Incineration (PCSIR), Karachi	16.750	-	4.446	2.000	-	2.000	-	5.000	-	3.304	-
21.	Fuel Saving Technology Project Phase-I (PCAT/TDAP)	15.510	-	6.434	1.000	-	1.000	-	4.000	-	3.076	-

S No	Name, Location and status of the Scheme	Estimated Cost		Expenditure upto June 1999	Revised Estimates 1999-2000	PSDP 2000	PSDP 2000-2001	PSDP 2001	PSDP 2001-2002	PSDP 2002	PSDP 2002-2003	PSDP 2003-2004
		Total	F Aid					F Aid		F Aid		
1	2	3	4	5	6		7	9	8	11	9	10
22.	Fibre Cement as substitute of Asbestos Cement Products	1.720	-	1.120	0.420	-	0.200	-	-	-	-	-
23.	Grant-in-Aid for Contractual Research (NTP)	19.840	-	7.982	1.000	-	1.000	-	5.500	-	4.358	-
24.	Development and Dissemination of 50 Micro Hydro Electric Power Plants in NWFP. Phase-III	9.104	-	2.525	1.000	-	1.000	-	2.000	-	2.579	-
25.	Implementation of National Technology Policy (NTP)	11.100	-	5.569	1.000	-	2.000	-	2.531	-	-	-
26.	Balancing and Modernization of PSTC Karachi	26.500	-	15.000	0.000	-	1.000	-	6.500	-	4.000	-
	Sub-Total (TDAP)	**135.709**	**0.000**	**54.934**	**15.420**	**0.000**	**13.200**	**0.000**	**32.693**	**0.000**	**19.482**	**0.000**
	National Institute of Oceanography (NIO)											
27.	Research vessel (Ice class) for Extension of Continental shelf EEZ	6277.700	4179.240	-	-	-	0.100	-	-	-		-
	Sub-Total (NIO)	**6277.700**	**4179.240**	**0.000**	**0.000**	**0.000**	**0.100**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	M/o Science & Technology (Main)											
	(On-going)											
28.	Development of High level S&T Manpower (Phase-III)	1294.834	-	463.256	2.000	-	1.000	-	-	-	-	-
	(New)											
29.	National Accreditation Council (NAC) (New)	55.522	32.203	-	-	15.579	23.579	12.000	21.000	4.624	10.943	-
30.	Post Doctoral Research Fellowship Programme	103.475	-	-	-	-	41.540	-	61.935	-	-	-
31.	Engagement of Consultants and Experts/Members of Peer Review Committee etc to implement NCST recommendations	37.375	-	-	-	-	10.025	-	13.000	-	14.325	-
32.	Establishment of Fan Cluster councils	37.842	-	-	-	-	10.000	-	17.842	-	-	-
33.	Curriculum Development at Graduate and Post-graduate level	9.000	-	-	-	-	3.240	-	2.880	-	2.880	-
34.	Block allocation for new projects *	8160.195		-	-	-	1935.195	-	2488.000	-	3746.000	4567.000
	Sub-Total (Main Ministry)	**9698.243**	**32.203**	**463.256**	**2.000**	**15.579**	**2024.579**	**12.000**	**2604.657**	**4.624**	**3774.148**	**4567.000**
	Total (Science & Tech. Res.Div.)	**18417.703**	**5812.051**	**971.110**	**110.420**	**744.785**	**2834.078**	**643.924**	**3363.616**	**178.202**	**4030.394**	**4567.000**
	B : PAKISTAN ATOMIC ENERGY COMMISSION(PAEC)											
	(On-going)											
35.	National Institute for Biotechnology & Genetic Engineering (NIBGE), Faisalabad.	348.651	-	279.090	30.000	-	36.461	-	3.100	-	-	-
	Total (PAEC):	**348.651**	**0.000**	**279.090**	**30.000**	**0.000**	**36.461**	**0.000**	**3.100**	**0.000**	**0.000**	**0.000**
	Total: (Science & Technology)	**27485.814**	**5812.051**	**1250.200**	**140.420**	**744.785**	**2870.539**	**643.924**	**3366.716**	**178.202**	**4030.394**	**4567.000**
	C: INFORMATION TECHNOLOGY DIVISION											
	(New)											
36.	Information Technology (Block)	16356.000	-	-	-	-	2000.000	-	3900.000	-	4800.000	5656.000
	Total: (Information Technology Div)	16356.000	-	-	-	-	2000.000	-	3900.000	-	4800.000	5656.000
	Total: (Science & Inf. Technology)	**43841.814**	**5812.051**	**1250.200**	**140.420**	**#VALUE!**	**4870.539**	**#VALUE!**	**7266.716**	**#VALUE!**	**8830.394**	**10222.000**

* The block allocation will be distributed in the following S&T fields

1. Human Resrouce Development
2. Basic Infrastructure
3. Development of linkage between Industry, R&D Institutions and Universities
4. Meterology Standards and Testing Quality System
5. Network of Analytical Centre for Industrial Analysis
6. Biotechnology
7. Renewable Energy
8. New Materials
9. Ocean & Water Research

HEALTH AND NUTRITION

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Total Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	MINISTRY OF HEALTH (On-going)							
1	Malaria Control Programme Pakistan	839.1	0.0	623.2	40.0	60.0	70.0	105.0
2	National Aids Prevention Control Programme, NIH, Islamabad	774.4	0.0	308.2	92.0	94.0	100.0	110.0
3	National Programme for Family Planning and Primary Health Care, Islamabad	9104.5	0.0	5408.5	1400.0	1550.0	1650.0	600.0
4	Health Services Academy	49.6	32.0	6.4	1.0	1.0	1.0	0.0
5	Establishment of 200 bedded Hospital D.I.Khan (Federak Share 50%)	391.6	0.0	65.0	30.0	50.0	60.0	0.0
6	Regional Branches of College of Physicians and Surgeons at Lahore and Peshawar	19.9	0.0	7.0	2.0	4.0	5.0	0.0
7	Expanded Programme on Immunization	5366.6	0.0	800.0	900.0	1000.0	1200.0	1400.0
8	Up-gradation & Renovation of Facilities at PIMS, Islamabad	273.1	0.0	149.9	100.0	23.2	0.0	0.0
9	Women Health Project, ADB	788.1	157.8	50.0	50.0	100.0	150.0	150.0
10	Extension of Stable at NIH, Islamabad	19.9	0.0	10.5	5.4	4.0	0.0	0.0
11	National Tuberculosis Control Programme	54.0	0.0	0.0	10.0	15.0	20.0	10.0
12	Establishment of Central Trauma Centre Karachi	184.0	0.0	5.6	15.0	20.0	20.0	10.0
13	High Risk Area Approach for Neonatal Tetanus at NIH, Islamabad	856.6	256.6	0.0	50.3	90.0	100.0	126.0
14	In-country Training Programme Safe Management of Newborn Infant and Children Hospital at PIMS, Islamabad	22.6	16.3	-	2.0	5.0	7.0	8.6
15	Imp. of the Deptt. of Physical medicines & Rehabilitation at JPMC, Karachi	18.9	0.0	0.0	7.0	5.9	6.0	0.0
16	Upgradation of Present Federal govt dispensaries as Filter Clinics/MCH Centre Karachi	19.0	0.0	0.0	2.0	5.0	6.5	5.5
17	Const. of 2 ICUs in LMC at Jamshoro Hyderabad	27.0	0.0	0.0	4.0	7.0	9.5	6.2
18	New Projects					318.0	677.0	2400.0
	Total (Health Division)	**18808.7**	**462.6**	**7434.2**	**2710.7**	**3352.1**	**4082.0**	**4931.3**

HEALTH AND NUTRITION

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Total Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
B	PAKISTAN ATOMIC ENERGY COMMISSION (On-going)							
19	Karachi Institute of Radiotherapy & Nuclear Medicine (KIRAN), Karachi (French credit)	406.8	0.0	227.0	50.0	131.8	0.0	0.0
20	Institute of Nuclear Medicine, Oncology and Radiotherapy, Abbottabad	439.2	0.0	7.0	20.0	165.9	70.1	100.0
	(New)							
21	National Cancer Control Programme	500.0	0.0	0.0	0.0	150.0	200.0	100.0
	Total (PAEC)	1346.0	0.0	234.0	70.0	447.8	270.1	200.0
C	NARCOTICS DIVISION							
22	Community Participation in Demand Rediction	19.4	0.0	5.8	6.0	4.9	5.0	3.5
23	Creating Mass Awareness	19.7	0.0	6.3	5.0	5.5	3.5	5.0
24	NGO Support Programme in T&R of Drug Prevention	19.8	0.0	0.0	3.0	6.0	3.8	5.0
25	Model Addition T&R Centre, Islamabad	17.1	0.0	0.0	6.0	3.1	5.0	3.0
26	3 T&R Centres for Drug Dependent Population in NWFP	10.3	0.0	0.0	2.0	4.0	2.2	2.0
	Total (Narcotics)	86.3	0.0	12.1	22.0	4.9	19.5	18.5
D	PLANNING & DEVELOPMENT DIVISION (On-going)							
27	Salt Iodization Project (subsidy)	49.5	0.0	26.5	2.0	7.0	8.0	6.0
	(New)							
28	Pakistan Nutrition Project	150.0	0.0	0.0	0.0	50.0	50.0	50.0
	Total (Planning)	209.5	0.0	26.5	2.0	57.0	58.0	56.0
E	INTERIOR DIVISION (New)							
29	Construction of BHU Kurri	2.0	0.0	0.0	1.4	0.6	0.0	0.0
30	Construction of BHU Tarnol	7.1	0.0	0.0	2.0	3.0	2.1	0.0
31	Const. of RHC with staff accommoda-tion & water supply etc. at Bharakau	4.4	0.0	0.0	1.0	2.0	1.4	0.0
	Total (Interior Division)	13.5	0.0	0.0	4.4	5.6	3.5	0.0
	Total (Health & Nutrition)	20464.0	462.6	7706.7	2809.1	3867.4	4433.1	5205.8

RURAL DEVELOPMENT

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**M/O ENVIRONMENT, LG&RD** **(On-going)**							
1	Japanese Assisted Rural Roads Construction Project Phase-I (All Pakistan)	3910.6	3324.0	1960.0	950.0	586.0	0.0	0.0
2	ADB Assisted Rural Access Roads Project Phase-I (All Pakistan) (ADB)	5507.9	4333.0	4233.1	1274.0	826.0	0.0	0.0
3	Black allocation for Rural Access/Farm to Market Roads	14500.0	12180.0	0.0	0.0	1225.7	3239.0	3852.0
	Total (M/o Env., LG&RD)	**23918.6**	**19837.0**	**6193.1**	**2224.0**	**2637.7**	**3239.0**	**3852.0**
B	**NARCOTICS CONTROL DIVISION** **(On-going)**							
4	Dir Areas Development Project (UNDCP)	678.6	581.1	437.6	58.3	190.0	0.0	0.0
5	Bajour Area Development Project Phase-II	210.0	200.0	0.0	69.5	70.0	70.0	0.0
6	Mohmand Tribal Agency Agricultural & Area Dev. Project, (Ph-II) (US Govt)	160.0	150.0	0.0	49.6	50.0	55.0	0.0
7	Special Development Unit	34.2	34.2	23.9	5.5	5.0	0.0	0.0
	Total (Narcotics Control Div.)	**1082.8**	**965.3**	**461.5**	**182.9**	**315.0**	**125.0**	**0.0**
C	**INTERIOR DIVISION** **(On-going)**							
8	Setting up 6 Women Community Centres in Islamabad	4.9	0.0	3.3	0.6	0.7	0.3	0.0
9	IRD Plan for ICT in Collaboration of UNICEF	6.9	0.0	5.4	0.5	0.5	0.4	0.0
10	Women Income generating project in Islamabad	4.6	0.0	3.3	0.3	0.4	0.6	0.0
11	Construction of Rural Roads in ICT Islamabad	60.0	0.0	0.0	0.0	15.0	20.0	25.0
	Total (Interior Division)	**76.4**	**0.0**	**11.9**	**1.4**	**16.6**	**21.3**	**25.0**
	Total (Rural Development)	**25077.7**	**20802.3**	**6666.5**	**2408.3**	**2969.3**	**3385.3**	**3877.0**

MASS MEDIA

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**INFORMATION & MEDIA DEVELOPMENT DIVISION**							
	PTV (On-going)							
1	2nd TV Channel for Education (Phase-II)	465.1	347.9	405.6	22.4	37.1	0.0	0.0
2	Video Playback Centre Lasbela	16.3	0.0	8.2	2.0	6.0	0.0	0.0
3	Video Playback Centre Wad	17.9	0.0	6.1	2.0	9.8	0.0	0.0
	(New)							
4	Second TV Channel Ph-III	532.4	513.0	0.0	0.0	44.0	85.0	94.0
5	New Boosters in Left out Pockets	143.8	0.0	0.0	0.0	53.8	40.0	51.0
	Total (PTV)	**1175.4**	**860.9**	**419.9**	**26.4**	**150.7**	**125.0**	**145.0**
	PBC (On-going)							
6	100 KW MW, 100 KW SW Transmitters and Broadcasting House (B.H.) Mirpur	188.7	0.0	116.4	15.0	27.2	30.0	0.0
7	Balancing and Modernization of Equipment (Ph-IV)	40.0	0.0	26.3	13.7	0.0	0.0	0.0
8	Additional Security Works	8.7	0.0	7.7	1.0	0.0	0.0	0.0
9	100 KW MW, Transmitter & Broadcasting House, Larkana	89.0	0.0	69.7	20.0	0.0	0.0	0.0
10	Transfer of Sound Archives on Compact Discs	19.6	0.0	5.0	5.0	9.6	0.0	0.0
	(New)							
11	Replacement of Damaged Arial System at HPT Karachi	35.9	0.0	0.0	15.0	10.9	0.0	10.0
12	Powerful Transmitter at Turbat	20.0	0.0	0.0	0.0	10.0	10.0	0.0
13	1000 KWMW Transmitter at Gwadar	400.0	0.0	0.0	0.0	0.0	15.0	35.0
14	Upgradation of Transmitters from 0.25 to 10 KW	50.0	0.0	0.0	0.0	0.0	15.0	35.0
15	Replacement and modernization of Old Equipment	100.0	0.0	0.0	0.0	0.0	10.0	10.0
16	Network of FM Transmitters	150.0	0.0	0.0	0.0	0.0	5.0	10.0
17	New Specialized Channels	50.0	0.0	0.0	0.0	0.0	0.0	10.0
	Total (PBC)	**1151.8**	**0.0**	**225.1**	**69.7**	**57.7**	**85.0**	**110.0**

MASS MEDIA

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	Ministry (New)							
18	Reorganisation of Public Information System by using Interactive Mangemnet	**50.0**	**0.0**	**0.0**	**0.0**	**0.0**	**20.0**	**30.0**
	APP (New)							
19	Expansion of Computerized News Transmission (Ph-II)	3.0	0.0	0.0	2.0	1.0	0.0	0.0
20	Purchase of High Speed News Printers (Phase-II)	2.9	0.0	0.0	1.5	1.4	0.0	0.0
21	Purchase of Equipment and its Mainitenance	4.0	0.0	0.0	3.0	1.0	0.0	0.0
22	Satellite Communication V.Sat (Phase-II)	30.0	0.0	0.0	0.0	0.0	5.0	5.0
23	Business News Service	17.0	0.0	0.0	0.0	0.0	5.0	5.0
24	Photo Service	5.0	0.0	0.0	0.0	0.0	5.0	5.0
25	Urdu and Sindhi News Service	10.0	0.0	0.0	0.0	0.0	5.0	5.0
	Total (APP)	**71.9**	**0.0**	**0.0**	**6.5**	**3.4**	**20.0**	**20.0**
	Total (M/o Information)	**2449.1**	**860.9**	**645.1**	**102.6**	**211.8**	**250.0**	**305.0**
	Total (Mass Media)	**2449.1**	**860.9**	**645.1**	**102.6**	**211.8**	**250.0**	**305.0**

CULTURE SPORTS TOURISM AND YOUTH

(Million Rupees)

Sl No	Name, Location and status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	CULTURE, SPORTS, TOURISM AND YOUTH AFFAIRS DIVISION							
	Sports							
	(On-going)							
1	Sports Stadium at Mansehra	16.5	0.0	15.5	0.7	0.3	0.0	0.0
	(New)							
2	Const. of 7 Sports Stadiums at Chakwal, Abbottabad, Gujranwala, Mureedke, Mardan, Dera Adam Khel and Kharan	152.0	0.0	0.0	0.0	12.0	50.0	50.0
	Total (Sports)	**168.5**	**0.0**	**15.5**	**0.7**	**12.3**	**50.0**	**50.0**
	Tourism							
	(On-going)							
3	Establishment of Austrian Pakistani Institute of Tourism and Hotel Management Studies at Gulibagh Swat (Austrian Govt)	97.0	64.3	62.6	25.0	9.4	0.0	0.0
4	Road-side Facilities at GT By-pass road from Bahwalpur to Karachi	6.5	0.0	1.6	2.0	2.9	0.0	0.0
	(New)							
5	PTDC/Private Sector Collaborative Projects to be implemented jointly	146.0	0.0	0.0	0.0	6.0	90.0	116.0
	Total (Tourism)	**249.4**	**64.3**	**64.2**	**27.0**	**18.3**	**90.0**	**116.0**
	Culture							
	(On-going)							
6	Preservation and Restoration of Jahangir's Tombs Lahore	9.5	0.0	4.4	3.0	2.1	0.0	0.0
7	Preservation and Restoration of Red Sand Stone Facades of Jahangir's Tomb Lahore	12.9	0.0	6.0	2.0	4.9	0.0	0.0
8	Preservation and Restoration of Lahore Fort (Dewan-e-Khas, Dewan-e-Aam and Side wall)	19.2	0.0	5.8	2.0	11.4	0.0	0.0
9	Restoration and Development of 4 Anonymous Tombs Lal Mehra Sharif, DI Khan	4.2	0.0	3.1	0.5	0.6	0.0	0.0
10	Estab. of Institute for revival of vanishing Arts and Crafts Lok Virsa Islamabad Scheme	4.6	0.0	2.0	0.5	2.1	0.0	0.0
11	Master Plan for Preservation and Restoration of Shalimar Gardens Lahore	71.3	0.0	17.4	2.0	11.9	20.0	20.0

CULTURE SPORTS TOURISM AND YOUTH

(Million Rupees)

Sl No	Name, Location and status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
12	Preservation and Restoration of Western dalans of Jahangir's Quadrangle, Lahore Fort	9.5	0.0	4.4	1.0	4.1	0.0	0.0
13	Preservation and Restoration of Mughal Garden Wah	14.9	0.0	10.1	2.5	2.3	0.0	0.0
14	Conservation of Umerkot Fort and Development of Museum	8.0	0.0	4.9	1.0	2.1	0.0	0.0
15	National Art Gallery Islamabad	249.0	90.3	61.6	28.0	78.3	50.0	50.0
	(New)							
16	Establishment of Museums at Multan and Gilgit	48.0	0.0	0.0	0.0	8.0	10.0	30.0
	Total (Culture)	**451.2**	**90.3**	**119.7**	**42.5**	**127.8**	**80.0**	**100.0**
	Youth							
	(On-going)							
17	Construction of Youth Development Centre at Peshawar	15.7	0.0	0.1	1.0	1.0	0.0	0.0
18	Construction of Youth Development Centre at Quetta	15.1	0.0	5.8	2.0	7.4	0.0	0.0
	(New)							
19	Involvement of Youth in Literacy Programmes, Social Services, Environment Protection, Computer Training and HRD	46.3	0.0	0.0	0.0	16.3	23.0	7.0
	Total (Youth)	**77.2**	**0.0**	**5.9**	**3.0**	**24.7**	**23.0**	**7.0**
	Total (Culture, Sports & Tourism)	**946.3**	**154.6**	**205.2**	**73.2**	**183.0**	**243.0**	**273.0**

MANPOWER AND EMPLOYMENT

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	MANPOWER DIVISION							
1	National Vocational Training Project, Ph-II	2882.2	1884.0	2814.3	21.0	54.0	0.0	0.0
2	New projects	-	-	0.0	0.0	0.0	105.0	180.0
	Total (Manpower & Employment)	**2882.2**	**1884.0**	**2814.3**	**21.0**	**54.0**	**105.0**	**180.0**

WOMEN DEVELOPMENT

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**WOMEN DEVELOPMENT, SOCIAL WELFARE AND SPECIAL**							
1	Public Sector Programme (PSP)	267.9	0.0	216.9	30.5	25.0	0.0	0.0
2	Special Women Action Programme (SWAP)	73.6	0.0	54.6	20.8	10.0	0.0	0.0
3	New Programmes	-	0.0	0.0	0.0	30.0	75.0	85.0
	Total (Women Development)	**341.5**	**0.0**	**271.5**	**51.3**	**65.0**	**75.0**	**85.0**

POPULATION WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	M/O POPULATION WELFARE On-going FEDERAL PROGRAMME (APPROVED)							
1	Administrative Organization (ADB)	283.2	36.1	57.8	63.0	67.0	75.8	85.7
2	Population Welfare Services in the Federal District Islamabad	80.1	14.9	9.5	14.0	16.0	19.0	21.5
3	Target Group Institutions	64.4	0.0	0.6	3.0	3.0	3.7	4.2
4	Population Welfare Services in AJK	128.4	21.2	13.7	14.0	22.0	28.0	33.2
5	Population Welfare Services in Northern Areas (WB)	78.6	12.8	2.5	7.0	15.0	19.0	22.0
6	Communication Strategy (WB.UNFPA,ADB)	425.0	226.0	19.8	71.0	75.0	92.0	106.4
7	Non-Clinical Training (PWTIs) (ADB, WB)	273.0	163.3	17.1	29.0	29.0	36.0	41.6
8	Clinical Training (RTIs) UNFPA WB)	415.7	227.0	51.9	70.0	77.0	95.0	109.8
9	National Research Institute of Fertility Control (ADB)	52.6	18.4	5.4	8.0	8.0	10.0	11.6
10	National Institute of Population Studies (UNFPA, ADB, ODA, WB)	223.0	110.0	19.3	30.0	32.0	42.0	50.6
11	Contraceptives Requirement and Distribution (WB, UNFPA, ODA)	1838.6	1838.6	678.8	267.0	267.0	329.0	380.4
	Total (Federal)	**3862.5**	**2668.3**	**876.4**	**576.0**	**611.0**	**749.5**	**866.9**
	PROVINCIAL PROGRAMME (PUNJAB)							
12	Provincial Set-up (ADB-WB)	127.2	74.5	19.4	38.6	41.0	45.0	51.1
13	Divisional Set-up (ADB-WB)	90.1	26.0	20.0	22.8	24.2	28.0	31.8
14	District Set-up (ADB-WB)	349.0	101.0	56.8	67.6	71.8	85.0	96.6
15	Tehsil Set-up (ADB-WB)	133.3	38.0	7.4	32.5	34.5	42.0	47.7
16	Family Welfare Centres (ADB)	2241.7	666.0	226.6	290.0	307.9	380.0	439.4
17	Mobile Service Units (WB)	161.4	48.1	18.1	30.8	32.7	40.0	46.3
18	Reproductive Health Services (WB, UNFPA, ADB)	669.7	361.0	104.2	109.0	115.7	142.4	164.7
19	Family Planning Workers, Supervisors and Training Centres (WB-ADB)	2107.9	1350.4	204.9	215.2	228.5	285.0	329.5
20	Involvement of Health Outlets and PLDs	20.0	5.5	0.1	3.0	3.2	3.9	4.5
21	Involvement of Registered Medical Practitioners, Hakeems & Homoeopaths in Population Welfare Programme (WB)	24.1	6.5	0.5	3.5	3.4	4.0	5.2

POPULATION WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
22	Involvement of Hakeems & Homeopaths in Population Welfare Programme (WB)	9.5	2.6	0.0	0.0	0.3	0.5	0.3
23	Communication Strategy	140.4	75.6	5.1	23.0	24.4	30.0	34.7
24	Innovatives	50.0	50.0	0.0	0.0	131.0	170.0	197.2
	Total (Punjab)	**6124.3**	**2805.2**	**663.0**	**836.0**	**1018.7**	**1255.8**	**1449.0**
	(SINDH)							
25	Provincial Set-up (ADB-WB)	134.6	70.0	31.2	30.2	32.1	38.0	43.2
26	Divisional Set-up (ADB-WB)	50.8	28.5	8.0	8.6	9.1	11.0	12.5
27	District Set-up (ADB-WB)	225.6	108.5	37.3	46.2	49.1	60.4	68.6
28	Tehsil Set-up (ADB-WB)	87.6	45.7	10.7	17.8	18.9	22.0	25.4
29	Family Welfare Centres (WB)	830.2	274.9	85.3	110.0	116.8	141.6	160.9
30	Mobile Service Units (WB)	88.8	41.0	10.6	15.5	16.5	19.0	22.0
31	Reproductive Health Services (UNFPA, ADB, WB)	458.5	154.1	48.9	60.0	63.7	79.0	91.3
32	Family Planning Workers, (PFWs)	545.1	216.6	56.6	65.0	69.0	85.0	98.3
33	Involvement of Health Outlets and PLDS	28.8	10.9	1.3	2.7	2.9	3.5	4.0
34	Involvement of Registered Medical Practitioners, Hakeems & Homoeopaths in Population Welfare Programme (WB)	18.6	8.6	1.0	3.0	3.2	4.0	4.6
35	Involvement of Hakeems & Homeopaths in Population Welfare Programme (WB)	5.1	2.5	0.1	0.0	0.4	0.5	0.6
36	Communication Strategy (UNFPA)	62.3	25.6	10.5	11.0	11.7	14.0	16.2
37	Innovatives	14.3	8.0	0.0	0.0	70.0	90.0	109.5
	Total (Sindh)	**2550.3**	**994.9**	**301.5**	**370.0**	**463.3**	**568.0**	**657.1**
	(NWFP including FATA)							
38	Provincial Set-up (ADB-WB)	83.9	29.5	11.1	12.8	13.5	16.0	18.0
39	Divisional Set-up (ADB-WB)	70.5	26.1	9.7	12.9	13.7	16.0	18.0
40	District Set-up (ADB-WB)	124.5	51.3	18.0	22.1	23.5	27.0	30.4
41	Tehsil Set-up (ADB-WB)	32.4	11.4	1.7	4.7	5.0	6.2	7.0
42	Family Welfare Centres (WB)	697.3	217.9	67.7	88.6	94.1	116.0	136.0
43	Mobile Service Units (WB)	44.7	14.1	4.9	6.1	6.5	8.0	9.0
44	Reproductive Health Services (UNFPA, WB, ADB)	244.8	78.8	16.6	31.2	33.1	39.0	46.0

POPULATION WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expenditure upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
45	Family Planning Workers, Supervisors and Training Centres (WB-ADB)	669.1	214.1	63.4	81.0	86.0	105.0	123.0
46	Involvement of Registered Medical Practitioners, Hakeems & Homoeopaths in Population Welfare Programme (WB)	6.2	2.8	0.4	0.9	0.6	1.2	2.0
47	Involvement of Health Outlets and PLDS	3.4	0.9	0.5	0.6	1.0	0.8	1.0
48	Involvement of Hakeems & Homeopaths in Population Welfare Programme	3.1	1.5	0.0	0.0	3.0	3.5	3.0
49	Communication Strategy (UNFPA, WB & ADB)	30.9	4.2	2.3	4.0	4.2	5.0	6.0
50	Innovatives	9.0	0.0	0.0	0.0	40.0	55.0	61.9
	FATA							
51	Administrative Organization	20.0	7.2	0.0	4.0	4.2	5.0	5.6
52	Family Welfare Centres (FWCs)	23.7	8.0	0.0	3.4	3.6	5.0	6.5
53	Reproductive Health Services (RHS)	23.3	7.4	0.0	5.5	5.8	7.0	9.0
54	Involvement of Health Outlets and PLDS	0.6	0.2	0.0	0.1	0.1	0.5	0.6
55	Involvement of Registered Medical Practitioners, Hakeems & Homoeopaths in Population Welfare Programme (WB)	0.4	0.1	0.0	0.1	0.1	0.5	0.6
	Total (NWFP)	**2087.8**	**675.6**	**196.3**	**278.0**	**338.2**	**416.7**	**483.7**
	(BALOCHISTAN)							
56	Provincial Set-up (ADB-WB)	84.1	42.3	12.0	14.3	15.2	17.0	19.1
57	Divisional Set-up (ADB-WB)	49.9	23.6	9.0	8.8	9.3	10.0	11.3
58	District Set-up (ADB-WB)	170.2	80.3	26.1	28.6	30.4	36.0	40.9
59	Tehsil Set-up (ADB-WB)	46.4	21.9	2.9	7.7	8.2	9.0	10.1
60	Family Welfare Centres (WB)	215.9	66.5	24.6	34.2	36.3	45.0	52.0
61	Mobile Service Units (WB)	21.2	9.5	3.9	4.4	4.7	5.0	5.8
62	Reproductive Health Services (UNFPA, WB, ADB)	77.8	28.8	5.4	7.4	7.9	9.0	10.4
63	Family Planning Workers, Supervisors and Training Centres (WB-ADB)	257.1	97.5	22.7	31.2	33.1	41.0	47.4
64	Involvement of Health Outlets and PLDS	2.8	1.6	0.1	0.5	0.5	0.8	1.0
65	Involvement of Registered Medical Practitioners, Hakeems & Homoeopaths in Population Welfare Programme (WB)	2.9	1.4	0.2	0.4	0.4	0.7	1.1
66	Involvement of Hakeems & Homeopaths in Population Welfare Programme (WB)	1.4	1.0	0.0	0.0	1.0	1.3	1.5

POPULATION WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
67	Communication Strategy (UNFPA, WB & ADB)	25.6	12.0	0.9	2.5	2.7	3.5	4.0
68	Innovatives	7.0	7.0	0.0	0.0	19.2	31.8	38.6
	Total (Balochistan)	**962.3**	**393.3**	**107.6**	**140.0**	**168.9**	**210.1**	**243.3**
	Total (Provincial Programme)	**11724.7**	**4869.1**	**1268.5**	**1624.0**	**1989.0**	**2450.5**	**2833.1**
	Grand Total (Population Welfare):	**15587.2**	**7537.4**	**2144.9**	**2200.0**	**2600.0**	**3200.0**	**3700.0**

SOCIAL WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**ESTABLISHMENT DIVISION** (On-going)							
1	Const. of Compound Wall and Expansion of Parking Space and Other Sundry Works in Aabpara Community Centre, Islamabad	19.9	0.0	10.3	0.5	4.0	4.1	1.2
2	Provision of Welfare Facilities to Retired Government Servants & their Dependants	13.8	0.0	3.4	0.2	5.0	5.0	0.0
3	Const. of additional building near Ch. Rehmat Ali Community Centre Islamabad	15.1	0.0	9.2	0.1	3.0	2.8	0.0
4	Construction of Community Centre at G-9/2, Islamabad	19.9	0.0	14.9	0.6	2.0	2.5	0.0
5	Const. of Trade Training Centre, Islamabad	19.7	0.0	14.0	1.7	2.0	2.0	0.0
6	Const.of Community Center at FC Area Karachi	16.9	0.0	14.5	0.1	1.0	1.2	0.0
7	Ladies Industrial home-cum- work order Centre Karachi, Lahore and Peshawar	9.0	0.0	3.2	0.1	3.0	2.7	0.0
8	Expansion of Welfare projects and facilities/ Buildings & New Small Schemes	9.9	0.0	3.9	0.1	3.0	2.9	0.0
	Total (Establishment Division)	**124.2**	**0.0**	**73.5**	**3.4**	**23.0**	**23.1**	**1.2**
B	**WOMEN DEVELOPMENT, SOCIAL WELFARE & SPL EDUCATION DIVISION** **Directorate of Spl. Education** (On-going)							
9	Spl. Education Centres at Div./District HQs(Punjab=16 Sind=7; NWFP=5 Baluchistan=2;AJK=2)	669.0	0.0	142.5	30.0	57.0	79.0	115.9
	(New)							
10	Pilot Project for Integrated Education of Children with Disabilities	14.2	0.0	0.0	6.0	4.0	4.2	0.0
11	Establishment of Residential Centres for Care & Rehabilitation of Profoundly Handicapped Children at Provincial HQs including AJK	15.0	0.0	0.0	3.5	6.0	5.5	0.0
12	Vocational Training Centre for Disabled at Peshawar & Quetta	10.0	0.0	0.0	3.0	3.0	4.0	0.0
13	Transport for Special Education Centres	19.5	0.0	0.0	3.0	3.0	5.0	8.5
14	Estab. of National Centre for Low Vision Aids, Islamabad	2.4	0.0	0.0	0.0	1.0	1.0	0.4
15	Estab. of Special Education Centres at Div/Distt. Hqs in 2nd Shift	18.6	0.0	0.0	0.0	3.0	7.0	8.6

SOCIAL WELFARE

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
16	Provision of Technical Aids to the Visually Handicapped in Pakistan	1.8	0.0	0.0	0.0	0.5	0.5	0.8
17	Estab. of 2nd Shift in the Provincial Hq.Spl. Edu. Centres	19.4	0.0	0.0	0.0	3.0	7.0	9.4
18	Estab. of Al-Farabi Centre for Physically Handicapped Children in 2nd Shift.	16.0	0.0	0.0	0.0	3.0	4.0	9.0
19	Estab. of Shah Faisal Centre for HIC in 2nd Shift	1.0	0.0	0.0	0.0	0.0	0.5	0.5
20	Estab. of Shah Faisal Centre for HIC Islamabad (Secondarly Level)	17.2	0.0	0.0	0.0	0.3	3.9	13.0
	Total (Directorate of Spl. Edu.)	**804.1**	**0.0**	**142.5**	**45.5**	**83.8**	**121.7**	**166.0**
	Social Welfare Wing (On-going)							
21	Services for Children in Difficult Circumstances	11.4	0.0	3.6	1.0	2.0	2.0	2.6
	Total (Social Welfare Wing)	**11.4**	**0.0**	**3.6**	**1.0**	**2.0**	**2.0**	**2.6**
	National Council of Social Welfare (On-going)							
22	Fiscal Incentive & Technical Assistance & Other Measures to Support Growth of NGOs	19.9	0.0	8.7	4.0	3.0	4.0	0.0
23	Grant for Self-Help Projects	6.5	0.0	0.0	0.0	1.5	2.0	2.6
24	Grant for Evaluative Research Studies & Publication of Literature	6.0	0.0	0.0	0.0	1.0	1.5	1.4
25	Library Resource Dissemi Centre	2.7	0.0	0.0	0.0	0.7	0.8	1.3
	Total (NCSW)	**35.1**	**0.0**	**8.7**	**4.0**	**6.2**	**8.3**	**5.2**
	Total (Women Dev. Div.)	**850.6**	**0.0**	**154.8**	**50.5**	**92.0**	**132.0**	**173.8**
	Total (Social Welfare)	**974.7**	**0.0**	**228.2**	**53.9**	**115.0**	**155.1**	**175.0**

RESEARCH, STATISTICS AND PLANNING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	**PLANNING & DEVELOPMENT DIVISION (On-going)**							
1	Economic Research Programme, Ibd.	18.0	0.0	1.0	3.7	7.2	7.2	0.0
2	Computerization of P & D Division (JACC) Phase-III, Islamabad	19.4	0.0	15.7	5.0	2.9	0.0	0.0
3	Asian Development Bank and other Donors Assisted Strengthening of Federal SAP Secretariat and SAP Cells, Islamabad	60.0	55.0	8.6	24.0	4.0	0.0	0.0
4	Participatory Development Programme (PDP) Islamabad	430.0	420.0	0.0	236.0	90.0	50.0	0.0
5	SAP Monitoring & Evaluation System at the Federal and Area Levels, Islamabad	176.8	151.8	1.7	71.8	120.9	5.9	0.0
6	Electronic Government, Islamabad	25.4	2.0	1.2	4.8	19.4	0.0	0.0
7	Pakistan Planning & Management Institute Islamabad	9.0	0.0	1.0	1.2	1.8	1.8	1.8
8	Macro Modelling Project, Islamabad	1.1	0.0	0.2	0.3	0.6	0.0	0.0
9	Project Preparatory Fund Recruitment of Professionals in P&D Division.	39.6	0.0	0.0	10.0	15.4	14.2	0.0
	Total (P&D Division)	**779.3**	**628.8**	**29.5**	**356.7**	**262.2**	**79.1**	**1.8**
B	**CHIEF EXECUTIVE'S SECRETARIAT (On-going)**							
10	Good Governance Group (UNDP) New	60.5	42.8	8.0	18.6	33.9	0.0	0.0
11.	Fiscal Decentralization	96.0	77.1	0.0	0.0	77.1	0.0	0.0
	Total (CE Secretariat)	**156.5**	**119.9**	**8.0**	**18.6**	**110.9**	**0.0**	**0.0**
C	**STATISTICS DIVISION (On-going)**							
12	Pakistan Integrated House Hold Survey (Phase-III), Islamabad, (Revised) (SAP Funds/ World Bank loan)	145.9	26.5	92.8	22.0	31.1	0.0	0.0
13	Economic Census, Islamabad	150.3	0.0	50.4	95.2	49.6	0.0	0.0
14	Research and Case Studies for Improve-ment of National Accounts of Pakistan	38.5	0.0	0.0	10.0	28.5	0.0	0.0
15	Study to Estimate the Quarterly National	12.0	0.0	0.0	6.5	5.5	0.0	0.0

RESEARCH, STATISTICS AND PLANNING

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	Accounts of Pakistan, Islamabad							
16	Replacement of Data Entry System of FBS Islamabad	19.8	0.0	0.0	10.0	9.7	0.0	0.0
	Total (Statistics Division)	**366.4**	**26.5**	**143.2**	**143.7**	**124.4**	**0.0**	**0.0**
D	**LAW, JUSTICE & PARLIAMENTARY AFFAIRS DIVISION**							
	(On-going)							
17	Study on Strengthening of Institutional Capacity for Judicial and Legal Reforms, Islamabad	181.5	145.0	0.0	96.8	84.7	0.0	0.0
	(New)							
18	Pakistan 2000: Reforming the Judicial System	17500.0	4320.0	0.0	0.0	100.0	300.0	866.2
	Total (Law & Justice Division)	**17681.5**	**4465.0**	**0.0**	**96.8**	**184.7**	**300.0**	**866.2**
E	**FINANCE DIVISION**							
	(On-going)							
19	Project for Improvement of Financial Reporting and Auditing in Pakistan (PIFRA) Islamabad (WB, IDA soft term loan)	1500.7	1166.8	234.0	146.6	150.0	269.0	0.0
20	Monitoring and Evaluation of SAP	97.6	97.6	40.0	31.8	25.8	0.0	0.0
21	Audit and Accounts Academy Islamabad	50.0	0.0	0.0	15.0	35.0	0.0	0.0
	Total (Finance Division)	**1648.3**	**1264.4**	**274.0**	**193.5**	**210.8**	**269.0**	**0.0**
	Total (Res. Stat. & Planning)	**20632.0**	**6504.6**	**454.8**	**809.2**	**893.0**	**648.1**	**868.0**

ENVIRONMENT

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
A	M/O ENVIRONMENT, LOCAL GOVERNMENT AND RURAL DEVELOPMENT (On-going)							
1	Tarbela Watershed Management Project Abbotabad (GTZ/WFP/KfW)	753.1	593.7	501.5	146.8	85.0	78.8	0.0
2	Establishment of Ozone Cell to implement Protocol in M/o E&UAD (UNDP)	9.6	8.4	5.0	1.6	3.1	0.0	0.0
3	Fuel Efficiency in Road Transport Sector	230.9	220.5	70.7	51.2	35.0	15.0	0.0
4.	Strengthening of Forestry Wing at Federal Level for sustainable Monitoring of Implementation of 'Forestry Sector Master Plan	48.4	39.1	20.5	10.9	10.0	7.0	0.0
5	Rachna Doab Afforestation Project	485.4	0.0	189.6	50.0	60.0	65.0	80.0
6.	Sand Dune Stablization in Ladgasht Mashkel	3.9	0.0	3.0	0.5	0.4	0.0	0.0
7	Establishment of Green Library and Documentation Centre in Pak-EPA (ADB)	4.8	0.0	1.9	1.0	1.8	0.0	0.0
8	Preparation of Master Plan for Urban Waste Water in Selected Cities of Pakistan	4.5	0.0	2.5	1.3	0.5	0.2	0.0
9.	Protected Areas Management Project (PAMP)	648.6	610.0	0.0	0.5	50.0	75.0	110.0
10	Support to the Preparation of National Bio safety Framework (UNEP)	5.8	5.8	0.0	4.0	1.8	0.0	0.0
11	Hospital Waste Management in Major Cities of Pakistan	4.5	0.0	0.0	1.9	2.6	0.0	0.0
12	Preparation of National Land Use Plan	16.0	0.0	0.0	3.5	4.5	4.5	3.5
13	Preparation of National Country Report	0.5	0.0	0.0	0.5	0.0	0.0	0.0
	(New)							
14	New Projects	200.0	0.0	0.0	0.0	43.0	75.0	138.0
	Total (M/o Environment)	2415.7	1477.5	794.7	273.5	297.7	320.5	331.5
B	MINISTRY OF WATER & POWER (On-going)							
15	Mangla Watershed Management Project	97.7	0.0	70.8	13.5	13.4	13.4	0.0
	(New)							
16	New Projects	100.0	0.0	0.0	0.0	25.0	43.0	48.5
	Total (M/o Water & Power)	197.7	0.0	70.8	13.5	38.4	56.4	48.5
	Total (Environment)	2613.4	1477.5	865.5	287.0	336.1	376.9	380.0

WAPDA

(Million Rupees)

Sl No	Name, Location and Status of the scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
	GENERATION (Hydel)							
	(On-going)							
1	Chashma Hydro Power Project	17821.8	9264.3	13653.9	3800.0	593.0	87.0	0.0
2	Ghazi Barotha Hydro Power	89840.0	50494.0	36528.6	16000.0	17000.0	14711.4	5600.0
3	Rehabilitation of Warsak	1325.0	609.0	720.2	165.0	67.0	0.0	0.0
4	Extension of Hydromat Network N.A	38.6	22.1	25.5	2.0	5.0	0.0	0.0
5	Basha Dam Project NWFP/N.Areas	900.0	96.6	89.7	10.0	150.0	400.0	250.0
6	Bunji Hydropower Project N/Areas	293.7	114.2	4.8	15.0	200.0	53.0	20.9
7	Doyian Hydro Power Project	52.4	16.2	6.4	20.0	26.0	0.0	0.0
8	4 Promising Hydel Schemes in N/Are	32.6	13.0	4.5	15.0	13.1	0.0	0.0
9	Hydel Investigation	455.0	200.0	0.0	0.0	70.0	100.0	150.0
	(New)							
10	Feasibility Studies	350.0	160.0	0.0	0.0	20.0	30.0	150.0
	Total (Hydel)	**111109.1**	**60989.3**	**51033.6**	**20027.0**	**18144.1**	**15381.4**	**6170.9**
	Thermal							
	(New)							
11	27 MW Diesel Gn Set a Pasni Ph-II	1061.0	638.0	0.0	0.0	0.0	0.0	200.0
	Total (Thermal)	**1061.0**	**638.0**	**0.0**	**0.0**	**0.0**	**0.0**	**200.0**
	Total (Generation)	**112170.1**	**61627.3**	**51033.6**	**20027.0**	**18144.1**	**15381.4**	**6370.9**
	Transmission							
	(On-going)							
12	Upgradation of 220 KV S.S to 500 KV at Muzaffargarh	1022.0	617.0	1085.0	290.0	20.0	0.0	0.0
13	Transmission Arrangements for Power Dispersal of Ghazi Barotha	14127.0	6990.0	71.4	3000.0	5653.0	5200.0	202.6
14	Transmission Arrangement for Pasni (Share of WAPDA 373.5 m, GOP 76.5 m & GOB 429.5 m)	1165.0	500.0	817.6	100.0	0.0	0.0	0.0
	(New)							
15	Secondary Transmission lines and Grid Stations (Anticipated)	22000.0	11000.0	0.0	0.0	5500.0	5500.0	6000.0
16	Modernization and Extension of Load despatch System (Anticipated)	4568.2	2164.2	0.0	0.0	200.0	926.0	3442.2
17	500 KV Muzaffargarh Gatti T/L (Anticipated)	4100.0	2450.0	0.0	0.0	310.0	900.0	2890.0
18	Strengthening Interconnection of WAPDA Kesc T/L System (Anticipated)	4000.0	2500.0	0.0	0.0	0.0	784.0	3216.0
19	Strengthening and Augumentation Transmission system	7500.0	5000.0	0.0	0.0	100.0	200.0	6000.0
20	Extension of Sahiwal Grid Station (Anticipated)	2700.0	2000.0	0.0	0.0	0.0	600.0	1400.0
	Total (Transmission)	**61182.2**	**33221.2**	**1974.0**	**3390.0**	**11783.0**	**14110.0**	**23150.8**
	Distribution (On-going)							
21	Distribution of Power (Urban)	13847.0	2779.0	413.4	1000.0	1600.0	1558.0	3000.0
22	Distribution Rehabilitation Renovation and augmentation	20446.0	1071.0	195.6	1000.0	1150.0	1350.0	1600.0
	Total (Distribution)	**34293.0**	**3850.0**	**609.0**	**2000.0**	**2750.0**	**2908.0**	**4600.0**

Sl No	Name, Location and Status of the scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
		Total	Foreign Aid					
1	2	3	4	5	6	7	8	9
23	Others	-	-	-	5368.0	0.0	0.0	0.0
	Rural Electrification							
	(New)							
24	Projects for Less Developed Areas	1000.0	200.0	0.0	0.0	15.0	20.0	160.0
25	Rural Electrification	28000.0	20000.0	0.0	0.0	2000.0	2500.0	3000.0
	Total (RE)	29000.0	20200.0	0.0	0.0	2015.0	2520.0	3160.0
	Total WAPDA	236645.3	118898.5	53616.6	30785.0	34692.1	34919.4	37281.7
	Of which Budgeted:				15483.0	15658.9	18501.0	23899.3
	Of which foreign aid:				15168.0	13658.9	16001.0	20899.3

NATIONAL HIGHWAY AUTHORITY

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	Three Years Plan		
		Total	Foreign Aid			PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
1	2	3	4	5	6	7	8	9
A	**AIDED (On-going)**							
1	Fourth Highway Project (Un-app)	7675.0	3921.0	7567.2	50.0	57.8	0.0	0.0
2	Indus High way Project	14382.0	11933.0	13150.9	600.0	380.5	250.6	0.0
3	Sukkur Bridge (ADB) (Un-app)	2125.9	1097.0	1649.7	476.2	0.0	0.0	0.0
4	Kohat Tunnel (OECF)	6626.8	5954.0	1390.8	1651.1	1000.0	1200.0	1384.8
	Total (Aided)	**30809.6**	**22905.0**	**23758.7**	**2777.3**	**1438.3**	**1450.6**	**1384.8**
B	**DUALIZATION OF N-5 (On-going)**							
5	Hala - Moro (Un-app)	2170.0	0.0	1066.5	400.0	403.5	300.0	0.0
6	Moro-Baberlo (Un-app)	4418.0	0.0	3818.0	500.0	100.0	0.0	0.0
7	Baberlo - Ubaro (Un-app)	3690.0	0.0	3270.3	50.0	300.7	69.0	0.0
8	Ubaro-Rahim Yar Khan (Un-app)	1935.0	0.0	1616.4	250.0	68.6	0.0	0.0
9	Rahim Yar Khan - Bahwalpur (Un-app)	6000.0	0.0	200.0	365.8	900.0	1400.0	2000.0
10	Bahawalpur - Multan (Un-app)	2209.0	0.0	1959.0	250.0	0.0	0.0	0.0
11	Multan - Mianchannu (Un-app)	3456.7	0.0	3256.7	200.0	0.0	0.0	0.0
12	Okara-Lahore (Un-app)	3911.8	0.0	3522.9	345.0	43.9	0.0	0.0
13	Kharian-Rawalpindi	5174.0	0.0	4489.8	250.0	434.2	0.0	0.0
14	Chablat - Nowshera	2916.0	0.0	1699.0	300.0	375.5	541.7	0.0
	Total (N-5)	**35880.5**	**0.0**	**24898.6**	**2910.8**	**2626.4**	**2310.7**	**2000.0**
C	**MOTORWAYS & LAHORE BY PASS (On-going)**							
15	Lahore Islamabad Motorway (Un-app)	38923.2	9385.0	38323.2	500.0	100.0	0.0	0.0
16	Islamabad Peshawar Motorway	24355.0	9281.0	5210.7	6113.0	5000.0	5000.0	3500.0
	Total (Motorways)	**63278.2**	**18666.0**	**43533.9**	**6613.0**	**5100.0**	**5000.0**	**3500.0**
D	**OTHER PROJECTS (On-going)**							
17	N-25 Uthal Bela and Sorab Qalat (Un-app)	1860.0	0.0	1770.0	40.0	50.0	0.0	0.0
18	N-40 Quetta- Dalbandin-Taftan	2733.5	0.0	2533.5	200.0	0.0	0.0	0.0
19	Improvement of KKH (N-35) (un-app)	552.0	0.0	183.2	217.0	151.8	0.0	0.0
20	Abbottabad-Barian-Nathiagali	1717.0	0.0	997.1	150.0	569.9	0.0	0.0

NATIONAL HIGHWAY AUTHORITY

(Million Rupees)

Sl No	Name, Location and Status of the Scheme	Estimated Cost		Expendi-ture upto June 2000	PSDP 2000-01	Three Years Plan		
		Total	Foreign Aid			PSDP 2001-02	PSDP 2002-03	PSDP 2003-04
1	2	3	4	5	6	7	8	9
21	Chiniot Bridge	480.9	0.0	460.9	20.0	0.0	0.0	0.0
22	Tall Para Chinar-Tari Mengal Road (Un-app)	545.0	0.0	458.4	75.0	11.6	0.0	0.0
23	Ratodero/Shahdadkot Khuzdar Road	1600.0	0.0	986.6	212.0	401.9	0.0	0.0
24	Mansehra Naran-Jalkhad Road	3821.0	0.0	1109.3	300.0	400.0	900.0	1112.0
25	N-50 Quetta-Qilla Saifullah- Zhob-DI Khan (Un-app)	2906.0	0.0	131.1	250.0	600.0	850.0	1075.0
26	Feasibility Studies (Un-app)	700.0	0.0	93.6	50.0	125.0	174.0	250.0
27	Improvement of N-70, Qilla Saifullah-DG Khan-Multan (Un-app)	2934.4	0.0	0.0	200.0	300.0	400.0	800.0
28	Improvement of N-65, Dera Allah Yar - Nutal - Sibi (Un-app)	1358.0	0.0	0.0	225.0	300.0	400.0	433.0
29	Construction/Replacement of existing steel brdiges and causeways	122.0	0.0	3.2	30.0	88.8	0.0	0.0
30	Bharakhu - Satra Mile (Un-app)	155.1	0.0	113.0	30.0	12.1	0.0	0.0
31	Satra Mile - Murree Dual Carraigeway	4093.0	0.0	405.8	0.0	811.0	1250.0	1600.0
32	Rehabilitation of Existing Carriageway N-5 (Ph-I) (Un-app)	13500.0	0.0	0.0	400.0	1400.0	2200.0	3500.0
33	Mekran Coastal Road (Un-app)	11442.0	0.0	0.0	300.0	1200.0	2100.0	3400.0
34	New Projects					1400.0	4050.0	6538.0
	Total (Others)	**50519.9**	**0.0**	**9245.9**	**2699.0**	**7822.0**	**12324.0**	**18708.0**
	Total (NHA)	**180488.2**	**41571.0**	**101437.1**	**15000.0**	**16986.6**	**21085.3**	**25592.8**

11709