

50

YEARS OF

PAKISTAN

**VOLUME - I
SUMMARY**

**FEDERAL BUREAU OF STATISTICS
STATISTICS DIVISION
GOVERNMENT OF PAKISTAN
ISLAMABAD**

(JUNE, 1998)

PUBLISHED BY THE MANAGER OF PUBLICATIONS, KARACHI
PRINTED AT REPRODUCTION & PRINTING UNIT, FBS, KARACHI

Price Rs. 500.00



EDITORIAL BOARD

Chairman

Dr. Noor Muhammad Larik

Director General

Federal Bureau of Statistics

Members

Mr. Muhammad Asaf Khan	Deputy Director General (Data Processing)
Soomro Mukhtiar Ahmed	Deputy Director General
Dr. S.M. Younus Jaffary	Deputy Director General
Mr. Mazhar Hussain Hashmi	Deputy Director General
Mr. Jehan Zaib	Deputy Director General
Mr. Rashid Ahmed Nasir	Director (Data processing)
Syed Zawwar Haider Zaidi	Director (Data Processing)
Mr. Shahid Naeem	Director
Mr. Arif Mahmood Cheema	Director
Mr. Khalid Siddiqui	Chief System Analyst
Mr. Ashfaq Hussain	Sr. Technical Officer
Mr. Meraj Din	Technical Officer

Member Secretary

Mr. Zulfiqar Ahmed Arif Statistical Officer

FOREWORD

"Fifty Years of Pakistan, Volume I, Summary" is a repository of statistical data covering a wide range of information on demography, environment and ecology, commerce and industry, and other socio-economic aspects of the economy produced by the country's largest statistical organization - Federal Bureau of Statistics. All data has been attempted right from the temporal point of origin. Serious efforts were made to make the series originate from the very beginning in 1947 where applicable. In certain cases, however, it has not been possible either due to non availability of data or non divisibility of aggregated data into desired format on technical grounds. These series therefore make it a highly valuable source of reference containing data and information for the last half century starting from the country's establishment.

2. This voluminous and important publication has been printed in four volumes. Volume I is a compendium which gives a digest of achievements with short descriptions for the common man and interested general reader. Volume II provides historical data on climate, population, labour, education, health, social & culture, while Volume III presents data on National Accounts, Agriculture, Manufacturing, Energy & Mining, Transport & Communication and Development Planning. The fourth volume contains data on Public Finance, Money & Banking, Insurance & joint stock companies, Cooperatives, Balance of Payments, Foreign Trade, Prices and Foreign Economic Assistance. Analysis of these time series is an open option for the

prospective users to draw conclusions on the state of economic development.

3. On the occasion of nation's Golden Jubilee celebrations, this 4-volume publication by the FBS is the culmination of their exerted efforts in producing, gathering, coordinating and compiling this huge statistical data which can facilitate inference, policy formulation, research and allied academic work.

4. FBS takes delight in acknowledging the whole hearted co-operation extended by federal and provincial ministries and departments and all other organisations in providing statistical data and other help so vital and input to producing these volumes.

5. It is important to emphasize that this publication has helped create an awareness to produce and maintain statistics at different levels in the concerned units and establishments, no matter they belong to government or not.

6. Suggestions and comments for the improvement of future editions would be welcome.

(FAZLULLAH QURESHI)
SECRETARY

Federal Bureau of Statistics
Statistics Division
Government of Pakistan
Islamabad
Date: 30.06.1998

P R E F A C E

Pakistan Statistical Year Book is published by this office with the objective of disseminating information useful for policy makers, research workers and the general public on various socio-economic aspects of the country. This year the Year Book is being published as "50 years of Pakistan" on the occasion of Pakistan's Golden Jubilee celebrations.

This publication consists of four volumes. Vol-I provides information on achievements and developments in Statistical terms during 50 years of Pakistan while Volume II, Volume III and Volume IV provides historical data on climate, population, labour, agriculture, industry, electricity & mining, transport & communications, money & banking, insurance and joint stock companies, development planning, prices and foreign trade. It contains data collected and processed by Federal Bureau of Statistics and a number of other statistical series whose collection and processing is undertaken by other Federal,

Provincial and semi government agencies.

It is hoped that this publication will serve the needs of policy makers, research workers, students and other interested groups.

The Federal Bureau of Statistics is grateful to all the agencies for their cooperation in supplying the required data and information well in time.

Suggestions for improvement would be welcome.

(SARTAJ AZIZ)

Minister for Finance
Economic Affairs & Statistics
Government of Pakistan

Federal Bureau of Statistics
Statistics Division
Government of Pakistan
Islamabad

LIST OF TABLES, BOXES AND FIGURES

CONTENTS

	List of Tables, Boxes and Figures	V
1.	Introduction	1
2.	Pakistan: A Panorama of Dreams and Realities	5
3.	National Accounts and Income Distribution	11
4.	Finance and Banking	36
5.	Public Sector Development Programmes and Foreign Economic Assistance	50
6.	Agriculture	71
7.	Industry and Production	105
8.	Oil and Gas	114
9.	Water and Power	124
10.	Transport and Communication	138
11.	Population	166
12.	Education	174
13.	Health	191
14.	Mass media	199
15.	Wafaqi Mohtasib	210
16.	Sports	216
	Acronyms and Initials	219
	Conversion Factors	222

LIST OF TABLES, BOXES AND FIGURES

TABLES

3.1	National Accounts Indicators	13
3.2	National Income Accounts at Constant Prices of 1980-81 (Expenditure Approach)	14
3.3	National Income Accounts at Current Factor Cost (Expenditure Approach)	15
3.4(a)	National Accounts by Industrial Origin (At Current Factor Cost of 1980-81)	16
3.4(b)	Gross National product (At Constant Factor cost of 1980-81)	20
3.5(a)	National Accounts by Industrial Origin (At Current Factor Cost)	22
3.5(b)	Gross National product (At Current Factor Cost)	25
3.6	Real Growth Rates (%) in GDP/GNP	27
3.7	Ten Year Average Real Growth Rates(%) in GDP/GNP	33
3.8	Household Income Distribution	34
3.9	Theil Co-efficient	35
3.10	Monthly Average Household Rural /Urban Income	35
3.11	Household Income Shares	35
4.1	Summary of Public Finance (Consolidated, Federal and Provincial Governments)	38
4.2	Scheduled Banks and Their Branches	41
4.3	Liabilities and Assets of Scheduled Banks (Ending June)	42
4.4	Distribution of Scheduled banks Deposits, Weighted Average Rates of Return	46
5.1	Public Sector Expenditure	52
5.2	Growth Rates per Annum	53
5.3	Public Sector Expenditure Under Annual Development Plan	54
5.4	Expenditure Under Annual Development Plan (ADP) Classified By Sector	55
5.5	Break up of Aid	57
5.6	Details of Loans and Grants	58
5.7	Debt Profile	58
5.8	Commitments of long-Term Foreign Economic Assistance (Since inception up to 1996-97)	61
5.9	Commitments of Foreign Economic Assistance by Type (Since inception up to 1997)	62
5.10	Commitments of Foreign Economic Assistance by Source (Since inception up to June, 1997)	64
5.11	Disbursement of Foreign Economic Assistance (1951-52 to 1996-97)	66
5.12	Disbursement of Foreign Economic Assistance by Type (Loans and Grants)	67
5.13	Disbursement of Foreign Economic Assistance by Sources (Loans and Grants)	69
6.1	Share of Different Sectors in GDP (Percent)	75
6.2	Changes in Area, Production and Yield of Some Important Crops	81
6.3	Changes in Area, Production and Yield of Some Important Pulses	84

6.4	Area, Production and Yield of Cotton, Wheat and Rice	95
6.5	Area, Production and Yield of Sugarcane, Maize, Onion and Potato	96
6.6	Area Production and Yield of Bajra, Jawar and Barley	97
6.7	Area and Production of Tobacco, All Pulses and Fruits	98
6.8	Area, Production and Yield of Oilseeds	99
6.9	Production of Fish, Meat Eggs, Milk and Wood	101
6.10	Land Utilization Statistics	102
6.11	Area Irrigated by Different Sources	103
6.12	Supply of Agricultural Credit and Fertilizer Off-Take	104
7.1	Data of Public Sector Industries under Production Wing of M/O Industries & Production (Excluding Pakistan Steel)	107
7.2	Data of Public Sector Industries under Production Wing of M/O Industries & Production (Including Pakistan Steel)	108
7.3	Production of Cotton Textile, Yarn, Cement and Sugar	110
7.4	Production of Chemical, Fertilizer and Vegetable Products	111
7.5	Production of Bicycle, Electric Bulbs and Tubes, Motor/Cycle Tyres and Tubes	112
7.6	Production of Motor Vehicles, Buses, Trucks etc.	113
8.1	Five Year-Wise Details of Sui Northern Gas Pipeline Limited	118
8.2(a)	Oil Reserves by Field on June 30,1997	118
8.2(b)	Gas Reserves on June 30,1997	118
8.3	Oil and Gas Production	119
8.4	Production of Oil, Coal, Natural Gas and Generation of Electricity by Source	122
8.5	Reserves and Extraction of Principal Minerals	123
9.1	Thermal Power Stations and Their Capacity	130
9.2	Hydel Power Stations and Their Capacity	131
9.3	Province-Wise Number of Villages/Settlements Electrified	133
9.4	Province-wise Number of Electricity Consumers	134
9.5	Electricity Generation Capacity and Generation (WAPDA)	135
9.6	Pattern of Electricity Consumption	136
9.7	Electricity Generated, Sold and Per Capita Consumption (WAPDA)	137
10.1	Highways Names, Designations and Lengths	143
10.2	Provincial Breakup of National Highways	145
10.3	Airports/Aerodromes which Handled Traffic, 1996-97	147
10.4	Air Pilgrims by Origin and Sex, 1997	148
10.5	Hours Flown by the General Aviation Aircraft operators, 1995-96	148
10.6	Telephone Line as on June 30,1996	153
10.7	Province-Wise Break Up of Post Offices as on 31-5-1996	158
10.8	Transport	161
10.9	Motor Vehicles on Road	163
10.10	Passengers, Cargo and Mail Handled at Civil Airports (Scheduled and Non-Scheduled)	164
10.11	Passengers, Cargo and Mail Handled at Civil Airports by Airlines (1995-96)	165
11.1	Ten Most Populous countries of the World, 1996	170
11.2	Area, Population and Population Density by Province	170

11.3	Population Distribution: Pakistan, Rural and Urban Areas	170
11.4	Population (000) of Pakistani Cities with more than 100,000 Population	171
11.5	Male and Female Population of Pakistan, Proportion of Males and Sex Ratio	171
11.6	Dependency Ratio and Index of Aging, Pakistan	172
11.7	Singulate Mean Age at Marriage by Sex, Pakistan	172
11.8	Crude Birth, Crude Death and Total Fertility Rates	172
11.9	Infant Mortality Rates, Crude Death Rates and Life Expectancy at Birth, 1901-94	173
11.10	Literacy Rates (10 Years & Over) in Pakistan and Provinces by Sex and Urban-Rural Area	173
12.1	Number of Institutions, Enrolement and Number of Teachers by Sex and Level	188
12.2	Primary School Age Population (5-9 Years) and Primary School Enrolement	189
12.3	Relationship of Primary School and Population (5-9 Years)	189
12.4	Educational Institutions by Level and Kind	190
13.1	Health Facilities	193
13.2	Doctors and Nurses	193
13.3	Lady Health Workers presently Deployd Under PM's Programme and Family Planning and Primary Health Care, 1997	194
13.4	Eradication of Small Pox	195
13.5	Coverage of Children(%) by Immunization (Measles)	195
13.6	Reported Cases of AIDs and HIV+	196
13.7	Health Facilities	198
14	Press in Pakistan by Province	209
15	Complaints Handled by Wafaqi Mohtasib	215

BOXES

1.1	Area Distribution	2
1.2	Historical Mountain Passes	2
1.3	Mountain Peaks of Pakistan	2
1.4	Heads of State/Government of Pakistan	3
1.5	Irrigation Network	4
1.6	Rivers and Their Lengths (Km)	4
5.1	Grant Allocation From UNDP	59
9.1	Salient Features of Major Projects Undertaken by WAPDA	127
9.2	Projects Completed by WAPDA Under Indus Basin Settlement Plan	128
9.3	Achievements at a Glance	132
10.1	Port Performance, Cargo Handling at Port Qasim	147
10.2	PIAC Aircraft Fleet (31-3-1998)	149
10.3	Key Figures Air Traffic During the Year 1995-96	149
10.4	Telegraph Offices	153
10.5	Highlights of Telecom. as on June 30, 1996	153
10.6	Achievements of CMTI	158
12.1	Profile of Eduction Sector	175
12.2	Chartered Universities of Pakistan (In Public Sector)	178
12.3	Chartered Universities of Pakistan (In Private Sector)	178

12.4	Degree Awarding and other Institutions	179
12.5	Non-Formal Basic Education(NFBE) Schools Opend in Pakistan	182
12.6	Basic Education Development Indicators	186
12.7	Profile of Higher Education in Pakistan	186
12.8	Plan-Wise (1st 8th Plan) Primary Education Development in Pakistan	187
14.1	Radio Stations and Broadcasting Languages	204
14.2	Central Productions (national sound archives)	204
16.1	Performance of Hockey Team	217
16.2	Performance of Cricket Team	218

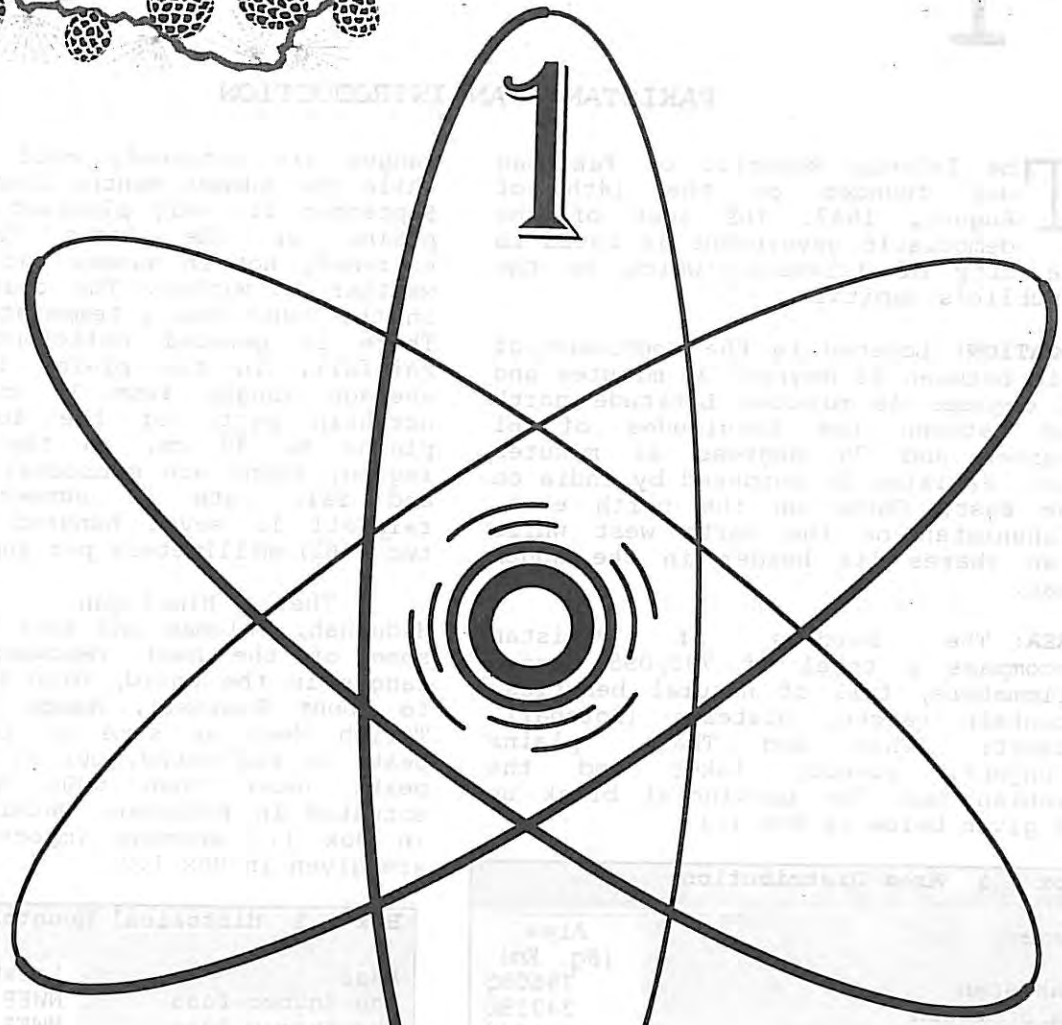
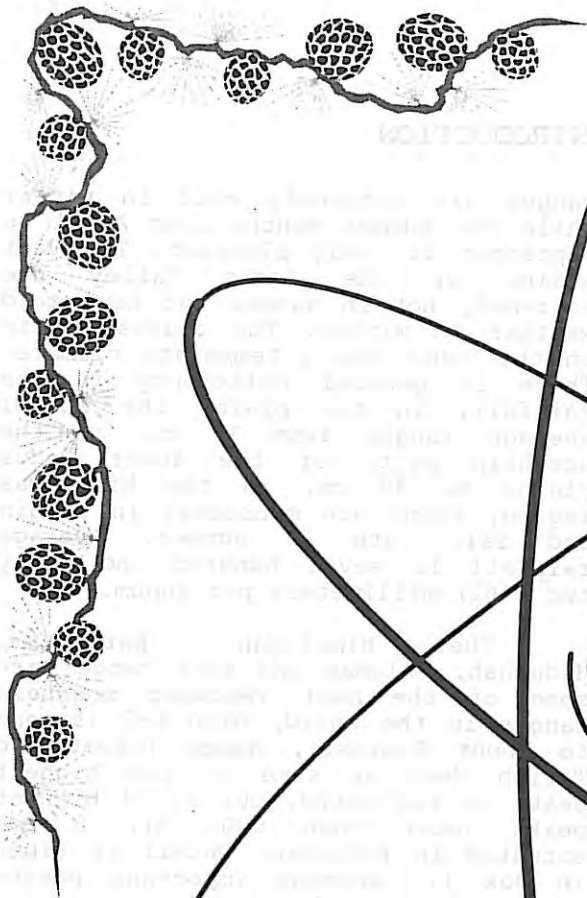
FIGURES

6.1	Area and production of Cotton	72
6.2	Area and Production of Wheat	73
7	Production of Sugar and Cement	109
8.1	Production of Oil and Coal	120
8.2	Generation of Electricity	121
9	Village/Settlement Electrification, Changing Patterns of Consumption and Number of Consumers	125
10	Length of High/Low Type roads	160

175	Degree Awarding and other Institutions	12.4
182	Non-Formal Basic Education (WBSI) Schools	12.5
186	Open in Pakistan	12.6
186	Basic Education Development Indicators	12.7
186	Profile of Higher Education in Pakistan	12.8
187	Plan-Wise 1st 5th 10th Primary Education	12.9
187	Development in Pakistan	13.1
204	Radio Stations and Broadcasting Languages	14.1
204	Central Productions (national sound archives)	14.2
217	Performance of Hockey Team	15.1
218	Performance of Cricket Team	15.2

FIGURES

72	Area and production of Cotton	6.1
72	Area and production of Wheat	6.2
109	Production of Sugar and Cement	7
120	Production of Oil and Coal	8.1
121	Generation of Electricity	8.2
122	Village Settlement Electrification, Changing	9
122	Patterns of Consumption and Number of Consumers	10
122	Length of High/Low type roads	11



INTRODUCTION



PAKISTAN: AN INTRODUCTION

The Islamic Republic of Pakistan was founded on the 14th of August, 1947. The seat of the democratic government is based in the city of Islamabad which is the republic's capital.

LOCATION: Located in the Continent of Asia between 23 degrees 30 minutes and 36 degrees 45 minutes Latitude north and between the Longitudes of 61 degrees and 75 degrees 31 minutes east, Pakistan is bordered by India on the east, China on the north east, Afghanistan on the north west while Iran shares its border in the south west.

AREA: The borders of Pakistan encompass a total of 796,095 square kilometers, full of natural beauties, mountain ranges, plateaus (Potohar), deserts (Thar and Thal), plains (Punjab), rivers, lakes and the Arabian Sea. The provincial break up is given below in Box 1.1

Name	Area (Sq. Km)
Pakistan	796095
Balochistan	347190
Punjab	205344
Sindh	140914
North West Frontier Prov.	74521
FATA	27220
Islamabad (Capital)	906

Climatically, Pakistan enjoys a considerable measure of variety. North north-western high mountain

ranges are extremely cold in winter while the summer months from April to September are very pleasant. The vast plains of the Indus Valley are extremely hot in summer and have cold weather in winter. The coastal strip in the South has a temperate climate. There is general deficiency in the rainfall. In the plains the annual average ranges from 13 cm. in the northern parts of the lower Indus plains to 89 cm. in the Himalayas region. Rains are monsoonal in origin and fall late in summer. Average rainfall is seven hundred and sixty two (762) millimeters per annum.

The Himalayan, Karakoram, Hidukush, Suleman and Salt ranges are some of the most renowned mountain ranges in the world, with K-2 (second to Mount Everest), Nanga Parbat and Tirich Meer as some of the highest peaks in the world. Out of 14 highest peaks (more than 8000 m), 5 are situated in Pakistan. Detail is given in Box 1.3 whereas important passes are given in Box 1.2.

Pass	Location
The Khyber Pass	NWFP
The Kurram Pass	NWFP
The Tochi Pass	NWFP
The Gomal Pass	NWFP
The Bolan Pass	Balochistan
The Lowari Pass	Northern Areas
The Khunjab Pass	Northern Areas

NAME OF THE PEAK	HEIGHT Meters (feet)	RANGE	WORLD RANK	SUBMISSION DATE	TEAM LEADER BELONGS TO
K2	8611 (28253)	Karakoram	2	31-7-1954	Italy
Nanga Parbat	8125 (26660)	Himalaya	9	02-7-1953	Germany
Gasherbrum I	8068 (26470)	Karakoram	11	07-6-1958	U.S.A
Broad Peak	8047 (26400)	Karakoram	12	09-6-1958	Austria

Gasherbrum II	8035 (26360)	Karakoram	14	07-7-1956	Austria
Rakaposhi	7788 (25550)	Karakoram	27	25-6-1958	U.K.
Tirich Mir	7708 (25290)	Hindu Kush	41	1950	Norway

Pakistan is rich in ancient civilizations, such as those of Moenjodaro, Gandhara, Harappa and Taxila with a vast collection of restored art and sculptures. In addition, the country also has a very splendid and stimulating art culture. Pakistan's archaeological sites are located at a number of places such as Moenjodaro, Harappa, Kot Diji, Taxila, Chakwal, Takht Bahi, Quetta, Dir and Swat. The Mehr Garh site, at the foot of Bolan pass in Balochistan, discovered in 1984 is the first neolithic site in the world. The evidence shows that the site was occupied for 5000 years - from 8th to the 3rd millenniums B.C., before the Indus Valley Civilization of Moenjodaro and Harappa.

POPULATION AND DENSITY: Pakistan has an estimated population of 135.28 million with a density of more than 173 persons per square kilometer.

LANGUAGES: Urdu is the national language of Pakistan. Both Urdu and English are used in official matters and correspondence. Punjabi, Sindhi, Pushto and Balochi are the four main regional languages.

POLITICAL SYSTEM: Pakistan has a democratic system of government with a parliament consisting of a Senate and National Assembly. This structure is supported with four provincial assemblies and a system of local bodies. The Heads of State / Government of Pakistan are shown in Box 1.4.

Box 1.4 Head of State/Government Of Pakistan	
Governor Generals	
Quaid-i-Azam Mohammed Ali Jinnah	15-08-1947 to 11-09-1948
Khawaja Nazim-ud-Din	14-09-1948 to 17-10-1951
Malik Ghulam Mohammad	19-10-1951 to 15-10-1955
Maj.Gen. Skindar Mirza	06-10-1955 to 22-03-1956
Presidents	
Maj. Gen. Skindar Mirza	23-03-1956 to 27-03-1958
General Mohammad Ayub Khan	27-03-1958 to 25-03-1969
General Mohammad Yahya Khan	25-03-1969 to 20-12-1971
Mr. Zulfikar Ali Bhutto	20-12-1971 to 13-08-1973
Ch. Fazal Ilahi	14-08-1973 to 16-09-1978
General Zia-ul-Haq	16-09-1978 to 17-08-1988
Mr. Ghulam Ishaq Khan	17-08-1988 to 08-07-1993
Mr. Wasim Sajjad	08-07-1993 to 13-11-1993
Mr. Farooq Ahmed Khan Leghari	13-11-1993 to 2-12-1997
Mr. Wasim Sajjad	3-12-1997 to 31-12-1997
Mr. Mohammad Rafique Tarar	1-1-1998 to date
Prime Ministers	
Khan Liaquat Ali Khan	15-08-1947 to 16-10-1951
Khawaja Nazim-ud-Din	17-10-1951 to 17-04-1953
Mr. Mohammad Ali Bogra	17-04-1953 to 11-08-1955
Ch. Mohammad Ali	11-08-1955 to 12-09-1956
Mr. Hussain Shaheed Suhrawardy	12-09-1956 to 12-10-1957
Mr. Ismail Ibrahim Chundrigar	18-10-1957 to 16-12-1957
Malik Feroze Khan Noon	18-12-1957 to 07-10-1958
Mr. Nurul Amin	07-12-1971 to 20-12-1971
Mr. Zulfikar Ali Bhutto	14-08-1973 to 05-07-1977
Mr. Mohammad Khan Junejo	23-03-1985 to 29-05-1981
Mst. Benazir Bhutto	02-12-1988 to 06-08-1990
Mr. Ghulam Mustafa Jatoi	06-08-1990 to 06-11-1990
Mr. Mohammad Nawaz Sharif	06-11-1990 to 18-04-1993

Mr. Balkh Sher Mazari	18-04-1993 to 26-05-1993
Mr. Mohammad Nawaz Sharif	26-05-1993 to 08-07-1993
Mr. Moin Qureshi	08-07-1993 to 19-10-1993
Mst. Benazir Bhutto	19-10-1993 to 05-11-1996
Malik Miraj Khalid	06-11-1996 to 17-02-1997
Mr. Mohammad Nawaz Sharif	17-02-1997 to date

RELIGION: Islam is the state religion. There are many other minority religions such as Christianity, Hinduism (Hindumat), Zoroastrian (Parsi) etc., that flourish in Pakistan as the government strongly believes in the freedom of worship.

TRANSPORT AND COMMUNICATION: Pakistan has a number of sea, dry and air ports. It also has a wide network of roads and railways. Television, radio and satellite links provide a good and reliable communication system.

SEA PORTS: Karachi and Muhammad Bin Qasim are International seaports handling both passengers as well as cargo whereas Gawader Minora and Pasni handle national cargo.

DRY PORTS: Hyderabad, Lahore, Rawalpindi, Sialkot, Peshawar, Quetta and Faisalabad.

AIR PORTS: Pakistan has 38 airports situated all over the country. The cities of Karachi, Lahore, Islamabad, Peshawar, Gawadar, Pasni and Quetta have international airports that link Pakistan to the world.

AIRLINES: Pakistan International Airlines (PIA) is the country's national carrier with a vast domestic and international network. Aero Asia, Bhoja and Shaheen Airlines are privately owned airlines that provide domestic connections to the population. The airlines network covers 55 International and 37 domestic stations.

IRRIGATION AND CANAL SYSTEM: It is the largest net work of canal system in the world, serving 34.5 million acres of contiguous cultivated land and a novel underground water system (karaize) in the province of Balochistan. The system is fed by the waters of the Indus River and its

tributaries. The break up is given in the Box 1.5 whereas Box 1.6 shows the details of mighty rivers of Pakistan.

Box 1.5 Irrigation Network

Barrages (#)	19
Major Dams (Tarbela, Mangla, Warsak) (#)	3
Main Rivers (#)	5
Inter-river Link Canals (#)	12
Independent Canals (#)	43
Length of Main Canals (Km)	58500
Length of Water Courses (Km)	1621000
Tubewells (#)	1041120

Box 1.6 Rivers & Their Lengths (Km)

The Indus	2896
Jhelum	825
Chenab	1242
Ravi	901
Sutlej	1551
Beas (Tributary of Sutlej)	398

CURRENCY: Pak Rupee

ECONOMY: Market oriented.

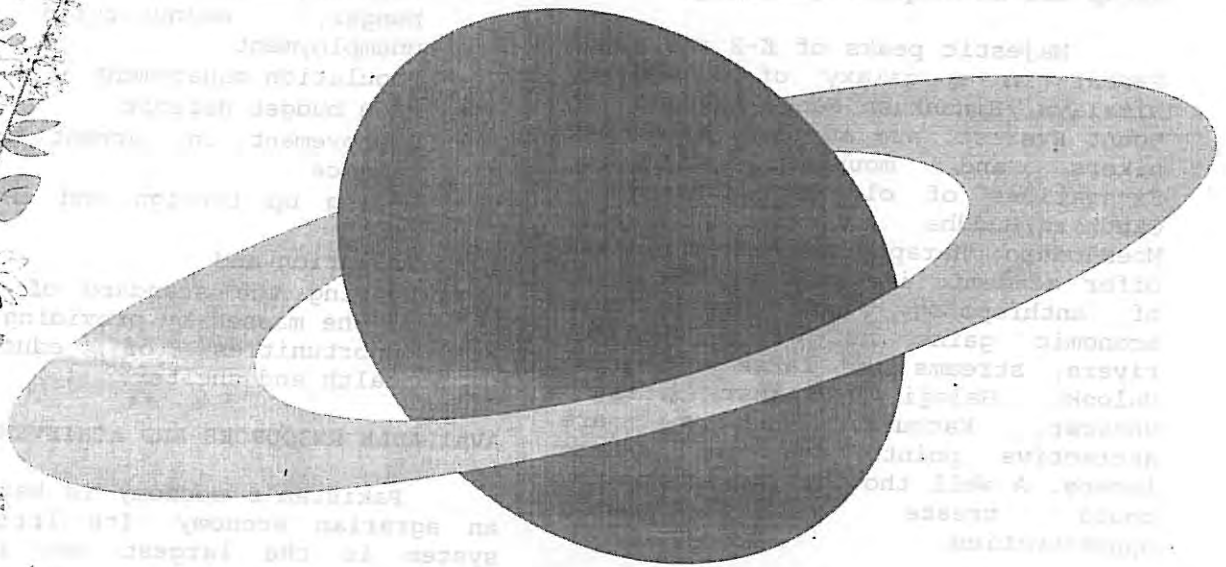
INDUSTRY: Textile, Electrical, Chemical, Fertilizer, Sugar, Steel, Sports, Tobacco and Machinery.

SPORTS: Hockey, cricket, squash and snooker are the popular national sports of Pakistan in which the national teams participate in all international events. Over the years, these national teams have held many top ranking world positions. Football, tennis, polo, swimming, and wrestling and a host of other games are also commonly played.

SOCIAL LIFE: Pakistan enjoys a rich culture full of festive, religious and folk events. The people of Pakistan are friendly by nature, keen adventurers and extremely fond of sports.

2

PAKISTAN A PANORAMA OF DREAMS AND REALITIES



5



PAKISTAN: A PANORAMA OF DREAMS AND REALITIES

A LAND OF PROMISES AND OPPORTUNITIES

Pakistan has seen 50 years of its birth between 1947 and 1997. This short span of time has been a long story of successes and failures, a nation's development from birth to maturity. Many hurdles have been overcome and a commendable level of development has been achieved.

Pakistan is a land of great opportunities and possibilities. Nature has generously endowed it with tremendous treasures of natural resources. Vast and varied land spreads across the northern mountains, the orchard-desert expanses of Balochistan and the fertile plains on the banks of rivers down to the Arabian sea. Serene coasts running along Karachi-- Ormara -- Pasni -- Gawadar belt are a treat to see and invite for an economic setup and development planning.

Majestic peaks of K-2 and Nanga Parbat in a galaxy of Karakoram, Himalaya, Hindukush Range, second to Mount Everest, are an ideal abode for hikers and mountain climbers. Excavations of old civilizations - Gandhara/Buddha at Taxila, Moenjodaro, Harappa and other places, offer academic insights in the study of anthropology and create more economic gains as well. Abundant rivers, streams and lakes -- Saiful Mulook, Haleji, Kinjhar, Henna, Shewsar, Kachura, Sadpara- are attractive points for the nature lovers. A well thought Tourism policy could create vast economic opportunities.

Forests in the country cover about 5 percent of the area. Social forestry (along side the green fields under crops) is gaining popularity. A variety of wildlife and a spectrum of flora and fauna available, needs a

careful planning. Environmental damages (air and water pollution due to industrial gases & wastes, water and wind erosion, salinity, water logging and over grazing etc.) call for immediate attention.

Pakistan's economy is rich in handicrafts. Art pieces of hand-knotted carpets of cotton, wool, wood and leather goods, sports goods, onyx-brass handicrafts and fine needle work have big market and economic potential. Use of indigo and red colours in textile manufactures is common for more than 5000 years. Development of cottage industry for creating more job opportunities cannot be overlooked. Some of the major issues to be addressed are:

- Distribution of incomes on more equitable pattern
- Eradication of malpractices
- Fighting against illiteracy, hunger, malnutrition and unemployment
- Population management
- High budget deficit
- Improvement in current account balance
- Piling up foreign and internal debt
- Inflation and
- Raising the standard of living of the masses by providing basic opportunities of education, health and shelter.

AVAILABLE RESOURCES AND ACHIEVEMENTS

Pakistan's economy is basically an agrarian economy. Its irrigation system is the largest one in the world. Gradual, yet slow, changes are taking place in the composition of GDP. Agriculture is still major contributor to GDP. It claims a very big chunk in the export earnings. Rapid urban growth has given birth to

megalopolis cities like Karachi, Lahore and Faisalabad. Rural population still occupies the central place.

Production of fertilizer which was 1.6 million tonnes in 1980-81 has increased to 4.1 million tonnes in 1996-97. Its use has also increased from 15 kgs per hectare in 1970-71 to 103 kgs per hectare in 1994-95 which is a better rate than India's corresponding rate of 80 kgs; is comparable to that of USA but falls short of usage in Netherlands, Germany, Japan, France, Egypt and Italy.

Due to better inputs, mechanization and other improvements, agriculture has witnessed growth and development over the years. This is amply augmented by the yield per hectare. To quote a few examples, the per hectare yield [Kg/hect.] in 1959-60 was: Wheat 801, Rice 827, Sugarcane 26856, Maize 1007, Gram 532, Cotton 217. Estimates in 1996-97 place these figures at: Wheat 2053, Rice 1912, Sugarcane 43521, Maize 1446, Gram 540 and Cotton 503.

Supply of credit to agriculture is important for its development. Such a credit comes from Agricultural Development Bank, Co-operatives and Commercial Banks mainly. This has also been on the increase. An amount of 32.84 million rupees was disbursed in 1955-56 which increased to 19547.67 million rupees in 1996-97.

Pakistan's economy has shown a strong tendency of resilience over time. Economic growth depicted through the performance of gross domestic product (GDP) testifies to it. GDP growth has been observed at 6.77% in 1960s, 4.84% in 1970s, 6.45% in 1980s which is again expected to be around 5% in the 1990s.

Highest growth of Fixed Investment at 20.53% in the 1970s was preceded by 14.77% in the 1960s. This growth declined to 12.57% in 1980s which again started rising and is likely to remain around 16% in the 1990s. Share of total investment, as percent of GNP (current market

prices), has increased to 19.10% in the 1990s so far which had been estimated around 17.5% in the Seventies and Eighties.

Inflation rate or the price hike is estimated at 9.91% in the on-going decade of nineties so far as the CPI would indicate. This rate was 3.83% in the sixties. In contrast, the average growth of current decade's GDP deflator is 11.52% so far.

Production in the manufacturing sector, where new ventures are also emerging, has been on the increase. Indications of the "Censuses of Manufacturing Industries" are that the reporting number of establishments was 4792 in the year 1990-91 which produced equivalent to 375 billion rupees during the year. Value of fixed assets for all the reporting industries was estimated at 126 billion rupees. CMI 1985-86 on the other hand dealt with a total number of 4349 reporting establishments. Value of their fixed assets was 73 billion rupees and they produced worth of 171 billion rupees. Manufactures like cotton yarn, cotton cloth, vegetable ghee, sugar, steel, cement and fertilizer have progressed considerably.

Pakistan is rich in mineral deposits. Many a mineral wealth has been known to exist in huge reserves which need to be put to proper industrial and technological uses to gain the maximum possible benefits in employment, consumption and generation of income. To quote a few, there are over 430 million tons of iron ore available for extraction. Other prominent reserves estimated include 412 million tons of copper, 139.26 million US barrels of crude oil, 441.13 billion CU-metres of natural gas.

Development achieved in the infrastructure facilities has been consistent and satisfactory. Crude oil extraction which was 3.6 million barrels in 1980-81 has increased to 21.3 million barrels in 1996-97. During the same period gas was available at 299.8 billion CF. This

is now estimated at 697.8 billion-CF in the year 1996-97. Installed capacity of electricity has like wise witnessed visible growth. Since the start of WAPDA, the installed capacity has increased from 119 MW to 11566 MW.

Private sector has also recently entered in the energy sector. Denationalization and privatization policies of the Government are to encourage private sector's participation and limit the activities of Government to its original role.

Availability of roads connecting cities, making access possible from farms to market places is central to achieving progress. Construction of roads has rightly engaged attention. November 26, 1997 was the historic day when the recently constructed 339 KM long motorway between Islamabad and Lahore was opened for fast traffic. Work on second phase of motorway between Islamabad and Peshawar has been started. This will be ultimately extended to Gawadar.

Pakistan's links to Central Asia by such means will open new economic vistas in the future. Presently, roads are available for 228.21 (000 KM) in the year 1996-97 which were 93.96 (000 KM) long in 1980-81. Telephone connections have likewise risen from 0.36 million in 1980-81 to 2.56 million in the year 1996-97.

Human and social development has also been achieved in these long years. Present literacy rate is 39% in 1996-97 which was 26% sixteen years back in 1980-81. Male literacy rate at 51% far exceeds that of female literacy rate at 28%. Educational expenditure, as percent of GNP, was 1.4 in the year 1980-81 which is now 2.6 in 1996-97.

With a modest start in 1947, the country has achieved considerable development in the field of education. Centres of excellence and institutes of specialized disciplines exist now at various universities for

advance learning and research. Higher education facilities are extended to nuclear studies as well. Pakistan has one Nobel Prize in Physics awarded to Professor Dr. Abdus Salam. Youth of the country have achieved marvellous successes in the field of sports. Hockey, Cricket and Squash have won laurels for the country among other achievements on a lesser level. These activities add to economic activities in many respects.

Health facilities have also been on the increase. Infant mortality rate (per 1000 persons) is much better at 101.4 in 1994 which was 131 in 1972-73. Number of registered doctors increased from 10800 in 1980-81 to 74200 in 1996-97. Number of hospitals rose from 602 to 858 in the same period. Beds in the hospitals and dispensaries almost doubled from 47400 to 88500 in these 16 years.

Indications of household income distribution, as depicted by the Household Gini-coefficient, are that these rates were (0.386), (0.336), (0.355) and (0.407) respectively 1963-64, 1969-70, 1985-86 and 1990-91. Monthly average household income in Pakistan has seen much improvement. This was Rs.(203), (223), (1889), (3168) (3590) and (3915) respectively in 1963-64, 1969-70, 1985-86, 1990-91 1992-93 and 1993-94. Corresponding urban incomes have been higher than rural incomes. They were higher, for example, by 22.28% in 1963-64 and higher by 71.5% in 1993-94.

On the trade front, many developments have taken place. Volume of trade has expanded considerably. Directions and composition of trade have seen changes as well. But for few exception there have always been cases of trade deficits. In the year 1950-51, exports were equal to 1343 million rupees as against 1167 million rupees in imports, leaving a surplus of 176 million rupees. Another exception was the year 1972-73 where the balance was 153 million rupees. As of 1996-97, the export earnings are 325,313 (million Rs.) and imports 465,001 (million Rs.),

leaving behind a deficit of 139688 million rupees. Referring to 1980-81 = 100, unit value indices for exports & imports and the terms of trade (all groups) in 1981-82 were respectively (98.40), (110.78) and (88.82). Provisional indices in the year 1996-97 place them at (405.30), (443.61) and (91.36).

Composition and economic classification of exports and imports is also educative. Export figures for the year 1969-70 indicate that the composition of exports was: primary commodities (33%), semi manufactures (23%), manufactured goods (44%). This pattern changed to (11%), (21%) and (68%) respectively in the year 1996-97. Composition of imports during the same period for 1969-70 and 1996-97 was: Capital goods (50 & 37%), Industrial raw material for capital goods (11 & 5%), for Consumer goods (29 & 43%) and Consumer goods (10 & 15%). These figures speak for inter changes in the composition hinting on the aspect of transformation and substitution in the trade.

Pakistan's trade is linked to international community in all directions, classified as:

- Organization of Islamic Countries (OIC), Arab League, E.C.O., other Asian, & African countries
- Organization for Economic Co-operation & Development (OECD) (consortium, other than consortium)
- Council of Mutual Economic Association (CMEA)
- South Asian Association for Regional Co-operation (SAARC)
- Association of South East Asian Countries (ASEAN)
- Central and South America,
- Other European Countries
- Central Asian States

Pakistan has provided a work force of pride to other countries. Workers remittances in return have contributed to the country's development in a number of ways. In the year 1972-73, these receipts were equal to 136 million US dollars which are estimated to be 1409.47 million US dollars in the year 1996-97.

Looking at the origins the remittances were composed in 1972-73 as:

Middle East 25.54% [Sultanat-e-Oman 8.97, Saudi Arabia 5.79 and Kuwait 5.18%], United Kingdom 53.04, and USA 7.34%. This composition changed in 1981-82: Middle East 83.09% (Saudi Arabia 50.76, Kuwait 6.82 Sultanat-e-Oman 5.33, Abu Dhabi 5.08), UK 5.45 and USA 3.24%. Again in 1996-97, this share table comes to: Middle East 73.37% (Saudi Arabia 43.49, Dubai 9.81, Abu Dhabi 4.80), USA 10.38 and UK 6.95%. This pattern suggests for the investment and absorption of labour force in these countries.

Pakistan's economy comes under pressure of foreign loans obtained for various needs and requirements. Estimated Annual Debt Servicing comes to 3.5% of the GDP in 1996-97. Outstanding external indebtedness of the country as on 31-12-1996, which is payable in foreign exchange, comes to 31044.561 million US dollars. Between the period 1951-52 and 1996-97, total commitment of loans and grants was 57326 million US dollars. As against this amount, the disbursements were 47013 million US dollars.

Loans and grants have been pouring in ever since the inception of 5 year plans w.e.f. 1951-52. This inflow has been of two major types: i) project aid and ii) non-project aid (food, non-food, and relief). This aid has been utilized for the purposes stipulated and envisaged for the completion of projects aimed at the betterment of the masses.

Annual Development Plans prepared over time have taken care of numerous development works and projects in the fields of

agriculture, water, power, industry, fuels, minerals, transport & communication, physical planning & housing, education & training, health & nutrition, population planning, social welfare, manpower, rural development, Indus basin and social development programme. ADP expenditure increased from 3.9 billion rupees in 1972-73 to 37.6 billion in 1985-86 and 179.5 billion rupees in 1997-98 (E).

Banking has witnessed a remarkable growth and progress in the fifty years since independence. From a mere rudimentary stage in 1947, the sector can now legitimately be proud of having achieved nearly international standards. This rapid growth has been accompanied by greater sophistication in terms of instruments and institutions involved in raising and deploying funds. Despite many constraints, the system

has shown dynamism and innovativeness in meeting the challenges of mobilising resources and their allocation for the economic development of the country.

The system includes State Bank of Pakistan (Central bank of the country), local and foreign commercial banks, specialized banks and a number of non-bank financial institutions including developmental financial institutions, investment banks, modarabas, leasing companies, co-operative banks, and housing finance companies. One bank office is now available for about 15,582 persons as against 370,000 persons in July, 1948. Total bank credit expanded from Rs.200 million in July, 1948 to Rs. 623,197 million in June, 1997. Over the same period, total bank deposits increased from Rs. 880 million to Rs. 957,054 million.

The performance of scheduled banks in Pakistan can be judged by the following table:

	July 1948	June 1973	June 1990	June 1997
1. Scheduled Bank (no)	38	34	37	46
i) Pakistani Banks	4	17	10	25
ii) Foreign Banks	34	17	27	21
2. Scheduled Bank's Branches	195	4400	7439	8682
i) Pakistani Banks	23	4326	7372	8597
ii) Foreign Banks	172	74	67	85
3. Population per Branch	370000	20623	14891	15582
4. Deposits of Sch. Banks (Rs m)	880	21100	272912	957054
5. Credit by Sch. Banks (Rs m)	200	15941	209566	623197
6. Number of Accounts	N.A	8300170	24323793	*31723719
7. Deposits per Branch (Rs 000)	4513	4795	3669	110234
8. Deposits per Account (Rs 000)	N.A	2.5	11.2	30.2
9. No of Accounts per Branch	N.A	1886	3270	3654
10. Total Assets/Liabilities (Rs m)	N.A	45370.4	721304.2	2137291.8
* End December 1996				

Budgetary policies of Federal, Provincial and Local Bodies in respect of revenue pooling and expenditure on current and development activities have great impact on economic scenario in creating jobs and generating income. Performance can well be judged through the

increased budget expenditures attempting to raise the standard of living of people. Over all budgetary deficit has always been a difficult option. This has been reduced from 8.7% in 1990-91 to 5.0% of the GDP in the budget estimates of 1997-98.

**NATIONAL ACCOUNTS
AND
WORLDWIDE ECONOMIC DISTRIBUTION**



A: NATIONAL ACCOUNTS

National Accounts is an organized and systematic layout of accounts and tables which covers the whole scenario of economic activities. Data on Gross Domestic Products (GDP) or any composite sector thereof, over time indicates the growth pattern.

Time series of GDP show that the volume of output has increased by ten folds in the last (almost) half a century. GDP(FC) in the year 1949-50 was estimated at 57973 million rupees which increased to 575999 million rupees in the year 1996-97. Per Capita Income in the year 1949-50 was Rs. 1638 which is now estimated as Rs. 4263 in the year 1996-97.

Composition of GDP has also undergone certain changes at varying pace. Agriculture sector has always been a dominating segment of the economy. Its share is considerable even today but it has slid down over time. Share of agriculture was 53% in 1949-50, 46% in 1959-60, 40% in 1969-70, 32% in 1979-80, 26% in 1989-90 and 24.5% in 1996-97. This is an indication of the structural changes in the economy. Cropped area in 1959-60 was estimated at 14.89 million hectares which is estimated to be 22.14 million hectares in the year 1996-97. Index of agricultural production with base year of 1959-60 shows that the production of all crops increased from 100 points in the base year to 158 points in the year 1996-97. Likewise, Food crops index increased to 145, Fibber crops to 224 and other crops to 128 points in the same period.

On the input side, water availability was 63.87 MAF in 1965-66 which was estimated to be 134 MAF in 1996-97. Fertilizer off-take measured in '000 N.T' increased from 19 to 1899 between 1959-60 and 1996-97.

National accounts data give another indication that the share of industrial sector has also been changing over time. Its Overall share in GDP (at constant FC) has been increasing. During the same span of time, as in the case of agriculture above, the respective shares of industrial sector are 8% in 1949-50, 13% in 1959-60, 19% in 1969-70, 22% in 1979-80, 26% in 1989-90 and 26.6% in 1996-97. Industrial sector includes mining & quarrying, large and small scale manufacturing, construction and electricity & gas distribution.

Another important feature of transformation between the sectoral composition is that the structure of the economy, built on commodity producing and services sectors, has also undergone changes over time depicting various developments. Share of commodity producing sectors in the year 1949-50 was 61% which is now estimated at 51% in the year 1996-97. Likewise the share of competing services sectors during the same period has progressed upward starting from 39% (1949-50) to 49% in the recent year of 1996-97.

It is observed that over all growth rate of the economic activity has been fluctuating. It was, on the average 6.77% in 1960's, 4.84% in 1970's and 6.45% in 1980's. Expectedly, it will be around 5% in the 1990's. Net factor income has been decreasing in the last few years due to less job opportunities in the foreign lands where there was earlier a high demand for the Pakistani manpower.

This series of historical data is very educative and guides toward drawing conclusions for further corrective thinking and formulation of right action plans. For details, see tables 3.1 to 3.7.



13-33

Table 3.1 NATIONAL ACCOUNTS INDICATORS

Year	GROWTH RATE (%) (Constant FC)					GROWTH RATE (%) (Current MP)			
	GDP	Agri- culture	Manufac- turing	Producing Sector	Services Sector	Total Investment	Fixed Investment	Public Investment	Private Investment
1950-51	3.90	2.62	8.43	3.52	4.53				
1951-52	-1.80	-9.06	7.77	-5.78	4.82				
1952-53	1.72	0.18	9.97	1.82	1.58				
1953-54	10.22	15.23	13.04	14.60	3.63				
1954-55	2.03	-2.21	12.39	0.27	4.97				
1955-56	3.53	2.09	10.07	3.92	2.90				
1956-57	2.98	2.27	5.44	3.12	2.75				
1957-58	2.54	1.92	3.73	2.79	2.12				
1958-59	5.47	4.00	4.18	4.66	6.79				
1959-60	0.88	0.29	2.54	0.65	1.23				
1960-61	4.89	-0.21	12.88	4.38	5.70	14.68			
1961-62	6.01	6.19	13.30	7.13	4.26	15.06			
1962-63	7.19	5.21	11.20	7.39	6.88	27.32			
1963-64	6.48	2.51	11.36	6.27	6.83	28.29			
1964-65	9.38	5.25	9.95	7.23	12.84	23.19	19.96	10.29	12.58
1965-66	7.56	0.45	8.59	3.05	14.45	-8.07	-9.19	-22.50	-6.62
1966-67	3.08	5.48	5.66	4.79	0.74	10.95	6.95	23.01	4.64
1967-68	6.79	11.73	6.37	9.38	3.09	-6.01	-1.21	6.19	5.22
1968-69	6.49	4.52	8.63	7.06	5.62	1.87	-2.06	-0.27	-4.96
1969-70	9.79	9.55	11.33	11.59	7.02	20.40	19.93	44.43	16.12
1970-71	1.23	-3.07	6.44	0.41	2.55	4.61	3.07	141.96	1.09
1971-72	2.32	3.47	1.25	1.54	3.55	-2.90	-3.29	-8.63	0.42
1972-73	6.80	1.67	8.73	4.95	9.64	12.82	12.23	-0.64	5.08
1973-74	7.45	4.18	6.35	5.87	9.79	34.33	38.82	75.16	3.06
1974-75	3.88	-2.12	0.53	-0.46	10.04	56.86	-88.52	76.70	35.63
1975-76	3.25	4.47	1.39	4.65	1.45	49.63	40.40	57.45	24.50
1976-77	2.84	2.53	1.81	2.70	3.03	20.43	16.03	11.07	19.99
1977-78	7.73	2.82	10.21	5.63	10.51	9.26	9.61	15.46	11.94
1978-79	5.53	3.10	8.01	5.07	6.11	11.33	9.13	7.93	11.94
1979-80	7.33	6.61	10.26	8.46	5.91	24.05	24.81	20.88	32.90
1980-81	6.40	3.66	10.63	6.26	6.58	9.83	4.77	-1.22	13.06
1981-82	7.56	4.72	13.75	15.09	7.90	19.62	14.43	19.77	7.97
1982-83	6.79	4.40	7.03	4.64	9.24	9.63	13.14	11.98	14.69
1983-84	3.97	-4.82	7.89	0.38	7.61	12.04	12.07	7.97	17.42
1984-85	8.71	10.92	8.09	9.45	8.21	12.81	12.59	11.35	14.07
1985-86	6.36	5.95	7.55	6.94	5.77	11.58	12.35	13.07	11.49
1986-87	5.81	3.25	7.53	5.76	5.86	13.46	14.27	17.03	10.99
1987-88	6.44	2.73	9.98	6.12	6.77	11.07	11.22	6.83	16.73
1988-89	4.81	6.87	3.96	5.77	3.81	19.65	19.69	15.99	23.94
1989-90	4.58	3.03	5.72	4.69	4.48	11.34	11.19	3.63	19.33
1990-91	5.57	4.96	6.25	5.91	5.21	19.35	19.97	20.85	19.15
1991-92	7.71	9.50	8.05	8.61	6.76	26.16	26.86	23.21	30.31
1992-93	2.27	-5.29	5.35	0.09	4.63	13.80	13.88	14.46	13.37
1993-94	4.54	5.23	5.48	4.87	4.20	10.01	9.47	7.05	11.57
1994-95	5.24	6.57	3.60	5.66	4.80	13.42	13.31	18.85	8.51
1995-96	4.19	5.80	4.80	5.60	4.76	16.68	15.96	13.02	18.75
1996-97	1.30	0.06	1.19	0.54	2.10	3.75	3.03	-5.28	10.56
1997-98	5.40	5.90	6.96	6.08	4.77	13.83	6.51	-2.97	13.86

Source : Federal Bureau of Statistics

Table 3.2 NATIONAL INCOME ACCOUNTS AT CONSTANT PRICES OF 1980-81
(Expenditure Approach)

Year	(Rs. Million)										
	Per Capita GNP (Mp) Rs.	Net Factor Income GNP (Mp)	From Abroad	GDP (Mp)	Indirect Taxes	Subsi- dies	Total GDP (Fc)	Total Consum- ption	Total Invest- ment	Export of G&NFS	Import of G&NFS
	1959-60	1760	79262	-185	79447	1039	11	78419	72329	16634	9416	18931
1960-61	1799	83098	-202	83300	1244	29	82085	76991	19009	8614	21314
1961-62	1848	87830	-218	88048	1406	51	86693	77437	21866	9489	20744
1962-63	1920	93880	-387	94267	1591	61	92737	77413	27856	12686	23688
1963-64	1994	100342	-274	100616	1759	45	98902	81481	30658	13473	24996
1964-65	2117	109583	-492	110075	2010	194	108259	97486	31133	13488	32031
1965-66	2199	117112	-379	117491	2186	212	115517	95501	34265	14068	26344
1966-67	2227	121766	-387	122153	2504	182	119831	103385	34135	16553	31919
1967-68	2307	130033	-185	130218	2289	168	128097	111321	30038	18772	29913
1968-69	2385	138347	-234	138581	2781	172	135972	120687	28661	18809	29576
1969-70	2541	151690	16	151674	3507	176	148343	122321	35904	26571	33122
1970-71	2485	152804	-580	153384	3625	141	149900	126014	35140	27173	34943
1971-72	2695	170721	572	170149	17931	800	153018	142631	33005	23351	28838
1972-73	2770	182537	1459	181078	19343	1527	163262	146590	33281	29893	28686
1973-74	2812	190942	1483	189459	21813	7066	174712	161928	35229	27004	34702
1974-75	2806	196393	2080	194313	21081	7172	180404	173828	37157	22940	39612
1975-76	2906	209606	5731	203875	22330	4934	186479	177904	44833	24439	43302
1976-77	2991	222290	10439	211851	22888	2754	191717	186116	49811	21007	45083
1977-78	3272	250662	21563	229099	26565	4212	206746	206340	49494	23682	50417
1978-79	3353	264664	24715	239949	30563	8872	218258	229254	49357	24630	63292
1979-80	3513	285817	25409	260408	34308	7245	233345	245065	50500	31216	66373
1980-81	3589	300888	22692	278196	35562	5197	247831	252411	52207	35707	62129
1981-82	3693	319265	22882	296383	34873	5161	266571	264983	59665	33570	61835
1982-83	3921	349473	33000	316473	38447	6641	284667	279931	63426	41819	68703
1983-84	3963	364133	31630	332503	43038	6512	295977	299441	66459	40275	73672
1984-85	4081	386561	28814	357747	43103	7102	321751	324640	73218	40130	80241
1985-86	4185	408711	31282	377429	42501	7296	342224	326020	76379	53296	78266
1986-87	4254	428357	26575	401782	44800	5128	362110	342164	79575	59868	79825
1987-88	4330	449519	17100	432419	53406	6403	385416	373863	78551	57112	77107
1988-89	4380	468799	14933	453866	57269	7351	403948	387964	84447	64979	83524
1989-90	4451	491265	17163	474101	58359	6741	422484	400201	88791	65710	80601
1990-91	4477	509417	9457	499960	59345	5390	446005	397020	89879	87700	74639
1991-92	4638	544080	4949	539131	63722	5004	480413	436652	100318	99821	97660
1992-93	4578	553189	3734	549455	62156	4026	491325	455388	105088	101136	112157
1993-94	4598	572178	1319	570859	60458	3234	513635	462300	104333	104282	100056
1994-95	4719	604117	4031	600086	61584	2026	540528	494398	108641	101075	104028
1995-96	4754	626921	-1856	628177	63431	3847	568593	528854	114487	103005	118169
1996-97	4589	621831	-4086	625924	53110	3183	575999	539600	106526	96297	116499

Note: i: Calculations are made by splicing method. ii: Prior to 1959-60, aggregate figures of GDP/GNP were estimated on industrial origin basis & were not based on expenditure approach Source: Federal Bureau of Statistics

Table 3.3 NATIONAL INCOME ACCOUNTS AT CURRENT FACTOR COST
(Expenditure Approach)

Year	Rs. Million												
	Per Capita GNP		Per Capita GNP		Net Factor Income		Total			Total Investment		Export of G&NFS	Import of G&NFS
	(Mp)	\$ =	(Mp)	GNP	From	GDP	Indirect	Subsi-	GDP	Consum	stme-	G&	G&
	Rs.	Rs.	\$.	(Mp)	Abroad	(Mp)	Taxes	dies	(Fc)	ption	nt	NFS	NFS
1959-60	405	4.76	85	18257	-23	18280	1039	11	17252	16702	2657	1281	2360
1960-61	434	4.76	91	20032	-26	20058	1293	30	18795	18541	3047	1219	2749
1961-62	440	4.76	92	20919	-27	20946	1438	52	19560	19019	3506	1375	2954
1962-63	458	4.76	96	22406	-49	22455	1632	62	20885	19675	4464	1803	3487
1963-64	500	4.76	105	25157	-35	25192	1890	49	23351	21369	5727	1914	3818
1964-65	544	4.76	114	28669	-55	28724	2250	217	26691	24471	7056	1992	4795
1965-66	595	4.76	125	31690	-50	31740	2520	245	29465	26935	6485	2158	3838
1966-67	659	4.76	138	36126	-48	36174	3154	230	33250	31112	7417	2460	4815
1967-68	692	4.76	145	38985	-23	39008	2971	217	36254	33824	6764	2862	4442
1968-69	723	4.76	152	41945	-30	41975	3586	222	38611	36621	6858	2862	4366
1969-70	809	4.76	170	48298	3	48295	4636	232	43891	41307	8293	3637	4942
1970-71	834	4.76	175	51273	-82	51355	4978	193	46570	46077	8679	3922	5323
1971-72	874	4.76	184	55367	99	55268	5117	228	50379	47645	8427	3923	4727
1972-73	1043	7.33	142	68716	463	68253	6600	522	62175	58381	9509	9961	9598
1973-74	1319	9.91	133	89532	617	88915	9486	3074	82503	79385	12772	11960	15202
1974-75	1618	9.91	163	113201	1147	112054	11560	3934	104428	102041	20035	12994	23016
1975-76	1862	9.91	188	134322	2992	131330	13642	3014	120702	116847	26456	13881	23854
1976-77	2106	9.91	213	156522	5480	151042	15650	1884	137278	132058	31734	13991	26741
1977-78	2481	9.91	250	190043	12139	177904	19604	3110	161410	159228	34647	16629	32600
1978-79	2673	9.91	270	211004	14533	196471	24058	6987	179400	179117	38354	21529	42529
1979-80	3115	9.91	314	253452	18284	235168	30333	6407	211242	212594	47667	29485	54578
1980-81	3589	9.91	362	300888	22692	278196	35562	5197	247831	252411	52207	35707	62129
1981-82	4043	9.91	408	349508	25349	324159	37440	5434	292153	297180	62447	33033	68501
1982-83	4531	12.71	356	403782	39395	364387	43487	7512	328412	333548	68462	44395	82018
1983-84	5000	13.48	371	459397	39595	419802	53557	8104	374349	387488	76701	47835	92222
1984-85	5389	15.15	356	510468	38311	472157	56396	9303	425064	442472	86525	49889	106729
1985-86	5692	16.14	353	555891	41359	514532	58205	9992	466319	458194	96545	63268	103475
1986-87	6046	17.18	352	608857	36378	572479	64422	7374	515431	493156	109540	79056	109273
1987-88	6786	17.60	386	704484	29095	675389	84494	10130	601025	591319	121666	93601	131197
1988-89	7453	19.22	388	797750	28005	769745	99361	12754	683138	672498	145570	108318	156641
1989-90	8090	21.45	377	892843	36900	855943	108641	12549	759854	740577	162076	126583	173293
1990-91	9180	22.42	409	1044508	23908	1020600	123437	11211	908374	843023	193446	172812	188681
1991-92	10433	24.84	420	1223922	12537	1211385	144815	11373	1077943	1005521	244060	209215	247411
1992-93	11186	25.96	431	1351589	9960	1341629	151300	9800	1200129	1145659	277744	217372	299146
1993-94	12672	30.16	420	1577085	3988	1573097	169295	9056	1412858	1310738	305477	254187	297305
1994-95	14812	30.85	480	1896114	14043	1882071	200544	6599	1688126	1586182	346508	311795	362414
1995-96	16383	33.57	488	2158462	-7136	2165398	227858	13820	2165598	1858096	403417	358375	454290
1996-97	17604	38.99	452	2385506	-191277	2404633	215636	12931	2404633	2100946	418549	390290	505152

Note: Calculations are made by splicing method

\$ conversion is based on yearly average rates

Table 3.4a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Constant Factor Cost of 1980-81)

Sector	(Rs. Million)							
	1949-50	50-51	51-52	52-53	53-54	54-55	55-56	56-57
Agriculture	30483	31260	28672	28718	33006	32088	32834	33496
Major Crops	14355	14757	12119	11754	14819	14493	14757	15284
Minor Crops	5091	5228	4974	5240	6151	5321	5463	5277
Livestock	9995	10241	10492	10743	10994	11241	11492	11743
Fishing	775	775	863	687	757	757	898	898
Forestry	268	259	224	294	285	276	224	294
Industrial Sector	4656	5045	5631	6125	6860	7557	8347	8834
Mining & Quarrying	100	138	153	156	167	167	186	205
Manufacturing	3707	4018	4329	4760	5378	6042	6649	7010
Large-scale	1063	1312	1558	1927	2479	3078	3615	3907
Small-scale	2644	2706	2771	2833	2899	2964	3034	3104
Construction	754	788	1041	1104	1193	1218	1361	1420
Electricity & Gas Dist.	94	101	108	105	122	129	150	199
Services Sector	22834	23884	24842	25401	26417	27738	28554	29436
Transport, St. & Comm.	3910	4144	4227	4569	4841	5215	5354	5564
Wholesale & Ret. Trade	6995	7421	7459	7507	7980	8416	8610	8885
Finance & Insurance	255	278	306	329	357	366	445	547
Ownership of Dwellings	4346	4463	4608	4718	4841	4986	5123	5288
Public Admn. & Defence	2918	2992	3473	3319	3239	3389	3443	3353
Social, C & P services	4410	4585	4770	4959	5158	5366	5578	5800
Gross Domestic Product (FC)	57973	60188	59145	60243	66283	67383	69735	71766
Indirect Taxes								
Subsidies								
Gross Domestic Product (MP)	57973	60188	59145	60243	66283	67383	69735	71766
Net Factor Income from Abroad	-145	-145	-89	-105	-218	-32	-161	-137
Gross National Product (FC)	57828	60043	59057	60139	66066	67351	69573	71629
Gross National Product (MP)	57828	60043	59057	60139	66066	67351	69573	71629
Population (in million)	35.31	36.18	37.07	37.98	38.91	39.87	40.86	41.87
Per Capita Income (Rs., FC)	1638	1660	1593	1583	1698	1689	1703	1711
Per Capita Income (Rs., MP)	1638	1660	1593	1583	1698	1689	1703	1711

Note: Calculations are made by splicing method.

Contd.

Table 3.4a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Constant Factor Cost of 1980-81)

Sector	(Rs. Million)									
	1957-58	58-59	59-60	60-61	61-62	62-63	63-64	64-65		
Agriculture	34190	35474	35770	35630	37782	39636	41154	43209		
Major Crops	15469	16461	16256	16080	17625	19241	18881	20468		
Minor Crops	5475	5519	5531	5382	5686	5519	6993	6999		
Livestock	11994	12240	12491	12711	12945	13191	13420	13742		
Fishing	916	986	1251	1180	1233	1356	1497	1603		
Forestry	337	268	242	276	294	328	363	397		
Industrial Sector	9338	9979	10132	11993	13108	14773	16988	18904		
Mining & Quarrying	220	238	260	301	320	357	420	454		
Manufacturing	7272	7576	7768	8766	9930	11040	12292	13513		
Large-scale	4099	4329	4448	5350	6413	7422	8570	9682		
Small-scale	3173	3247	3320	3417	3517	3618	3722	3830		
Construction	1627	1935	1800	2579	2512	2950	3781	4337		
Electricity & Gas Dist.	220	230	304	346	346	426	496	600		
Services Sector	30121	32245	32518	34462	35804	38328	40759	46147		
Transport, St. & Comm.	5640	6742	6032	6710	6533	7236	7452	10063		
Wholesale & Ret. Trade	9183	9415	9970	10661	11495	12622	13900	14995		
Finance & Insurance	538	607	742	816	885	987	1075	1483		
Ownership of Dwellings	5447	5605	5756	5900	6107	6299	6485	6712		
Public Admn. & Defence	3279	3600	3503	3550	3687	3791	4158	4897		
Social, C & P services	6035	6275	6515	6825	7097	7393	7688	7997		
Gross Domestic Product (FC)	73650	77697	78420	82085	86693	92737	98902	108260		
Indirect Taxes			1039	1244	1406	1591	1759	2010		
Subsidies			11	29	51	61	45	194		
Gross Domestic Product (MP)	73650	77697	79448	83300	88048	94267	100616	110076		
Net Factor Income from Abroad	-32	-81	-185	-202	-218	-387	-274	-492		
Gross National Product (FC)	73617	77617	78235	81884	86476	92350	98628	107768		
Gross National Product (MP)	73617	77617	79263	83099	87831	93880	100342	109584		
Population (In million)	42.9	43.95	45.03	46.20	47.53	48.90	50.31	51.76		
Per Capita Income (Rs., FC)	1716	1766	1737	1772	1819	1889	1960	2082		
Per Capita Income (Rs., MP)	1716	1766	1760	1799	1848	1920	1994	2117		

Note: Calculations are made by splicing method.

Contd.

Table 3.4a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Constant Factor Cost of 1980-81)

Sector	(Rs Million)							
	1965-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73
Agriculture	43580	46195	51582	53724	58625	56990	58566	59563
Major Crops	20188	21511	25451	26833	31628	29501	30719	31293
Minor Crops	7259	7953	8709	9390	8442	8783	9334	9155
Livestock	13993	14274	14560	14851	15146	15450	15758	16075
Fishing	1709	2008	2378	2131	2994	2730	2202	2255
Forestry	432	449	483	518	414	527	553	786
Industrial Sector	20403	21099	22152	24862	28472	30247	29705	32789
Mining & Quarrying	495	495	510	525	584	580	592	599
Manufacturing	14673	15502	16489	17910	19937	21221	21489	23364
Large-scale	10730	11444	12315	13616	15516	16475	16398	17903
Small-scale	3942	4058	4174	4294	4422	4746	5090	5461
Construction	4548	4379	4371	5551	5719	5858	4902	5673
Electricity & Gas Dist.	688	723	782	876	2231	2587	2723	3153
Services Sector	51533	52538	54364	57387	61246	62662	64747	70911
Transport, St. & Comm.	10696	11159	11761	12451	12838	12553	12857	14948
Wholesale & Ret. Trade	16292	17149	17779	19039	21109	21625	22099	23363
Finance & Insurance	1646	1854	2072	2248	2684	2944	2967	3829
Ownership of Dwellings	6918	7145	7338	7558	7647	7902	8170	8466
Public Admn. & Defence	7665	6558	6391	6712	6953	7130	7615	8688
Social, C & P services	8316	8672	9023	9378	10015	10509	11040	11618
Gross Domestic Product (FC)	115516	119832	128097	135972	148343	149900	153018	163263
Indirect Taxes	2186	2504	2289	2781	3507	3625	17931	19343
Subsidies	212	182	168	172	176	141	800	1527
Gross Domestic Product (MP)	117490	122154	130218	138581	151674	153384	170149	181078
Net Factor Income from Abroad	-379	-387	-185	-234	16	-580	572	1459
Gross National Product (FC)	115137	119445	127912	135739	148359	149320	153591	164722
Gross National Product (MP)	117111	121767	130033	138348	151690	152804	170721	182537
Population (in million)	53.26	54.79	56.37	58.00	59.70	61.49	63.34	65.89
Per Capita Income (Rs., FC)	2162	2180	2269	2340	2485	2428	2425	2500
Per Capita Income (Rs., MP)	2199	2222	2307	2385	2541	2485	2695	2770

Note: Calculations are made by splicing method.

Contd.

Table 3.4a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Constant Factor Cost of 1980-81)

Sector	(Rs. Million)						
	1973-74	74-75	75-76	76-77	77-78	78-79	79-80
Agriculture	61854	60298	62992	64871	67139	69427	73513
Major Crops	32846	31218	32800	33265	33981	34819	38127
Minor Crops	9817	10400	11391	11892	12152	12530	12920
Livestock	16397	16727	17061	17599	18197	18818	19452
Fishing	2026	1444	1515	1726	2307	2448	2237
Forestry	768	509	224	389	501	812	777
Industrial Sector	35526	36361	38246	39297	43030	46284	51267
Mining & Quarrying	670	673	651	766	789	822	930
Manufacturing	24848	24982	25330	25791	28424	30700	33848
Large-scale	18989	18693	18586	18551	20578	22193	24626
Small-scale	5859	6288	6744	7239	7846	8507	9222
Construction	6280	7392	8825	8750	9474	9993	11143
Electricity & Gas Dist.	3729	3313	3439	3990	4343	4769	5345
Services Sector	77331	83745	85240	87549	96577	102546	108564
Transport, St. & Comm.	15645	16336	16526	16811	19194	20752	22146
Wholesale & Ret. Trade	26622	27441	27915	27825	30567	32523	34943
Finance & Insurance	4075	4664	4817	5211	5823	6198	6082
Ownership of Dwellings	8768	9085	9415	9752	10102	10467	10845
Public Admn. & Defence	9971	13277	12883	13822	15567	16399	17412
Social, C & P services	12250	12943	13686	14129	15325	16207	17135
Gross Domestic Product (FC)	174712	180403	186478	191717	206747	218258	233344
Indirect Taxes	21813	21081	22330	22888	26565	30563	34308
Subsidies	7066	7172	4934	2754	4212	8872	7245
Gross Domestic Product (MP)	189459	194313	203874	211851	229099	239949	260408
Net Factor Income from Abroad	1483	2080	5731	10439	21563	24715	25409
Gross National Product (FC)	176195	182483	192209	202156	228310	242973	258753
Gross National Product (MP)	190942	196392	209605	222290	250663	264664	285816
Population (in million)	67.90	69.98	72.12	74.33	76.60	78.94	81.36
Per Capita Income (Rs., FC)	2595	2608	2665	2720	2981	3078	3180
Per Capita Income (Rs., MP)	2812	2806	2906	2991	3272	3353	3513

Note: Calculations are made by splicing method.

Source: Federal Bureau of Statistics

Table 3.4b GROSS NATIONAL PRODUCT (At Constant Factor Cost Of

Tab

Sector	1980-81	81-82	82-83	83-84	84-85	85-86		
Agriculture	76399	80008	83532	79502	88187	93433	90	
Major Crops	39626	41496	42837	36710	43390	46212	469	
Minor Crops	13162	14229	15156	15668	16109	16742	1731	
Livestock	20139	20770	21664	22956	24356	25865	27351	
Fishing	2695	2713	2963	3130	3293	3544	3650	
Forestry	777	800	912	1038	1039	1070	1190	
Industrial Sector	56013	62028	65091	69688	75147	81234	88257	9
Mining & Quarrying	1053	1167	1164	1181	1340	1657	1782	2
Manufacturing	37446	42596	45592	49187	53166	57180	61484	676
Large-scale	27451	31761	33847	36455	39365	42220	45267	5004
Small-scale	9995	10835	11745	12732	13801	14960	16217	17579
Construction	11586	12242	11910	12025	13155	14035	15784	16563
Electricity & Gas Dist.	5928	6023	6425	7295	7486	8362	9207	10711
Services Sector	115419	124535	136044	146787	158417	167557	177380	189383
Transport, St. & Comm.	23927	25910	27971	30283	32688	34305	36785	39293
Wholesale & Ret. Trade	37330	40957	44397	46440	51876	55361	58661	63932
Finance & Insurance	5549	6491	7498	8767	8752	9057	9111	9452
Ownership of Dwellings	11237	12341	14125	16200	17849	18791	19784	20828
Public Admn. & Defence	19257	19534	21490	23192	23916	25183	26556	27666
Social, C & P services	18119	19302	20563	21905	23336	24860	26483	28212
Gross Domestic Product (FC)	247831	266571	284667	295977	321751	342224	362110	385416
Indirect Taxes	35562	34873	38447	43038	43103	42501	44800	53406
Subsidies	5197	5061	6641	6512	7107	7296	5128	6403
Gross Domestic Product (MP)	278196	296383	316473	332503	357747	377429	401782	432419
Net Factor Income from Abroad	22692	22882	33000	31630	28814	31282	26575	17100
Gross National Product (FC)	270523	289453	317667	327607	350565	373506	388685	402516
Gross National Product (MP)	300888	319265	349473	364133	386561	408711	428357	449519
Population (in million)	83.84	86.44	89.12	91.88	94.73	97.67	100.7	103.82
Per Capita Income (Rs., FC)	3227	3349	3564	3566	3701	3824	3860	3877
Per Capita Income (Rs., MP)	3589	3693	3921	3963	4081	4185	4254	4330

Cont.

Table 3.4b GROSS NATIONAL PRODUCT (At Constant Factor Cost Of 1980-81)

Sector	(Rs. Million)								
	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97 R
Agriculture	105917	109127	114542	125425	118795	125005	133215	140946	141032
Major Crops	51842	51795	54741	63213	53354	54018	58714	62211	59235
Minor Crops	18205	19147	19820	20290	21092	23754	25395	26636	26934
Livestock	30614	32481	34105	36133	38308	40599	42848	46286	48762
Fishing	3999	4325	4430	4650	4909	5442	5047	4904	5139
Forestry	1257	1379	1446	1139	1132	1192	1211	909	962
Industrial Sector	101433	107955	115359	124278	131129	137085	143699	151475	152982
Mining & Quarrying	2071	2269	2504	2565	2642	2765	2646	2833	2886
Manufacturing	70300	74324	78969	85324	89889	94816	98228	102939	104161
Large-scale	51244	53667	56577	61051	63577	66294	67310	69424	67831
Small-scale	19056	20657	22392	24273	26312	28522	30918	33515	36330
Construction	16937	17466	18462	19566	20701	21040	21253	21944	22183
Electricity & Gas Dist.	12125	13896	15424	16823	17897	18464	21572	23759	23752
Services Sector	196598	205402	216104	230710	241401	251545	263614	276172	281985
Transport, St. & Comm.	37716	40184	42719	47189	50333	52183	54342	54798	55165
Wholesale & Ret. Trade	67305	69655	73380	78760	81061	83377	87245	42852	93555
Finance & Insurance	9743	9793	9913	10343	11065	12629	13426	14372	13597
Ownership of Dwellings	21928	23086	24305	25588	26939	28361	29858	31435	33095
Public Admn. & Defence	29852	30667	31679	32495	33295	33759	34814	35917	36719
Social, C & P services	30054	32017	34108	36335	38708	41236	43929	46798	49854
Gross Domestic Product (FC)	403948	422484	446005	480413	491325	513635	540528	568593	575999
Indirect Taxes	57269	58359	59345	63722	62156	60458	61584	63431	53110
Subsidies	7351	6741	5390	5004	4026	3234	2026	3847	3185
Gross Domestic Product (MP)	453866	474102	499960	539131	549455	570859	600086	626177	625924
Net Factor Income from Abroad	14933	17163	9457	4949	3734	1319	4031	-1856	-4086
Gross National Product (FC)	418881	439647	455462	485362	495059	514954	544559	566737	571913
Gross National Product (MP)	468799	491265	509417	544080	553189	572178	604117	626321	621838
Population (in million)	107.04	110.36	113.78	117.31	120.83	124.45	128.01	131.75	135.51
Per Capita Income (Rs., FC)	3913	3984	4003	4137	4097	4138	4254	4302	4220
Per Capita Income (Rs., MP)	4380	4451	4477	4638	4578	4598	4719	4754	4589

R Revised

Source: Federal Bureau of Statistics

Table 3.5a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Current Factor Cost)

Sector	(Rs. Million)						
	1959-60	60-61	61-62	62-63	63-64	64-65	65-66
Agriculture	8186	8689	8733	9094	10085	11052	11227
Major Crops	3812	4037	4005	4282	4866	5617	5567
Minor Crops	1049	1057	1070	1015	1351	1581	1701
Livestock	3158	3411	3462	3566	3605	3561	3623
Fishing	126	140	147	173	205	225	244
Forestry	41	44	48	57	59	68	93
Industrial Sector	2407	2849	3162	3703	4316	4840	5481
Mining & Quarrying	23	28	30	34	40	47	51
Manufacturing	1865	2105	2418	2794	3148	3477	3971
Large-scale	1068	1274	1555	1883	2202	2492	2903
Small-scale	797	831	862	911	946	986	1067
Construction	432	614	609	748	971	1116	1231
Electricity & Gas Dist.	87	102	105	127	157	200	229
Services Sector	6658	7257	7665	8095	8949	10799	12757
Tpt., St. & Comm.	1176	1356	1377	1482	1587	2285	2482
W. & Ret. Trade	1943	2142	2313	2498	2917	3407	3785
Finance & Insurance	160	186	206	226	257	348	398
Ownership of Dwellings	1132	1183	1250	1289	1352	1465	1605
Public Admn. & Defence	1048	1111	1160	1206	1344	1658	2687
Social, C & P services	1199	1279	1359	1393	1492	1636	1800
Gross Domestic Product (FC)	17252	18795	19560	20892	23351	26691	29465
Indirect Taxes	1039	1293	1438	1625	1890	2250	2520
Subsidies	11	30	52	62	49	217	245
Gross Domestic Product (MP)	18280	20058	20946	22455	25192	28724	31740
Net Factor Income from Abroad	-23	-26	-27	-49	-35	-55	-50
Gross National Product (FC)	17229	18769	19533	20843	23316	26636	29415
Gross National Product (MP)	18257	20032	20919	22406	25157	28669	31690
Population (in million)	45.03	46.20	47.53	48.90	50.31	51.76	53.26
Per Capita Income in Rupees (FC)	383	406	411	426	463	515	552
Per Capita Income in Rupees (MP)	405	434	440	458	500	554	595

Note: Calculations are made by splicing method

Contd.

Table 3.5a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Current Factor Cost)

Sector	(Rs. Million)						
	66-67	67-68	68-69	69-70	70-71	71-72	72-73
Agriculture	13249	14886	14886	16882	17262	19025	23254
Major Crops	6485	7197	7331	8939	8673	9885	12123
Minor Crops	2283	2537	2008	2349	2636	2829	3328
Livestock	4106	4738	5138	5062	5337	5625	6868
Fishing	267	281	262	412	462	522	671
Forestry	109	134	147	120	154	163	264
Industrial Sector	5909	6441	7680	9009	9994	10108	12605
Mining & Quarrying	53	55	61	77	81	90	129
Manufacturing	4356	4818	5581	6428	7128	7412	9196
Large-scale	3216	3598	4242	5003	5533	5656	7046
Small-scale	1141	1219	1338	1425	1594	1756	2149
Construction	1231	1277	1729	1844	2003	1784	2325
Electricity & Gas Dist.	269	291	309	661	782	823	955
Services Sector	14092	14927	16046	17999	19314	21246	26315
Tpt., St. & Comm.	2872	3118	3341	3635	3727	4023	5272
W. & Ret. Trade	4419	4723	5113	5978	6420	6914	8241
Finance & Insurance	490	557	625	771	882	968	1408
Ownership of Dwellings	1812	1897	2050	2183	2369	2587	3025
Public Admn. & Defence	2464	2483	2645	2769	2963	3445	4430
Social, C & P services	2035	2148	2271	2663	2953	3309	3939
Gross Domestic Product (FC)	33250	36254	38611	43891	46570	50379	62175
Indirect Taxes	3154	2971	3586	4636	4978	5117	6600
Subsidies	230	217	222	232	193	228	522
Gross Domestic Product (MP)	36174	39008	41975	48295	51355	55268	68253
Net Factor Income from Abroad	-48	-23	-30	3	-82	99	463
Gross National Product (FC)	33202	36231	38581	43894	46488	50478	62638
Gross National Product (MP)	36126	38985	41945	48298	51273	55367	68716
Population (in million)	54.79	56.37	58.00	59.70	61.49	63.34	65.89
Per Capita Income in Rupees (FC)	606	643	665	735	756	797	951
Per Capita Income in Rupees (MP)	659	692	723	809	834	874	1043

Note: Calculations are made by splicing method

Contd.

Table 3.5a NATIONAL ACCOUNTS BY INDUSTRIAL ORIGIN
(At Current Factor Cost)

Sector	(Rs. Million)						
	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Agriculture	29887	35581	40700	46992	54066	57842	66181
Major Crops	15054	17938	20201	22035	26256	28631	33466
Minor Crops	4437	5878	7084	8465	9613	10172	11645
Livestock	9181	10720	12391	14869	15889	16501	18556
Fishing	842	678	791	1194	1706	1885	1800
Forestry	372	367	234	429	604	654	714
Industrial Sector	17111	21254	25300	28772	33788	38915	48330
Mining & Quarrying	187	265	324	428	440	490	749
Manufacturing	12556	14669	16444	18825	22122	25246	30744
Large-scale	9595	10976	12066	13541	16016	18250	22367
Small-scale	2960	3693	4378	5284	6107	6996	8376
Construction	3151	5056	6820	7603	8778	9783	12048
Electricity & Gas Dist.	1217	1264	1713	1916	2448	3397	4789
Services Sector	35505	47593	54701	61512	73556	82643	96731
Tpt., St. & Comm.	6911	9158	10313	11448	13936	16282	19129
W. & Ret. Trade	11758	15382	17417	19435	23044	26153	31080
Finance & Insurance	1801	2612	3021	3573	4273	4931	5356
Ownership of Dwellings	3879	5093	5891	6820	7615	8413	9652
Public Admn. & Defence	5750	8113	9490	10371	13155	13859	16263
Social, C & P services	5406	7234	8569	9864	11532	13005	15251
Gross Domestic Product (FC)	82503	104428	120702	137276	161410	179400	211242
Indirect Taxes	9486	11560	13642	15650	19604	24058	30333
Subsidies	3074	3934	3014	1884	3110	6987	6407
Gross Domestic Product (MP)	88915	112054	131330	151042	177904	196471	235168
Net Factor Income from Abroad	617	1147	2992	5480	12139	14533	18284
Gross National Product (FC)	83120	105575	123694	142756	173549	193933	229526
Gross National Product (MP)	89532	113201	134322	156522	190043	211004	253452
Population (in million)	67.90	69.98	72.12	74.33	76.60	78.94	81.36
Per Capita Income in Rupees.(FC)	1224	1509	1715	1921	2266	2457	2821
Per Capita Income in Rupees.(MP)	1319	1618	1862	2106	2481	2673	3115

Note: Calculations are made by splicing method

Source: Federal Bureau of Statistics

Table 3.5b GROSS NATIONAL PRODUCT (At Current Factor Cost)

Sector	(Rs. Million)							
	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88
Agriculture	76399	92216	99380	104550	121293	128801	135308	156375
Major Crops	39626	46249	50147	44903	53797	58102	59199	64934
Minor Crops	13162	19518	18410	23742	26329	24723	24162	27864
Livestock	20139	22810	26740	31396	36391	40858	46450	57438
Fishing	2695	2804	3111	3347	3524	3793	3960	4492
Forestry	777	835	972	1162	1252	1325	1537	1647
Industrial Sector	56013	65020	72492	84983	95516	108853	123828	146527
Min. & Quarrying	1053	1215	1342	1599	2064	3281	3681	4811
Manufacturing	37446	44197	50200	60398	67596	75881	85850	100917
Large-scale	27451	33098	37357	45518	49856	54823	61826	73248
Small-scale	9995	11099	12843	14880	17740	21058	24024	27669
Construction	11586	13172	13666	14716	17116	19052	22508	25109
Elect. & Gas Dist.	5928	6436	7284	8270	8740	10639	11789	15690
Services Sector	115419	134917	156540	184816	208255	228665	256295	298123
Tpt., St. & Comm.	23927	27425	31092	35199	38219	41196	44624	51047
W. & Ret. Trade	37330	44165	49957	58221	67632	72742	80886	100585
Fin. & Insurance	5549	7311	9383	12079	13370	14855	16334	18496
Own. of Dwellings	11237	13094	15734	18836	21535	23462	25472	27776
P. Admn. & Def.	19257	21466	26467	33133	36714	42053	51018	57309
Soc., C & P ser.	18119	21456	23907	27348	30785	34357	37961	42910
Gross Domestic Product (FC)	247831	292153	328412	374349	425064	466319	515431	601025
Indirect Taxes	35562	37440	43487	53557	56396	58205	64422	84494
Subsidies	5197	5434	7512	8104	9303	9992	7374	10130
Gross Domestic Product (MP)	278196	324159	364387	419802	472157	514532	572479	675389
Net Factor Income from Abroad	22692	25349	39395	39595	38311	41359	36378	29095
Gross National Product (FC)	270523	317502	367807	413944	463375	507678	551809	630120
Gross National Product (MP)	300888	349508	403782	459397	510468	555891	608857	704484
Population (in million)	84	86	89	92	95	98	101	104
Per Capita Income (Rs. FC)	3227	3673	4127	4505	4892	5198	5480	6069
Per Capita Income (Rs. MP)	3589	4043	4531	5000	5389	5692	6046	6786

Cont.

Table 3.5b GROSS NATIONAL PRODUCT (At Current Factor Cost)

Sector	(Rs. Million)								
	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97 R
Agriculture	184074	197441	233130	282374	297814	357924	437034	491791	544809
Major Crops	75804	82929	94570	125441	116209	139480	177969	191473	200376
Minor Crops	35938	32136	43562	46525	51513	63467	72022	86438	90716
Livestock	65038	74237	86219	100726	117792	141683	173047	199432	237436
Fishing	5442	5792	6072	7158	9536	10097	10450	11501	12706
Forestry	1852	2347	2707	2524	2764	3197	3546	2947	3575
Industrial Sector	163248	191254	234033	274318	303110	351909	414025	487988	556294
Min. & Quarrying	4932	5403	6437	7117	7403	8664	9007	11272	12933
Manufacturing	113517	132329	158840	186832	207273	247072	288906	331384	382226
Large-scale	80745	93729	112204	130252	142006	171794	200799	226482	255384
Small-scale	32772	38600	46636	56580	65267	75278	88107	104902	126842
Construction	27706	32052	38172	43812	49807	55246	60985	70769	81338
Elect. & Gas Dist.	17093	21470	30584	36557	38627	40927	55127	74563	79797
Services Sector	335816	371156	441211	521251	599205	703025	837067	971781	1100825
Tpt., St. & Comm.	54316	60487	77709	100956	127508	149288	170857	186091	213746
W. & Ret. Trade	115810	129135	152017	178040	195301	229399	275290	321288	366888
Fin. & Insurance	20060	21434	26967	30672	35428	47024	56105	66437	67129
Own. of Dwellings	30243	34126	39624	46207	53652	62011	72164	83067	96323
P. Admn. & Def.	65179	69115	76518	85472	94560	105298	130701	159164	171252
Soc., C & P ser.	50208	56859	68376	79904	92756	110005	131950	155734	185487
Gross Domestic Product (FC)	683138	759851	908374	1077943	1200129	1412858	1688126	1951560	2201928
Indirect Taxes	99361	108641	123437	144815	151300	169295	200544	227858	215636
Subsidies	12754	12549	11211	11373	9800	9056	6599	13820	12931
Gross Domestic Product (MP)	769745	855943	1020600	1211385	1341629	1573097	1882071	2165598	2404633
Net Factor Income from Abroad	28005	36900	23908	12537	9960	3988	14043	-7136	-19127
Gross National Product (FC)	711143	796751	932282	1090480	1210089	1416846	1702169	1944424	2182801
Gross National Product (MP)	797750	892843	1044508	1223922	1351589	1577085	1896114	2158462	2385506
Population (in million)	107	110	114	117	121	124	128	132	135
Per Capita Income (Rs. FC)	6644	7220	8194	9296	10015	11385	13297	14772	16133
Per Capita Income (Rs. MP)	7453	8090	9180	10433	11186	12672	14812	16398	17631

R Revised

Source: Federal Bureau of Statistics

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	50-51	51-52	52-53	53-54	54-55	55-56	56-57	57-58
Agriculture	2.62	-9.06	0.18	15.23	-2.21	2.09	2.27	1.92
Major Crops	2.80	-17.88	-3.01	26.08	-2.20	1.82	3.58	1.21
Minor Crops	2.68	-4.86	5.35	17.38	-13.49	2.68	-3.40	3.76
Livestock	2.47	2.45	2.39	2.34	2.24	2.23	2.18	2.14
Fishing	0.00	11.36	-20.41	10.26	0.00	18.60	0.00	1.96
Forestry	-3.23	-13.33	30.77	-2.94	-3.03	-18.75	30.77	14.71
Industrial Sector	8.46	11.35	8.81	12.11	-10.29	10.46	5.93	5.59
Mining & Quarrying	37.04	10.81	2.44	7.14	0.00	11.11	10.00	7.27
Manufacturing	8.43	7.77	9.97	13.04	12.39	10.07	5.44	3.73
Large-scale	23.47	18.71	23.65	28.69	24.15	17.46	8.07	4.91
Small-scale	2.34	2.43	2.23	2.32	2.27	2.35	2.29	2.24
Construction	4.47	23.09	6.07	8.02	2.12	11.76	4.33	14.54
Electricity & Gas Dist.	7.41	6.90	-3.23	16.67	5.71	16.22	32.56	10.53
Services Sector	4.53	4.82	1.58	3.63	4.97	2.90	2.75	2.12
Transport, St. & Comm.	6.00	1.99	8.10	5.96	7.72	2.67	3.91	1.37
Wholesale & Ret. Trade	6.09	0.51	0.63	6.31	5.46	2.31	3.19	3.36
Finance & Insurance	9.09	10.00	7.58	8.45	2.60	21.52	22.92	-1.69
Ownership of Dwellings	2.69	3.24	2.39	2.62	2.98	2.76	3.22	2.99
Public Admn. & Defence	2.52	16.09	-4.43	-2.42	4.64	1.58	-2.62	-2.19
Social, C & P services	3.98	4.03	3.97	4.00	4.03	3.96	3.97	4.06
Gross Domestic Product (FC)	3.90	-1.82	1.72	10.22	2.03	3.53	2.98	2.54
Indirect Taxes								
Subsidies								
Gross Domestic Product (MP)	3.90	-1.82	1.72	10.22	2.03	3.53	2.98	2.54
Net Factor Income from Abroad	0.00	-38.89	18.18	107.69	-85.19	400.00	-15.00	-76.47
Gross National Product (FC)	3.90	-1.76	1.71	10.12	2.20	3.42	3.00	2.62
Gross National Product (MP)	3.90	-1.76	1.71	10.12	2.20	3.42	3.00	2.62
Population (in million)	2.46	2.46	2.45	2.45	2.47	2.48	2.47	2.46
Per Capita Income in Rupees (FC)	1.40	-4.12	-0.73	7.49	-0.26	0.91	0.52	0.16
Per Capita Income in Rupees (MP)	1.40	-4.12	-0.73	7.49	-0.26	0.91	0.52	0.16

Cont.

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	58-59	59-60	60-61	61-62	62-63	63-64	64-65	65-66
Agriculture	4.00	0.29	-0.21	6.19	5.21	1.51	5.25	0.45
Major Crops	6.42	-1.25	-1.08	9.61	9.17	-1.87	8.41	-1.37
Minor Crops	0.79	0.22	-2.69	5.64	-2.94	26.71	0.09	3.72
Livestock	2.06	2.05	1.76	1.84	1.90	1.74	2.40	1.83
Fishing	7.69	26.79	-5.63	4.48	10.00	10.39	7.06	6.59
Forestry	-20.51	-9.68	14.29	6.25	11.76	10.53	9.52	8.70
Industrial Sector	6.68	1.76	17.99	9.51	12.67	14.78	11.25	8.02
Mining & Quarrying	8.47	9.38	15.71	6.17	11.63	17.71	7.96	9.02
Manufacturing	4.18	2.54	12.88	13.30	11.20	11.36	9.95	8.59
Large-scale	5.62	2.75	20.28	19.87	15.74	15.46	12.99	10.82
Small-scale	2.31	2.26	2.91	2.94	2.86	2.88	2.91	2.93
Construction	18.91	-6.97	43.33	-2.61	17.45	28.14	14.72	4.86
Electricity & Gas Dist.	4.76	31.82	13.79	0.00	23.23	16.39	21.13	14.53
Services Sector	6.79	1.23	5.70	4.26	6.88	6.83	12.84	14.45
Transport, St. & Comm.	19.55	-10.53	11.24	-2.64	10.77	2.98	35.03	6.30
Wholesale & Ret. Trade	2.53	5.89	6.94	7.82	9.81	10.13	7.87	8.65
Finance & Insurance	12.93	22.14	10.00	8.52	11.52	8.92	37.93	10.94
Ownership of Dwellings	2.90	2.70	2.51	3.50	3.15	2.95	3.50	3.07
Public Admn. & Defence	9.79	-2.69	1.34	3.86	2.81	9.70	17.77	56.52
Social, C & P services	3.98	3.83	4.75	3.99	4.16	4.00	4.02	3.98
Gross Domestic Product (FC)	5.47	0.88	4.89	6.01	7.19	6.80	9.38	7.56
Indirect Taxes			19.73	13.02	13.16	10.56	14.27	8.76
Subsidies			163.64	75.86	19.61	-26.23	331.11	9.28
Gross Domestic Product (MP)	5.47	7.04	5.66	6.37	7.58	6.87	9.13	7.64
Net Factor Income from Abroad	150.00	130.00	8.70	8.00	77.78	-29.17	79.41	-22.95
Gross National Product (FC)	5.43	0.80	4.89	6.01	7.09	6.57	9.27	7.64
Gross National Product (MP)	5.43	6.96	5.65	6.36	7.49	6.96	9.03	7.72
Population (in million)	2.45	2.46	2.60	2.88	2.88	2.88	2.88	2.90
Per Capita Income in Rupees.(FC)	2.91	-1.62	2.23	3.04	4.09	3.58	6.21	4.61
Per Capita Income in Rupees.(MP)	2.91	4.40	2.98	3.39	4.47	3.96	5.97	4.68

Cont.

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	66-67	67-68	68-69	69-70	70-71	71-72	72-73	73-74
Agriculture	5.48	11.73	4.52	9.55	-3.07	3.47	1.67	4.18
Major Crops	6.55	18.32	5.43	17.87	-6.73	4.13	1.87	4.96
Minor Crops	9.56	9.50	7.82	-10.09	4.04	6.28	-1.92	7.24
Livestock	2.01	2.00	2.00	1.99	2.01	1.99	2.01	2.00
Fishing	17.53	18.42	-10.37	40.50	-8.82	-19.35	2.40	-10.16
Forestry	4.00	7.69	7.14	-20.00	27.08	4.92	42.19	-2.20
Industrial Sector	3.56	5.10	11.97	15.26	6.38	-1.49	10.35	8.41
Mining & Quarrying	0.00	3.01	2.92	11.35	-0.64	1.92	1.26	11.80
Manufacturing	5.66	6.37	8.63	11.33	6.44	1.25	8.75	6.35
Large-scale	6.65	7.61	10.56	13.95	6.18	-0.47	9.17	6.07
Small-scale	2.94	2.86	2.87	2.97	7.34	7.25	7.29	7.29
Construction	-3.71	-0.19	27.00	3.04	2.43	-16.33	15.74	10.70
Electricity & Gas Dist.	5.08	8.21	12.05	154.58	15.96	5.26	15.77	18.27
Services Sector	0.74	3.09	5.62	7.02	2.55	3.55	9.64	9.79
Transport, St. & Comm.	4.32	5.39	5.67	3.10	-2.22	2.42	16.26	4.66
Wholesale & Ret. Trade	5.26	3.67	7.09	10.87	2.45	2.19	5.72	13.95
Finance & Insurance	12.68	11.75	8.50	19.38	9.67	0.79	29.06	6.42
Ownership of Dwellings	3.28	2.69	3.00	1.18	3.33	3.39	3.62	3.57
Public Admn. & Defence	-14.44	-2.55	5.02	3.59	2.55	6.80	14.09	14.77
Social, C & P services	4.28	4.05	3.94	6.79	4.93	5.05	5.23	5.45
Gross Domestic Product (FC)	3.08	6.79	6.49	9.79	1.23	2.32	6.80	7.45
Indirect Taxes	14.55	-8.59	21.49	26.11	3.36	-6.10	7.87	12.77
Subsidies	-14.15	-7.69	2.38	2.33	-19.89	7.80	90.79	362.76
Gross Domestic Product (MP)	4.14	5.52	7.67	11.24	1.55	1.45	6.55	5.32
Net Factor Income from Abroad	2.13	-52.08	26.09	-106.90		-198.61	154.93	1.66
Gross National Product (FC)	3.09	6.90	6.47	9.90	1.00	2.76	7.11	7.42
Gross National Product (MP)	4.15	5.61	7.65	11.35	1.34	1.85	6.84	5.30
Population (in million)	2.87	2.88	2.89	2.93	3.00	3.01	4.03	3.05
Per Capita Income in Rupees (FC)	0.21	3.90	3.48	6.77	-1.94	-0.24	2.97	4.24
Per Capita Income in Rupees (MP)	1.24	2.65	4.63	8.18	-1.61	-1.12	2.70	2.19

Cont.

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	74-75	75-76	76-77	77-78	78-79	79-80	80-81
Agriculture	-2.12	4.47	2.53	2.82	3.10	6.61	3.66
Major Crops	-4.96	5.07	1.42	2.15	2.46	9.50	3.93
Minor Crops	5.93	9.53	4.40	2.19	3.11	3.11	1.87
Livestock	2.01	2.00	3.15	3.40	3.41	3.37	3.53
Fishing	-28.70	4.88	13.95	33.67	6.11	-8.63	20.47
Forestry	-33.71	-55.93	73.08	28.89	62.07	-4.26	0.00
Industrial Sector	1.96	4.90	2.95	-9.51	7.62	10.77	9.38
Mining & Quarrying	0.56	-3.31	17.71	2.91	4.25	13.12	13.20
Manufacturing	0.53	1.39	1.81	10.21	8.01	10.26	10.63
Large-scale	-1.56	-0.57	-0.19	10.92	7.85	10.96	11.47
Small-scale	7.32	7.25	7.34	8.38	8.42	8.41	8.38
Construction	17.72	19.38	-0.86	8.29	5.47	11.51	3.97
Electricity & Gas Dist.	-11.14	3.79	16.04	8.84	9.81	12.08	10.91
Services Sector	10.04	1.45	3.03	10.51	6.11	5.91	6.58
Transport, St. & Comm.	4.41	1.16	1.73	14.17	8.12	6.72	8.04
Wholesale & Ret. Trade	3.08	1.73	-0.32	9.86	6.40	7.44	6.83
Finance & Insurance	14.45	3.28	8.18	11.74	6.45	-1.87	-8.77
Ownership of Dwellings	3.61	3.63	3.58	3.60	3.61	3.61	3.61
Public Admn. & Defence	33.15	-2.97	7.29	12.62	5.35	6.18	10.60
Social, C & P services	5.65	5.74	3.24	8.46	5.75	5.73	5.74
Gross Domestic Product (FC)	3.88	3.25	2.84	7.73	5.53	7.33	6.40
Indirect Taxes	-3.36	5.92	2.50	16.06	15.05	12.25	3.65
Subsidies	1.49	-31.20	-44.18	52.96	110.63	-18.34	-28.27
Gross Domestic Product (MP)	3.23	4.61	3.80	8.00	4.81	8.70	6.93
Net Factor Income from Abroad	40.22	175.58	82.14	106.56	14.62	2.80	-10.69
Gross National Product (FC)	4.05	4.36	4.19	10.66	6.03	7.06	5.42
Gross National Product (MP)	3.39	5.64	5.03	10.69	5.30	8.37	6.00
Population (in million)	3.06	3.06	3.06	3.05	3.05	3.07	3.05
Per Capita Income in Rupees (FC)	0.96	1.26	1.09	7.38	2.89	3.87	2.30
Per Capita Income in Rupees (MP)	0.32	2.50	1.91	7.41	2.18	5.15	2.87

Cont.

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89
Agriculture	4.72	4.40	-4.82	10.92	5.95	3.25	2.73	6.87
Major Crops	4.72	3.23	-14.30	18.20	6.50	1.63	3.17	7.00
Minor Crops	8.11	6.51	3.38	2.81	3.93	3.43	-3.24	8.65
Livestock	3.13	4.30	5.96	6.10	6.20	5.75	5.69	5.91
Fishing	0.67	9.21	5.64	5.21	7.62	2.99	3.45	5.91
Forestry	2.96	14.00	13.82	0.10	2.98	11.21	2.35	3.20
Industrial Sector	10.74	4.94	7.06	7.83	8.10	8.65	9.82	4.65
Mining & Quarrying	10.83	-0.26	1.46	13.46	23.66	7.54	13.86	2.07
Manufacturing	13.75	7.03	7.89	8.09	7.55	7.53	9.98	3.96
Large-scale	15.70	6.57	7.71	7.98	7.25	7.22	10.55	2.40
Small-scale	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40
Construction	5.66	-2.71	0.94	9.40	6.69	12.46	4.94	2.26
Electricity & Gas Dist.	1.60	6.67	13.54	2.62	11.70	10.11	16.34	13.20
Services Sector	7.90	9.24	7.90	7.92	5.77	5.86	6.77	3.81
Transport, St. & Comm.	8.29	7.95	8.27	7.94	4.95	7.23	6.82	-4.01
Wholesale & Ret. Trade	9.72	8.40	4.60	11.71	6.72	5.96	8.99	5.28
Finance & Insurance	16.98	15.51	16.92	-0.17	3.48	0.60	3.74	3.08
Ownership of Dwellings	9.82	14.46	14.69	10.18	5.28	5.28	5.28	5.28
Public Admn. & Defence	1.44	10.01	7.92	3.12	5.30	5.45	4.18	7.90
Social, C & P services	2.00	6.53	6.53	6.53	6.53	6.53	6.53	6.53
Gross Domestic Product (FC)	7.56	6.79	3.97	8.71	6.36	5.81	6.44	4.81
Indirect Taxes	-1.94	10.25	11.94	0.15	-1.40	5.41	19.21	7.23
Subsidies	-2.62	31.22	-1.94	9.14	2.66	-29.71	24.86	14.81
Gross Domestic Product (MP)	6.54	6.78	5.07	7.59	5.50	6.45	7.63	4.96
Net Factor Income from Abroad	0.84	44.22	-4.15	-8.90	8.57	-15.05	-35.65	-12.67
Gross National Product (FC)	7.00	9.75	3.13	7.01	6.54	4.06	3.56	4.07
Gross National Product (MP)	6.11	9.46	4.19	6.16	5.73	4.81	4.94	4.29
Population (in million)	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10
Per Capita Income in Rupees.(FC)	3.78	6.45	0.03	3.79	3.34	0.93	0.45	0.94
Per Capita Income in Rupees.(MP)	2.92	6.17	1.06	2.97	2.55	1.65	1.79	1.15

Cont.

Table 3.6 REAL GROWTH RATES (%) IN GDP / GNP

Sector	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97R	97-98P
Agriculture	3.03	4.96	9.50	-5.29	5.23	6.57	5.80	0.06	5.90
Major Crops	-0.09	5.69	15.48	-15.60	1.24	8.69	5.96	-4.78	8.37
Minor Crops	5.17	3.51	2.37	3.95	12.62	6.91	4.89	1.12	3.29
Livestock	6.10	5.00	5.95	6.02	5.98	5.54	8.02	5.35	4.83
Fishing	8.15	2.43	4.97	5.57	10.86	-7.26	-2.83	4.79	6.73
Forestry	9.71	4.86	-21.23	-0.61	5.30	1.59	-24.94	5.83	-23.18
Industrial Sector	6.43	6.86	7.73	5.51	4.54	4.82	5.41	0.99	6.24
Mining & Quarrying	9.56	10.36	2.44	3.00	4.66	-4.30	7.07	1.87	-9.70
Manufacturing	5.72	6.25	8.05	5.35	5.48	3.60	4.80	1.19	6.96
Large-scale	4.73	5.42	7.91	4.14	4.27	1.53	3.14	-2.29	6.19
Small-scale	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40
Construction	3.12	5.70	5.98	5.80	1.64	1.01	3.25	1.09	1.67
Electricity & Gas Dist.	14.61	11.00	9.07	6.38	3.17	16.83	10.14	-0.03	9.28
Services Sector	4.48	5.21	6.76	4.63	4.20	4.80	4.60	2.10	4.77
Transport, St. & Comm.	6.54	6.31	10.46	6.66	3.68	4.14	0.84	0.67	8.80
Wholesale & Ret. Trade	3.49	5.35	7.33	2.92	2.86	4.64	6.43	0.76	2.96
Finance & Insurance	0.51	1.23	4.34	6.98	14.13	6.31	7.05	-5.39	0.79
Ownership of Dwellings	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
Public Admn. & Defence	2.73	3.30	2.58	2.46	1.39	3.13	3.17	2.23	1.96
Social, C & P services	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53
Gross Domestic Product (FC)	4.58	5.57	7.71	2.27	4.54	5.24	4.76	1.30	5.44
Indirect Taxes	1.90	1.69	7.38	-2.46	-2.73	1.86	3.00	-16.27	3.66
Subsidies	-8.30	-20.04	-7.16	-19.54	-19.67	18.95	-21.65	-17.21	-4.21
Gross Domestic Product (MP)	4.46	5.45	7.83	1.91	3.90	4.80	4.68	-0.36	5.33
Net Factor Income from Abroad	14.93	-44.90	-47.67	-24.55	-64.68	205.61	-146.04	-120.15	27.66
Gross National Product (FC)	4.96	3.60	6.56	2.00	4.02	5.75	4.07	0.91	5.67
Gross National Product (MP)	4.79	3.69	6.80	1.67	3.43	5.26	3.67	0.71	5.55
Population	3.10	3.10	3.10	3.00	3.00	2.86	2.83	2.79	2.74
Per Capita Income in Rupees (FC)	1.80	0.48	3.36	-0.97	0.99	2.80	2.00	-1.81	2.84
Per Capita Income in Rupees (MP)	1.64	0.58	3.59	-1.29	0.42	2.63	0.83	-3.40	2.72

R Revised P Provisional

Source : Federal Bureau of Statistics

Table 3.7 TEN YEAR AVERAGE REAL GROWTH RATES (%) IN GDP/GNP

Sector	1950-51 to	1960-61 to	1970-71 to	1980-81 to	1990-91 to
	1959-60	1969-70	1979-80	1989-90	1996-97
Agriculture	1.73	4.97	2.37	4.07	3.83
Major Crops	1.76	7.10	1.99	3.40	2.38
Minor Crops	1.11	4.73	4.39	4.06	5.05
Livestock	2.25	1.95	2.54	5.27	5.98
Fishing	5.63	9.90	-1.47	6.93	2.65
Forestry	0.48	5.99	14.21	6.03	-4.17
Industrial Sector	8.14	11.01	6.14	7.76	5.12
Mining & Quarrying	10.37	8.55	4.96	9.54	3.58
Manufacturing	7.76	9.93	5.50	8.21	4.96
Large-scale	15.75	13.39	4.84	8.16	3.45
Small-scale	2.30	2.91	7.63	8.40	8.40
Construction	8.63	13.20	7.40	4.67	3.50
Electricity & Gas Dist.	12.93	26.90	9.47	10.13	8.08
Services Sector	3.53	6.74	6.26	6.62	4.61
Transport, St. & Comm.	4.67	8.22	5.74	6.20	4.68
Wholesale & Ret. Trade	3.63	7.81	5.25	7.17	4.33
Finance & Insurance	11.55	14.01	8.82	5.19	4.95
Ownership of Dwellings	2.85	2.88	3.56	7.92	5.28
Public Admn. & Defence	2.03	8.36	9.98	5.87	2.61
Social, C & P services	3.98	4.40	5.52	6.00	6.53
Gross Domestic Product (FC)	3.14	6.80	4.84	6.14	4.48
Indirect Taxes		13.31	6.63	5.64	-1.08
Subsidies		55.61	51.28	1.18	-12.33
Gross Domestic Product (MP)	3.76	7.18	4.80	6.19	4.03
Net Factor Income from Abroad	59.03	-0.90	37.99	-1.86	-0.30
Gross National Product (FC)	3.14	6.78	5.46	5.55	3.84
Gross National Product (MP)	3.76	7.20	5.38	5.65	3.61
Population (in million)	2.46	2.86	3.14	3.10	2.98
Per Capita Income in Rupees.(FC)	0.67	3.81	2.25	2.38	0.84
Per Capita Income in Rupees.(MP)	1.27	4.22	2.16	2.48	0.42

Source: Federal Bureau Of Statistics

B: GROWTH SHARING AND INCOME DISTRIBUTION

The ultimate objective of government policies is the improvement in the living standards of the people. Achieved through sustained economic growth it should ensure that benefits of growth reach out to the whole population. The process of economic growth which emphasizes only GNP maximization can lead to uneven distribution of income which when allowed to persist with, an ever growing deprived segment of population can, in the long run, culminate in lower growth. Government policy has, therefore, been to maximize GDP growth aligned with equity objectives. Household Income and Expenditure Surveys (HIES) conducted from 1963-64 to 1993-94 provide ample statistical information on long term trends in income distribution and poverty. GDP growth and inflation are two of the

numerous factors which directly influence income distribution.

Four distinct phases of inequality trend can be identified. The first phase spread over 1963-71 showed that inequality in income distribution narrowed. The second phase covering 1971-79 suggested a widening of income inequality. The ratio of highest to lowest 20 percent income group which was 7.1 in 1963-64 decreased to 4.9 in 1970-71 and increased again to 6.1 in 1979. In the third phase 1984-87 the ratio declined from 6.2 to 5.5. However in the fourth phase, 1987-94 it fluctuated between 4.4 to 8.6. The above trends are reflected in the behaviour of the Gini co-efficient which is used as a general index for overall income distribution. Details are given in table 3.8.

Table 3.8 HOUSEHOLD INCOME DISTRIBUTION

Year	Household Gini Co-efficient	Household Income Shares			Ratio of Highest 20% to Lowest 20%	GDP Growth Rates	Inflation Rates
		Lowest 20%	Middle 60%	Highest 20%			
1963-64	0.386	6.4	48.3	45.3	7.1	6.5	4.2
1966-67	0.355	7.6	49.0	43.4	5.7	3.1	8.6
1968-69	0.366	8.2	49.8	42.0	5.1	6.5	1.6
1969-70	0.366	8.0	50.2	41.8	5.2	9.8	4.1
1970-71	0.330	8.4	50.1	41.5	4.9	1.2	5.7
1971-72	0.345	7.9	49.1	43.0	5.4	2.3	4.7
1979	0.373	7.4	47.6	45.0	6.1	5.5	6.6
1984-85	0.369	7.3	47.7	45.0	6.2	8.7	5.7
1985-86	0.355	7.6	48.4	44.0	5.8	6.4	4.4
1986-87	0.346	7.9	48.5	43.6	5.5	8.8	3.6
1987-88	0.348	8.0	48.3	43.7	5.5	6.4	6.3
1990-91	0.407	5.7	45.0	49.3	8.6	5.6	12.7
1992-93	.410	6.2	45.6	48.2	7.8	2.3	9.8
1993-94	0.400	9.2	50.6	40.2	4.4	4.5	8.5

Note: Gini ratio is one of several but the most commonly used measure of income disparity because of convenience in computing and understanding. Its value ranges from 0 to 1. At zero it represents perfect equality (each percentile of households getting the same income) while at 1 it indicates perfect inequality (one income class has all the income and every one else has nothing). It is computed from relevant household income and expenditure survey.

The gini co-efficient is more sensitive to changes in the middle of the distribution. An increase or decrease in income in the middle of the distribution will have a greater

impact on the measure than a similar change at either end.

The Theil co-efficient is more sensitive to a change in the lower part of the income distribution than

to an equal change in the upper part of the distribution and is also sensitive to movement within the middle of the distribution. The behaviour of Theill co-efficient over the period 1979 to 1993-94 is shown below in table 3.9. It also confirms the conclusion drawn from the Gini co-efficient.

Table 3.9 THEIL CO-EFFICIENT

YEAR	THEIL CO-EFFICIENT
1979	0.27
1984-85	0.26
1985-86	0.23
1986-87	0.22
1987-88	0.23
1990-91	0.30
1992-93	0.27
1993-94	0.27

Source: Federal Bureau of Statistics

One way to get an insight into the structure of inequality is to analyze inter sectoral disparity on rural-urban basis. The rural population have lower standard of living compared to its urban counterpart. This is attributed to its poor possession of productive assets, high under-employment and lack of socio-physical infrastructure. The average income for the sampled household from 1968-69 to 1993-94 is less in rural area than that of the urban areas which has been highlighted in all the HIESs. The trend emerging from the years of the HIES is given below in table 3.10.

Table 3.10 MONTHLY AVERAGE HOUSEHOLD RURAL/URBAN INCOME (Rs.)

Year	Pakistan	Urban	Rural
1963-64	203	236	193
1966-67	-	281	198
1968-69	-	293	190
1969-70	223	303	197
1970-71	235	317	209
1971-72	265	361	234
1979	1032	1346	836
1984-85	1774	2390	1538
1985-86	1889	2537	1638
1986-87	2062	2739	1775
1987-88	2131	2956	1815
1990-91	3168	3701	2931
1992-93	3690	4976	3070
1993-94	3915	5571	3248
Compound Growth Rate	10.37	11.11	9.87

Source: HIES of various years, FBS

On the whole the rural income distribution has remained relatively better than the urban in all the years of HIES. The share of the lowest 20 percent in the rural area is consistently higher than in the urban area while the reverse is the position in the case of the highest 20 percent which claimed lower share in rural areas compared to urban areas. The rural-urban trends are given below in table 3.11.

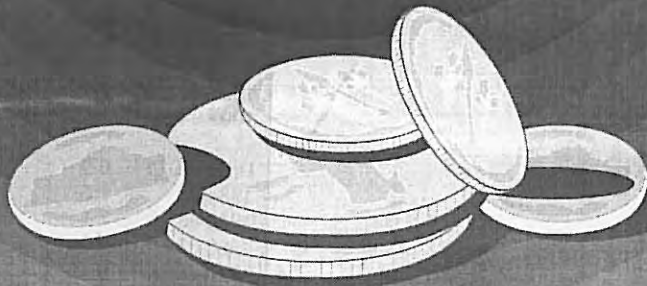
Table 3.11 HOUSEHOLD INCOME SHARES (RURAL/URBAN)

Year	Lowest 20%	Highest 20%	Gini Co-efficient
Rural 1979	8.3	41.3	0.32
1984-85	7.9	42.8	0.34
1985-86	7.9	40.0	0.33
1986-87	8.0	39.0	0.32
1987-88	8.8	40.0	0.31
1990-91	6.0	47.4	0.41
1992-93	7.0	44.8	0.37
1993-94	10.6	34.6	0.35
Urban 1979	6.9	48.0	0.40
1984-85	7.0	47.7	0.38
1985-86	7.5	45.0	0.35
1986-87	7.9	44.0	0.36
1987-88	6.4	48.1	0.37
1990-91	5.7	50.5	0.39
1992-93	6.1	48.9	0.42
1993-94	9.4	40.9	0.40

Source: HIES of various years, FBS.

4

FINANCE AND BANKING



36

FINANCE AND BANKING

Main components of public finance relate to the revenue and expenditure of the federal and provincial governments. One important recurring feature is that the revenue is far less than the expenditure which gives birth to deficit financing. This is an area of problems. Another important segment of public finance is related to the revenue and expenditure of Local Government bodies which deals with the civic issues of development at the grass root level of town committees, municipal committees and municipal corporations. These bodies generate a considerable amount of resources and take part in the provision of civic amenities to the local populace.

Total revenue was 14.6% of the GDP in 1975-76 and 16% in 1997-98. At the same time, corresponding share of expenditure was 24.5% and 21.2% respectively. Tax revenues are generated mainly by the federal government. Shares are transferred to provinces to meet their requirements. Data indicate that out of total revenues, federal government accounted for 76% in the year 1981-82 and 94% in 1997-98. Likewise, on the front of total expenditure, federal government shared 77% in 1981-82. Current expenditure allocations go mainly to defence, interest payments and current subsidies. Another high proportion goes to a group of socio-economic and community services, general administration and all others.

Over all deficit has always been there because of the gap between revenues and expenditure of the government. This deficit is necessarily met through a number of measures such as external borrowing, domestic borrowing (bank borrowing and non-bank borrowing) and more recently the additional drawings from

privatization. It has been desirable and efforts have been made to curtail deficit. Share of over all deficit in the GDP was 9.5% in the year 1975-76 which is expected to be 5% in the current year of 1997-98.

Banking sector has also progressed overtime and played its role in the economic development. Government has recently introduced a number of reforms in the banking system. State bank of Pakistan has been given full authority to conduct the monetary policy and also to oversee the affairs of the entire financial system including its restructuring. State Bank has taken important steps to modernize and strengthen the much desired supervision of the financial system. In the beginning Pakistani banks were less in number compared to foreign banks. In 1948, Pakistan scheduled banks numbered 4 with 23 branches only. At the same time, the number of foreign banks was 34 with 172 branches. Presently, in the year 1997, Pakistani scheduled banks have increased to 25 and the number of their branches are 8597. Foreign banks currently are 21 in number with 85 branches. Liabilities and assets position of the scheduled banks have also witnessed many changes indicating a variety of analytical scope. Side by side, a developed capital market also gives strong support to economic development. There have been set up a number of financial institutions and stock exchanges in the country to develop the capital market. About 800 companies are listed on Karachi, Lahore and Islamabad Stock Exchanges.

This net work of banking system indicates that the services to public by the Pakistani banks have been on the increase. Details are given in tables 4.1 to 4.4.

Table 4.1 SUMMARY OF PUBLIC FINANCE (Consolidated, Federal and Provincial Governments)

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
	(Rs. Million)							
Total Revenues (A+B)	19264	21910	26482	30704	38502	47002	51930	59181
Federal							39305	55857
Provincial							12625	3324
A. Tax Revenues	15544	17759	21585	25093	32212	38846	43003	49029
Federal							40368	46475
Provincial							2635	2554
B. Non-Tax Revenues	3720	4151	4897	5611	5290	8156	8927	10152
Federal							8169	9382
Provincial							758	770
Surplus of Autonomous Bodies & SAP *	585	423	523	972	1464	2019	1909	2286
Expenditure	32329	35171	40898	48994	54629	63639	71013	87121
Federal							54917	67617
Provincial							16096	19504
Current	19963	20133	25545	30500	32824	40318	46370	59686
Federal							36055	..
Provincial							10315	..
Development	12366	15038	15353	18494	21805	23321	24643	27435
Federal							18862	..
Provincial							5781	..
Overall Deficit	12480	12838	13893	17315	14663	14618	20992	25654
Financing (Net)	12480	12838	13893	17315	14663	14618	20992	25654
External (Net)	6769	5860	6129	6711	6951	6977	5345	5162
Domes. (Non-bank)	1810	969	2817	2108	1407	5286	6313	14368
Banking System **	3901	6009	4947	8502	6305	2355	5516	6124
GDP at market prices						278196	324159	364387
	As % of GDP at Market Prices							
Total Revenue	14.6	14.5	15.0	15.7	16.4	16.9	16.1	16.3
Tax Revenue	11.8	11.7	12.2	12.9	13.9	14.0	13.4	13.5
Non-Tax Revenue								
Autonomous Bodies	0.4	0.3	0.3	0.5	0.6	0.7	0.6	0.6
Expenditure	24.5	23.2	23.2	25.1	23.3	22.9	22.1	24.1
Current								
Development								
Overall Deficit	9.5	8.5	7.9	8.9	6.3	5.3	6.5	7.1
Budgetary Support								
(BANKING SYSTEM)	3.0	4.0	2.8	4.4	2.7	0.8	1.7	1.7

Cont.

Table 4.1 SUMMARY OF PUBLIC FINANCE (Consolidated, Federal and Provincial Governments)

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Total Revenues (A + B)	72290	77403	89877	103873	117021	139108	158805	163857
Federal	68445	73105	84879	98037	110949	133286	152186	156730
Provincial	3845	4298	4998	5836	6062	5822	6619	7127
A. Tax Revenues	58361	61218	72423	82927	93456	110338	119435	129640
Federal	55360	57921	68907	78949	88958	105517	114004	124311
Provincial	3001	3297	3516	3978	4498	4821	5431	5329
B. Non-Tax Revenues	13929	16185	17454	20946	23565	28770	39370	34217
Federal	13085	15184	15972	19088	21991	27769	38182	32420
Provincial	844	1001	1482	1858	1574	1001	1188	1797
Surplus of Autonomous Bodies & SAP *	2565	2639	2942	1819	5789	5189	6780	7920
Expenditure	100002	116819	134463	152402	180373	201176	221645	260970
Federal	75902	90074	100043	111856	136151	156417	173203	201264
Provincial	24100	26745	34420	40546	44222	44759	48442	59706
Current	71945	83769	94686	116242	133645	153066	165595	195676
Federal	55009	64585	72383	88577	104200	121001	129953	150670
Provincial	16936	19184	22303	27665	29445	32065	35642	45006
Development	28057	33050	39777	36160	46728	48110	56050	65293
Federal	20893	25489	27660	23279	31951	35416	43250	50593
Provincial	7164	7561	12117	12881	14777	12694	12800	14700
Overall Deficit	25147	36777	41644	46710	57563	56879	56060	89193
Financing (Net)	25147	36777	41644	46710	57563	56879	56060	89193
External (Net)	5001	5169	8584	8424	12691	18195	22945	22101
Domestic (Non-bank)	12280	12873	26962	27371	30931	37865	29581	23724
Banking System **	7866	18735	6098	10915	13941	819	3534	43368
GDP at market prices	419802	472157	514532	572479	675389	769745	855943	1020600
	As % of GDP at Market Prices							
Total Revenue	17.3	16.2	16.6	17.4	17.3	18.0	18.6	16.1
Tax Revenue	12.8	11.7	11.6	11.2	13.8	14.3	14.0	12.7
Non-Tax Revenue					3.5	3.7	4.6	3.4
Autonomous Bodies	0.6	0.5	0.5	0.6	0.9	0.7	0.8	0.8
Expenditure	23.9	24.4	24.9	25.9	26.7	26.1	25.9	25.6
Current						19.9	19.3	19.2
Development						6.3	6.5	6.4
Overall Deficit	6.0	7.6	7.8	7.8	8.5	7.4	6.5	8.7
Budgetary Support (BANKING SYSTEM)	1.9	4.0	1.2	1.9	2.1	0.1	0.4	4.3

Cont.

Table 4.1 SUMMARY OF PUBLIC FINANCE (Consolidated, Federal and Provincial Governments)

	1991-92	1992-93	1993-94	1994-95	1995-96 PA	1996-97 RE	1997-98 B
	(Rs. Million)						
Total Revenues (A + B)	216570	239528	270734	317932	368260	388248	461290
Federal	200642	224613	253150	299454	359766	364522	434870
Provincial	15928	14915	17584	18478	20494	23726	26420
A. Tax Revenues	164307	178391	208410	257892	305580	326509	372649
Federal	156329	171477	199607	248059	293915	312229	354830
Provincial	7478	6914	8803	9833	11665	14280	18019
B. Non-Tax Revenues	52262	61137	62324	60040	62680	61740	88441
Federal	43812	53136	53543	51395	53850	52293	80043
Provincial	8450	8001	8781	8645	8830	9447	8398
Surplus of Autonomous Bodies & SAP *	14934	1600	2000	5000	12000	-	-
Expenditure	321474	348653	364913	428284	518099	543106	609290
Federal	-	-	-	-	-	-	-
Provincial	-	-	-	-	-	-	-
Current	230120	272457	293460	345941	423866	457956	519183
Federal	175021	209417	224425	256457	316007	343147	391933
Provincial	55099	63040	69035	89484	107859	114809	127250
Development	91354	76196	71453	82343	94233	85150	90106
Federal	-	-	-	-	-	-	-
Provincial	-	-	-	-	-	-	-
Overall Deficit	89970	107525	92179	105352	137839	154857	148000
Financing (Net)	89970	107525	92179	105352	137839	154857	148000
External (Net)	18022	24334	24624	29319	28586	16601	30300
Domestic (Non-bank Banking System **)	515	19972	55048	49927	56980	49613	59700
Banking System **	72464	63219	12507	26106	52273	88644	58000
GDP at market prices	1211385	1341629	1572763	1882071	2171256	2503251	2882100
	As % of GDP at Market Prices						
Total Revenue	17.9	17.9	17.3	16.9	17.6	16.1	16.1
Tax Revenue	13.6	13.3	13.3	13.7	14.1	13.5	12.9
Non-Tax Revenue	4.3	4.6	4.0	3.2	2.9	2.6	3.2
Autonomous Bodies	1.2	0.1	0.1	0.3	0.6	-	-
Expenditure	26.5	26.0	23.2	22.8	23.9	22.3	21.1
Current	19.0	20.3	18.8	18.4	19.6	18.8	18
Development	7.5	5.7	4.6	4.4	4.3	3.5	3.1
Overall Deficit	7.4	8.0	5.9	5.6	6.3	6.2	5.0
Budgetary Support (BANKING SYSTEM)	6.0	4.7	0.8	1.4	2.4	3.5	2.0

* SAP from 1992-93 and onward, ** Banking Sys. does not include Repayment of US

Source: Finance Division

Treasury bills of 1241 million Rupees. RE Revised Estimate B Budget

PA Provisional Actual

Table 4.2 SCHEDULED BANKS AND THEIR BRANCHES

Year	PAKISTANI BANKS (#)		FOREIGN BANKS (#)		TOTAL (#)	
	Banks	Branches	Banks	Branches	Banks	Branches
1948	4	23	34	172	38	195
1949	4	54	35	164	39	218
1950	5	81	31	121	36	202
1951	5	97	27	104	32	201
1952	5	113	26	99	31	212
1953	5	135	27	83	32	218
1954	5	160	27	86	32	246
1955	5	163	27	88	32	251
1956	6	177	26	84	32	261
1957	6	197	21	78	27	275
1958	7	232	19	75	26	307
1959	8	296	19	73	27	369
1960	10	358	19	72	29	430
1961	10	507	18	73	28	580
1962	12	639	21	74	33	713
1963	16	883	21	74	37	957
1964	15	1226	21	72	36	1298
1965	16	1521	20	70	36	1591
1966	16	1895	20	72	36	1967
1967	16	2208	20	77	36	2285
1968	15	2460	20	76	35	2536
1969	15	2767	20	75	35	2842
1970	17	3095	19	75	36	3170
1971	17	3078	18	75	35	3153
1972	17	3708	17	74	34	3782
1973	17	4326	17	74	34	4400
1974	10	4190	14	38	24	4228
1975	8	4950	14	37	22	4987
1976	9	5732	15	38	24	5770
1977	9	6295	15	38	24	6333
1978	9	6553	19	42	28	6595
1979	9	6689	21	51	30	6740
1980	9	6760	21	56	30	6816
1981	9	7241	21	56	30	7297
1982	9	7248	23	58	32	7306
1983	9	7120	23	59	32	7179
1984	9	6997	23	59	32	7056
1985	9	6958	23	59	32	7017
1986	9	6988	22	62	31	7050
1987	9	7061	25	65	34	7126
1988	9	7168	28	65	37	7233
1989	10	7222	25	66	35	7288
1990	10	7372	27	67	37	7439
1991	10	7477	29	72	39	7549
1992	20	7574	27	70	47	7644
1993	20	7648	27	73	47	7721
1994	23	8055	26	79	49	8134
1995	25	8345	26	77	51	8422
1996	25	8387	28	82	53	8469
1997	25	8597	21	85	46	8682

Note: Fiscal year up to 1971 and calander year onward

Source: State Bank of Pakistan

Table 4.3 LIABILITIES AND ASSETS OF SCHEDULED BANKS (Ending June)

Item	1954	1955	1956	1957	1958	1959	(Rs. Million)	
							1960	1961
LIABILITIES								
Capital	39.9	40.0	41.3	41.3	47.8	77.8	102.9	155.5
Reserves	19.6	21.1	35.7	37.1	42.6	45.7	52.7	67.4
Demand Deposits:	1208.1	1293.9	1462.0	1542.0	1732.6	1912.4	2094.7	2057.8
Scheduled Banks	36.4	73.0	75.1	107.2	115.3	104.0	99.8	124.3
Others	1171.7	1220.9	1386.9	1434.8	1617.3	1808.4	1994.9	1933.5
Time Deposits:	447.6	560.9	612.9	614.7	742.7	812.2	959.9	1281.8
Scheduled Banks	14.1	35.3	45.2	40.7	44.2	46.2	36.3	56.3
Others	433.5	525.6	567.7	574.0	698.5	768.0	923.6	1225.5
Borrowing from	49.0	48.1	51.1	147.8	97.2	56.0	142.2	415.6
State Bank of Pakistan	19.6	8.5	30.0	92.7	43.6	7.1	6.1	337.6
Banks Abroad	1.2	9.8	1.5	4.8	1.0	0.4	1.7	4.2
Other Sch. Banks	28.2	29.8	19.6	50.3	52.6	48.5	134.4	73.8
Head Office and Inter-Banking Adjustments	41.3	45.1	51.9	30.2	44.0	45.4	77.3	55.9
Contingents Liabilities as per Contra	422.1	542.4	673.3	776.7	881.4	970.5	1396.4	1408.4
Other Liabilities	76.6	90.6	126.8	134.7	146.8	141.5	146.2	204.0
TOTAL LIABILITIES/ASSETS	2304.4	2642.1	3054.9	3324.3	3735.1	4061.4	4972.4	5646.4
ASSETS								
Cash	242.4	318.0	366.4	255.6	310.7	396.4	339.4	360.5
Gold	3.5	3.7	3.4	3.8	12.1	10.3	11.6	11.4
Notes, Coins and Silver Balance with State Bank of Pakistan	49.0	53.8	49.8	53.8	53.8	73.5	85.8	88.5
Balances with Other Scheduled Banks	147.3	199.0	262.4	149.2	193.8	251.8	172.6	176.9
Balances held Abroad	42.6	61.5	50.8	48.8	51.0	60.8	69.4	83.7
Bills Purchased and Discounted	44.0	36.2	87.2	96.5	56.4	51.3	55.8	38.4
Advances to Scheduled Banks	134.5	142.8	132.3	122.7	116.6	170.2	169.3	188.3
Others	672.1	776.3	855.9	1130.0	1231.2	1209.0	1603.0	2132.6
Investment in Securities and Shares:	34.6	53.4	74.5	154.5	172.1	108.6	158.0	212.2
Federal Government Securities	637.5	722.9	781.4	975.5	1059.1	1100.4	1445.0	1920.4
Treasury Bills	682.3	729.1	820.4	829.9	1004.6	1118.8	1223.2	1316.1
Provincial Governments Securities	498.9	557.8	624.1	652.4	816.1	911.9	1024.1	1099.2
Foreign Securities	62.4	56.7	62.5	51.9	56.3	88.7	20.6	-
Others	97.8	91.2	106.8	105.9	108.7	113.6	155.3	192.4
Bank Premises	5.4	5.1	9.6	9.2	7.0	6.6	6.1	5.5
Head Office and Inter-Bank Adjustments	17.8	18.3	17.4	10.5	16.5	18.0	17.1	19.0
Contingent Assets as per Contra	19.0	20.6	23.0	25.8	27.4	28.6	61.6	39.8
Other Assets	23.2	17.4	23.2	12.7	20.7	11.0	7.5	20.4
Contingent Assets as per Contra	422.1	542.4	673.3	776.7	881.4	970.5	1396.4	1408.4
Other Assets	64.8	59.3	73.2	74.4	86.1	105.6	116.1	142.0

Cont.

Table 4.3 LIABILITIES AND ASSETS OF SCHEDULED BANKS (Ending June)

Item	(Rs. Million)							
	1962	1963	1964	1965	1966	1967	1968	1969
LIABILITIES								
Capital	203.6	223.8	228.6	254.8	270.2	340.3	315.0	374.4
Reserves	77.5	87.3	105.1	122.2	148.0	212.2	207.3	233.9
Demand Deposits:	2306.0	2899.2	3422.4	3776.4	4317.4	4757.3	5270.5	5746.1
Scheduled Banks	138.2	136.8	189.5	133.2	260.1	207.8	312.7	446.1
Others	2167.8	2752.4	3232.9	3643.2	4057.3	4549.5	4957.8	5300.0
Time Deposits:	1610.9	2102.9	2649.6	3315.2	4238.5	5174.1	5993.5	6291.9
Scheduled Banks	99.6	184.5	121.7	55.5	146.2	93.9	61.1	180.6
Others	1511.3	1918.4	2527.9	3259.7	4092.3	5080.2	5932.4	6111.3
Borrowing from:	550.7	561.1	922.8	1727.8	1222.5	2393.4	2456.8	2340.8
State Bank of Pakistan	360.6	357.8	717.7	1533.1	1022.8	1777.5	1722.8	1626.6
Banks Abroad	14.7	9.2	5.0	27.2	3.3	410.7	531.0	555.3
Other Sch. Banks	175.4	194.1	200.1	167.5	196.4	205.2	203.0	158.9
Head Office and Inter-Banking Adjustments	97.2	52.0	52.4	145.8	167.6	52.2	173.9	314.1
Contingents Liabilities as per Contra	2428.5	2865.7	4404.4	4869.4	4793.3	5551.7	5747.4	6110.7
Other Liabilities	310.5	387.2	474.7	572.7	646.2	816.3	900.9	1079.1
TOTAL LIABILITIES/ASSETS	7585.0	9169.0	12260.0	14784.4	15803.8	19261.6	21065.2	22490.9
ASSETS								
Cash	434.7	626.3	813.1	951.4	1099.9	1406.8	1443.1	1540.0
Gold	10.6		0.2	0.2	0.5	0.1	-	418.2
Notes, Coins and Silver	95.8	128.5	189.3	228.6	291.4	355.8	362.1	722.4
Balance with State Bank of Pakistan	222.8	274.4	397.8	612.9	524.3	718.1	697.6	399.4
Balances with Other Scheduled Banks	105.5	223.4	225.8	109.7	283.7	332.8	383.4	-
Balances held Abroad	35.4	51.1	56.2	51.0	66.2	50.9	63.0	92.3
Bills Purchased and Discounted	238.4	295.4	378.5	371.1	340.9	424.8	482.4	584.5
Advances to:	2890.8	3594.1	4595.0	6159.4	6589.3	8430.7	9575.5	9775.1
Scheduled Banks	298.1	286.1	253.0	257.7	272.7	222.9	163.3	315.5
Others	2592.7	3308.0	4342.0	5901.7	6316.6	8207.8	9412.2	9459.6
Investment in Securities and Shares:	1316.2	1387.2	1547.8	1865.6	2237.5	2535.6	2823.7	3321.7
Federal Government Securities	1076.0	1081.9	1145.4	1267.3	1354.5	1374.8	1589.1	1945.7
Treasury Bills	-	-	-	5.0	125.8	8.5	71.6	65.2
Provincial Governments Securities	182.7	231.4	274.3	350.5	349.1	577.4	574.2	458.0
Foreign Securities	6.6	4.0	2.8	2.4	3.8	3.8	3.1	3.1
Others	50.9	69.9	125.3	240.4	404.3	571.1	585.7	849.7
Bank Premises	43.8	36.5	47.5	58.8	68.6	80.5	126.0	151.3
Head Office and Inter-Bank Adjustments	17.0	57.8	75.1	31.3	36.8	71.4	19.8	22.7
Contingent Assets as per Contra	2428.5	2865.7	4404.4	4869.4	4793.3	5551.7	5747.4	6110.7
Other Assets	180.1	255.0	342.5	426.4	571.3	709.0	784.3	892.7

Cont.

Table 4.3 LIABILITIES AND ASSETS OF SCHEDULED BANKS (Ending June)

Item	1970	1971	1972	1973	1974	1975	1976
	LIABILITIES						
Capital	466.1	488.9	500.3	500.7	506.0	469.6	535.1
Reserves	253.1	285.4	308.5	373.8	393.4	538.2	568.5
Demand Deposits:	6812.1	7573.0	9706.3	12076.7	13343.6	14222.4	18185.9
Scheduled Banks	657.4	567.0	890.2	1054.1	784.2	808.8	1207.4
Others	6154.7	7006.0	8816.1	11022.6	12559.4	13413.6	16978.5
Time Deposits:	7145.8	7017.9	7943.6	9727.5	10179.8	11435.0	15327.9
Scheduled Banks	63.2	145.4	107.6	130.7	125.8	193.1	128.9
Others	7082.6	6872.5	7836.0	9596.9	10054.0	12241.9	15199.0
Borrowing from	2107.7	4227.4	2143.3	2758.4	5762.0	6575.4	6166.2
State Bank of Pakistan	1398.3	3401.4	1299.4	1497.0	4311.4	5818.0	5179.9
Banks Abroad	585.5	648.3	703.7	1094.8	1057.7	520.6	664.9
Other Sch. Banks	123.9	177.7	140.2	166.6	392.9	236.8	321.4
Head Office and Inter-Banking Adjustments	433.3	499.0	1305.4	989.2	2227.2	915.3	934.7
Contingents Liabilities as per Contra	7486.5	7736.7	10812.4	15871.6	20861.0	19353.3	18601.0
Other Liabilities	1280.1	1569.8	2038.8	3072.5	3903.9	5639.7	6562.1
TOTAL LIABILITIES/ASSETS	25984.6	29347.9	34758.2	45370.4	57177.1	59184.9	66881.3
	ASSETS						
Cash	1820.4	2079.5	2205.4	2825.6	3164.4	3350.9	4191.3
Gold	519.8						
Notes, Coins and Silver	831.1	762.7	522.0	648.3	879.4	989.1	1385.5
Balance with State Bank of Pakistan	469.5	761.7	1123.3	1477.4	1544.2	1975.2	2143.1
Balances with Other Scheduled Banks	-	555.0	560.1	699.9	740.8	386.6	662.7
Balances held Abroad	157.5	101.4	298.2	499.3	530.1	731.3	529.6
Bills Purchased and Discounted	641.6	596.0	915.3	1275.4	1513.0	2316.9	1884.9
Advances to	11074.6	11991.4	12930.4	15290.9	19640.8	21159.6	25345.1
Scheduled Banks	420.0	412.3	497.6	693.4	461.4	242.2	406.1
Others	10654.6	11579.1	12432.8	14597.5	19179.4	20927.4	24939.0
Investment in Securities and Shares:	3454.2	3817.0	5290.9	6822.0	6424.1	7287.2	9662.5
Federal Government Securities	1752.7	1958.2	2293.2	2301.7	2953.7	3310.4	3795.3
Treasury Bills	167.9	55.6	992.1	2057.6	714.7	1171.8	2246.8
Provincial Governments Securities	611.1	757.7	926.3	909.5	954.6	960.2	985.9
Foreign Securities	3.1	3.1	3.1	3.1	3.1	3.7	15.3
Others	919.4	1042.4	1176.2	1550.1	1798.0	1841.1	2619.3
Bank Premises	176.7	232.8	295.9	362.9	399.5	279.7	567.8
Head Office and Inter-Bank Adjustments	15.4	364.5	262.2	39.8	71.0	288.8	522.4
Contingent Assets as per Contra	7486.5	7736.7	10812.4	15871.6	20861.0	19353.3	18601.0
Other Assets	1157.7	2428.6	1983.5	2382.9	4573.2	4371.3	5576.6

Cont.

Table 4.3 LIABILITIES AND ASSETS OF SCHEDULED BANKS (Ending June)

Item	(Rs. Million)									
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
LIABILITIES										
Capital	781.0	827.5	1013.6	1135.3	1311.1	3349.4	3711.8	4156.7	4618.0	4580.4
Reserves	653.3	916.6	1045.5	1153.7	1411.3	1544.8	1912.7	2862.7	4135.2	6098.4
Demand Deposits:	22592.7	26439.5	32140.4	36355.2	43540.0	47396.3	59163.0	63450.0	70094.2	80483.8
Scheduled Banks	1292.9	1550.9	1457.1	1369.5	1566.3	1641.4	1535.6	1724.6	1863.3	4056.4
Others	21299.8	24888.6	30683.3	34985.7	41973.7	45754.9	57627.4	61725.4	68230.9	76427.4
Time Deposits:	17063.0	22585.9	126120.8	31154.7	33634.2	38760.0	51328.1	62749.8	69502.9	89557.4
Scheduled Banks	180.4	78.9	72.8	91.7	258.9	455.1	284.8	820.7	459.3	425.2
Others	16882.6	22507.0	26048.0	31063.0	33375.3	38304.9	51043.3	61929.1	69043.5	89132.2
Borrowing from	7740.5	6514.4	8970.8	11065.1	16143.4	18773.7	19549.8	21400.6	24770.4	28797.0
State Bank of Pakistan	6765.8	5138.2	7404.8	9033.6	13407.4	15386.6	15965.9	16524.3	17990.3	22818.1
Banks Abroad	602.9	887.0	851.3	909.8	932.0	1309.3	1488.1	2120.0	2524.6	255.0
Other Sch. Banks	371.8	489.2	714.7	1121.7	1804.0	2077.8	2095.8	2756.3	4255.5	5723.9
Head Office and Inter-Banking Adjustments	979.1	3388.7	150.9	2899.6	1141.1	2129.9	663.8	2733.0	5020.0	7757.5
Contingent Liabilities as per Contra	20916.1	25057.5	33046.9	33761.6	38553.1	40143.0	52699.1	62836.6	79667.9	91825.7
Other Liabilities	7843.2	8966.7	11129.3	12536.6	14241.6	18050.8	24147.3	28603.3	39957.1	50721.2
TOTAL LIABILITIES/ASSETS	78569.0	94696.8	114969.2	130061.8	149975.8	170147.8	213175.6	248792.8	297765.6	359821.2
ASSETS										
Cash:	4857.9	5529.9	6807.3	7384.7	8323.7	10214.0	11996.3	14877.1	19181.4	23317.1
Gold	-	-	-	-	-	-	-	-	-	-
Notes, Coins and Silver	1655.3	1704.4	2007.0	2097.5	2620.8	2739.9	3081.4	2885.2	3924.3	3944.7
Balance with State Bank of Pakistan	2688.9	3070.9	3923.4	4283.6	4605.5	5862.2	6478.2	8293.7	9344.2	11399.9
Balances with Other Scheduled Banks	513.7	754.6	876.9	1003.6	1097.4	1611.9	2436.7	3698.2	5913.0	7972.5
Balances held Abroad	392.7	853.4	832.8	1272.9	805.0	1447.2	2552.9	3631.9	3551.5	4422.0
Bills Purchased and Discounted	2478.0	2347.3	3394.9	2554.5	3131.6	4425.9	5488.9	4650.5	7657.9	9816.3
Advances to	29670.3	33217.3	40222.0	46859.8	56812.8	67540.1	82499.8	99209.4	113962.9	135917.4
Scheduled Banks	387.6	382.5	465.0	940.9	924.2	1060.4	1354.0	1843.0	2063.4	2241.3
Others	29282.7	32834.8	39757.0	45918.9	55888.6	66479.7	81145.8	97366.4	111899.5	133676.1
Investment in Securities and Shares:	12506.3	17269.6	19686.4	24957.6	26838.1	28769.4	36237.6	38189.4	39524.9	53678.7
Federal										
Government Securities	4159.8	4462.1	5653.0	6945.1	15168.0	15774.9	18215.6	18828.1	16715.5	16285.6
Treasury Bills	3677.2	6516.4	6710.4	9023.8	1468.4	1451.5	4603.2	2607.6	7080.1	19845.6
Provincial										
Governments Securities	1008.9	1081.2	1241.3	1311.8	1353.7	1409.4	1633.2	2383.4	2505.0	2605.6
Foreign Securities	15.3	27.8	26.5	13.3	13.9	2.6	2.6	2.6	2.6	2.6
Others	3645.1	5182.0	6055.2	7663.6	8834.1	10131.1	11783.0	14367.7	13721.7	14939.5
Bank Premises	436.3	631.8	625.5	665.7	754.2	1428.1	761.4	728.6	853.5	758.9
Head Office and Inter-Bank Adjustments	616.1	656.0	229.7	555.6	1505.2	297.0	2308.2	2122.6	4297.7	5657.6
Contingent Assets as per Contra	20916.1	25057.5	33046.9	33761.6	38553.1	20143.0	52699.1	62836.6	79667.9	91825.7
Other Assets	6695.3	9133.9	10123.7	12049.4	13251.8	15883.1	18631.6	22546.8	29067.8	34427.5

Cont.

Table 4.3 LIABILITIES AND ASSETS OF SCHEDULED BANKS (Ending June)

Item	(Rs. Million)									
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
LIABILITIES										
Capital	8815.5	9901.9	10659.1	11365.8	11933.3	16174.6	20601.4	23170.7	29115.5	32131.0
Reserves	7451.1	8372.5	9923.1	11163.3	12169.3	13820.0	15724.7	18965.3	21509.1	24312.5
Demand Deposits:	92289.9	105013.2	117201.1	132794.4	158823.5	198155.2	233809.4	272512.3	321172.3	363301.7
Scheduled Banks	2921.2	3642.1	3893.7	5461.1	7491.8	8149.0	9664.6	10032.9	6677.2	5676.8
Others	89368.7	101371.1	113307.4	127333.3	151331.8	190006.2	224144.8	262479.4	314495.1	357624.9
Time Deposits:	106252.7	113188.9	128286.2	182350.0	192845.3	227336.2	267842.9	336260.8	401210.8	471527.3
Scheduled Banks	497.4	1046.4	1088.3	429.1	290.8	640.3	1189.8	5618.3	3052.0	2299.0
Others	105755.2	112142.6	127197.9	152920.9	192554.5	226695.9	266653.1	330642.5	398158.9	469228.3
Borrowing from:	31782.2	38168.4	41884.6	55694.0	69756.7	76231.7	77705.6	101415.7	109492.7	93267.6
State Bank of Pakistan	28269.4	33340.1	36547.7	40284.0	48782.7	57267.0	65200.6	70544.5	82697.6	70354.7
Banks Abroad	288.7	622.0	642.0	9498.1	11140.6	11689.1	3274.1	14217.3	3502.4	2300.8
Other Scheduled Banks	3224.1	4206.3	4694.9	5911.9	9833.4	7275.6	9230.9	16653.9	23292.7	20612.1
Head Office and Inter-Bank Adjust.	11710.7	12966.5	12061.3	20285.8	26430.8	27148.0	35020.3	43263.4	38498.8	47772.8
Contingent Liabilities as per Contra	123157.4	151148.2	188627.2	247627.9	299501.3	331395.0	426888.2	526192.6	586676.0	760141.1
Other Liabilities	60111.6	64696.5	78145.5	90023.0	102725.1	75045.0	235580.2	282661.7	342678.0	344837.8
TOTAL LIABILITIES/ASSETS	441571.0	503456.2	586788.3	721304.2	874185.3	965305.7	1313172.7	1604442.5	1850572.4	2137291.8
ASSETS										
Cash:	30889.4	28600.0	31687.8	35044.6	42332.2	66362.9	80599.5	95699.7	103270.9	111722.9
Gold	-	-	-	-	-	-	-	-	-	-
Notes, Coins and Silver	4532.1	5175.6	5840.4	5564.2	9734.4	8962.0	14621.7	15014.0	25936.2	22850.2
Balance with State Bank of Pak.	22077.5	16505.2	18956.8	21147.4	25012.5	48827.0	50654.6	63766.1	61861.5	67578.5
Balance with Other Scheduled Banks	4279.8	6919.2	6890.5	8332.9	7585.3	8573.9	15323.2	16919.6	15473.2	21294.2
Balance held Abroad	4769.8	5434.8	6165.7	7903.2	10875.5	10844.0	7701.8	7900.4	8785.4	19233.7
Bills Purchased and Discounted	13464.6	14765.4	18667.3	24986.7	35449.1	35482.5	36336.7	41622.5	46067.3	47154.2
Advances to:	149945.2	164338.4	181725.1	225450.2	240647.6	291281.8	348566.4	399433.0	462970.8	508097.8
Scheduled Banks	787.2	1287.4	3254.0	8460.3	5319.5	10930.7	4524.7	3874.9	9057.8	5452.7
Others	149158.0	163051.0	178471.1	216989.9	235328.1	280351.1	344041.6	395558.1	453913.0	502645.1
Investment in Securities and Shares:	66831.3	89644.0	90522.7	78620.7	110632.5	146478.1	184641.1	231087.2	246122.5	297936.1
Federal										
Government Securities	15228.1	19062.5	23113.9	23082.6	51294.5	79339.1	112805.9	112663.1	116813.7	123648.8
Treasury Bills	27582.0	44646.3	40099.3	27223.0	31206.2	38768.0	42904.8	87993.1	92292.1	131067.8
Provincial										
Governments Securities	4047.8	4064.9	4018.5	3981.0	3916.4	3827.3	3678.9	3233.7	3257.2	3420.7
Foreign Securities	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	1.5
Others	19970.8	21867.7	23288.4	24332.5	24212.8	24540.8	25248.9	27194.4	33756.9	39797.3
Bank Premises	817.3	983.8	986.0	1309.0	1435.6	1751.9	3908.2	2633.8	4661.7	5224.6
Head Office and Inter-Bank Adjustment	11786.5	1842.4	11279.9	14891.2	29716.3	19928.5	54659.5	75104.7	83686.2	104030.9
Contingent Assets as per Contra	123157.4	151148.2	188627.2	247627.9	299501.3	331395.0	426888.2	526192.6	586676.0	760141.1
Other Assets	39909.5	46699.0	57116.7	85470.7	103595.3	61781.0	169871.4	224768.7	308331.6	283750.4

Source : State Bank of Pakistan

TABLE 4.4 DISTRIBUTION OF SCHEDULED BANKS DEPOSITS
Weighted Average Rates of Return

		Percent per annum									
		FIXED DEPOSITS									Total Deposit
As at the End of		Current Deposit	Call Deposit	Other Deposit	Saving Deposit	Over 6	Over 1	Over 2	Over 3 years		
						Upto 6 Month	Month to 1 year	year to 2 years		years to 3 years	
1960	September	0.28	2.01	0.53	1.53	2.44	2.37	3.37	3.00	2.85	1.10
	December	0.33	2.19	0.84	1.50	2.55	2.70	2.65	3.11	3.07	1.15
1961	June	0.03	2.65	1.06	1.72	2.48	2.78	1.79	3.25	4.04	1.05
	December	0.02	1.72	1.26	1.79	2.74	2.76	3.21	3.28	4.00	1.14
1962	June	0.02	1.71	1.44	1.97	2.78	2.75	2.82	3.28	3.92	1.24
	December	0.02	1.67	1.26	2.09	2.50	2.84	3.22	3.50	4.06	1.34
1963	June	0.03	1.67	1.46	2.10	2.53	2.85	3.30	3.41	4.07	1.31
	December	0.01	1.61	1.41	2.11	2.54	2.86	3.24	3.54	3.66	1.35
1964	June	0.02	1.74	1.61	2.09	2.54	3.16	3.11	3.52	4.03	1.39
	December	0.07	1.55	1.50	2.12	2.49	2.87	3.22	3.55	3.92	1.45
1965	June	0.01	2.05	1.41	2.16	2.70	2.91	3.22	3.53	4.11	1.57
	December	0.03	1.71	1.54	3.44	3.26	3.33	3.86	4.07	4.64	2.02
1966	June	0.01	1.83	1.87	3.47	3.21	3.51	4.06	4.44	4.82	2.23
	December	0.01	2.65	1.79	3.47	3.19	3.63	4.07	4.60	4.87	2.34
1967	June	0.02	2.81	1.82	3.49	3.31	3.59	4.09	4.51	4.90	2.43
	December	0.01	2.55	1.79	3.79	3.71	3.71	4.19	4.60	4.95	2.65
1968	June	0.01	2.45	2.10	3.98	3.91	4.08	4.29	4.65	5.03	2.80
	December	0.01	2.85	1.93	4.48	4.24	4.70	4.83	5.10	5.85	3.23
1969	June	0.01	3.06	2.14	4.14	4.07	4.95	5.08	5.66	5.80	3.17
	December	0.01	3.16	1.69	4.09	4.21	4.97	5.17	5.86	5.90	3.08
1970	June	0.01	3.40	1.95	4.09	4.20	5.05	5.26	5.97	5.93	3.23
	December	0.01	3.36	1.93	4.08	4.19	5.03	5.22	6.02	6.02	3.20
1971	June	0.01	3.20	1.96	4.06	4.08	5.11	5.31	6.09	6.11	3.11
	December	0.01	3.11	1.89	4.06	4.19	5.07	6.02	6.14	5.28	3.13
1972	June	0.03	4.27	2.11	4.67	4.13	5.24	5.46	6.03	6.20	3.38
	December	0.04	3.97	2.16	4.89	4.78	5.59	5.78	6.37	6.43	3.43
1973	June	0.08	4.14	2.67	4.92	4.91	5.83	5.97	6.53	6.48	3.59
	December	0.06	3.30	2.11	5.76	5.58	6.65	6.95	7.05	6.95	3.58
1974	June	0.06	2.73	2.34	5.78	5.56	7.10	7.08	7.19	7.01	3.94
	December	0.09	3.51	2.59	6.14	6.44	8.19	3.39	8.75	8.92	4.35
1975	June	0.07	4.26	2.19	6.15	6.95	8.54	8.68	9.09	9.54	4.67
	December	0.13	4.29	2.72	6.63	7.52	8.85	9.08	9.49	9.98	5.12
1976	June	0.06	4.31	2.99	6.66	7.59	8.95	9.30	9.80	10.66	5.30
	December	0.07	4.70	3.07	6.67	7.69	9.09	9.48	10.06	10.86	5.30
1977	June	0.11	4.74	2.91	7.13	7.78	9.38	9.67	10.24	11.29	6.32
	December	0.09	5.18	3.27	7.57	8.59	9.55	10.07	10.48	11.39	6.10
1978	June	0.09	5.01	3.17	7.59	8.66	9.95	10.24	10.72	11.50	6.23
	December	0.27	5.13	3.26	7.58	8.83	10.04	10.40	10.93	11.63	6.24
1979	June	0.15	5.41	2.98	7.57	8.94	10.09	10.52	10.93	11.70	6.11
	December	0.11	5.63	2.10	7.57	8.91	10.06	10.48	11.00	11.78	6.16
1980	June	0.10	5.73	3.47	7.58	8.89	10.15	10.41	11.06	11.82	6.18
	December	0.08	5.29	4.24	7.59	8.99	10.15	10.46	11.10	11.89	6.21
1981	June	0.11	5.33	3.79	7.57	9.39	10.43	10.48	11.19	12.03	6.95
	December	0.08	5.98	4.09	7.59	9.97	10.21	10.58	11.32	12.19	6.38

Cont.

Table 4.4 DISTRIBUTION OF SCHEDULED BANKS DEPOSITS
Weighted Average Rates of Return

		Percent per annum												
		TERM OF FIXED DEPOSITS												
							6 Mon.	1 Year	2 Years	3 Years	4 Years			
		Curr.			Less	to less	to less	to less	to less	to less	to less	5 Years	Total	
As at the	End of	ent	Call	Other	Saving	than 6	than	than	than	than	than	and	Deposit	
		Dept.	Dept.	Dept.	Dept.	Months	1 year	2 years	3 years	4 years	5 years	above		
1982	June	0.04	5.82	4.00	7.60	9.61	9.84	10.34	11.06	12.02	12.31	12.37	6.05	
	December	0.02	6.31	4.60	7.62	9.30	9.88	10.60	10.97	11.95	12.22	12.46	6.48	
1983	June	0.02	6.26	4.51	7.64	9.19	9.91	10.49	10.76	11.84	12.39	12.44	6.24	
	December	0.01	6.25	4.31	7.62	9.36	9.94	10.52	10.73	11.72	12.42	12.43	6.18	
1984	June	-	5.51	4.69	7.61	9.29	9.93	10.53	11.10	11.79	12.54	12.47	6.39	
	December	0.03	6.05	4.27	7.62	8.64	9.80	10.48	10.87	11.75	12.25	12.43	6.18	
1985	June	-	5.40	3.79	7.63	8.79	9.69	10.38	10.95	11.58	12.40	12.41	5.76	
	December	-	4.96	3.32	7.64	7.88	9.26	10.22	11.06	11.66	12.36	12.24	9.16	
1986	June	-	4.44	3.90	7.61	7.89	9.04	9.41	10.53	11.38	11.91	12.03	8.80	
	December	-	5.16	3.10	6.99	8.03	9.16	7.98	10.98	11.61	12.26	12.35	8.14	
1987	June	-	4.96	2.53	6.98	7.69	7.38	8.39	10.10	11.72	11.98	12.20	7.87	
	December	-	5.11	3.04	6.93	7.82	8.49	8.12	11.19	11.82	12.44	12.30	8.05	
1988	June	-	3.19	2.65	7.30	7.24	8.24	8.11	10.58	11.31	10.50	12.08	7.67	
	December	-	2.99	2.50	6.92	6.87	7.82	7.70	10.04	10.74	9.97	11.46	7.28	
1989	June	-	3.73	2.63	7.16	9.78	9.40	7.29	8.13	10.12	11.75	12.25	7.95	
	December	-	3.53	2.95	8.17	8.11	9.23	9.09	11.86	12.68	11.78	13.54	8.59	
1990	June	-	2.31	4.21	7.45	8.59	10.65	8.38	8.92	8.21	12.59	11.52	8.23	
	December	-	4.37	3.65	10.13	10.06	11.63	11.28	14.69	15.74	14.63	16.80	10.66	

Note: Weighted average rates pertain to other than PLS deposits

Cont.

Table 4.4 DISTRIBUTION OF SCHEDULED BANKS DEPOSITS
Weighted Average Rates of Return

I. PLS & Interest Bearing - All Banks													
		TERM OF FIXED DEPOSITS										Percent per annum OVER ALL	
		3 Mon.	6 Mon.	1 Year	2 Years	3 Years	4 Years	5 Years	5 Years	Current	Current		
		to less	to less	to less	to less	to less	to less	to less	and	& other	& other		
		than 3	than 6	than 1	than 2	than 3	than 4	than 5	Above	Deposits	Deposits		
As at the	End of	Call	Sav-	Less	to less	to less	to less	to less	to less	to less	to less	to less	to less
End of	End of	Dept.	ing	than 3	than 6	than 1	than 2	than 3	than 4	than 5	than 5	than 5	than 5
End of	End of	Dept.	Dept.	Mon.	6 Mon.	1 Year	2 Years	3 Years	4 Years	5 Years	Above	Deposits	Deposits
1991	June	4.6	6	5.91	7.48	8.84	7.79	9.35	10.51	11.27	12.46	7.59	6
		1.64	55.1	9.06	8.22	3.93	7.57	3.8	2.54	1.91	6.22		
1992	Dec.	5.23	7.42	5.88	6.94	8.99	7.52	10.19	11.99	13.44	14.02	7.96	6.38
		1.7	57.25	9.62	7.65	3.74	7.18	2.24	3.28	0.65	6.69		
1993	June	5.04	7.14	5.61	6.37	8.8	7.26	10.22	11.9	13.09	13.75	7.7	6.09
		1.76	56.51	8.97	8.29	3.75	7.49	1.84	3.16	0.7	7.25		
	Dec.	5.56	7.31	6.67	6.64	7.82	7.3	11.34	11.57	13.68	14.84	8.11	6.4
		1.82	56.51	8.89	7.75	4.39	6.64	1.56	3.91	0.91	7.62		
1994	June	5.86	7.31	6.76	6.67	8.1	7.59	9.51	11.4	13.68	14.36	8.04	6.17
		1.68	56.77	8.07	8	4.81	7.28	2.48	3.22	1.1	7.59		
	Dec.	5.45	7.37	7	7.16	8.38	9.16	10.86	11.71	12.68	14.7	8.31	6.37
		2.23	54.81	8.54	7.7	4.94	7.53	2.29	3.41	1.23	7.32		
1995	June	4.75	7.3	6.69	7.35	8.72	8.01	10.91	11.77	13.22	14.73	8.18	6.25
		2.53	53.69	8.08	8.61	6.01	7.59	1.56	3.02	0.91	8.01		
	Dec.	5.64	7.26	7.08	7.19	8.42	8.53	11.06	12.27	12.84	14.64	8.18	6.35
		2.79	52.5	8.33	10.1	5.89	7.1	1.73	3.08	0.83	7.68		
1996	June	6.1	7.33	7.28	6.75	7.66	8.17	10.84	12.11	13.59	14.9	8.24	6.42
		1.97	52.76	7.63	9.31	5.81	8.41	1.63	3.15	0.87	8.46		
	Dec.	7	7.43	7.39	7.03	7.88	7.9	10.95	12.29	13.64	14.96	8.36	6.62
		2.43	51.61	7.28	10.15	5.97	8.21	1.83	3	0.91	8.6		
1997	June	6.23	7.36	7.93	7.25	7.78	8.3	10.38	12.41	13.08	14.9	8.49	6.8
		1.57	53.61	6.84	9.01	5.65	7.35	1.83	3.16	1.34	9.64		

Note: Second line figures are percentages of total deposits PLS: Profit and Loss Sharing

II. Profit and Loss Sharing - All Banks

1991	June	4.86	6.93	5.78	7.93	8.96	9.26	9.77	10.69	10.93	12.66	7.66	5.51
		1.48	64.63	8.76	2.92	3.7	3.26	3.35	2.83	1.84	6.86		
1992	Dec.	5.45	7.67	6.93	9.41	10.34	10.8	11.7	12.69	13.64	14.61	8.65	6.24
		1.93	62.67	9.99	4.15	3.71	4.06	2.34	3.24	0.81	7.1		
1993	June	5.38	7.49	6.55	9.24	9.92	10.72	11.25	12.18	13.13	14.4	8.55	6.07
		1.93	62.07	8.83	3.93	3.94	4.05	2.06	3.76	0.91	8.51		
	Dec.	5.84	8.05	7.67	9.84	10.8	11.4	11.83	12.98	13.92	15.39	9.26	6.64
		2.08	62	8.89	4.11	3.18	3.6	1.99	3.87	1.02	9.26		
1994	June	6.23	8.04	7.93	9.81	10.72	11.24	11.78	12.79	13.84	15	9.27	6.62
		2.03	62.32	7.4	3.83	3.63	4.28	2.2	3.69	1.45	9.17		
	Dec.	6.03	7.85	7.79	9.58	10.58	11.62	11.72	12.76	13.58	15.08	9.19	6.59
		1.91	60.84	7.96	3.51	3.41	5.73	2.51	3.62	1.34	9.17		

Cont.

Table 4.4 DISTRIBUTION OF SCHEDULED BANKS DEPOSITS
Weighted Average Rates of Return

As at the End of	Call Dept.	TERM OF FIXED DEPOSITS										Percent per annum OVER ALL	
		Sav- ing Dept.	Less than 3 Mon.	to less than 6 Mon.	to less than 1 Year	to less than 2 Years	to less than 3 Years	to less than 4 Years	to less than 5 Years	to less than Above	5 Years and & other Deposits	Excludin & other Deposits	Including & other Deposits
1995 June	6.34	7.59	7.76	9.47	10.36	11.19	11.65	12.61	13.28	15.01	9	6.39	
	2.2	61	7.28	3.81	4.75	4.19	1.8	3.61	1.21	10.13			
'Dec.	6.29	7.58	7.98	9.74	10.62	10.93	11.64	12.68	13.27	14.88	9.07	6.64	
	1.68	60.59	6.68	4.64	4.11	4.79	2.06	4	1.06	10.38			
1996 June	6.53	7.79	8.38	9.68	10.69	11.22	11.84	12.88	13.66	15.11	9.36	6.87	
	2.1	59.73	6.77	3.99	3.52	5.23	1.94	4.04	1.23	11.45			
'Dec.	6.56	7.95	8.55	10.24	10.94	11.57	11.8	13	13.75	15.4	9.39	9.98	
	1.81	59.64	6.65	3.99	3.37	5.16	2.35	4.05	1.36	11.62			
1997 June	6.65	7.97	9.27	10.18	10.86	11.55	12.1	13.09	13.61	15.42	9.7	7.2	
	1.77	59.76	6.42	3.75	2.88	4.05	1.81	4.28	1.87	13.41			

Note: Second line figures are percentages of total deposits

III. Interest Bearing - All Banks

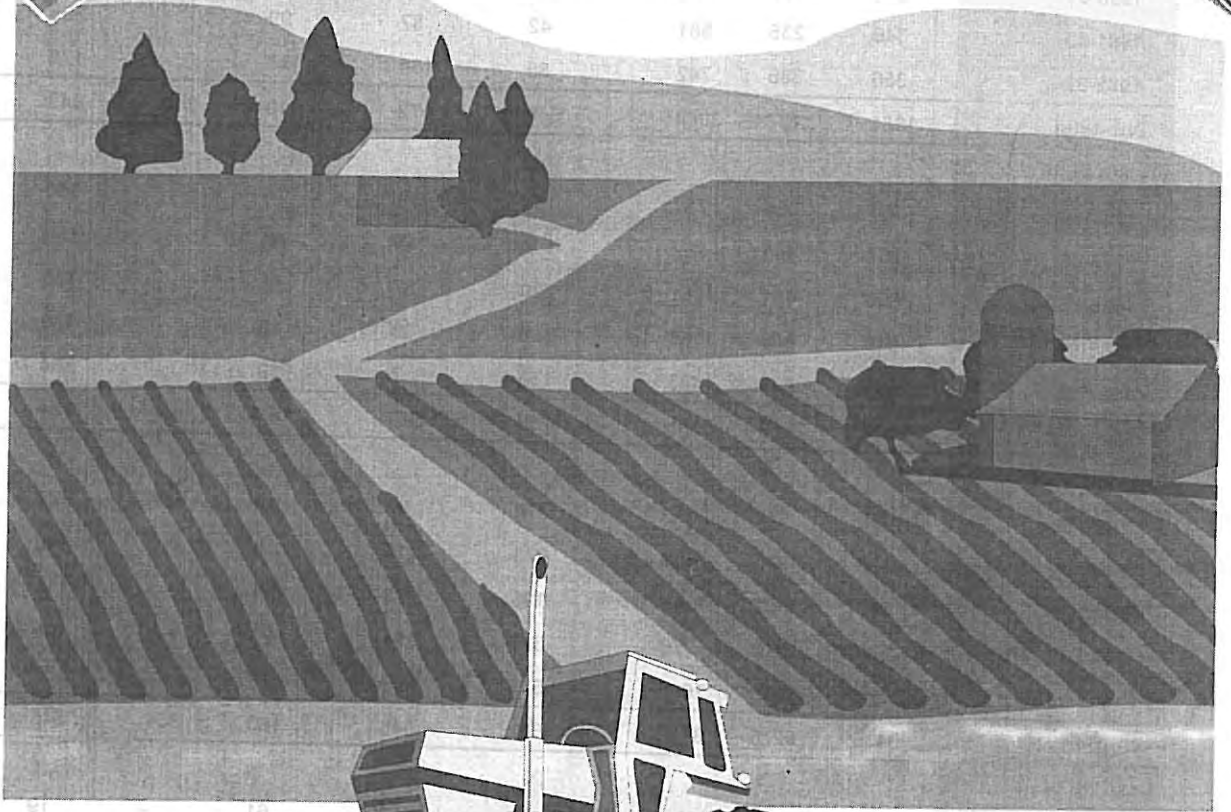
1991 June	3.03	2.88	6.3	7.3	8.52	6.9	8.41	9.24	12.28	11.15	7.34	7
	2.22	20.3	10.13	27.58	4.79	22	5.44	1.45	2.2	3.87		
1992 Dec.	4.36	5.1	4.42	5.39	5.51	5.2	4.9	10.21	11.22	12.34	5.7	5.57
	1.03	41.42	8.53	17.92	3.82	16.3	1.94	3.42	0.15	5.47		
1993 June	4.33	4.78	4.29	4.9	5.05	5.05	4.66	9.96	10.93	11.41	5.12	4.91
	1.23	41.49	9.41	20.91	3.21	17.44	1.18	1.41	0.09	3.63		
'Dec.	4.79	4.75	4.5	4.62	4.81	4.8	6.21	7.92	12.42	10.95	5.14	4.69
	1.19	42.88	8.89	16.77	7.38	14.16	0.51	4.01	0.64	3.57		
1994 June	3.8	4.7	4.66	5.08	5.15	5.04	5.77	5.8	14.74	10.86	5.17	4.8
	0.84	40.45	19.64	17.77	7.56	14.29	3.14	2.14	0.28	3.99		
'Dec.	4.47	5.33	5.33	5.96	6.13	6.08	7.41	8.1	9.11	10.68	5.93	5.59
	3.1	38.48	10.12	19.04	9.06	12.4	1.69	2.85	0.92	2.34		
1995 June	2.02	5.96	4.67	6.35	6.51	5.88	7.1	6.22	11.63	11.61	6.03	5.74
	3.4	34.36	10.18	21.38	9.32	16.57	0.93	1.45	0.11	2.41		
'Dec.	5.17	5.91	5.93	5.98	6.32	6.37	8.11	8.21	9.23	10.18	6.1	5.51
	5.39	33.33	12.22	22.93	10.1	12.54	0.95	0.94	0.3	1.3		
1996 June	4.86	5.58	5.5	5.5	5.44	5.83	6.08	5.5	5.55	11.38	5.66	5.15
	1.68	36.67	9.62	21.57	11.1	15.73	0.94	1.09	0.02	1.58		
'Dec.	7.43	5.79	5.64	5.91	6.08	5.31	6.27	6.6	4.09	11.38	6	5.72
	3.62	36.14	8.51	22.01	11	14.1	0.82	0.97	0.03	2.79		
1997 June	5.09	5.8	5.86	6.17	6.26	6.5	6.33	7.55	8.21	10.16	6.18	5.85
	1.2	42.31	7.6	18.67	10.76	13.42	1.87	1.09	0.37	2.7		

Note: Second line figures are percentages of total deposits

Source: State Bank of Pakistan

6

AGRICULTURE



71

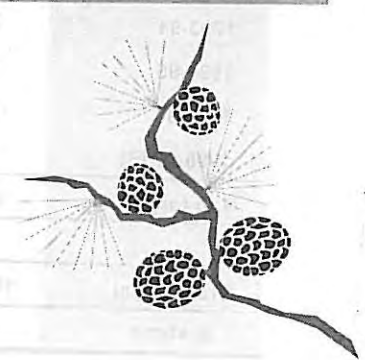


Figure 6.1 AREA AND PRODUCTION OF COTTON

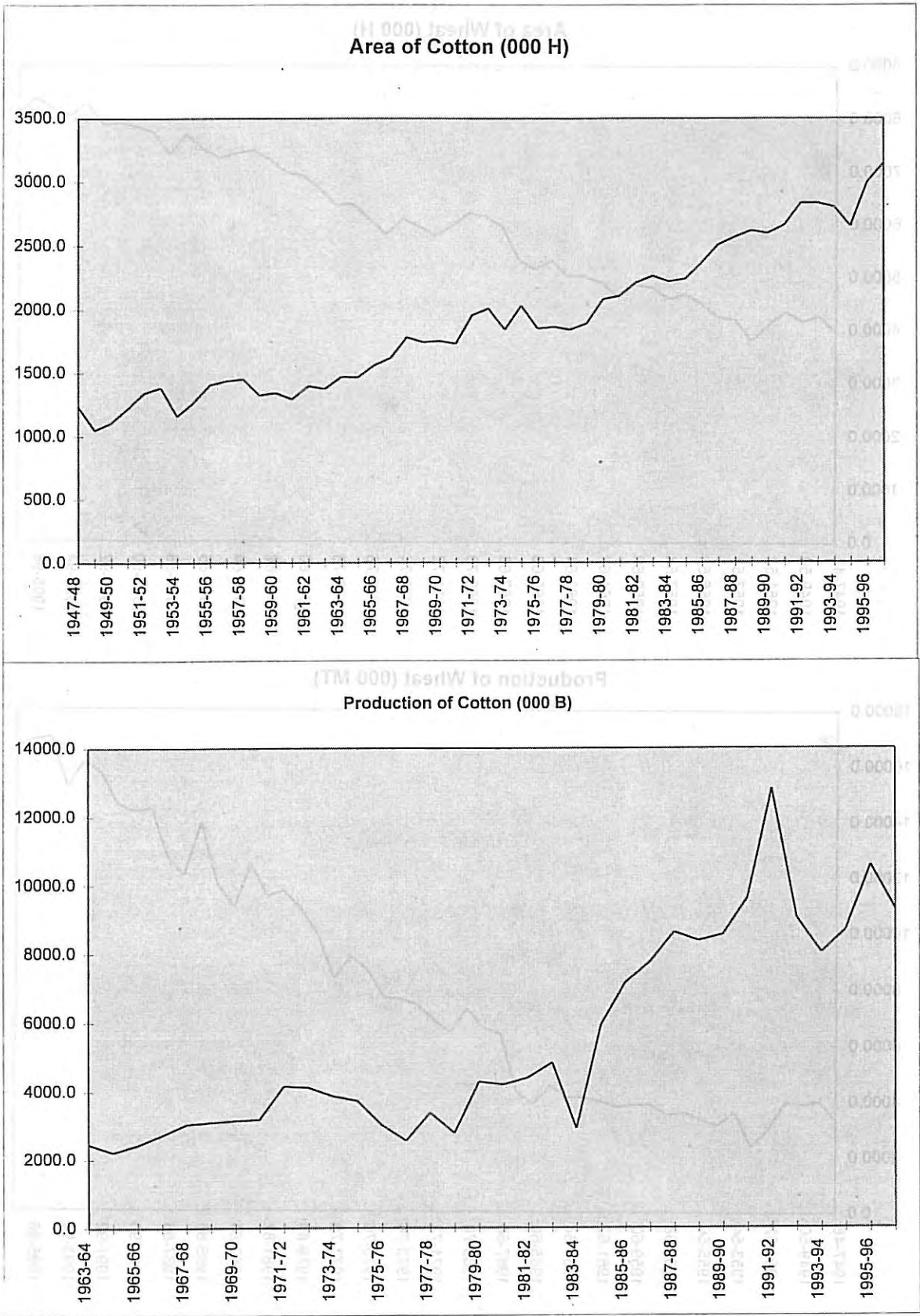
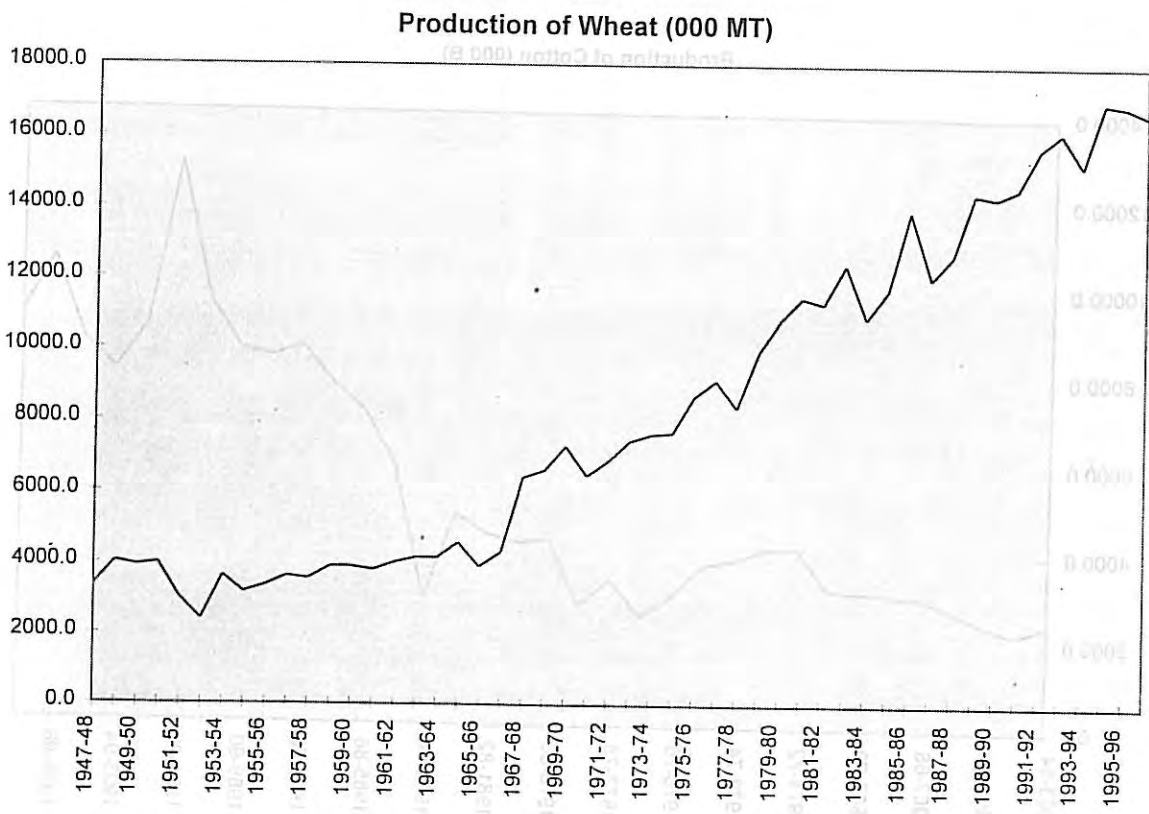
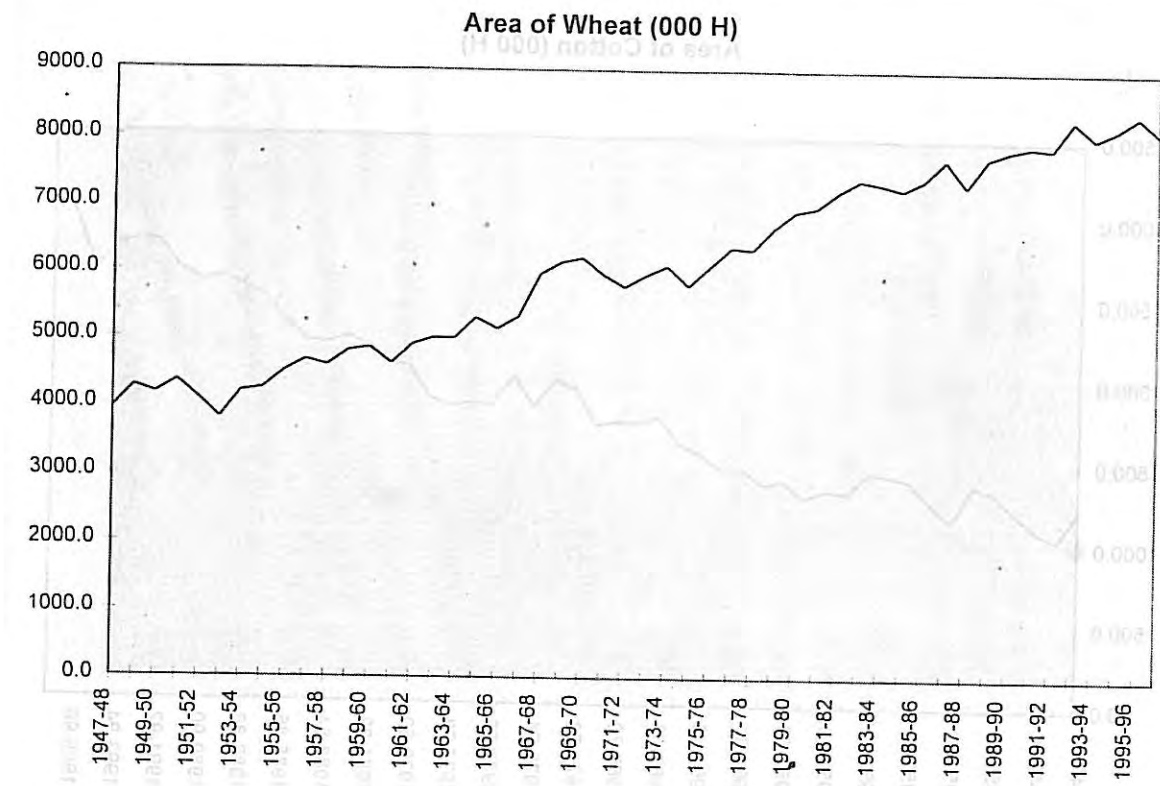


Figure 6.2 AREA AND PRODUCTION OF WHEAT



AGRICULTURE

Agriculture plays an important role directly and indirectly in generating economic growth. The importance of agriculture to the economy is seen in three ways, firstly, it provides food for consumers and fibers for domestic industry, secondly, it is a source of scarce foreign exchange earning and thirdly, it provides market for industrial goods. Agriculture has a strong backward linkages (by purchasing farm inputs such as chemicals, fertilizers and machinery) and forward linkages (by supplying raw material to food and fibre processing in the non-agriculture sector).

It contributed about 24.5 percent (at constant prices) of the Gross Domestic Product (GDP) in 1996-97. The second major sector contributing 18.1 percent to GDP is manufacturing followed closely by wholesale and retail trade (16.2 percent). The transport and communication sector adds 9.6 percent while others 31.6 percent.

In 1947, agriculture was the dominant sector of the economy. The contribution of the Agriculture Sector to the Gross Domestic Product (at constant prices), though declined gradually since Pakistan came into being from a level of over 59.9 percent in 1949-50 to 24.5 percent in 1996-97, it still remains the major

sector of the GDP composition. Since domestic prices for agricultural output are distorted due to a pricing policy which is generally favouring consumers, the apparent share of agriculture in the GDP is reduced. In real terms, agriculture's contribution to the GDP may be greater. Agriculture and agro-based products are the largest source of the country's total export earnings. This sector supplies raw materials to many of the major industries. In turn, it consumes a large part of the industrial finished goods. Average agricultural growth has been higher than the rate of increase in population.

In 1949-50, the contribution of agriculture to GDP was 59.9 percent. It was followed by wholesale and retail trade (12%), manufacturing sector (5.8%) and public administration and defence (4.3%) and communication (5%). The natural consequence of this skewed distribution resulted in assigning greater importance to the development of other sectors, particularly water, energy and the industrial sector, in the development plans launched subsequently. The net result of such policy is evident from the Table 6.1 below which shows structural changes in the contribution of GDP at constant factor cost.

TABLE 6.1 SHARE OF DIFFERENT SECTORS IN GDP (PERCENT)

Items	1949-50	1969-70	1979-80	1989-90	1996-97
Agriculture	59.9	39.0	29.6	25.8	24.5
Manufacturing	5.8	16.0	17.0	17.6	18.1
Construction		4.2			3.9
Elect. & Gas Distribution		2.0			4.1
Wholesale & retail Trade	12.0	14.9	15.0	16.5	16.2
Public Administration & Defence	4.3	6.4	10.0	7.3	6.4
Transportation, Storage & communication	5.0	6.8	7.0	9.5	9.6
Ownership of dwellings		3.4			5.7
Others	13.0	7.3	22.0	23.3	11.5

Source: Federal Bureau of Statistics.

Although the share of agriculture in the economy has been slowly decreasing (and that of industry slowly increasing), agriculture is still the leading sector of Pakistan's economy. A major part of the economy depends on farming through production, processing and distribution of major agricultural commodities. It provides food, feed, fiber, fuel and industrial raw material and earns foreign exchange and dominates foreign trade through export of raw products like rice and cotton, semi processed and processed products like cotton yarn, cloth, carpets, leather products. Export of agricultural products constitute major portion of total export earnings of Pakistan. During 1995-96, export of agricultural products constituted 17.0 % of total export. Among the agricultural products, major items of export were, rice, cotton, citrus fruit, dates, mangoes and cane molasses. Import of agricultural products constituted 16.7 percent of total imports during 1995-96. Major items of imports were, wheat, pulses, sugar, black tea and edible oils (Soyabean and Palm oil).

Agriculture is essential for sustainable improvements in internal and external balances. Of the total export earnings, the share of primary commodities, processed and semi-processed constituted almost 76 percent of the total exports. There have been some structural changes over time but contribution of agro-based products more or less sustained the normal position.

Agriculture is equally crucial to industry. Out of around five thousand industrial establishment in Pakistan, about 58 percent are based on agricultural commodities. The value of their products also represents a substantial proportion of the value of all industrial production in Pakistan.

The share of Agriculture in GDP has inevitably fallen, as other economic sectors such as manufacturing, construction and services which were rudimentary at the time of independence were developed on priority basis. Despite the low industrial base, Pakistan has progressed. The contribution of this sector to DGP, which was 6% in 1949-50 i.e. first year after independence, now stands at 18%. This gain has taken place mostly in agro-industries such as food manufacturing, tobacco, textile, leather, footwear, cotton yarn, wood work, chemical fertilizer, pesticides and agriculture machinery whose value of product according to census of manufacturing industry 1988 was around 60% of the total value of all industrial products.

The sector provides employment to 46.8 percent of the labour force. Even though agriculture's share in the GDP has declined considerably between 1949-50 and 1995-96, its share of employment has declined by far less (from 66 percent to 47 percent). In terms of population count, contribution to national income, markets for industry, supply of raw materials or products for

export, agriculture remains the foundation of Pakistan's economy.

By the grace of Almighty Allah and the efforts of our farmers, the performance of the Agricultural Sector, despite many constraints, has been quite impressive. This performance, however, is much below the real potential of Pakistan's agriculture. The farmers are anxious to enter the next stage of the "Green Revolution" if they are provided with the requisite knowledge, means and incentives.

Pakistan's agriculture has made a long and difficult journey. In 1947, Punjab was considered the granary of the sub-continent. Agricultural surpluses were taken for granted and economic development was considered synonymous with industrialization. The agricultural sector was discriminated against and initial development efforts were directed entirely towards industry. This neglect, along with the increasing problem of water logging and salinity, began to take a toll on agricultural production. Yields and productivity were low during these early years and with a severe drought in 1952 the situation became serious. For the first time Pakistan had to import about a million tons of wheat to meet a severe food shortage and the neglect of agriculture became apparent.

During the First Plan period (1955-60) some attention was finally directed towards the agrarian economy. The major achievement of the First Plan was in the realm of institutional change. The first of these changes was the establishment of the Water and Power Development Authority (WAPDA) in early 1958. WAPDA's charter included the investigation, planning and execution of schemes in the fields of irrigation, water supply and drainage; the prevention of waterlogging and the reclamation of the water logged and the saline lands; flood control and the generation, transmission and distribution of power. The charter was amended in early 1959 to merge

the electricity department into WAPDA. The Indus Water Treaty with India in 1960 paved the way for a comprehensive agricultural planning, based on the water supplies allocated to Pakistan.

The situation changed rather dramatically during the next two plan periods when agriculture sector grew at 3.8 percent in the second plan (1960-65) and 6.3 percent in the third plan period (1965-70). The overall growth in production of major crops was 4.7 and for minor crops 4.8 percent. During the third plan period major crops grew at 9.1 percent and minor crops at 3.8 percent. The progress during this plan period was assigned to rapid adoption of the new technology, introduction of bio-chemical technology, high yielding varieties coupled with increased availability of inputs and more appropriate price policies.

By the beginning of the Second Five Year Plan (1960-65) the institutional changes had already begun to exert a positive influence. The land reforms were giving rise to new social relationships, conducive to agricultural growth. A comprehensive plan to combat the effects of waterlogging and salinity had been formulated. Subsidies were introduced on fertilizers, improved seeds and plant protection. The policy towards agriculture was aimed at unleashing the entrepreneurial potential of the medium sized farmers and a new, highly productive rural middle class began to emerge.

The initial stimulus for the technological change in agriculture came through a rapid increase in the number of private and public tubewells in the Punjab. Fortunately, new high-yielding varieties of wheat and rice, developed at International Wheat and Maize Institute (CIMMYT) in Mexico and the International Rice Research Institute (IRRI) in the Phillipines respectively were made available.

During the ad-hoc plan period (1970-78), the growth rate declined

sharply to 1.7 percent due to a combination of factors particularly war with India in 1971, floods and droughts, Terbela mishap of 1974-75, OPEC oil price hike and the extremely disturbed political and social conditions.

In 1977 once again the Government embarked upon planned development. The Fifth Plan (1978-83) once again laid emphasis on agriculture sector in order to reduce dependency on food imports and on increasing exports. Fruits and vegetables and livestock and fisheries were also given priority to capture export markets.

In February, 1980 a new national agricultural policy was announced. The emphasis was given to input and output prices. Fertilizer prices were reduced, the pesticides subsidy was eliminated and water charges were raised. The Agricultural Prices Commission was set up in 1981 to recommend such support prices that would i) safeguard the interest of the farmers against undue fall in prices in the post harvest period ii) stabilize the prices and iii) raise the production of crops through interalia price intervention, particularly, those which are either exported or needing import substitution. The programme was extended to 10 major and minor crops.

The performance of the agricultural sector since 1960 has been one of qualified success. The main successes were in the production of wheat, rice, cotton and poultry products. Rice and cotton have contributed substantially to increase export earnings. Sugar production continues to lag behind demand and the deficit in edible oils has been widening. The domestic production of pulses is also inadequate to meet the requirements. In the livestock sub-sector, a spectacular increase in poultry production has blunted the inflation in meat prices but the growing deficit in milk has resulted in increasing imports of powdered dry milk.

Since 1960 agriculture in Pakistan has undergone major structural changes due to large investments in water development, introduction of new technologies and government policies to expand credit and support minimum prices of major agricultural crops. The farmgate availability of irrigation water, the completion of Mangla and Tarbela storage projects, the public and private tubewells increased the cropping area and cropping intensity and yields.

The agriculture sector has shown a great propensity to modernize despite serious policy and institutional constraints. Spectacular has been the adoption of the use of certified seeds and chemical fertilizers, largely under the influence of the "Green Revolution". The number of farm tractors has increased to the extent that literally all the wheat crop is now threshed with mechanical threshers and similar progress was recorded in the use of rice husking machines. Pakistani farmers were relatively slow in adopting plant protection measures but rapid progress has been made in recent years. Effective plant protection is credited with much of the recent breakthrough in cotton yields in the Punjab.

Perhaps the most significant feature of the "Green Revolution" in Pakistan's agriculture have been the realization by the farmers that higher productivity cannot come from any one input but in the use of a balanced package of all inputs and a tacit recognition by the Government that a suitable policy framework is absolutely essential to the realization of the agricultural potential. Effective support prices, subsidies to popularise the new inputs and credit facilities were the major contributors to the successes of the past. Government price supports for wheat, cotton, rice and sugarcane have succeeded in creating a relatively stable and favourable price outlook for these crops enabling the producers to invest in their production with confidence. This has reduced market uncertainty,

including that arising from violent fluctuations in the international markets.

Past successes in agriculture have not been very even and have been confined mainly to wheat, cotton and rice. The increase in sugarcane production came only from increased area in response to attractive prices. In the case of wheat, cotton and rice, however, a greater part of the higher production came from increased yields. The success of both wheat and rice production dates back to the late 1960s when superior high yielding varieties were introduced. These early imported varieties were rapidly adapted to local conditions and within a few years most of the wheat area was under the new varieties, as was a large part of the coarse rice area. The increased availability of key inputs, particularly water and fertilizers, and an active price support policy greatly enhanced this success. Over the years there has been continuing development and improvement in wheat and rice breeding and several new varieties have been developed and disseminated. Because of the importance of these three crops, much attention has been paid to their agronomic and economic requirements. This concentration of policy directed towards these crops led to positive results which have been the mainstay of the country's agricultural development.

Most government and institutional effort has been directed towards the major crops and there has been a neglect of the majority of so called minor crops. "Minor" has unfortunately been confused with unimportant and only recently has the importance of these minor crops, as sources of, both, food and foreign exchange earnings, been recognised. However, this recognition has not yet been translated into the necessary institutional and policy support. As a result, there has been very limited success in the performance of most of these crops.

There have been some successes in fruit production but the full potential of horticultural products remains to be exploited. The main failure has been in oilseeds production. Consequently, edible oil imports remain one of the heaviest and unjustifiable burdens on the foreign exchange resources of the country.

To sum up, during the 25 years period 1960-1985, the average annual growth rate of agricultural value-added has been 3.9 percent. Growth has not been steady during this period. Weather conditions, periods of rapid technical change, the pattern of pricing and other policy shifts have resulted in the uneven growth pattern. The crop sector outperformed the livestock sector. Since, 1977 however, the latter has shown considerable dynamism, particularly due to the rapid modernization of the poultry industry and increasing investment in the milk animals.

The early 1960s were characterized by a rapid increase in the number of private and public tubewells. There were 8,000 private and 1250 public tubewells in 1960 compared with 90,000 and 6,525 respectively in 1970. After the neglect of the 1950s, subsidies on inputs and various other incentives were introduced. During the mid-1960s the introduction of the newly developed biochemical technology and the high yielding varieties, coupled with the increased water availability, expanded use of fertilizer and more appropriate price policies, brought about significant success in the wheat and rice production. This negated the pessimistic forecasts and compensated for the unfavourable effects of the suspension of food aid in 1965. The technological breakthrough was accompanied by institutional backing and price supports leading to increased and more efficient use of inputs and resources.

Since 1970, however, increases in inputs - fertilizer, land, water, capital and labour - have been the principal source of the increased

growth rather than the technical change. The increased water availability through tubewells and from Mangla and Tarbela Dams was an important factor leading to the increased use of modern inputs, while additions to the total cropped area under the small farmer management, particularly in the early 1970s, led to substantial increases in cropping intensities.

The objectives of the 6th plan (1983-88) depended heavily on the improvement of supply facilities for inputs and tractorization. Despite institutional changes, structural adjustments, propagation and effective use of inputs, irrigation water, and mechanization, the agriculture sector registered a growth rate of only 3.9 %.

The seventh plan period (1988-93) laid heavy emphasis on the achievement of self-sufficiency in basic food items and improvement in productivity through efficient use of inputs and credits. The farmers were provided remunerative support prices. Research and extension services were strengthened. A new National Agricultural Policy was announced in May, 1991 with a basic thrust on deregulation of the sector, establishing a macro-policy climate conducive for agricultural growth and freeing their system from bureaucratic constraints. However, against a targeted growth rate of 4.7 percent per year, a growth rate of 3.8 percent was achieved in 7th plan period. A new National Agricultural Policy was announced in 1997, increasing the support prices of important crops, emphasising the self sufficiency in food items and improving the social conditions of the rural.

Pakistan inherited very few agricultural research institutes at the time of Independence. None of the national research institutes was located in the territories that constitute Pakistan. Considerable progress has been made in the past 50 years to evolve a respectable network of agricultural education and research institutions. Pakistan has

now 3 Agricultural Universities located at Faisalabad, Tando Jam and Peshawar, a Barani University at Rawalpindi, an Agricultural College at Quetta, a Faculty of Agriculture in the Gomal University at Dera Ismail Khan, a College of Veterinary Sciences at Lahore, 65 Research Institutes, 162 Stations, Sub-Stations, Centres and Laboratories, 6 Agricultural Training Institutes for Field Assistants at Rawalpindi, Rahim Yar Khan, Sargodha, Sakrand, Peshawar, Quetta and Rawalakot.

Pakistan Agricultural Research Council (PARC) was established in the mid-Seventies through the reconstitution of the Food and Agriculture Research Council of Pakistan. In 1978 it became an autonomous body at the Federal level. There are a number of other Federal Agricultural Research Institutes in the country. These include: 3 operated directly by the Pakistan Central Cotton Committee, 3 by the Ministry of Food & Agriculture, 1 by the Irrigation, Drainage and Flood Control Research Council, 3 by the Pakistan Atomic Energy Commission, 3 by the Pakistan Tobacco Board, and 1 by the Water & Power Development Authority.

The overall production of major food items has always been targeted to improve the quality of food and to keep the overall food availability satisfactory throughout the country. The per capita availability of calories and proteins has improved from 2078 calories per day and 62.8 grams protein per day in 1949-50 to 2570 calories per day and 67.88 grams protein per day in 1995-96.

Per capita availability over time has significantly increased in the country. The calories intake has reached the recommended allowance of FAO. The most dramatic of all the changes in the diet is substantial increase in vegetable oil whose consumption has substantially gone up. The increase in per capita income over the years has led to the change in the consumption pattern of food in Pakistan. Besides per capita income, rapid urbanization has also brought

about the change in consumption behaviour of the population. The food consumption pattern in Pakistan is shifting towards products associated with general increase in income. The shift is from cereals to poultry products, fruit and vegetables, milk and milk products and edible oils. Notwithstanding the shift, cereals and milk products occupy lion share in total expenditure on major food items.

There has been, however, some excessive burden on Pakistan's agriculture. It has consistently helped its neighboring countries and so has been instrumental in reducing food insecurity within these countries. The source of such help was both formal and informal channels. Pakistan has had to bear some cost as a result.

SECTORAL PERFORMANCE

CROPS

Most of the Pakistan is classified as arid to semi-arid because rainfall is not sufficient to grow agricultural crops, forests and fruit plants and pastures.

The annual variations in temperature provide two distinct crop seasons, i.e., kharif (summer) and rabi (winter). Kharif crops are generally sown between April and June and harvested during October to December. Rabi crops are sown in October-November and harvested in April-May. Cropping system vary widely due to variations in agro-climatic and soil conditions. In each season several crops are raised depending not only on the nature of soil and climatic condition but on the availability of resources. Of the main food crops wheat, gram, rape and mustard seed are the principal rabi crops, while rice, maize, cotton, millet, sorghum and sugarcane are the main kharif crops. In addition a variety of both summer and winter vegetables and fruits are grown in the country. Out of total cropped area food grains account for 56 percent, cash crop 16 percent, pulses 7 percent, oilseeds 3 percent

and the rest is occupied by fruits, vegetables and others.

Agricultural production is dominated by crop production which accounts for over 63 percent of agriculture's GDP in 1995-96, (at constant prices). The rest is accounted for by livestock which is over 32 percent. Forestry and fisheries currently make up just over 4.4 percent of the total. There are four major crops, namely wheat, rice, cotton, and sugarcane. The fifth most important crop is maize but its production is low compared to its potential as a Kharif crop. Among the minor crops the most important are fruits and vegetables, followed by pulses and oilseeds. These crops are important because, not only are they high-value crops, but they also have a great potential for export earnings (fruits and vegetables) and import substitution (oilseeds).

MAJOR CROPS

Over time, the share of the cropped area accounted for by various crops has changed. At present, rice and wheat account for over 46 percent of the cropped area. The share of these two crops has increased since 1960. They have displaced other cereal crops. Pulses and oilseeds both show a decline in area share while sugarcane, cotton, fruits and vegetables all show an increase in area share.

The average rates of growth in physical production of the four major crops since the early 1960s have been fairly high. There has been an increase in both the area and the yields of all four crops except sugarcane. The yield increases have been most impressive for wheat, followed by cotton, and least for sugarcane. The area under sugarcane has, however, increased substantially and the growth in area under sugarcane has been the highest of all the four crops. The area, production and yields of the four major crops and maize are given below in table 6.2.

Table 6.2 CHANGES IN AREA, PRODUCTION AND YIELD OF SOME IMPORTANT CROPS

Year	Crop	Area	Production	yield
1947-48	Wheat	3953.7	3354.0	848.0
1996-97		8901.1	16650.5	2053.3
1947-48	Cotton	1236.7	1156.2	159.0
1996-97		3148.6	9374.2	506.4
1947-48	Rice	789.9	692.2	877.0
1996-97		2251.1	4304.8	1912.3
1947-48	Sugarcane	189.4	5529.3	29.0
1996-97		964.6	41998.4	43.5
1947-48	Maize	363.8	358.7	986.0
1996-97		871.1	1259.4	1446.0

NOTE: Area(000 H), Production(000 Tonnes) except cotton which is (000 bales of 170.09 kg each), Yield(Kg/h) except sugarcane which is (tonne/h)

WHEAT

The most outstanding production success has been that of wheat output. Wheat being the staple food of the people in Pakistan gets the highest priority in the government's agricultural development strategy. About 79 percent of the total wheat crop is irrigated. Its share in total cropped area increased from 34 percent in 1947-48 to 37 percent in 1995-96 which has grown in both irrigated and non-irrigated areas in all provinces.

After the mid 1960s, with the introduction of the new high yielding varieties, wheat production increased dramatically, mainly as a result of the yield increase. Wheat area has also expanded. The main impact has been through the rapid increase in the adoption of the high-yielding, disease resistant varieties, use of chemical fertilizers, water management and other inputs. Almost all the areas that are not under the high yielding varieties are barani areas.

Except in the cotton/wheat zones area expansion has been very low. Yield increases dominate throughout and the principal influence has been the replacement of

the traditional with the high-yielding varieties. Although the

yields of the modern wheat varieties are substantially higher than the traditional varieties, these yields, having grown rapidly during the late sixties, have not grown much thereafter. Given the crop system constraints, the pricing and research policies which affect the economic attractiveness and physical growth characteristics of the competing crops also have an influence on the achieved wheat yields. Time series of area, production and yield are given in table 6.4.

RICE

Rice is one of Pakistan's two principal export crops. Pakistan is the third largest exporter of rice in the world. The area under rice cultivation in 1995-96 was 2.16 million hectares which represent 9.52 percent of the total cropped area.

The shortage of labour at transplanting time and system of contract transplanting often results in an inadequate plant population. Since the mid 1970s, overall growth in rice production has been much slower than for wheat.

Basmati rice is high export product of Pakistan, and generates substantial revenues for the government through export duties. The support price has been increased and the private sector is being encouraged to export packaged rice. Pakistan has now faced with a serious challenge from India, Thailand, and the United States in exporting basmati rice in its traditional export markets, and the government will have to pay much greater attention than ever before to enhance production and maintain its international competitiveness. Time series of area, production and yield are given in table 6.4.

COTTON

Cotton is Pakistan's main export crop. The country is amongst the world's leading producer and exporter of cotton. The area under cotton cultivation has increased from 1.24 to 3 million hectares during the last fifty years, while cotton production attained a peak of 12.8 million bales in 1991-92. In the subsequent years production had been hit hard by the leaf curl virus. The most important factors contributing to the increased production have been the stability in the domestic cotton prices as a result of the support price policy of the government and more extensive use of the pest control methods. Time series of area, production and yield are given in table 6.4.

SUGARCANE

Sugarcane is a labour intensive crop and requires manpower for operations like planting, inter-culture, harvesting, stripping and loading of the produce.

Production of Sugarcane reached the level of 45.23 million tonnes in 1995-96. In 1994-95 the production reached an all time record level of 47.2 million tonnes due largely to a rise in support price of commodity and increase in area.

The Punjab is main growing area for this important cash crop,

followed by Sindh and the NWFP. Cane yield have increased only slightly, increases in production have come primarily from area growth. In 1995-96, the area under sugarcane was 963.1 thousand hectares and average yield was 47.0 tons/hect. Average yields in Pakistan are considerably lower than those obtained in many other countries, such as India (53 tons/ha) and Egypt (83 tons/hect).

Sugarcane is a high water delta crop, and requires about 1,500 to 2,000 mm of water from planting to maturity. The growth, development and yield of crop is greatly affected because of water stress during the early period of growth i.e., April to June. At this time, canal water supplies are low, the temperature is high with little or no rains, and the capacity of tubewells where available, is constrained by loadshedding of electricity.

The pattern of the growth of sugarcane is associated exclusively with area expansion. Sugarcane yields have been virtually static since 1970 (42.5 tons/hect.) with marginal improvements in certain years. To meet the domestic demand requirements of the sugar industry, sugarcane cultivation has been encouraged through an attractive price structure. Sugarcane takes up close to two crop seasons and requires large inputs of scarce water. Sugarcane area has expanded considerably, particularly in Sind. This has been despite the fact that Pakistan does not have the ideal climate for sugarcane cultivation. The average yields in Pakistan are still among the lowest in the world. Time series of area, production and yield are given in table 6.5.

MAIZE

Maize is grown in both irrigated and rainfed areas, more than half of the crop is grown in NWFP and almost all the remainder in Punjab. Area under maize has increased from 363.8 to 880.8 thousand hectares from 1947-48 to 1995-96, a little more than double, since Independence but its yield has

not shown any significant improvement as research has failed to produce suitable high yielding varieties and most of the crop in NWFP continues to be grown under rainfed conditions. The yield gap in this crop is one of the highest. Most of Maize, around three quarters, is used for human consumption by subsistence farmers, whereas the remainder is used by industry to produce starch and poultry feed mixes. Time series of area, production and yield are given in table 6.5.

MINOR CROPS

Most government and institutional effort has been directed towards the major crops and there has been a neglect of the majority of so called minor crops. As a result, there has been very limited success in the performance of most of these crops.

Policy measures, both in terms of pricing and technology, have been largely confined to the major crops. Minor crops have generally received little attention and recent half hearted attempts to redress the situation have not met with much success. It is clear that the true potential of most crops in Pakistan has yet to be realized.

Pulses, fruits and vegetables, and oilseeds accounted for the bulk of the minor crops area. Except for fruits and vegetables, all the other minor crops have shown a reduction in their area share. This has been particularly for pulses which declined from 11 percent to 7 percent and oilseeds which came down from 4.0 percent to only 2.4 percent. Minor crops also include barley, gram and spices, while green fodders constitute a substantial crop both in kharif and rabi.

COARSE GRAINS

Sorghum, millet and barley are important coarse grain crops grown in Pakistan. Barley was covering 57.6 % area of these crops which were covering 12 % of total cropped area in 1947-48. Situation is entirely

changed in 1995-96. Now these crops cover only 4.4 % of the total cropped area inspite of the 100 % increase in cropped area.

All cereals include wheat, rice maize and coarse grains. These were occupying 56 % of the total cropped area in 1947-48 which are now occupying 55 % in 1995-96. Wheat's share in area of cereals was about 61% in the beginning which is 67 % at present. In production of cereals, share of wheat was 66.76 % which is now 74.33 %. Wheat is replacing the coarse grains.

The relative importance of coarse grains in the Pakistani diet has declined over time, as tastes have changed, and per capita incomes have increased. However, such grains as sorghum, millet, and barley constitute a major source of feed and fodder, and their importance will increase further if the poultry sector expands. Time series of area, production and yield are given in table 6.6.

PULSES

Pulses are still a major source of protein for the poor, consequently, increasing their production is a matter of considerable social importance.

Gram, which accounts for about 70 % of the total acreage under pulses, is a major crop in the farming system of Pakistan. Gram an important source of protein for the middle/low income classes, is widely consumed as popular food in several forms. From 1947-48 to 1995-96, the area and production has shown nominal increase. However, its share in cropped area has decreased from 7.58 % to 4.95 %, inspite of 100 % increase in cropped area. Its yield has decreased which was 677 kg/h in 1948-49 and is 607 kg/h in 1995-96. The performance of the gram has been poor, despite the fact that whole sale and retail prices increased manyfold over the last fifty years. The failure of this crop to develop is mainly due to stagnant technology.

The other important pulse crops are mung, mash and masoor. Based on the area and production, the Punjab is the major producer of pulses followed by Sindh, NWFP and Balochistan. Only mung has shown a nominal increase in area, production and yield. Mash is at the level of fifty years back. Masoor has shown a decrease in area and stagnation in production and yield. Prices increased more than fivefold since 1970-71, but production did not respond, as these crops have not

experienced any technological breakthrough in the last fifty years. Yields of pulses suffer adversely due to ineffective weed and pest control and from lack of measures to control viral infection, especially in the case of masoor and mash. Considerable losses are also incurred at the harvesting and threshing stages due to lack of appropriate technologies in the field. Table below show the area, production and yield of important pulses. Time series data of all pulses are given in table 6.3.

Table 6.3 CHANGES IN AREA, PRODUCTION AND YIELD OF SOME IMPORTANT PULSES

Year	Pulse	Area	Production	Yield
1947-48	Gram	881.8	472.5	536
1996-97		1100.2	594.4	540
1947-48	Mash	53.1	25.3	477
1996-97		57.4	28.4	495
1947-48	Mung	86.0	30.9	359
1996-97		192.4	89.5	465
1947-48	Masoor(Lentil)	68.3	34.6	507
1996-97		69.3	34.9	504
1947-48	Others	196.2	160.5	
1996-97		155.5	85.1	
1947-48	All	1285.4	713.8	
1996-97		1574.8	832.4	

NOTE: All include Gram, Mash, Mung, Masoor, Arhar, Matri and other Kharif and Rabi pulses.
Area(000 hectares), Production(000 tons), Yield(Kg/h)

FRUITS AND VEGETABLES

Fruits and vegetables represent a dynamic segment of Pakistani agriculture. The output of fruits and vegetables has been increasing much faster than the growth in population, with the growth of fruits being much higher than that of vegetables. Between 1970-71 and 1995-96 the area under fruits increased by 188.3 percent and fruit production increased by 231.3 percent. The area under vegetable (excluding potatoes and sugar beets) increased by 130.2 percent, while production increased by 155.4 % In 1995-96, the area under fruits was 0.5757 million hectares, while 0.2564 million hectares was under vegetables, out of total crop-

ed area of 22.59 million hectares. There have been successes in fruit production but the full potential of horticultural products remains to be exploited. Time series data of all fruits are given in table 6.7.

OILSEEDS

Oilseeds represent the most notable agricultural policy failure of the past. From self sufficiency, the country turned into a major importer of edible oils. Imports currently represent about two third of domestic consumption. Only one third of the country's requirements of edible oils are met through domestic production. Imports of edible oil remain one of the heaviest and unjustifiable burdens on the



foreign exchange resources of the country. The area under traditional oilseeds (rapeseed and mustard) has declined and the yield has remained static. The production of oilseeds has remained nearly stagnant for many years, despite the fact that the demand for vegetable ghee, extracted from oil-seed doubled in the last 15 years.

The production of cottonseed, which has always been the major domestic source of edible oil, has increased from 393.4 thousand tonnes in 1947-48 to 3604.4 thousand tonnes in 1995-96, after achieving the maximum, 4362 thousand tonnes, in 1991-92, while rapeseed and mustard production changed nominally from 174.8 thousand tonnes in 1947-48 to 254.5 thousand tonnes in 1995-96.

The steps to introduce and promote nontraditional oilseeds crops; i.e., sunflower, safflower and soyabean were initiated in the seventies. A well orchestrated oilseed sector strategy has resulted in significant increase in traditional and non-traditional oilseed crops. In early eighty's there has been an effort to encourage the production of oilseeds and the introduction of sunflower, safflower and soyabean has been a part of this effort. Sunflower is getting ground but Soyabean and Safflower are dwindling both in area and production. Substantial gains have been achieved in Sunflower and Canola production. Sunflower acreage went to 86210 hectares in 1995-96 against 68377 hectares of 1994-95. The sailaba lands of Balochistan are being brought under Sunflower production.

Traditionally, rapeseed and mustard, groundnut and sesamum have been the main oilseeds, next to the dominant share of cottonseed. Rapeseed and mustard have experienced little varietal improvement and have traditionally been grown mainly on relatively poorer lands. Time series data of oilseeds are given in table 6.8.

LIVESTOCK

Livestock is one of the main sub-sectors of agriculture. It plays an important role in the economy of the country. During 1995-96, livestock contributed 32% to Agricultural GDP and 8% to National GDP. Its share of the value added in agriculture is almost one third of the total. This sector plays an important role in country's economy through making available the most essential items of human diet like milk, meat, eggs and poultry and providing the principal source of power for land cultivation and rural transport.

National herd comprises of 17.9 million cattle, 20.2 million buffaloes, 29.8 million sheep, 45.6 million goats, 5.8 million other animals and 350.0 million poultry in 1995-96. This sector provides 19.9 million tonnes of milk, 2.27 million tonnes of meat, 5.8 billion eggs, 64 thousand tons of wool and 45.6 million hides/skins and about 80 percent of traction power required for agricultural operations. There has been a steady increase in milk production and its total production has improved from 12.1 million tonnes in 1985-86 to 19.92 million tonnes in 1995-96, indicating an increase of about 65 percent in last ten years.

There have always been two main streams of livestock production, livestock kept on range in large herds and sedentary stock with farmers and other rural households. The close integration of a good part of the livestock sector with the rural subsistence economy is made possible by the reliance on the crop residues as feed and the growing of fodder crops that fit into the crop cycle. Range land outside the crop growing regions has been the other major source of animal feed.

The livestock sub-sector consists of two fairly distinct activities. The first is the breeding of milk and meat animals (cows, buffaloes, goats, sheep, etc.) and the second is poultry. The rearing of bullocks as work animals

is a specialized complementary activity to crop production and bullocks are still the main source of non-mechanised power in Pakistan agriculture. Though not a direct source of output, and increasingly replaced by tractors, the contribution of bullock power to agricultural output is still crucial.

The breeding of milk and meat animals has been changing from primarily a subsistence activity to commercial undertakings characterized by widespread ownership and the predominance of small herds. It serves firstly to meet farm dietary requirements and secondly as a source of cash income.

With increasing per capita incomes, particularly the urban incomes, there has been a fairly rapid increase in the demand for both milk and red meat. This has resulted in an increase in the livestock activities for commercial purposes, particularly for milk production. The dairy industry in Pakistan has achieved a relatively advanced level of development with high levels of per capita production and a broad array of processed milk products. Milk off-take for human consumption is about 120 Kg per capita. This high level of consumption is greater than a number of developed countries and unmatched by any large country of South Asia.

Milk production has increased from about 7.8 million tonnes in 1971-72 to around 19.9 million tonnes in 1995-96, an increase of about 155 percent. Milk production initially grew less rapidly than the population, but has picked up appreciably since 1980. Its availability for direct human consumption in 1995-96 was estimated at around 16.1 million tonnes giving a per capita availability of a little over 120 litres per annum.

Production figures for the beef indicate 183 % increase from 1971-72 to 1995-96 where as the increase for mutton during the same period is 350.5 %, which has bridged the gap. The current production level is around 2.27 million tonnes per annum,

of which 43 percent is beef, 41 percent mutton and about 16 % is poultry. The Government attempts to control meat prices for the benefit of the urban consumers. This has served as a constraint on rearing animals specifically for meat production.

Events in poultry industry have been quite different from the trends in the cattle and buffalo sector. The most dramatic success occurred in the production of poultry-meat and eggs. Poultry production has increased considerably over the years and has been the focal point of growth in the livestock sector. Poultry farming has been relatively more commercialized and specialized poultry farming is an increasingly important activity. Commercialization of the poultry industry started in the early sixties with the introduction of hybrid layer and broiler stocks.

The poultry sector was able to maintain an annual growth rate of 10-15 percent per annum since 1963. However, the growth rate has declined to 4.1 percent during the Seventh Plan(1988-93) due to the imposition of income tax in 1988 on certain farms. The increase in production figures of poultry meat is of a qualified success, i.e., 2435 % during the last twenty five years. Its share in meat production has increased from 2.5% to 16% from 1971-72 to 1995-96. During 1995-96, 355 thousand tonnes poultry meat was produced compared to 151 thousand tonnes produced in 1990-91, an increase of 135% in last five years.

The problems faced in poultry development are poor management, poor quality and high cost of feed and poor design of housing and ventilation system. Time series data of meat, eggs and milk are given in table 6.9.

FISHERY

As compared to animal production, fisheries has been a relatively well looked after subsector. Its main importance has

been as a foreign exchange earner. As a source of food, the sub-sector has been relatively unimportant. Fish consumption has traditionally never been a significant part of food except in the coastal regions. Fish prices, especially away from the coastal areas, have also been generally high and even the production of the marine fish has been mainly for the fish meal industry and export.

Although it contributes 1% to GDP and provides jobs to 1% of country's labour force, yet it is the most important economic activity along the coast of Sindh and Balochistan. It is estimated that in 1996-97, about 391,000 fishermen are associated with this sector. Its contribution to country's export earnings is substantial. In 1996-97, fish and fishery products valued at Rs.5.29 billion were exported from Pakistan to various countries.

The total fish production between 1947-48 and 1995-96 increased 1258 percent (from 39,900 to 541,900 tonnes). During 1985-86, the total fish production was over 408,000 metric tons, of which over 81 percent was from the marine waters and the rest from the inland waters. During 1995-96, the total fish production was over 541,900 tonnes, of which over 75 percent was from the marine waters and the rest from the inland waters. There has been a rapid increase in fish production since early seventies. Most of this increase has been utilized for exports and as a component of feed for expanding poultry industry.

A fair amount of infrastructural development has taken place. This has included the commissioning of the Fish Harbour at Karachi in 1959, its expansion and improvement in mid eighty's, the construction of a deep sea fish harbour at Korangi and increased facilities along the Balochistan coastline. For further improvements, special emphasis is being paid on strengthening of infrastructure of fisheries, enhancement of fish production, increases in export

earnings as well as domestic consumption of fish, diversification of fishing efforts, exploitation of hitherto untapped resources, and above all upgradation of socio-economic condition of the fishermen communities. Small scale fisheries is generally an activity of poor class of the society. The government accorded highest priority to the socio-economic uplift of this neglected segment of the society and therefore, announced a number of incentives for the socio-economic development of poor fishermen.

In order to improve the fishery sector of Pakistan, a number of projects are being executed by fisheries organizations of Pakistan. Marine Fisheries Department, Karachi and Provincial Fisheries Departments of Punjab, Sindh and NWFP are executing these projects.

Exploitation of deep area resources of the Exclusive Economic Zone of Pakistan was restricted to demersal trawling only. A new policy for the exploitation of fishery resources of deep sea water is required in consultation with provinces of Sindh and Balochistan. Time series data of fisheries are given in table 6.9.

FORESTRY

Forestry is one of the most neglected components of the agriculture sector in terms of its contribution to the agriculture GDP which has declined to 0.4 percent in 1986-87 and to only 0.2 percent in 1996-97. The total area under forests, including Azad Kashmir and the Northern Areas, in 1986-87 covered only 5.2 percent of the total land area. This amount to 4.88 million hectares. In addition, the forest department also manages about 6 million hectares of the range land. Of this forest area less than half is capable of producing timber and firewood. In 1996-97 it is 4.2 million hectares which is 4.8 % of the country's area. Per capita forest area is 0.037 which is quite below the world average of 1%.

Firewood consumption in 1984-85 was estimated at 19.7 million cubic meters of which 90 percent came from the farm land and the rest from the state forests while its consumption in 1995-96 is estimated at 28 million cubic meters of which above 95 percent came from the farm land and only .357 million cubic meters from the state forests. The scarcity of both timber and firewood has led to both illegal and excessive cutting of trees, particularly in the Northern areas, leading to excessive soil erosion and flood damage. Time series data of forestry are given in table 6.9.

WATER AND LAND

The development, use and distribution of the physical resources, namely water and land have played a major role in the process of agricultural development in Pakistan. The Development of water and power resources is of vital importance for a developing country like our's. It helps in building the infrastructure of the economy which is essential for the development of agriculture, industry and other sectors.

The use of both land and water has increased over the years. The paucity of high quality agricultural land has been partly overcome through greater intensity of land use and the multiple cropping leading to increases in cropped area, along with the more availability of area as a result of increases in water supplies. Greater water use has been mainly through larger supplies from both surface water sources and ground water. The consequent increase in production and productivity would in fact not have been possible without the expanded water availability. Increases in the intensity of land use as well as in the total cropped area and the cropping intensities would have been a dream without the water. In relation to the available land resources, the lack of water has been one of the main limiting factors for agricultural production in Pakistan.

Pakistan's agriculture is mostly dependent on irrigation. It accounts for 76 percent of the total irrigated land in Pakistan against 25 percent for India and 35 percent for Indonesia. Our Agriculture is based pre-dominantly on one of the oldest and largest contiguous gravity flow irrigation system of Indus Basin. The major problem with the system is the supply-based structure. Roughly 85 percent of the annual flow are in the kharif season and 15 percent in the rabi season. The system was basically designed to provide 75 percent intensive cultivation.

At the time of independence the irrigation system consisted of old established canal systems, with the exception of the Thal system, which was being developed for perennial irrigation for an area of 0.66 million hectares. All these systems were dependent on the run-of-the river flows of the Indus and its tributaries. There were no storage dams to store surplus supplies for later use. The total Culturable Commanded Area (CCA) for which the irrigation supplies were derived from weirs and barrages on the rivers was 11 million hectares. Of this, 2.4 million hectares were fed from inundation canals which operated only during the kharif season. In the weir controlled systems, only 8.6 million hectares received the perennial supplies. The average withdrawals of canals from the Indus River system in 1947 were about 64 million acre feet (MAF) of which over 10 MAF were from the three eastern rivers, Sutlej, Bias and Ravi. In NWFP 4 MAF withdrawal of canals were from the Kabul, Swat and Kurram rivers.

While the Indus waters negotiations with India were in progress, Pakistan undertook the construction of 3 link canals to insure against the stoppage of supplies by India. The construction of three new barrages on the Indus were also undertaken to convert the existing inundation canals into the weir controlled canals. These barrages, Kotri(1956), Taunsa (1958), and Guddu(1962) had a total CCA of 3

million hectares, of which 0.35 million hectares in the Kotri command area were made perennial. The main benefit of these barrages was to ensure more reliable supplies in the canals and the extended irrigation to the new areas was initially limited.

Since 1960 agriculture in Pakistan has undergone major structural changes due to large investments in water development, introduction of new technologies and government policies to expand credit and support minimum prices of major agricultural crops. Under the provision of the Indo-Pakistan Indus Water Treaty of 1960 several projects were undertaken. These included the construction of the Mangla and the Tarbela reservoirs, five new barrages, eight inter-river link canals, one syphon, and the remodelling of the existing barrages and the link canals. Except for Tarbela, which became operational in 1975-76, all these works were completed during the period 1960-70.

Prior to the Indus Water Treaty, the canal head withdrawals had increased by 23 percent from 64 MAF in 1947-48 to 78.6 MAF in 1959-60. During the next seven years prior to the completion of the Mangla Dam withdrawals had further increased to 87.7 MAF in 1966-67. Before the commissioning of Tarbela in 1975-76 the average canal withdrawals were 98.9 MAF. Since 1975-76 withdrawals have averaged around 103 MAF up to 1992-93, an overall increase, since 1947, of 61 percent. The kharif canal head withdrawals were around 71 MAF and the rabi supplies around 38.5 MAF in 1991-92.

The farmgate availability of irrigation water has about doubled from 58.7 MAF in 1960-61 to 104.7 MAF in 1985-86 and it is 130.9 MAF in 1995-96. These additional water supplies came partly from the completion of Mangla and Tarbela storage projects but mainly from the public and private tubewells. Large scale development of ground water has come about through the introduction of tubewells. Initially, this development started in the public

sector in some canal commanded areas but was soon overtaken by the private sector, both inside and outside the command areas. The number of tubewells went up from about 60 thousand in 1960-61 to over 257309 in 1985-86 and 483785 in 1995-96. Part of the enhanced water availability was used to cultivate more land and part was utilized to raise the cropping intensity of existing lands and to increase the crop yields. The cultivated area increased by about 3.43 million hectares from 1960-61 to 1995-96 but the area, cropped more than once, went up from 1.59 million hectares in 1960-61 to 6.31 million hectares in 1995-96, about 297 percent increase. Consequently, the total cropped area increased from 14.86 million hectares to 22.59 million hectares, an increase of 52 percent.

Pakistan has made good progress in improving water availability for agricultural purposes. Farmgate availability of water increased from 58.7 million acre feet (MAF) in 1960-61 to 130.9 MAF in 1995-96. The delivery of water improved from 2.28 feet to over 3 feet per irrigated acre during the same period. Increased availability of canal water is about 36 MAF while the delivery from tubewells went up from 2.4 MAF to 38 MAF during the same period which was 48.5 MAF in 1994-95 (decrease is due to the short supply from public tubewells). The scope for further expansion from tubewells is very limited because underground sources of sweet water are running out.

The irrigation system encompasses the Indus River and its tributaries, three major reservoirs, 19 barrages, 48 principal canals. Total length of the canal system is about 63,000 Kilometers with water courses about 110,000 Kilometers and field ditches running another 1.6 million Kilometers. Total irrigation water supplies at farm gate increased by about 123% from 58.7 MAF in 1960-61 to 130.9 MAF in 1995-96. Surface water constituted about 96% in 1960-61, 75% in 1970-71 but fell to 70.74 % by 1995-96 (63% by 1994-95), while

share of ground water increased from 3.7% to over 29% during the same period. Ground water is pumped by both public and private tubewells, the performance of private tubewells has been far more impressive. Water supplies from public tubewells increased from 0.6 MAF in 1960-61 to 12.8 MAF in 1994-95 while volume pumped from private sector increased from 1.8 to 35.7 MAF during same period. The exploitation of underground water resources had increased supplies in rabi seasons, the availability of farm gate water for kharif increased by 75.5 percent while in rabi by 112% from 1967-68 to 1994-95. The increase in water availability has not only increased the size of irrigated areas but also enhanced per acre availability of water within the expanded irrigated areas.

Irrigated land has increased from 8.72 million hectares in 1947-48 to 17.58 million hectares in 1995-96. There is thus limited scope for expanding indus irrigated land. There is only a scope of 10 percent expansion in water resources. Thus improvement in the efficiency of water use are to be given high priority.

The ground water supplies provided much needed flexibility in availability of water for irrigation. Surface water irrigation system is supply driven and not demand driven, therefore, underground water supplies have played the vital role in increasing the productivity of irrigated land. It has been recognized that about 60 percent of canal water is actually delivered to the fields, the rest is lost in seepage. The surface irrigation system suffers from substantial losses in the process of conveying water from river to farmgate, 25% of the water from canal head to the outlet and another 15% from outlet to farmgate. In order to conserve this valuable resource and make more efficient use of available supplies, the Government has taken up, in 1976, "ON-FARM WATER MANAGEMENT" (OFWM) programmes to improve the conveyance and application efficiency of water.

It includes water course lining, concrete control structures, and precision land levelling. Estimate shows that losses have declined to 30% in the programme areas. However, there is need to develop additional water resources in the country if we want to cope with the challenges of energy and food requirement in the wake of population growth. No significant increase has occurred in water supplies since completion of Tarbela Dam, there is thus need to accord highest priority to the water and energy sectors of the economy.

There are several constraints which affect land productivity in Pakistan. These include soil erosion, water logging and salinity and other soil related problems. Although the causes by wind and run off water particularly in the rain fed areas are well known yet the depletion of natural vegetation and excessive tillage has accelerated the problem of soil erosion. Flood damage causing soil erosion has been constantly on the increase. The soil nutrient have been depleted. Some get washed away by irrigation water. Unchanged cropping patterns, years after years, are also responsible for soil degradation.

As a result of increasing population and the law of inheritance, land has been badly fragmented. Almost 80 percent of the farms are below 12.5 acres having 7.4 million hectares. Land holdings in Pakistan are characterized by small farms. There are 5.07 million farms in the country and 81 percent of them are small farms (less than 5 hectare) but account for 39 percent of total cultivated area. The middle size farms (5 - 10 hectares) are 12 percent and account for 22 percent of cultivated area. The large farms (10 hectares and above) are 7 percent of total farms but account for 40 percent of total cultivated area.

At present about 20% (one fifth) of the cultivated land in the canal command area (CCA) is affected by water logging to varying degrees, and even a greater amount suffers from salinity. The problem of soil

salinity and / or sodicity is of great economic significance to Pakistan as it depresses land productivity over 11.98 million hectares of land. Time series data on land utilization and irrigation by different sources are given in tables 6.10 and 6.11 respectively

PRODUCTIVITY

Of the two kinds of technology available, for enhancing the productivity, Pakistan's agriculture has adopted both, the biochemical as well as the mechanical technologies. Agricultural development has been concerned with both, the development of land and water resources and the increased adoption and availability of modern inputs for improving productivity. The development of water resources have been particularly impressive yet the key role played by human and soil resources can not be minimised. The recent strategy for agricultural development has relied heavily upon ensuring the availability of inputs. The factors which directly contributed to larger increase in production from land mainly comprise of fertilizer, seed, plant protection, mechanisation and water.

USE OF FERTILIZER

The growth in fertilizer use in Pakistan is one of prominent success stories in the field of agriculture. This single most important input played vital role in boosting the yield and production of all types of crops and helped in achieving the desired goals of increase in production of not only food crops but also cash crops. This increase would have not been possible without the availability and application of this single most important input. Use of fertilizer in the country was introduced in fifties but it gained momentum only in sixties, due to Green Revolution coupled with a series of other factors comprising of:

- introduction of high yielding varieties of wheat, rice, and cotton
- expansion in cultivated area especially of wheat
- increase in irrigation water supplies and
- public sector support in terms of subsidies, credit, support prices etc.

Fertilizer off-take which was 14,100 nutrient tonnes in 1954-55 increased to 19400 nutrient tonnes in 1959-60 indicating an increase of 38 percent. The consumption of fertilizer continued to increase and reached a level of 307,700 nutrient tonnes in 1969-70, 1044,300 nutrient tonnes in 1979-80, 1890,100 nutrient tonnes in 1989-90 and 2513,000 nutrient tonnes in 1995-96. Fertilizer use reached about 117 Kgs per cultivated hectare in 1995-96 compared to 2Kgs in 1960-61. The historical pattern reveals that consumption of fertilizer slowed down in 1980-81 and 1981-82 when the sale price of fertilizer were increased with the objective of gradually reducing the subsidy. First reduction was introduced in February, 1980 and further two in March and October, 1982.

The production of fertilizer during these period had also been constantly increasing. The production which was 43 thousand tonnes in 1959-60 increased to 373.25 thousand tonnes in 1969-70, 1155 thousand tonnes in 1979-80, 3048 thousand tonnes in 1989-90 and further to 3826 thousand tonnes in 1994-95. The production continued to increase and reached 3826 thousand tonnes in 1994-95. Imports increased from 51.7 thousand tonnes in 1959-60 to 261 thousand tonnes in 1994-95 after achieving a maximum of 903 thousand tonnes in 1993-94.

There have been various economic, institutional and infrastructural factors that have influenced the use of fertilizers

over time. The fertilizer sector had undergone important structural changes due to government's de-regulation and privatization policy. The government has eliminated all kinds of subsidies on fertilizer and simultaneously deregulated and privatized production, import and marketing of fertilizers with a view to enhancing fertilizer use efficiency and making efficient use of resources. The role of the public sector distribution agencies will however remain relevant for the next few years particularly for carrying fertilizer to remote areas. Time series data on fertilizer off-take are given in table 6.12

IMPROVED SEEDS

It is a recognised fact that the use of improved seeds is one of the most economic way of enhancing agricultural production. Emphasis had, therefore, been placed on the seed programmes. Rice varieties imported from International Rice Research Institute Philippines and wheat varieties developed at International Wheat and Maize Institute (CIMMYT) in Mexico were tried on experimental basis which gave encouraging results.

New seed varieties for other crops, particularly cotton, were also developed and introduced with resultant steady increase in the cotton output but their full potential was not realised until recently when the inputs package for cotton became more balanced including seed, water, fertilizer and plant protection. The main success of the new seed varieties, to date, remain in wheat and rice and continuous development in cross-breeding and adaptation of wheat and rice seeds has taken place. Breeding of new cotton seed has been fairly continuous. The development of new varieties of sugarcane has been the least satisfactory and grossly inadequate.

Seed deterioration over time is common in many crops and systematic seed replacement is necessary. By the 1970s the production of seed by

the Government research stations was expanded and the certification and distribution of the improved seed organised. Emphasis was particularly given to the biological treatment of the new seeds. Biological method of pest control is not only low in cost, it is self perpetuating and does not have the side effects of chemical control.

USE OF PESTICIDES

Pests and diseases had always taken heavy toll of agricultural production. Farmers have now become fully conscious of the damages done by the pests. The consumption of pesticides had accordingly increased rapidly, from 5000 M. tons in 1982 to 43219 M. tons in 1996. The major share is used on cotton. The government is emphasizing on Integrated Pest Management and Integrated Disease Management techniques. Necessary legal coverage has been given to check adulteration in pesticides which was on the increase. There is a danger, however, of inadequate safety measures and increased health hazards, both due to over competition and inadequate knowledge among the farmers regarding pesticides.

Considerable expansion took place in plant protection operations which became 526 thousand hectares under major crops in 1959-60 as against 8 thousand hectares in 1954-55 through ground and aerial operations. Despite these increases, plant protection coverage on the national level is only 12 percent of the total cropped area. The Plant Protection coverage increased from 1.27 spray million hectares in 1980-81 to 9.17 million spray hectares in 1991-92. The important crops which are covered by aerial operations include sugarcane and paddy besides orchards and gardens.

MECHANIZATION OF AGRICULTURE

The progress of agriculture in the developing countries including Pakistan in the last 1 - 1/2 decade reveals that the mechanization has played a vital role in boosting the

agriculture production. Mechanization has become essential to intensify cultivation and increase the speed of pre-harvest and post harvest operations. The use of agricultural machinery for the development / reclamation of new land, cultivation, ploughing, ridging, sowing and harvesting of crop is gradually increasing. The most popular forms of mechanization in Pakistan have been tubewells, tractors, threshers and implements. Tractors, tubewells and other farm machinery have greatly helped in increasing the cultivated area, cropped area, cropping intensity and consequently the production.

Tractors gained importance with intensive farming and because of scarcity of labour in rural areas. As a result of liberal import policy, and increased incentives for local assembly, the tractor production had reached the level of 30,000 per annum. The number of tractors operating in Agriculture increased from 157,310 in 1984 to 178,700 in 1992-93. Total number of tubewells have increased from 86 thousand in 1970 to 483.7 thousand in 1995.

AGRICULTURAL CREDIT

The new technology comprising of high yielding varieties, chemical fertilizers, pesticides, increased mechanisation, and improved irrigation practices increased the monetisation of the agricultural sector. With low savings, the new investment could only be achieved through increased borrowing, particularly when the technology spread all the way to reach the relatively smaller and poorer farmers. For these farmers the rural credit is an essential input in the technology package and the adequate provision of the production credit becomes an essential prerequisite to modernisation. Not only is the provision of the credit essential but the use of this credit for productive purposes is equally important.

At the time of independence, the credit came primarily from non-institutional sources. Credit

provided by the government (then commonly known as taccavi) and the cooperative societies covered only a small portion of the capital requirement of the farmers. A study conducted by the Board of Economy Enquiry, Punjab in 1949 showed that the share of institutional sources in the total amount of agricultural credit was 16 percent, the non-institutional sources accounting for the remaining 84 percent.

Immediately after independence, as a measure to develop institutional credit, significant changes were made in the lending rules of the State Bank of Pakistan. The State Bank of Pakistan order 1948 statutorily authorized it to advance short term loans to the provincial cooperative banks for financing agricultural operations and marketing of agriculture produce. The state bank of Pakistan provided credit at concessional rates of interest to cooperatives and the Agricultural Development Bank of Pakistan (ADBP) which was set up in 1961 after amalgamating the Agricultural Development Finance Cooperation (ADFC) and Agricultural Bank. A subsequent major event was the promulgation of the banking reforms of 1972 and constitution of the National Credit Consultative Council (NCCC).

The council was assisted by the Agricultural Credit Advisory Committee in the preparation of credit estimates on the basis of the planned growth rate in agriculture and the acceleration in the use of agricultural inputs as envisaged in the Annual Development Plans. The allocations were made by the NCCC to the various credit institutions (ADBP, commercial banks and cooperatives) in the light of their past performance and future estimated loan requirements.

As a measure to simplify procedures, the Agricultural Purposes Act was promulgated in 1973 to simplify the system of securing mortgage rights, pass book. The pass book contains details of the parcels of land holding by a land owner in a

sub-district, the produce index unit of the land, and its valuation together with encumbrances, if any. The pass book was a step for improving the traditional lending procedures and reducing formalities. It was also directed towards fuller participation of the commercial banks in advancing loans and reorienting the credit system towards the small farmers. The pass book is deemed to be a title deed and accepted as such by the bank for granting different types of loans. So far 871,278 pass books have been issued, 6,22,656 in Punjab, 234,071 in Sindh, 11,861 in NWFP and 2,690 in Balochistan. There is still lot more to be done in this regard to speed up issuance process. Time series data on supply of agricultural credit are given in table 6.12.

AGRICULTURAL MARKETING

The increased modernisation of agriculture has not been accompanied by an expansion of the marketing infrastructure. Consequently the marketing system is still grossly inadequate relative to the current needs. The marketing system at present is fairly diversified ranging from complete control of the private sector for certain commodities to the major handling by the public sector for others. Spices, fruits and vegetables, gram and pulses, and milk and eggs are

marketed entirely by the private sector while there is a great amount of public intervention in the marketing of major grains, cotton and sugarcane.

There is a general lack of proper packing and storage facilities. Despite various attempts the grading and standardisation of products has remained inadequate. Establishment of cold storage and processing facilities are also encouraged. Agricultural Marketing and Storage Limited had been set up under the aegis of the Federal Cooperative Bank to safeguard the interest of producers.

With substantial investment in surface irrigation and tubewells, Pakistan's agriculture has now acquired a certain degree of stability in production, despite inevitable fluctuations in rainfall and weather conditions. It must now move towards greater technological security by increasing yields and by improving the post harvest management systems. At the same time it must aim at greater ecological security by protecting the resource base of land, water and forests; greater social security by raising the productivity of small farmers; and economic security by diversifying their sources of income and expanding opportunities for rural employment.

Table 6.4 AREA, PRODUCTION AND YIELD OF COTTON, WHEAT AND RICE

Year	COTTON			WHEAT			RICE		
	Area	Prod	Yld	Area	Prod	Yld	Area	Prod	Yld
1947-48	1236.7	1156.2	159.0	3953.7	3354.0	848.0	789.9	692.9	877.0
1948-49	1051.4	1007.8	163.0	4285.9	4037.8	942.0	839.7	747.8	891.0
1949-50	1110.4	1295.2	198.0	4183.2	3924.0	938.0	932.8	804.7	863.0
1950-51	1220.5	1469.8	205.0	4370.1	3993.1	914.0	968.0	864.7	893.0
1951-52	1342.7	1460.4	185.0	4105.9	3009.5	733.0	883.8	730.5	827.0
1952-53	1384.8	1865.0	229.0	3816.9	2405.0	630.0	907.7	832.1	917.0
1953-54	1161.4	1489.7	218.0	4215.1	3644.6	865.0	1015.7	920.5	906.0
1954-55	1269.1	1654.8	222.0	4261.3	3186.3	748.0	958.7	838.2	874.0
1955-56	1407.1	1754.2	212.0	4521.1	3370.2	745.0	969.2	841.3	868.0
1956-57	1437.8	1788.7	212.0	4689.0	3638.5	776.0	971.6	844.3	869.0
1957-58	1452.8	1785.5	209.0	4608.5	3564.3	773.0	1073.2	875.8	816.0
1958-59	1324.5	1659.0	213.0	4829.0	3906.7	809.0	1150.9	991.7	862.0
1959-60	1342.7	1713.4	217.0	4878.4	3908.7	801.0	1203.5	994.7	827.0
1960-61	1292.9	1767.8	233.0	4638.8	3814.3	822.0	1180.9	1030.3	872.0
1961-62	1395.7	1905.7	232.0	4922.9	4026.6	818.0	1214.4	1126.8	928.0
1962-63	1373.9	2153.5	267.0	5022.1	4169.9	830.0	1185.7	1095.3	924.0
1963-64	1470.6	2460.8	285.0	5018.8	4161.7	829.0	1286.1	1191.8	927.0
1964-65	1466.6	2220.4	258.0	5317.5	4590.5	863.0	1355.7	1350.3	996.0
1965-66	1561.2	2436.8	266.0	5154.8	3915.9	760.0	1393.3	1316.8	945.0
1966-67	1619.9	2723.2	286.0	5343.8	4334.5	811.0	1409.5	1364.6	968.0
1967-68	1785.0	3043.1	290.0	5983.2	6418.4	1073.0	1419.6	1498.7	1056.0
1968-69	1745.4	3101.7	302.0	6159.6	6617.5	1074.0	1554.8	2032.1	1307.0
1969-70	1755.5	3148.7	305.0	6229.2	7294.2	1171.0	1621.9	2400.9	1480.0
1970-71	1733.3	3189.1	314.0	5977.5	6476.3	1079.0	1503.4	2199.7	1466.0
1971-72	1957.6	4159.4	360.0	5797.0	6890.4	1190.0	1456.4	2261.9	1549.0
1972-73	2010.0	4125.6	350.0	5970.6	7442.3	1245.0	1479.6	2329.7	1577.0
1973-74	1844.8	3871.7	360.0	6112.6	7628.9	1245.0	1511.9	2455.1	1623.0
1974-75	2031.1	3728.6	314.0	5812.3	7673.5	1319.0	1604.2	2313.8	1439.0
1975-76	1851.6	3020.5	277.0	6110.6	8690.7	1422.0	1709.7	2617.5	1531.0
1976-77	1864.7	2557.3	233.0	6390.1	9143.9	1431.0	1749.3	2737.4	1565.0
1977-78	1843.2	3380.0	312.0	6360.0	8367.2	1316.0	1899.1	2949.6	1553.0
1978-79	1891.2	2782.6	250.0	6687.1	9950.0	1488.0	2025.6	3272.0	1615.0
1979-80	2081.0	4282.0	350.0	6923.7	10856.5	1568.0	2034.5	3215.8	1581.0
1980-81	2108.5	4201.0	339.0	6983.7	11474.6	1643.0	1933.1	3123.2	1616.0
1981-82	2214.1	4398.3	338.0	7222.9	11304.2	1565.0	1976.0	3429.7	1736.0
1982-83	2262.9	4843.9	364.0	7397.9	12414.4	1678.0	1978.1	3444.7	1741.0
1983-84	2220.7	2907.7	223.0	7343.2	10881.9	1482.0	1998.5	3339.5	1671.0
1984-85	2241.6	5930.4	450.0	7258.5	11703.0	1612.0	1998.5	3315.2	1659.0
1985-86	2364.1	7154.5	515.0	7403.3	13923.0	1881.0	1863.2	2918.9	1567.0
1986-87	2505.2	7759.7	527.0	7706.2	12015.9	1559.0	2065.6	3486.3	1688.0
1987-88	2567.8	8632.9	572.0	7308.4	12675.1	1734.0	1963.0	3240.9	1651.0
1988-89	2619.4	8385.1	544.0	7729.6	14419.2	1865.0	2041.7	3200.2	1567.0
1989-90	2598.5	8559.8	560.0	7844.5	14315.5	1825.0	2106.9	3220.1	1528.0
1990-91	2662.2	9627.7	615.0	7911.4	14565.0	1841.0	2112.7	3260.8	1543.0
1991-92	2835.5	12822.2	769.0	7877.6	15684.2	1990.0	2096.9	3243.1	1546.0
1992-93	2835.9	9053.8	543.0	8299.7	16156.5	1946.0	1973.4	3116.1	1579.0
1993-94	2804.6	8041.1	488.0	8034.2	15213.0	1893.0	2187.1	3994.7	1826.0
1994-95	2652.8	8697.1	557.0	8169.8	17002.4	2081.0	2124.6	3446.5	1622.0
1995-96	2997.3	10594.9	601.0	8376.5	16907.4	2018.0	2161.8	3966.5	1835.0
1996-97	3148.6	9304.8	503.0	8109.1	16650.5	2053.3	2251.1	4304.8	1912.3

Cotton : Area(000 H), Production(000 Bales) and Yield(Kg/H)

Source: MINFAL

Wheat & Rice : Area (000 H), Production(000 MT) & Yield(Kg/H)

Table 6.5 AREA, PRODUCTION AND YIELD OF SUGARCANE, MAIZE, ONION AND POTATO

Year	SUGARCANE			MAIZE			ONION			POTATOES		
	Area	Prod	Yld	Area	Prod	Yld	Area	Prod.	Yld	Area	Prod.	Yld
1947-48	189.4	5529.3	29.2	363.8	358.7	986	7.3	56.9	7.8	2.8	28.4	10.0
1948-49	197.1	6946.7	35.2	382.4	379.0	991	8.1	73.2	9.0	3.2	37.6	11.6
1949-50	219.3	7849.0	35.8	400.6	407.4	1017	8.5	70.1	8.2	5.3	52.8	10.0
1950-51	188.2	5506.0	29.3	378.4	387.1	1023	11.7	104.7	8.9	4.9	47.8	9.8
1951-52	189.8	5399.3	28.4	392.9	383.1	975	9.3	94.5	10.2	7.3	50.8	7.0
1952-53	253.3	7265.8	28.7	392.5	351.6	896	8.9	70.1	7.9	7.7	62.0	8.1
1953-54	292.2	8956.5	30.7	429.8	408.5	950	9.7	79.3	8.2	7.7	70.1	9.1
1954-55	304.3	8835.6	29.0	429.8	432.8	1007	9.3	77.2	8.3	10.9	64.0	5.9
1955-56	286.5	8199.5	28.6	429.4	457.2	1065	10.5	82.3	7.8	9.7	73.2	7.5
1956-57	318.9	8947.3	28.1	431.0	469.4	1089	8.9	73.2	8.2	10.5	70.1	6.7
1957-58	397.4	11294.4	28.4	431.0	447.1	1037	10.1	81.3	8.0	12.5	100.6	8.0
1958-59	427.7	12489.3	29.2	456.1	488.7	1072	12.1	94.5	7.8	12.5	103.6	8.3
1959-60	396.6	10662.4	26.9	482.4	495.0	1007	14.2	105.7	7.5	12.5	90.4	7.2
1960-61	388.1	11640.9	30.0	479.5	438.9	915	15.4	102.6	6.7	15.0	111.8	7.5
1961-62	444.3	14356.8	32.3	473.1	487.7	1031	12.1	109.7	9.0	14.2	128.0	9.0
1962-63	530.9	18439.3	34.7	458.5	488.7	1066	14.6	130.1	8.9	12.9	117.9	9.1
1963-64	477.5	16139.0	33.8	500.2	526.3	1052	16.6	156.5	9.4	15.0	136.2	9.1
1964-65	503.0	18666.9	37.1	486.4	528.3	1086	19.4	184.9	9.5	18.6	172.7	9.3
1965-66	597.3	22308.6	37.4	541.9	539.5	996	21.4	202.2	9.4	17.0	153.4	9.0
1966-67	649.5	21982.2	33.8	553.6	587.3	1061	21.0	199.1	9.5	19.0	167.6	8.8
1967-68	503.8	18659.8	37.0	607.8	791.5	1302	22.3	212.4	9.5	20.2	189.0	9.3
1968-69	540.6	21971.1	40.6	616.3	625.9	1016	22.3	213.4	9.6	21.0	230.6	11.0
1969-70	620.0	26367.7	42.5	647.5	667.5	1031	23.5	243.9	10.4	17.0	178.8	10.5
1970-71	636.2	23167.0	36.4	639.8	717.7	1125	23.4	246.9	10.4	20.2	228.6	11.3
1971-72	552.3	19963.1	36.2	632.6	705.1	1116	24.1	252.6	10.5	23.0	253.7	11.0
1972-73	533.5	19947.5	37.4	645.0	705.9	1098	17.5	186.6	10.6	23.4	241.3	10.3
1973-74	645.6	23910.5	37.0	632.6	767.1	1208	23.3	239.4	10.3	23.4	238.8	10.2
1974-75	672.8	21241.9	31.6	613.7	746.9	1217	29.5	302.9	10.2	27.7	289.5	10.5
1975-76	699.8	25546.7	36.5	620.0	802.5	1294	30.8	322.7	10.5	28.6	320.8	11.2
1976-77	787.8	29523.0	37.5	624.0	763.8	1224	30.2	331.5	11.0	25.7	318.0	12.3
1977-78	822.5	30076.6	36.6	656.1	820.9	1251	31.8	325.4	10.2	29.8	293.5	9.9
1978-79	752.5	27325.5	36.3	650.2	798.6	1228	38.7	389.7	10.1	37.7	392.4	10.4
1979-80	718.5	27497.7	38.3	701.1	875.2	1248	41.9	434.0	10.4	42.9	448.5	10.4
1980-81	824.7	32359.4	39.2	769.0	970.4	1262	43.2	447.6	10.4	38.0	394.3	10.4
1981-82	946.7	36579.7	38.6	739.1	930.4	1259	43.4	451.8	10.4	45.3	476.6	10.5
1982-83	911.7	32533.5	35.7	789.8	1005.4	1273	45.3	474.8	10.5	51.5	518.1	10.1
1983-84	896.5	34287.3	38.2	798.0	1013.5	1270	47.4	503.4	10.6	49.6	509.8	10.3
1984-85	903.6	32139.6	35.6	808.8	1027.6	1271	48.2	514.6	10.7	54.5	543.3	10.0
1985-86	779.8	27856.3	35.7	803.9	1009.4	1256	49.4	558.5	10.6	62.9	618.4	9.8
1986-87	762.0	29925.8	39.6	816.2	1111.2	1361	51.1	576.8	11.3	60.5	594.3	9.8
1987-88	841.6	33028.8	39.2	853.9	1126.9	1320	55.4	633.1	11.4	58.1	563.2	9.7
1988-89	876.9	36975.7	42.2	865.8	1204.1	1391	57.8	707.0	12.2	63.9	644.8	10.1
1989-90	854.3	35493.6	41.5	862.9	1179.3	1367	58.6	712.9	12.2	80.0	830.9	10.4
1990-91	883.8	35988.7	40.7	845.2	1184.5	1401	58.6	702.4	12.0	72.0	751.3	10.4
1991-92	896.1	38864.9	43.4	847.5	1203.1	1419	64.0	808.9	12.6	75.6	859.8	11.4
1992-93	884.6	38058.9	43.0	867.5	1183.6	1364	67.6	853.7	12.6	76.0	932.8	12.3
1993-94	962.8	44427.0	46.1	878.5	1213.0	1380	70.3	911.5	13.0	79.3	1056.2	13.3
1994-95	1009.0	47168.4	46.7	889.5	1318.1	1482	74.8	1013.1	13.5	79.3	1105.0	13.9
1995-96	963.1	45229.7	47.0	880.8	1283.4	1457	77.9	1097.6	14.1	78.9	1063.5	13.5
1996-97	964.6	41998.4	43.5	871.1	1259.4	1446	80.7	1131.0	14.0	85.8	963.4	11.2

Note: Sugarcane, Onion & Potatoes: Area(000 H), Prod.(000 MT) and Yield(T/H)

Source: MINFAL

Maize: " (""), " (" ") " " (Kg/H)

Table 6.6 AREA, PRODUCTION AND YIELD OF BAJRA, JAWAR AND BARLEY

Year	BAJRA			JAWAR(SORGHUM)			BARLEY		
	Area	Prod.	Yld	Area	Prod.	Yld	Area	Prod.	Yld
1947 - 48	808.50	300.80	372	426.50	205.20	481	167.9	112.8	672
1948 - 49	942.50	345.50	367	477.50	246.90	517	231.9	177.8	767
1949 - 50	958.30	375.90	392	550.80	271.30	493	201.1	148.3	738
1950 - 51	972.40	392.20	403	507.90	247.90	488	173.6	131.1	755
1951 - 52	816.20	269.30	330	453.20	208.30	460	174.4	100.6	577
1952 - 53	895.10	271.30	303	532.60	223.50	420	195.9	93.5	477
1953 - 54	1044.50	468.40	448	611.90	231.70	379	209.6	129.0	616
1954 - 55	886.60	354.60	400	455.30	224.50	493	182.1	105.7	580
1955 - 56	891.10	345.50	388	536.60	253.00	471	182.5	128.0	701
1956 - 57	925.50	368.80	399	549.10	259.10	472	183.3	115.8	632
1957 - 58	746.60	278.40	373	386.10	185.90	482	196.3	127.0	647
1958 - 59	810.60	314.00	387	443.50	215.40	486	198.3	129.0	651
1959 - 60	805.30	329.20	409	456.10	232.70	510	216.9	139.2	642
1960 - 61	746.20	305.80	410	475.50	220.50	464	187.0	119.9	641
1961 - 62	831.60	369.80	445	512.70	247.90	484	186.6	115.8	621
1962 - 63	851.40	421.70	495	486.40	251.00	516	196.3	112.8	575
1963 - 64	741.00	361.70	488	467.00	237.80	509	176.4	110.7	628
1964 - 65	910.50	446.00	490	585.20	292.60	500	185.3	117.9	636
1965 - 66	839.70	369.80	440	593.70	274.30	462	154.6	83.3	539
1966 - 67	837.30	370.90	443	558.50	277.40	497	161.9	88.4	546
1967 - 68	913.80	413.50	453	584.40	290.60	497	173.6	107.7	620
1968 - 69	736.10	330.20	449	473.50	262.10	554	155.8	96.5	620
1969 - 70	631.30	301.80	478	490.50	283.50	578	157.4	103.6	658
1970 - 71	749.90	354.60	473	557.60	329.20	590	140.8	91.4	649
1971 - 72	759.30	359.70	474	507.10	312.10	615	156.8	102.9	656
1972 - 73	611.80	304.10	497	499.90	301.50	603	164.4	108.9	662
1973 - 74	733.20	351.20	479	589.30	378.10	642	204.7	139.5	681
1974 - 75	544.90	265.50	487	445.30	265.60	596	193.7	137.1	708
1975 - 76	623.90	307.90	493	475.70	281.00	591	185.6	130.1	701
1976 - 77	648.00	310.80	482	446.90	261.30	585	174.3	123.6	709
1977 - 78	641.00	318.30	497	519.50	284.10	547	166.7	120.6	724
1978 - 79	658.60	317.40	482	469.20	252.40	538	177.7	129.3	728
1979 - 80	561.30	277.30	494	423.40	249.10	588	159.3	118.1	741
1980 - 81	405.90	214.00	527	393.50	229.80	584	259.4	175.5	677
1981 - 82	559.30	272.40	487	392.50	224.60	572	221.6	157.5	711
1982 - 83	438.10	219.90	502	389.70	221.90	569	263.1	185.3	704
1983 - 84	553.00	256.20	463	390.80	222.10	568	199.9	139.5	698
1984 - 85	605.70	283.70	468	394.80	230.40	584	190.0	131.6	693
1985 - 86	560.80	258.40	461	372.40	218.60	587	188.8	133.7	708
1986 - 87	508.90	232.70	457	399.20	235.50	590	182.3	134.2	736
1987 - 88	292.70	135.30	462	319.80	180.60	565	145.0	111.8	771
1988 - 89	510.00	200.90	394	431.20	248.10	575	158.7	122.5	772
1989 - 90	511.60	204.20	399	440.00	262.20	596	154.7	131.3	849
1990 - 91	490.50	195.80	399	416.50	238.90	574	156.8	142.0	906
1991 - 92	312.80	138.70	443	382.70	224.50	586	149.0	139.9	938
1992 - 93	487.30	203.10	416	403.40	238.40	590	159.5	158.3	992
1993 - 94	302.90	137.50	453	364.70	212.30	582	150.6	145.7	967
1994 - 95	508.50	228.20	448	438.20	263.40	601	165.0	164.0	993
1995 - 96	406.80	161.50	397	417.80	254.80	610	171.6	174.4	1016
1996 - 97	302.90	145.60	481	369.60	219.20	593	152.1	150.0	987

Note = Area (000 H), Production (000 MT), Yield (Kg/H)

Source: MINFAL

Table 6.7 AREA AND PRODUCTION OF TOBACCO, ALL PULSES AND FRUITS

Year	TOBACCO			ALL PULSES		ALL FRUITS	
	Area	Prod.	Yield	Area	Prod	Area	Prod.
1947-48	12.1	14.4	1184	1285.4	713.8	-	-
1948-49	15.0	18.3	1221	1645.9	993.3	-	-
1949-50	16.6	25.6	1542	1632.6	847.4	-	-
1950-51	20.6	29.9	1451	1686.3	1011.5	-	-
1951-52	21.9	35.5	1625	1367.9	666.2	-	-
1952-53	17.0	25.9	1521	1326.9	539.8	-	-
1953-54	24.7	38.1	1543	1624.4	836.8	-	-
1954-55	43.3	73.8	1703	1789.3	847.8	-	-
1955-56	31.6	48.8	1546	1888.6	944.0	-	-
1956-57	29.9	46.1	1540	1808.4	925.7	-	-
1957-58	36.4	55.7	1528	1692.4	881.1	20.6	132.1
1958-59	36.0	58.2	1617	1787.2	806.3	28.7	205.2
1959-60	38.4	60.5	1574	1713.9	851.4	32.0	205.2
1960-61	38.8	60.1	1546	1664.6	855.1	34.4	238.8
1961-62	45.3	70.2	1549	1733.8	845.9	41.7	495.8
1962-63	46.1	71.1	1542	1688.7	882.4	41.3	227.6
1963-64	44.1	75.4	1709	1608.4	829.7	38.8	241.8
1964-65	49.0	82.6	1687	1668.9	875.9	51.4	348.5
1965-66	58.3	110.0	1888	1537.3	735.6	51.0	361.7
1966-67	71.6	139.7	1950	1747.4	860.5	52.6	635.0
1967-68	70.4	129.9	1844	1627.7	715.1	53.0	617.8
1968-69	64.7	125.0	1930	1380.4	706.7	51.8	443.0
1969-70	60.3	116.4	1930	1326.0	680.4	55.0	496.8
1970-71	60.7	113.0	1863	1315.4	667.6	199.7	1601.6
1971-72	50.6	87.0	1716	1417.2	711.7	202.5	1661.0
1972-73	44.0	62.8	1430	1453.8	748.2	224.9	1803.1
1973-74	46.5	65.7	1411	1625.5	835.5	217.8	1926.3
1974-75	54.2	76.7	1411	1375.4	714.8	235.4	2059.5
1975-76	44.9	58.0	1293	1476.5	783.7	235.4	2111.6
1976-77	50.5	72.6	1437	1533.3	843.5	252.0	2142.3
1977-78	53.2	74.4	1399	1544.7	811.6	273.1	2089.7
1978-79	47.7	68.1	1429	1676.7	735.8	266.6	2203.2
1979-80	49.9	77.8	1561	1550.8	510.3	286.7	2381.4
1980-81	42.9	67.2	1567	1252.6	525.5	305.8	2532.0
1981-82	43.1	69.2	1604	1321.1	488.2	344.1	2942.0
1982-83	41.3	64.7	1565	1335.4	693.7	368.7	3170.6
1983-84	46.2	79.6	1724	1306.7	709.9	390.3	3269.1
1984-85	50.2	87.2	1737	1415.3	725.5	407.7	3414.3
1985-86	45.6	78.3	1717	1451.5	796.7	430.5	3608.9
1986-87	39.0	69.2	1776	1521.6	790.9	460.2	3638.4
1987-88	41.6	69.5	1671	1222.3	556.1	427.2	3586.4
1988-89	43.2	73.9	1711	1394.9	641.7	444.6	3792.5
1989-90	40.9	68.1	1664	1496.4	768.5	449.8	3880.7
1990-91	43.9	75.0	1708	1538.2	732.1	456.3	3955.2
1991-92	53.8	97.3	1807	1420.4	706.2	463.8	3989.4
1992-93	58.2	101.6	1745	1453.2	547.1	476.4	4112.2
1993-94	57.4	100.2	1746	1480.9	614.0	539.8	4850.1
1994-95	47.4	80.9	1705	1511.3	777.7	566.4	5153.7
1995-96	46.1	79.9	1734	1599.0	918.6	575.7	5306.8
1996-97	48.9	91.6	1883	1574.8	832.4	629.1	6187.3

All pulses include Gram, Mung, Mash, Masoor, Arhar, Matri, Other Kharif and Rabi Pulses

Source: MINFAL

Area (000 H), Prod.: Tobacco & Fruits(000 MT) & Pulses(MT), Yld(Kg/H)

Table 6.8 AREA, PRODUCTION AND YIELD OF OILSEEDS

Year	GROUNDNUT			LINSEED			RAPE & M. SEED			SESAMUM		
	Area	Prod.	Yld.	Area	Prod.	Yld.	Area	Prod.	Yld.	Area	Prod.	Yld.
1947-48	0.4	a	0	2428	1016	418	428.6	174.8	408	26.3	9.1	348
1948-49	0.0	0.0	0	2428	1016	418	452.4	188.0	415	17.4	6.1	350
1949-50	2.4	1.0	418	2428	1016	418	367.0	144.3	393	19.8	6.1	307
1950-51	0.4	0.0	0	3237	2032	628	461.3	199.1	432	23.5	8.1	346
1951-52	0.4	0.0	0	3237	2032	628	552.4	200.2	362	25.1	7.1	283
1952-53	0.4	1.0	2511	3237	1016	314	426.5	127.0	298	24.3	6.1	251
1953-54	0.4	1.0	2511	6880	4064	591	435.4	165.6	380	27.1	6.1	225
1954-55	1.2	1.0	837	2251	2032	457	516.0	219.5	425	24.3	6.1	251
1955-56	1.6	2.0	1255	4451	2032	457	575.9	221.5	385	23.5	6.1	260
1956-57	2.4	3.0	1255	8498	4064	478	552.4	225.6	408	24.7	6.1	247
1957-58	4.5	4.1	913	4451	2032	457	545.1	232.7	427	25.9	6.1	235
1958-59	3.6	4.1	1116	4451	2032	457	552.4	266.2	482	23.9	6.1	255
1959-60	3.2	5.1	1569	6475	3048	471	561.3	238.8	425	30.8	8.1	264
1960-61	11.3	16.3	1435	4856	3048	628	499.0	214.4	430	31.6	7.1	225
1961-62	10.9	15.2	1395	4451	2032	457	450.8	205.2	455	43.7	11.2	256
1962-63	12.1	14.2	1172	6475	4064	628	494.5	257.1	520	29.9	8.1	271
1963-64	15.8	17.3	1094	6070	3048	502	474.7	211.3	445	26.7	8.1	304
1964-65	16.6	20.3	1225	6475	4064	628	488.4	214.4	439	33.6	9.1	272
1965-66	23.5	29.5	1225	6070	3048	502	441.5	181.9	412	28.3	7.1	251
1966-67	34.0	46.7	1375	6475	3048	471	459.7	203.2	442	30.4	7.1	234
1967-68	50.6	74.2	1466	7284	4064	558	542.3	274.3	506	32.0	9.1	286
1968-69	34.8	52.8	1518	6880	3048	443	442.3	228.6	517	27.5	8.1	295
1969-70	42.5	62.0	1459	5665	3048	538	479.1	255.0	532	22.7	8.1	359
1970-71	30.3	44.7	1476	6174	3383	544	509.9	269.3	526	30.8	10.2	341
1971-72	41.1	57.2	1392	7679	4129	535	562.0	301.2	535	41.6	13.5	323
1972-73	31.0	44.2	1420	8799	4805	544	533.8	286.8	535	29.7	10.4	350
1973-74	38.0	54.1	1420	9171	4796	526	535.7	292.4	544	32.9	12.4	378
1974-75	40.5	57.1	1411	7953	4396	553	451.5	248.0	553	22.8	8.1	360
1975-76	43.6	61.6	1411	7916	4458	563	470.1	267.3	569	28.1	10.7	378
1976-77	45.1	64.1	1421	7928	4360	550	518.8	296.4	572	30.3	12.0	397
1977-78	50.7	72.4	1428	10269	5621	547	412.3	236.1	571	31.6	12.6	399
1978-79	36.5	45.5	1245	12525	6655	531	433.0	248.2	573	45.9	18.7	409
1979-80	40.8	50.3	1233	10280	6264	609	409.4	247.1	604	46.2	19.3	419
1980-81	46.5	57.4	1234	10712	6508	608	417.0	252.5	606	44.1	18.3	414
1981-82	59.7	72.2	1208	9808	5904	602	390.9	238.8	611	42.8	16.6	388
1982-83	69.3	84.1	1214	8414	5059	601	385.5	246.0	638	28.5	10.8	379
1983-84	72.6	88.0	1213	8728	4986	571	313.3	217.0	693	22.4	8.8	394
1984-85	59.1	69.1	1170	9419	5170	549	346.9	234.8	677	34.2	13.5	397
1985-86	54.9	63.1	1148	10491	5622	536	350.6	249.9	713	37.5	14.9	398
1986-87	62.8	75.0	1194	9856	5340	542	302.8	213.2	701	33.2	12.5	375
1987-88	66.5	52.1	784	8853	4624	522	268.9	204.2	759	18.0	7.2	398
1988-89	68.1	77.6	1140	9235	4779	517	333.6	249.0	746	24.9	10.1	405
1989-90	80.1	81.7	1019	8683	4465	514	307.1	233.1	759	37.7	15.2	403
1990-91	82.6	89.4	1082	8202	4126	503	303.5	228.3	752	52.9	21.4	406
1991-92	88.9	96.1	1080	8751	4365	499	286.5	219.7	767	69.5	28.7	412
1992-93	94.8	101.1	1066	8338	4102	491	284.6	206.9	727	82.2	34.0	414
1993-94	92.0	95.9	1042	7606	3901	513	268.5	197.4	735	73.1	32.3	441
1994-95	96.6	105.7	1094	7727	4151	537	300.6	229.4	763	80.2	36.2	451
1995-96	102.3	112.8	1103	8303	4609	555	319.6	254.5	796	89.5	39.5	441
1996-97	104.8	117.4	1120	8346	4591	550	353.9	285.6	807	99.5	44.8	450

Area/Prod./Yield (000H/000MT/Kg/H) except Linseed which is (H/MT/Kg/H)

Cont.

Table 6.8 AREA AND PRODUCTION OF OILSEEDS

Year	SOYABEAN		SUNFLOWER		SAFFLOWER		CASTROSEED		Yld
	Area	Prod	Area	Prod	Area	Prod	Area	Prod	
1970-71	2441	927	670	482	-	-	14312	4676	323
1971-72	1904	932	1250	873	-	-	1307	852	673
1972-73	2660	1159	776	486	-	-	487	465	959
1973-74	2199	1002	516	246	-	-	11995	3313	277
1974-75	957	443	569	259	-	-	1146	1156	1005
1975-76	833	403	483	228	-	-	11050	8286	750
1976-77	1662	615	389	188	-	-	15243	11216	536
1977-78	3049	1290	37	35	-	-	17333	12680	732
1978-79	3437	1755	479	311	-	-	45986	35349	769
1979-80	3512	1326	592	355	-	-	23148	17936	775
1980-81	3162	1342	4679	3492	-	-	23460	18283	779
1981-82	3691	1535	7235	5855	-	-	22475	17515	779
1982-83	4906	2086	22662	18811	8093	4479	31499	25551	811
1983-84	4465	1571	18257	15155	2947	1631	29873	24417	817
1984-85	4457	1602	21760	18063	2129	1178	26545	21938	826
1985-86	5446	2585	19806	17587	2674	2925	26833	22242	829
1986-87	5980	3775	33273	36256	2508	890	15102	10824	717
1987-88	2758	1526	43112	42531	1141	472	573	406	709
1988-89	2269	1169	29479	34415	206	102	13102	8459	646
1989-90	1495	849	25899	24579	449	234	15696	10293	656
1990-91	1875	930	31418	34649	374	198	15111	9937	658
1991-92	2193	1327	63328	83312	800	543	3050	2092	686
1992-93	4177	2373	56727	61804	1628	635	7784	5743	738
1993-94	6613	5298	45343	50019	1696	840	2159	1575	730
1994-95	6013	7228	68377	85699	1702	932	10008	7474	747
1995-96	2132	2694	86210	109515	1271	779	11410	8638	757
1996-97	5649	7311	98736	128568	1612	1079	6301	4742	757

Source : MINFAL

Table 6.9 PRODUCTION OF FISH, MEAT, EGGS, MILK AND WOOD

Year	FISH PRODUCTION			Year	PRODUCTION			MAJOR FOREST PRODUCTS		
	Marine	Inland	Total		Meat	Eggs	Milk	Timber	Fire Wood	Total
1947	32.9	7.1	40.0	1947-48	-	-	-	37	586	623
1948	33.8	8.4	42.2	1948-49	-	-	-	62	697	759
1949	35.2	9.9	45.1	1949-50	-	-	-	99	934	1033
1950	37.2	10.4	47.6	1950-51	-	-	-	127	708	835
1951	39.9	12.3	52.2	1951-52	-	-	-	102	663	765
1952	40.8	15.0	55.8	1952-53	-	-	-	116	869	985
1953	41.3	15.5	56.8	1953-54	-	-	-	127	784	911
1954	41.7	16.0	57.7	1954-55	-	-	-	82	784	866
1955	46.0	16.3	62.3	1955-56	-	-	-	113	680	793
1956	48.1	16.8	64.9	1956-57	-	-	-	142	983	1125
1957	49.5	17.0	66.5	1957-58	-	-	-	215	535	750
1958	49.8	17.2	67.0	1958-59	-	-	-	147	609	756
1959	51.3	18.0	69.3	1959-60	-	-	-	142	490	632
1960	62.2	18.5	80.7	1960-61	-	-	-	142	541	683
1961	64.9	19.0	83.9	1961-62	-	-	-	130	371	501
1962	67.0	19.8	86.8	1962-63	-	-	-	164	348	512
1963	75.2	20.1	95.3	1963-64	-	-	-	190	391	581
1964	83.4	21.0	104.4	1964-65	-	-	-	195	589	784
1965	89.8	22.0	111.8	1965-66	-	-	-	229	459	688
1966	118.6	22.6	141.2	1966-67	-	-	-	272	433	705
1967	116.7	23.3	140.0	1967-68	-	-	-	467	544	1011
1968	117.6	28.0	145.6	1968-69	-	-	-	303	484	787
1969	135.8	28.2	164.0	1969-70	-	-	-	351	513	864
1970	139.8	18.7	158.5	1970-71	-	-	-	292	470	762
1971	137.3	18.0	155.3	1971-72	568	583	7800	334	544	878
1972	173.2	18.0	191.2	1972-73	591	695	7899	249	481	730
1973	196.6	17.6	214.2	1973-74	623	811	8044	320	473	493
1974	150.0	21.4	171.4	1974-75	649	907	8193	176	329	505
1975	154.1	20.0	174.1	1975-76	684	1159	8348	170	323	493
1976	177.1	33.6	210.7	1976-77	715	1443	8524	238	549	787
1977	234.8	33.1	267.9	1977-78	749	1557	8704	130	459	589
1978	257.8	35.2	293.0	1978-79	783	1805	8888	229	576	805
1979	259.6	40.8	300.4	1979-80	819	2094	9075	232	430	662
1980	233.0	46.3	279.3	1980-81	856	2319	9267	182	446	628
1981	261.5	56.3	317.8	1981-82	894	2664	9462	208	485	693
1982	278.2	59.1	337.3	1982-83	947	3200	9662	210	476	686
1983	283.1	60.3	343.4	1983-84	1010	3619	10242	261	345	606
1984	308.0	70.6	378.6	1984-85	1079	4093	10856	330	454	784
1985	333.3	75.1	408.4	1985-86	1199	3460	12052	313	385	698
1986	331.7	84.0	415.7	1986-87	1271	3800	12669	407	543	950
1987	336.1	91.6	427.7	1987-88	1357	4140	13319	367	445	812
1988	348.9	96.5	445.4	1988-89	1447	4300	14003	296	385	681
1989	341.2	105.0	446.2	1989-90	1507	4670	14723	255	422	677
1990	369.8	113.2	483.0	1990-91	1581	4490	15481	221	851	1072
1991	402.8	115.9	518.7	1991-92	1685	4914	16280	232	259	491
1992	431.5	121.6	553.1	1992-93	1872	5164	17120	371	320	691
1993	499.2	122.5	557.1	1993-94	2000	5740	18006	187	516	703
1994	418.6	139.5	558.1	1994-95	2114	5927	18986	338	346	684
1995	405.5	165.0	541.9	1995-96	2271	5757	19919	363	357	720
1996	395.4	160.1	555.5	1996-97	2416	5915	20950	126	217	343

Note: Meat = Beef + Mutton + Poultry Milk = Cow + Buffalo + Sheep + Goat
 Production: Fish, Meat, Milk (000 MT), Forest (000 Cu. M), Eggs (Million)

Source: MINFAL

Table 6.10 LAND UTILIZATION STATISTICS

Year	Geog- raphi- cal area	T. area reported Col.(4+5 +6+7)	For- est area	N.A. for Culti- vation	Cult- urable waste	Total (Million Hectares)				
						Culti. area Col. (8+9)	Curr- ent fall- ow	Net area sown	Area so- wn more than once	T. cropp- ed area Col. (9+10)
1	2	3	4	5	6	7	8	9	10	11
1947-48	79.61	46.07	1.38	20.82	9.01	14.70	4.01	10.68	0.96	11.63
1948-49	79.61	46.27	1.35	20.63	9.13	15.16	3.75	11.41	0.93	12.34
1949-50	79.61	46.55	1.37	20.88	9.32	14.99	3.62	11.36	1.12	12.48
1950-51	79.61	46.45	1.39	20.75	9.16	15.15	3.54	11.61	1.27	12.88
1951-52	79.61	46.44	1.40	20.57	9.36	15.11	3.82	11.29	0.95	12.24
1952-53	79.61	46.58	1.28	20.76	9.25	15.28	4.03	11.25	0.83	12.09
1953-54	79.61	46.59	1.24	20.67	9.14	15.54	3.42	12.12	1.15	13.26
1954-55	79.61	46.66	1.26	20.71	9.37	15.32	3.46	11.86	1.42	13.27
1955-56	79.61	46.56	1.28	20.63	8.99	15.66	3.34	12.32	1.57	13.89
1956-57	79.61	46.65	1.30	20.61	8.73	16.01	3.38	12.63	1.53	14.16
1957-58	79.61	48.48	1.30	20.50	10.44	16.24	3.69	12.55	1.38	13.93
1958-59	79.61	48.46	1.29	20.38	10.50	16.20	3.29	12.92	1.41	14.33
1959-60	79.61	48.46	1.34	20.59	10.02	16.51	3.44	13.08	1.60	14.69
1960-61	79.61	50.99	1.68	18.73	12.46	18.12	4.84	13.27	1.59	14.85
1961-62	79.61	50.92	1.67	18.57	12.79	16.68	4.26	13.64	1.61	15.25
1962-63	79.61	50.83	1.67	18.43	12.70	18.03	4.25	13.78	1.69	15.46
1963-64	79.61	51.38	1.80	18.38	12.87	18.33	4.92	13.41	1.72	15.13
1964-65	79.61	52.83	1.97	18.78	13.36	18.72	4.56	14.16	2.09	16.24
1965-66	79.61	53.04	2.08	18.70	13.02	19.24	5.31	13.93	1.61	15.54
1966-67	79.61	52.93	2.08	18.54	13.05	19.26	5.03	14.23	2.18	16.41
1967-68	79.61	53.16	2.28	18.87	12.58	19.42	4.55	14.88	2.06	16.94
1968-69	79.61	52.95	1.88	20.53	11.25	19.29	5.04	14.25	1.99	16.24
1969-70	79.61	52.93	1.84	20.40	11.46	19.23	4.70	14.53	2.24	16.77
1970-71	79.61	53.55	2.83	20.40	11.11	19.21	4.77	14.44	2.18	16.62
1971-72	79.61	53.49	2.27	20.43	11.25	19.09	4.75	14.34	2.26	16.60
1972-73	79.61	53.75	2.81	20.73	11.09	19.12	5.05	14.07	2.86	16.93
1973-74	79.61	53.91	2.85	20.53	11.15	19.38	4.19	15.19	3.09	18.28
1974-75	79.61	53.92	2.80	20.32	11.25	19.55	4.78	14.77	2.60	17.37
1975-76	79.61	53.92	2.84	20.63	10.63	19.82	4.77	15.06	2.96	18.02
1976-77	79.61	54.97	2.86	21.47	10.88	19.76	4.69	15.07	3.14	18.21
1977-78	79.61	54.96	2.89	20.92	11.05	20.10	4.88	15.22	3.27	18.49
1978-79	79.61	53.59	2.77	19.77	11.07	19.98	4.57	15.41	3.89	19.30
1979-80	79.61	53.71	2.76	18.84	11.88	20.23	4.62	15.61	3.61	19.22
1980-81	79.61	53.92	2.85	19.91	10.86	20.30	4.89	15.41	3.92	19.33
1981-82	79.61	57.91	2.81	21.96	12.72	20.42	4.89	15.53	4.25	19.78
1982-83	79.61	57.76	2.87	21.72	12.81	20.36	4.59	15.77	4.36	20.13
1983-84	79.61	58.18	2.96	22.36	12.53	20.33	4.67	15.66	4.33	19.99
1984-85	79.61	58.13	3.16	23.26	11.10	20.61	5.00	15.61	4.31	19.92
1985-86	79.61	57.78	3.12	24.52	9.47	20.67	4.91	15.77	4.51	20.28
1986-87	79.61	57.78	2.92	23.61	10.33	20.92	4.86	16.06	4.54	20.60
1987-88	79.61	57.78	3.46	24.40	9.26	20.66	5.94	14.72	4.84	19.56
1988-89	79.61	57.90	3.43	24.06	9.39	21.02	4.93	16.09	5.73	21.82
1989-90	79.61	57.97	3.38	24.84	8.81	20.94	5.12	15.82	5.64	21.46
1990-91	79.61	57.61	3.46	24.34	8.85	20.96	4.85	16.11	5.71	21.82
1991-92	79.61	57.87	3.47	24.48	8.86	21.06	4.87	16.19	5.53	21.72
1992-93	79.61	58.06	3.48	24.35	8.83	21.40	4.95	16.45	5.99	22.44
1993-94	79.61	58.13	3.45	24.43	8.74	21.51	5.29	16.22	5.65	21.87
1994-95	79.61	58.50	3.60	24.44	8.91	21.55	5.42	16.13	6.01	22.14
1995-96	79.61	58.50	3.61	24.35	8.87	21.68	5.19	16.49	6.10	22.59
1996-97	79.61	58.51	3.62	24.39	8.91	21.59	4.85	16.74	6.19	22.93

Source = MINFAL & Provincial Agriculture Departments

Table 6.11 AREA IRRIGATED BY DIFFERENT SOURCES

Year	(Million Hectares)							
	Total	Canals	Tube wells	Wells	Canal Tubewells	Canal Wells	Tanks	Others
1947-48	8.72	7.15	-	0.97	-	-	0.05	0.54
1948-49	8.96	7.30	-	0.92	-	-	0.04	0.70
1949-50	9.13	7.35	-	1.04	-	-	0.05	0.70
1950-51	9.51	7.73	-	1.08	-	-	0.10	0.60
1951-52	9.08	7.51	-	0.98	-	-	0.06	0.53
1952-53	9.12	7.51	-	1.04	-	-	0.06	0.52
1953-54	9.62	8.00	0.02	0.96	-	-	0.05	0.59
1954-55	10.13	8.43	0.04	0.95	-	-	0.06	0.66
1955-56	12.11	8.47	0.05	0.88	-	-	0.06	0.63
1956-57	10.30	8.61	0.06	0.86	-	-	0.06	0.71
1957-58	10.27	8.70	0.07	0.79	-	-	0.06	0.64
1958-59	10.21	8.66	0.08	0.78	-	-	0.06	0.62
1959-60	10.54	8.72	0.36	0.76	-	-	0.03	0.67
1960-61	10.40	8.59	0.25	0.86	-	-	0.01	0.70
1961-62	10.75	8.90	0.26	0.93	-	-	0.01	0.64
1962-63	11.01	9.09	0.44	0.89	-	-	0.01	0.58
1963-64	11.03	8.82	0.45	1.00	-	-	0.01	0.73
1964-65	11.44	9.00	0.54	1.02	-	-	0.01	0.87
1965-66	11.47	8.69	0.80	0.96	-	-	0.01	1.01
1966-67	12.03	8.87	1.04	0.93	-	-	0.01	1.18
1967-68	12.49	9.27	1.27	0.89	-	-	0.01	1.05
1968-69	13.06	9.43	1.38	1.14	-	-	0.01	1.11
1969-70	12.77	9.63	1.94	0.69	-	-	0.01	0.50
1970-71	12.95	9.17	2.29	0.67	-	-	0.01	0.80
1971-72	12.99	9.57	2.10	0.67	-	-	0.01	0.64
1972-73	13.06	9.80	2.21	0.51	-	-	0.01	0.53
1973-74	13.64	10.06	2.41	0.52	-	-	*	0.65
1974-75	13.34	10.09	2.38	0.44	-	-	*	0.43
1975-76	13.63	10.19	2.39	0.43	-	-	*	0.62
1976-77	13.83	10.10	2.69	0.45	-	-	*	0.59
1977-78	14.22	10.43	2.79	0.35	-	-	*	0.65
1978-79	14.47	10.01	3.49	0.26	-	-	*	0.71
1979-80	14.74	10.74	2.74	0.34	-	-	*	0.87
1980-81	14.84	8.14	1.83	0.21	3.95	0.10	*	0.61
1981-82	15.30	8.24	1.99	0.19	4.17	0.11	*	0.60
1982-83	15.48	8.09	1.98	0.18	4.53	0.07	*	0.63
1983-84	15.46	7.95	1.95	0.18	4.58	0.08	*	0.72
1984-85	15.28	7.78	1.97	0.19	4.68	0.08	*	0.58
1985-86	15.79	7.84	2.05	0.19	4.95	0.08	*	0.68
1986-87	16.31	7.96	2.20	0.18	5.16	0.07	*	0.74
1987-88	15.68	7.73	2.30	0.16	5.23	0.07	*	0.19
1988-89	16.64	7.86	2.46	0.16	5.53	0.08	*	0.55
1989-90	16.89	7.74	2.57	0.16	5.72	0.08	*	0.62
1990-91	16.75	7.89	2.56	0.13	5.87	0.08	*	0.22
1991-92	16.85	7.85	2.59	0.16	5.93	0.11	*	0.21
1992-93	17.33	7.91	2.67	0.18	6.23	0.10	*	0.24
1993-94	17.13	7.73	2.78	0.14	6.22	0.09	*	0.17
1994-95	17.20	7.51	2.83	0.17	6.41	0.10	*	0.18
1995-96	17.58	7.60	2.89	0.18	6.58	0.11	*	0.22
1996-97	17.85	7.81	2.88	0.18	6.61	0.11	*	0.26

* Nominal - Not available P Provisional

Source: MINFAL

Table 6.12 SUPPLY OF AGRICULTURAL CREDIT AND FERTILIZER OFF-TAKE

SUPPLY OF AGRICULTURAL CREDIT BY INSTITUTIONS (Million Rs.)									
Year	ADBP	Taccavi	Coopera- tives	Comm. Banks	TOTAL	FERTILIZER OFF-TAKE (000 N/T)			
						N	P	K	TOTAL
1952-53	0.08	4.20	-	-	4.28	1.0	-	-	1.0
1953-54	0.06	7.70	15.50	-	23.26	14.8	-	-	14.8
1954-55	1.10	3.80	-	-	4.90	14.1	-	-	14.1
1955-56	1.00	6.40	25.40	-	32.80	6.6	-	-	6.6
1956-57	1.70	7.10	27.80	-	36.60	9.0	-	-	9.0
1957-58	3.60	12.80	29.20	-	45.60	16.4	-	-	16.4
1958-59	5.70	17.20	32.60	-	55.50	18.0	-	-	18.0
1959-60	24.80	17.90	44.90	-	87.60	19.3	0.1	-	19.4
1960-61	30.90	14.80	58.10	-	103.80	31.0	0.4	-	31.4
1961-62	42.70	12.20	92.90	-	147.80	37.0	0.5	-	37.5
1962-63	40.70	9.80	82.80	-	133.30	40.0	0.2	-	40.2
1963-64	46.70	12.00	70.30	-	129.00	68.0	0.7	-	68.7
1964-65	40.50	30.50	56.50	-	127.50	85.0	2.2	-	87.2
1965-66	68.00	12.70	51.70	-	132.40	69.2	1.3	0.0	70.5
1966-67	100.50	11.20	83.50	-	195.20	107.8	3.9	0.1	111.8
1967-68	106.20	13.00	59.50	-	178.70	177.5	12.7	0.2	190.4
1968-69	82.10	12.20	47.40	-	141.70	203.5	38.6	2.5	244.6
1969-70	91.30	10.60	53.50	-	155.40	272.6	33.9	1.2	307.7
1970-71	92.70	10.20	55.50	-	158.40	251.5	30.5	1.2	283.2
1971-72	80.00	8.90	39.10	-	128.00	341.2	37.3	0.7	379.2
1972-73	168.80	10.20	42.00	85.70	306.70	386.2	48.7	1.3	436.2
1973-74	415.20	67.50	144.20	286.40	913.30	341.9	57.8	3.2	402.9
1974-75	395.50	12.10	81.60	520.90	1010.10	362.9	60.5	2.1	425.5
1975-76	532.20	25.70	91.80	808.10	1457.80	445.3	102.5	2.8	550.6
1976-77	638.80	13.10	45.80	959.40	1657.10	511.1	118.2	2.5	631.8
1977-78	430.50	8.80	206.30	1277.50	1923.10	550.9	156.8	5.9	713.6
1978-79	416.90	12.70	263.70	1381.10	2074.40	684.2	188.0	7.6	879.8
1979-80	711.60	9.20	601.20	1537.20	2859.20	806.2	228.5	9.6	1044.3
1980-81	1066.60	8.60	1128.30	1816.10	4019.60	843.0	226.9	9.6	1079.5
1981-82	1557.40	8.50	1100.80	2436.10	5102.80	832.6	225.6	21.8	1080.0
1982-83	2310.40	11.40	1414.90	2338.40	6075.10	952.7	265.3	25.6	1243.6
1983-84	3131.70	7.60	1449.90	3770.80	8360.00	914.3	259.8	28.5	1202.6
1984-85	4167.90	6.30	1567.60	4544.40	10286.20	934.8	293.8	24.7	1253.3
1985-86	5307.90	4.60	2048.60	5324.60	12685.70	1128.2	350.3	33.2	1511.7
1986-87	6031.20	13.30	2494.70	7313.10	15852.30	1332.4	408.8	42.6	1783.8
1987-88	7716.10	9.10	3020.30	5174.50	15920.00	1282.0	392.9	45.1	1720.0
1988-89	8667.50	24.90	2730.70	3054.10	14477.20	1324.9	390.4	24.5	1739.8
1989-90	9389.90	55.60	815.10	3629.50	13890.10	1467.6	382.4	40.1	1890.1
1990-91	8323.90	56.30	3017.40	3517.60	14915.20	1471.6	388.5	32.8	1892.9
1991-92	6996.40	56.30	3247.00	4179.60	14479.30	1462.6	398.0	23.3	1883.9
1992-93	8643.40	50.80	2978.00	4525.90	16198.10	1635.3	488.2	24.1	2147.6
1993-94	8989.30	-	2621.50	4063.30	15674.10	1659.4	464.2	23.2	2146.8
1994-95	14575.70	-	3756.70	4040.80	22373.20	1738.1	428.4	16.6	2183.1
1995-96	10339.00	-	3803.40	5044.70	19187.10	1983.6	494.5	29.7	2507.7
1996-97	11687.11	-	3431.13	4429.43	19547.67	1985.1	419.5	4.5	2409.1

NPK Nitrogen Phosphate and Potash

Source: State Bank of Pakistan & MINFAL

7

INDUSTRY AND PRODUCTION

ROLE OF PUBLIC /PRIVATE SECTOR IN THE INDUSTRIAL GROWTH

Public Sector has played its role at varying degrees over time. Pakistan, being an agrarian economy at the time of independence specially, needed badly laying down of a net work of strategic roads and other communication, as well as creating a well balanced manufacturing capacity. Industrial policies were laid down from time to time with various combinations and mixes of public and private sectors. Generally, barring early 1970's the approach was sought to be private-sector-oriented to accelerate the process of industrial development.

INDUSTRIAL POLICY 1948

Following the Industries Conference, it was decided to plan and develop 27 basic industries only. Private sector was to be the main engine of industrial growth and involvement of the public sector had to be restricted to 3 out of 27 basic industries. They were:

- Arms and ammunition of war.
- Generation of hydel power.
- Manufacture of railway wagons, telephone and telegraph and wireless apparatus.

It was difficult for the private sector to take up such gigantic industrialization at that time. Pakistan Industrial Development Corporation (PIDC) was created in 1950 to promote and not to own the industrial enterprises.

INDUSTRIAL POLICY 1959

A new Industrial Policy was announced in February 1959. A

reiteration of 1948 Policy, the new statement assured that maximum scope would be given to private enterprise and dropped the right of the Government "to take over or participate in any industry vital to security or well-being of the state" in favour of private sector. The only intervention in the private sector domain now was confined to where it failed to achieve balanced development.

By late sixties the economy was largely dominated by private sector in such critical fields as banking, insurance, certain basic industries and domestic and international trade in major commodities. Even the setting up of an integrated steel mill was entrusted to the private sector.

INDUSTRIAL POLICY 1972

The Economic Reforms Order (ERO), 1972 started a sweeping nationalization and gave a heavy blow to the private industrial sector. The status of public sector as a catalyst and gap filler in the fifties was now raised to the status of a repository.

INDUSTRIAL POLICY IN THE POST 1977 PERIOD

The acts of nationalization and the performance of the public industrial sector remained the subject of controversy and criticism. The transfer of Managed Establishment Order, 1978 nullified to a large extent the pervasiveness of public sector as incorporated in the Economic Reforms Order (ERO), 1972. Almost all the 10 sectors reserved earlier for public sector investment, were opened up for private sector.

The Industrial Property Order 1979 declared that industrial units could not be arbitrarily taken over by the government.

The list of specified industries requiring government approval was reduced from 12 to 7. An other major initiative was the policy of privatization and opening some restricted fields to the private sector such as development of infrastructure, power generation and highway construction etc.

Post 1977-78 era is, in a way a, full circle return of the private sector. The growth rate in term of production in the enterprises under the Ministry of Production almost stagnated during the last few years. The production index at constant prices of 1987-88 and 1977-78 as base year remained at 238 during 1988-89 to 1990-91.

The Government has given more importance to the privatization programme. The Privatization commission has been able to privatize (upto August 1997) 41 units and about 6 units are at advance stage of

privatization. Before initiation of privatization in 1990-91, the production wing of the M/O Industries and Production (formerly M/O Production) controlled 75 industrial units through the 8 holding Corporations which were as follows:

- Federal Chemical & Ceramics Corporation (FCCCL).
- National Fertilizer Corporation (NFC).
- Pakistan Automobile Corporation (PACO)
- Pakistan Industrial Development Corporation (PIDE).
- State Cement Corporation of Pakistan (SCCP)
- State Engineering Corporation (SEC)
- State Petroleum Refining and Petrochemical Corporation (PERAC).
- Pakistan Steel

PERFORMANCE OF THE PUBLIC SECTOR INDUSTRIES UNDER PRODUCTION WING OF M/O INDUSTRIES AND PRODUCTION (FORMER M/O PRODUCTION)

Data on the performance of public sector for the years 1973-74 to 1996-97 is given in the following tables.

Table 7.1 DATA OF PUBLIC SECTOR INDUSTRIES UNDER PRODUCTION WING OF M/O INDUSTRIES & PRODUCTION (Excluding Pakistan steel, Rs. billions)

Year	Sales	Pre-Tax Profit	Taxes and Duties	Return on Assets	Total Employment (No.)
1973-74	3	0.2	1.0	3.7	45118
1974-75	5	0.3	1.2	4.5	54049
1975-76	5	0.2	1.2	2.4	54059
1976-77	6	0.06	1.4	0.6	54376
1977-78	8	0.06	1.7	0.6	52826
1978-79	8	0.02	2.0	0.1	51831
1979-80	13	0.6	3.4	3.5	49766
1980-81	16	0.8	3.5	4.1	50673
1981-82	19	1.1	3.7	5.1	51567
1982-83	22	0.9	4.2	4.0	50977
1983-84	23	0.8	5.1	3.4	56021
1984-85	25	1.4	4.1	5.3	55959

1985-86	26	1.5	4.4	5.2	55098
1986-87	26	1.5	4.7	5.2	53254
1987-88	30	1.6	6.0	5.4	52393
1988-89	32	1.4	8.1	3.9	52727
1989-90	36	2.1	7.9	6.5	53355
1990-91	42	2.1	9.3	6.5	51944
1991-92*	36	0.9	9.1	2.7	41974
1992-93**	30	1.9	5.9	7.4	30755
1993-94**	29	2.1	7.1	7.4	27212
1994-95#	29	1.0	7.3	3.3	24282
1995-96^	33	1.4	6.0	4.01	23384
1996-97<	35	1.3	6.4	3.5	20146

Source: M/O Industry and Production

* Excluding data of 17 units privatized uptill 30th June 1992

** Exc. data of 28 units pvt. uptill 30th June 1993 & 94

Exc. data of 35 units pvt. uptill 30th June 1995

^ Exc. data of 40 units pvt. uptill 30th June, 1996

< Prov. & Exc. data of 41 units pvt. uptill 30th June 1997

Table 7.2 DATA OF PUBLIC SECTOR INDUSTRIES UNDER PRODUCTION WING OF M/O INDUSTRIES & PRODUCTION (Including Pakistan Steel, Rs. billions)

Year	Sales	Pre-Tax Profit/Loss	Taxes and Duties	Taxes and Duties	Total Employment (No.)
1985-86	29	0.3	4	4	75895
1986-87	31	0.2	5	5	77653
1987-88	36	1.2	6	6	74129
1988-89	40	1.2	9	9	75051
1989-90	43	1.0	10	10	77333
1990-91	51	2.0	12	12	66650
1991-92	46	.02	11	11	65635
1992-93	42	2.5	8	8	53288
1993-94	43	3.08	10	10	84892
1994-95	44	1.6	11	11	44805
1995-96	47	1.7	10	10	44383
1996-97*	48	1.1	10	10	41664

*Provisional ** Negligible

Source: M/O Industry and Production

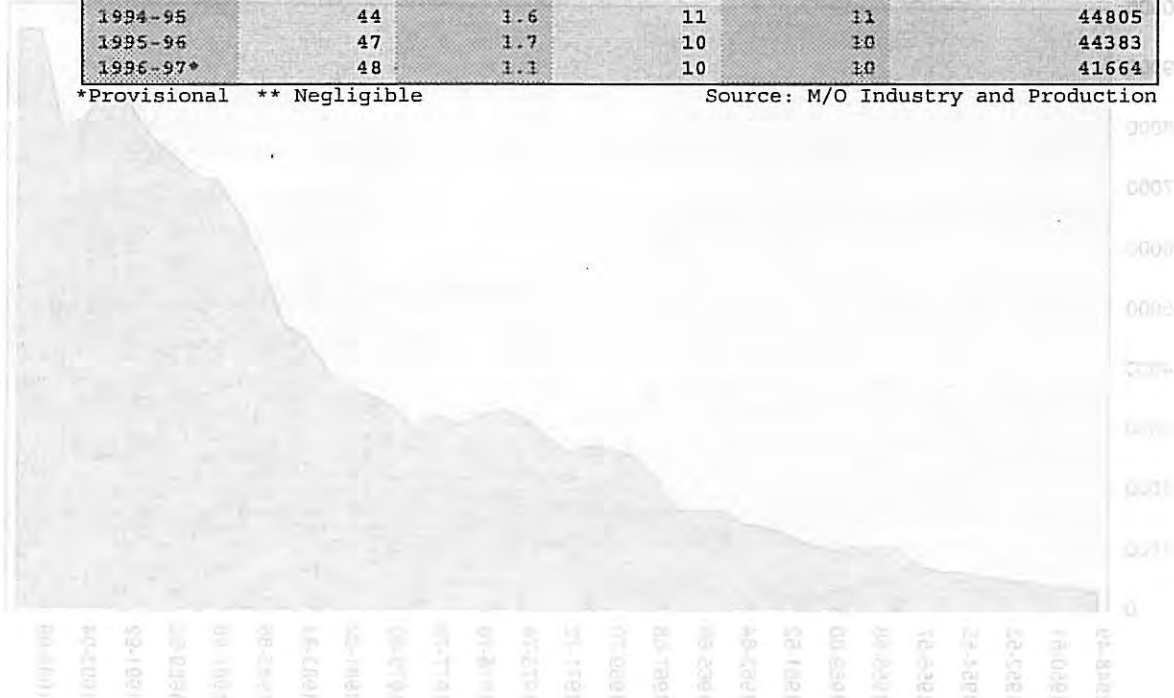


Figure 7 PRODUCTION OF SUGAR AND CEMENT

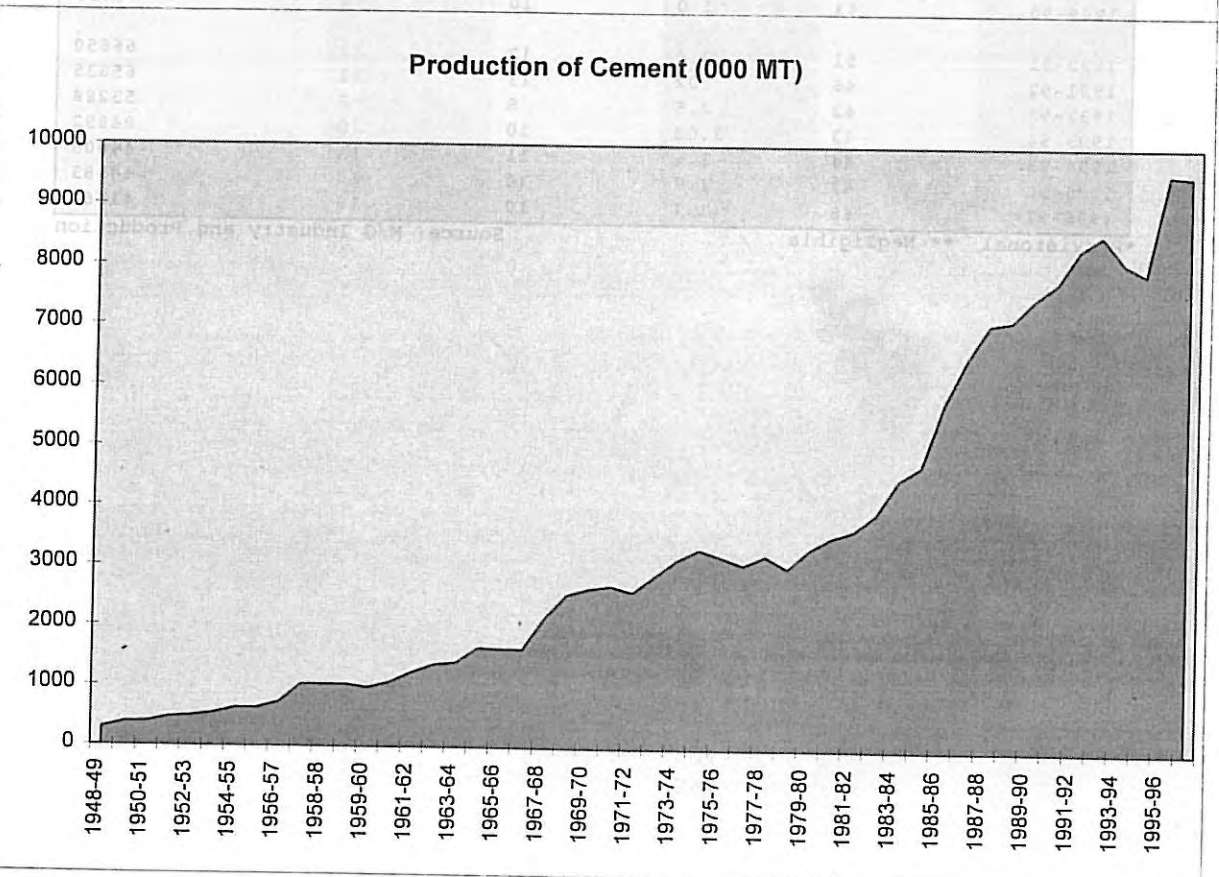
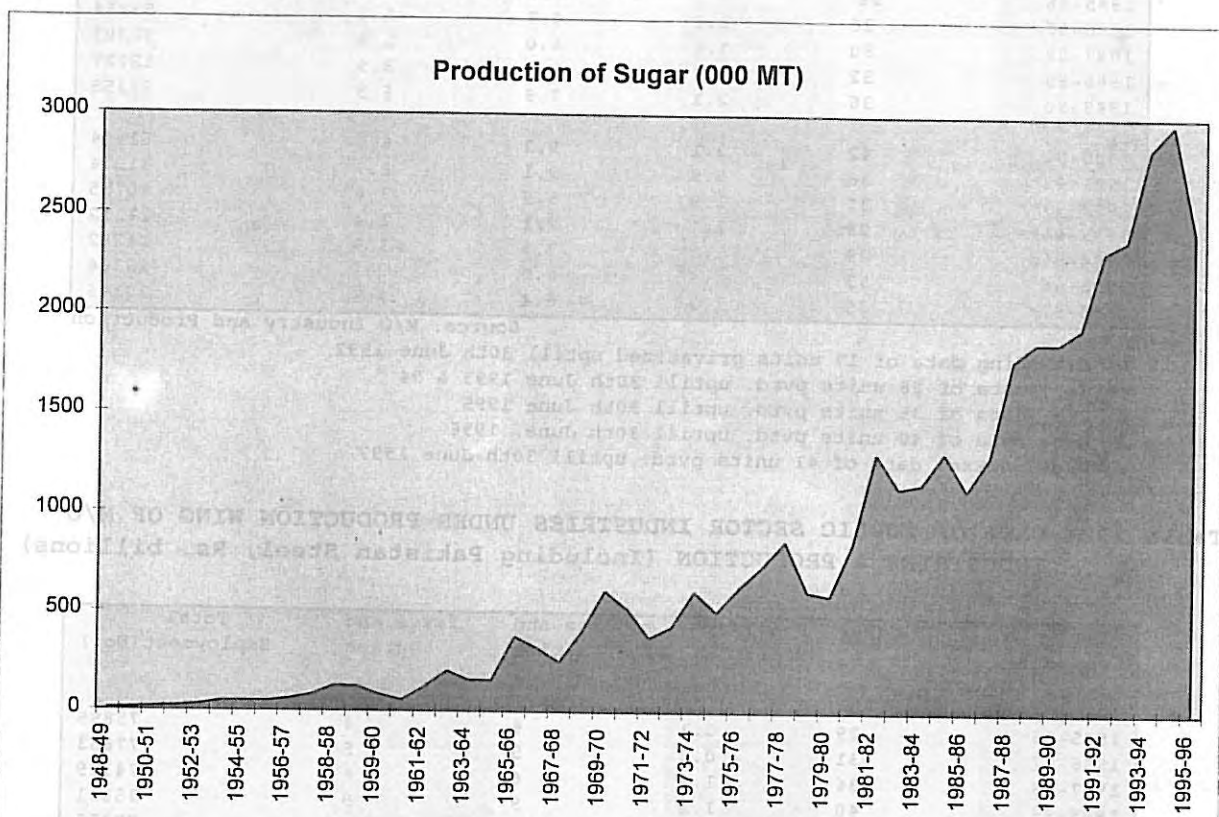


Table 7.3 PRODUCTION OF COTTON TEXTILE, YARN, CEMENT AND SUGAR

Year	Cotton Textile		Cigarette Production			Cement		Sugar	
	Rept. Mills	Production of cloths (000 Yds.)	Yarn Produced (000 MT)	Rept. Fact. (#)	Production (Mill. #)	Rept. Fact. (#)	Production (000 MT)	Rept. Fact. (#)	Production (000 Tonnes)
	(#)								
1948	...	35378	0.006			...	292	2	10
1949	...	44826	0.008	3	241	...	383	2	13
1950	...	55411	0.012	7	1488	...	395	3	17
1951	...	70053	0.017	4	2716	...	478	3	22
1952	...	105223	0.022	6	3170	...	501	3	31
1953	...	192440	0.046	6	3996	...	547	3	49
1954	...	282254	0.078	9	4372	...	632	4	48
1955	...	389436	0.114	9	4434	...	637	5	48
1956	...	438389	0.124	10	4907	...	732	6	61
1957	...	470390	0.128	8	5861	...	1037	6	82
1958	...	511008	0.138	8	6694	...	1032	6	128
1958-59	70	539418	0.149	8	6938	...	1036	6	124
1959-60	72	544216	0.160	8	8172	6	982	6	84
1960-61	72	613636	0.163	8	9505	6	1073	8	56
1961-62	71	639117	0.167	9	10501	6	1238	8	124
1962-63	76	671727	0.174	9	10833	6	1370	8	203
1963-64	81	693161	0.199	9	12785	6	1408	9	157
1964-65	83	714755	0.206	9	14303	8	1655	10	159
1965-66	89	651358	0.194	12	16869	8	1633	14	377
1966-67	94	683619	0.207	14	18968	8	1633	16	322
1967-68	95	714825	0.225	15	20024	8	2162	16	252
1968-69	100	710245	0.239	15	20636	9	2550	20	408
1969-70	107	725421	0.273	15	22369	9	2656	20	610
1970-71	113	787313	0.304	16	24166	9	2702	20	519
		(000 Sq M)							
1971-72	131	628189	335.702	16	21722	9	2605	23	375
1972-73	150	588606	376.122	18	27623	9	2876	22	429
1973-74	155	592172	379.460	18	27477	9	3145	24	608
1974-74	143	555855	351.200	19	26804	9	3320	25	502
1975-76	127	520438	349.653	20	27454	9	3196	25	631
1976-77	135	408287	282.640	20	28379	9	3071	27	736
1977-78	140	391347	297.894	18	31304	9	3224	28	861
1978-79	152	339442	327.798	21	32536	9	3023	30	607
1979-80	149	342335	362.862	24	34647	9	3343	31	586
1980-81	158	307882	374.947	25	35891	9	3538	31	851
1981-82	155	325021	430.154	23	38132	9	3657	35	1301
1982-83	158	335537	448.430	22	38199	11	3938	39	1127
1983-84	162	296596	431.581	20	40096	13	4503	39	1147
1984-85	158	271831	431.731	21	38921	14	4732	39	1306
1985-86	160	253480	482.186	22	39593	17	5773	40	1116
1986-87	187	237879	586.371	19	39929	18	6508	41	1286
1987-88	197	281620	685.031	18	40697	20	7072	42	1771
1988-89	219	269862	757.903	22	31567	21	7125	45	1858
1989-90	236	294839	911.588	19	32279	23	7488	47	1857
1990-91	247	292911	1041.248	21	29887	22	7762	51	1934
1991-92	271	307933	1170.736	24	29673	22	8321	53	2323
1992-93	284	325396	1218.975	31	29947	20	8558	61	2384
1993-94	320	314914	1309.622	26	35895	20	8100	63	2841
1994-95	344	321841	1369.715	26	32747	20	7913	66	2969
1995-96	349	326980	1464.895	30	44701	20	9567	67	2426
1996-97	357	333500	1520.800	30	46084	20	9536		

Note: 1948-58, Calendar Year & 1958-96, Financial Year except Cigarettes.

Source: F B S & M/O Industries & CBR

Cigarette Production Data for 1949 is from April-December. It is on calendar year basis for 1950 & 1951. For 1952, it is from Jan.-June. Onward data is on Financial Year basis.

Table 7.4 PRODUCTION OF CHEMICAL FERTILIZER AND VEGETABLE PRODUCTS

Year	Super		Ammonium		Nitro	Vegetable products	
	Urea (MT)	Phosphate (MT)	Sulphate (MT)	Nitrate (MT)	Phosphate (MT)	Rept. Fact.	Prod. (MT)
1948	-	-	-	-	-	1	100
1949	-	-	-	-	-	2	2570
1950	-	-	-	-	-	2	4265
1951	-	-	-	-	-	2	6095
1952	-	-	-	-	-	4	8114
1953	-	-	-	-	-	4	10959
1954	-	-	-	-	-	8	12914
1955	-	-	-	-	-	8	13095
1956	-	-	-	-	-	7	17166
1957	-	1358	-	-	-	11	18296
1958-59	-	1985	36140	-	-	11	21104
1959-60	-	862	42836	-	-	11	28751
1960-61	-	8992	47154	-	-	13	37470
1961-62	*741	8010	52637	**9482	-	19	51266
1962-63	28541	6157	52459	65349	-	19	67773
1963-64	40326	6697	49904	61289	-	18	85344
1964-65	44660	8149	35411	76086	-	20	91667
1965-66	41739	7986	39041	-	-	20	101962
1966-67	47583	4026	42864	-	-	20	86581
1967-68	43686	16074	46809	-	-	19	93931
1968-69	106493	14384	42568	-	-	19	99206
1969-70	206330	23255	58325	-	-	24	125773
1970-71	204678	25420	59649	-	-	27	135597
1971-72	394726	27460	66789	76028	-	25	161503
1972-73	533159	45679	58177	65643	-	27	187258
1973-74	575467	22645	90440	63452	-	28	225363
1974-74	589493	31700	95094	58849	-	27	271902
1975-76	605336	58591	89258	70750	-	28	277360
1976-77	593568	66073	100002	64541	-	29	325901
1977-78	594890	75023	95599	47138	-	29	360299
1978-79	620482	98524	97887	81143	40443	28	422257
1979-80	640511	101198	98868	199000	137230	30	452161
1980-81	962906	101813	96642	272671	131209	31	504924
1981-82	1223478	102691	94005	321391	210510	28	531273
1982-83	1831819	104250	61182	339380	238352	32	512602
1983-84	1797553	105690	72985	383011	316450	37	594820
1984-85	1814666	105801	79009	406357	308306	44	640319
1985-86	1820214	105760	92285	394255	321392	41	611997
1986-87	1992644	107584	91615	413314	323449	41	608686
1987-88	1985076	107809	98261	332723	333679	42	697030
1988-89	2008601	140691	98108	350553	330768	49	624299
1989-90	2108526	163850	94609	338065	333319	51	682647
1990-91	2050342	175111	92278	318800	320961	47	655853
1991-92	1897952	194019	92888	300029	309756	49	638865
1992-93	2306075	205000	92890	302198	297337	61	724724
1993-94	3103825	195100	82015	242724	251371	71	670654
1994-95	3000213	147023	79615	313907	285002	71	711219
1995-96	3257407	103740	83660	383492	276544	71	719728
1996-97	3260100	100	80900	330200	350300		

* Two months total ** Six months total

Source: Federal Bureau of Statistics

Note: Vegetable production for 1948 is from April-Dec. For 1949-57, it is from Jan.-Dec. & from April-March, for 1958-59.

It is on Financial Year onward.

Table 7.5 PRODUCTION OF BICYCLE, ELECTRIC BULBS AND TUBES,
MOTOR/CYCLE TYRES AND TUBES

Year	Bicycle	Electric		Cycle		Motor	
	(000 Nos.)	Bulbs (000 Nos)	Tubes (000 M)	Tyres (000 Nos)	Tubes (000 Nos)	Tyres (000 Nos.)	Tubes (000 Nos.)
1949	-	-	-	-	13	-	-
1950	-	-	-	-	112	-	-
1951	-	-	-	-	620	-	-
1952	-	-	-	-	784	-	-
1953	-	-	-	-	1357	-	-
1953-54	-	-	-	-	1862	-	-
1954-55	-	-	-	-	2009	-	-
1955-56	-	-	-	-	2186	-	-
1956-57	-	-	-	-	2617	-	-
1957-58	-	-	-	-	2636	-	-
1958-59	-	-	-	-	2531	-	-
1959-60	-	-	-	-	3079	-	-
1960-61	-	-	-	-	3454	-	-
1961-62	-	-	-	-	4127	-	-
1962-63	-	-	-	1624	3300	-	-
1963-64	-	7255	169	1795	3363	-	-
1964-65	98	6796	82	2335	4559	59	67
1965-66	103	6898	184	1939	2290	60	65
1966-67	138	7779	322	2808	4241	69	68
1967-68	155	9552	213	2574	3300	84	96
1968-69	170	8963	251	2920	3704	12	28
1969-70	161	10652	267	3171	3556	108	115
1970-71	160	10504	396	2745	3798	109	126
1971-72	123	7936	490	2037	2453	100	85
1972-73	212	10721	565	2542	3283	168	162
1973-74	179	10920	642	3252	3862	149	177
1974-74	210	15031	604	3033	4161	239	214
1975-76	218	17431	564	3180	4219	166	143
1976-77	211	14927	413	3461	4131	148	137
1977-78	245	17527	464	3675	5020	282	159
1978-79	280	20641	1238	3731	4154	183	197
1979-80	279	20251	1145	3937	5147	204	201
1980-81	327	34187	1285	4072	5425	227	189
1981-82	399	41443	1881	4304	5449	197	136
			(000 Nos)				
1982-83	449	23501	2489	3984	5226	217	134
1983-84	448	36775	3143	3735	6173	238	122
1984-85	463	44933	3222	4074	7040	307	87
1985-86	448	46394	3314	4147	6121	412	171
1986-87	593	46410	4702	4221	6307	382	117
1987-88	655	46379	6404	4476	5748	679	384
1988-89	560	53407	6567	4087	6157	907	521
1989-90	530	55690	7567	4000	5501	915	648
1990-91	429	49322	7728	3828	5468	952	646
1991-92	478	25391	5035	3751	5757	784	618
1992-93	574	41328	4205	3826	5612	712	550
1993-94	564	42720	5307	3872	6191	783	706
1994-95	474	41609	5352	3522	5146	912	833
1995-96	545	45826	5417	3988	5594	1003	909
1996-97	432	56400	7598	4112	5205	522	643

Note: Data up to 1953 is from Jan-Dec and onward is from July-June

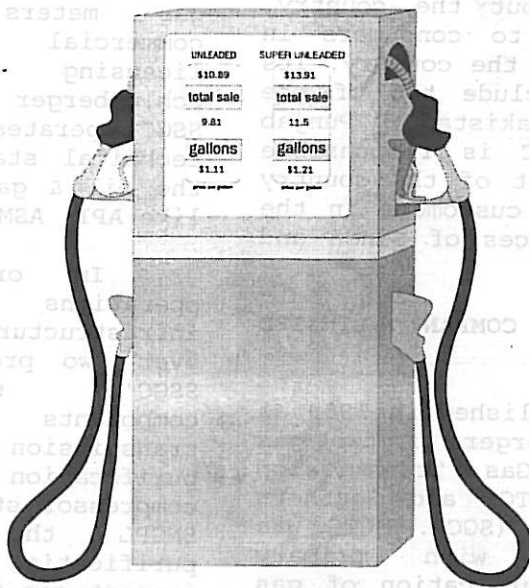
Source: Federal Bureau of Statistics

Table 7.6 PRODUCTION OF MOTOR VEHICLES, BUSES, TRUCKS ETC.

Year	M. Cycle/				Light		
	Scooters/ Rickshaws	Motor Car	Jeep (4*4)	Trac- tor	Buses	Commercial Vehicles	Trucks
1975-76	23063		2366	5766	1983	2112	4179
1976-77	23729		2192	6885	1037	1927	3161
1977-78	37408		1620	8237	520	1394	3148
1978-79	51798		1219	5260	1176	8347	4183
1979-80	65953		1641	6545	1176	5961	5149
1980-81	53174		1682	8804	513	8391	2899
1981-82	24903		1511	12367	285	11170	3075
1982-83	34452	4120	2101		737	11532	3563
1983-84	54017	9267	2160		624	11718	2883
1984-85	52905	13146	1715		619	12458	2279
1985-86	79582	15878	2323	19153	616	11571	2285
1986-87	69593	13683	2121	18111	618	10765	1835
1987-88	68231	19032	3502	18584	732	11767	2238
1988-89	72804	19996	3340	23638	777	11899	1857
1989-90	92783	25747	1581	19376	626	11609	1715
1990-91	98647	25166	2796	13753	826	11882	2059
1991-92	97162	28911	1774	9817	1114	11411	1627
1992-93	95793	26945	1324	17127	1177	11478	2222
1993-94	63958	19514	816	14907	427	5128	1394
1994-95	60960	20955	1310	17144	312	5154	703
1995-96	95991	30963	2274	16208	282	6213	1430

Source: Pakistan automobile corporation, Central board of revenue, Punjab bureau of statistics

OIL AND GAS



GAS INDUSTRY

The gas industry in Pakistan is the oldest natural gas industry of the world outside the North American continent. At the time of independence in 1947, there was no Natural Gas available in the areas that then formed "Pakistan". The first gas field was discovered in 1952 at Sui in the province of Balochistan. Soon after this discovery, a 16 inch diameter, 558 kilometer long gas transmission pipeline was laid from Sui to Karachi. This pipeline was commissioned in 1955. Karachi was the only major consumer centre at that time and the sales were of the order of 10 million cubic feet per day (MMCFD). At present the gas sales in Pakistan is about 1700 MMCFD and the share of natural gas is more than 37%. Sui Northern Gas Pipelines Limited (SNGPL) and Sui Southern Gas Company Limited (SSGC) are the two major companies of the country which are involved in purification, transmission and distribution of natural gas throughout the country. SNGPL supplies gas to consumers in the northern part of the country. Its franchised areas include two of the four provinces of Pakistan - Punjab and Frontier. SSGC is responsible for the southern part of the country and supplies gas to customers in the remaining two provinces of Sindh and Balochistan.

SUI SOUTHERN GAS COMPANY LIMITED (SSGC)

SSGC was established in 1989 as a result of the merger of two gas companies - Sui Gas Transmission Company Limited (SGTC) and Southern Gas Company Limited (SGC). SGTC was formed in 1954 with primary responsibility of purification of gas at Sui field and to transmit the sweet gas to the consumer centres in

the Southern part of the country. Two distribution companies, Karachi Gas Company & Indus Gas Company, established in 1955, were responsible for the distribution of gas to consumers in Karachi and in towns enroute to the transmission pipeline between Sui and Karachi. These two distribution companies were first merged in 1985 to form SGC and latter in 1989, SGC & SGTC were merged together to form SSGC. SSGC is primarily involved in operations and maintenance of:

- Gas purification facilities at Sui,
- Gas transmission pipelines,
- Gas compression facilities, and
- Gas distribution pipelines

It purchases natural gas from 5 different sources and sells this gas to its customers in Sindh and Balochistan. SSGC also distributes liquefied petroleum gas (LPG) throughout Pakistan and manufactures gas meters for domestic and commercial consumers under a licensing arrangement with Schlumberger of France since 1976. SSGC Operates under well established technical standards and practices of the oil & gas industry institutions, like API, ASME, ANSI and NACE.

In order to support its operations SSGC has appropriate infrastructural facilities, spread over two provinces of the country. SSGC's major infrastructure components comprise of gas transmission /distribution pipelines, purification facilities and compressor stations. SSGC shares with SNGPL the ownership of gas purification facilities at Sui. The present gas purifying capacity of Sui plant is 550 MMCFD and another 240 MMCFD purification facilities are

under construction. SSGC gas transmission system comprises of 2570 kilometers long high pressure pipelines of 12 to 24 inches diameters. A total of 62600 horse power compression facilities are installed on these transmission pipelines at 6 different locations. The gas distribution network of SSG include more than 18468 kilometers pipelines mains and services lines, ranging from 1 to 24 inches diameters. All transmission pipelines are monitored through a comprehensive telecommunication system and the distribution system is controlled through a Supervisory Control, And Data Acquisition (SCADA) system.

SSGC's domestic meter manufacturing plant is located in Karachi which has an annual capacity of manufacturing 300,000 meters of two different types G-1.6 and G-4.

LPG marketing operation of the company comprises storage facilities at four location with total capacity of 900 metric tons (MT), and LPG filling plants at three location with a capacity of 90 MT per day.

SSGC serves more than one million consumers of natural gas in Sindh and Balochistan provinces since 1993. The customers growth rate has been around 11 per cent per annum. Majority of customers, about 74 per cent, are in the household category and are located within Karachi. New connections are provided to consumers each year. About 310,000 new gas connections have been provided to consumers till August, 1997.

SSG employs and maintains a team of competent professional staff to run its operations effectively. Its staff is well experienced in their respective field. The present strength of SSGC staff is 5527 which comprises of 1373 executive and 4154 non executive staff. SSGC helps its staff to improve and update their expertise in respective fields based on worldwide gas industry practices by arranging specialized training programme locally and abroad. In 1995-96 SSGC has arranged 60 man-months of foreign training programmes

for its staff through Canada and U.K. based industry firms.

Sector Wise Gas Consumption

Consumers of natural gas in Pakistan have been divided in five major categories based on the nature of their socio-economic impact. These sectors and their share in consumption is as follow.

• Domestic	16.9%
• Commercial	3.0%
• Fertilizer	25.9%
• Power	33.7%
• General Industry	20.5%

Telecommunication and SCADA System

For control of its transmission network, SSGC operates and maintains its telecommunication and Supervisory Control And Data Acquisition (SCADA) system. This system allows pipelines related data like gas flows pressure etc. along the pipeline to be transmitted to Karachi gas control centre for monitoring and control of the gas network. It also makes it possible to initiate action for closing sections of the pipeline if any unforeseen event occurs.

Following is the list of major SSG's consumers. Gas supplied to these consumers is being monitored/controlled by Karachi terminal gas control on 24 hours basis.

- ACPL,
- Pak Steel,
- Malir,
- Karachi,
- Landi
- Two power station at KESC,
- Jamshoro,
- Kotri,
- Sukkur and
- Quetta

Marketing and Consumer Services

Presently SSGC serves more than 1.26 million consumers, in its area

of franchise in the provinces of Sindh and Balochistan where there are 350 towns and villages commissioned on gas as against 30 in 1989-90.

SSGC has a computerized in company staggered/cyclic billing system which involved reading of 1.26 million meters, data processing, printing of gas bills and delivery of the bill to each consumer on a monthly basis. SSGC has also set up a consumer service, telephone No.119, which operate round the colock on 24 hours basis where consumer can logge their complain at any time. This is a computer based system which enable the company and consumer to track the complain and ensure prompt rectification and follow up. SSG has also successfully launched a pilot project for hand-held electronic meter reading device which when fully employed will not only ensure 100% accuracy but would aslo substantially reduce billing down-time.

SSG Progress as on June, 1997

• Transmission Pipeline (km)	2570
• Distribution Mains (km)	14427
• Distribution Service Line (km)	4041
• Gas Compression Capacity (HP)	62600
• Gas purification Capacity (MMCFD)	550
• Total number of Gas Consumer (Mil)	1.26
• Average Gas Sales (MMSCFD)	515
• Average Gas Internal Use (MMSCFD)	5

SUI NORTHERN GAS PIPELINE LIMITED (SNGPL)

SNGPL was incorporated as a private limited company in June, 1963 and was converted to a public limited company in January 1964 under the Companies Act 1913 now companies Ordinance 1984, with the subject of transmission and distribution of natural gas in the provinces of Punjab and North West Frontier. For this purpose the company took over the existing "Sui- Multan Pipeline System" from PIDC and the "Rawalpindi - Wah System" form the Attock Oil Company Limited. The company's

commercial operation commenced by selling an average of 47 million cubic feet per day (MMCFD) of gas to 67 consumers in two regions, namely Multan and Rawalpindi.

Expansion

SNGPL undertook five major expansion projects from 1964 to 1990 with the world Bank financing as a result of which the system capacity increased progressively from 90 MMCFD of gas to 450 MMCFD from Sui region. The sixth expansion project is nearing completion after which the capacity at Sui region would increase to 980 MMCFD.

In-House Capabilities

Until 1972 all the major pipelines in Pakistan were constructed by foreign contractors. SNGPL, however, from the very beginning, had maintained a small construction group for construction of small spurs on transmission system not big enough to be contracted out. By 1973 SNGPL crew had attained sufficient experience and expertise to undertake bigger jobs and SNGPL undertook construction of 70 miles of 10 inch diameter pipeline and a major river crossing. After successful completion of this undertaking, the World Bank also recognized SNGPL's construction capabilities. SNGPL had now entered the age of self sufficiency as far as designing and construction of high pressure gas pipeline systems were concerned. In addition to designing and construction of its own compressor stations, high pressure transmission pipelines and low pressure distribution network, SNGPL has also acted as a contractor for outside agencies such as Oil & Gas Development Corporation (OGDC), Pak. Saudi Fertilizer, Fauji Fertilizer and Pak Arab Refinery Company (PARCO). SNGPL also constructed a substantial and one of the most difficult portions of Quetta Natural Gas Pipeline. The construction of about 310 miles of PARCO and 105 miles of Quetta pipeline was a

tremendous challenge as these pipelines traversed all sorts of terrain which can be encountered during the construction of a cross country pipeline, including long stretches of water logged areas and steep rocky inclines.

low pressure distribution network from 126 to over 26218 Km. An average of about 628 MMCFD gas supplied to about 1,528 thousand consumers in 125 towns and cities in 8 regions during 1996-97 as compared, at inception to an average of 47 MMCFD gas to 67 consumers in 3 cities and 2 regions. This achievement is noteworthy by any standard but the Company has tried to guard against complacency. It believes that the final yardstick is not merely the size of undertaking but the quality and promptness of service to the people, not just expansion but the maintenance of the high standard coupled with reliability of service.

Achievements

The five year-wise details of the physical achievements of the Company since its inception are provided below. Sui Northern is now more than 33 years old. How much has the Company progressed can be gauged from the fact that during these years the high pressure transmission system increased from 625 to 4630 Km and the

Table 8.1 FIVE YEAR-WISE DETAILS OF SUI NORTHERN GAS PIPELINE LIMITED

Years	Gas Sales (MMCF)	Consumers (Nos)	Transmission Pipelines (Km)	Distribution Mains (Km)	Installed Compression BHP-ISO
1964	13683	67	625	126	0
1969	38583	22726	1205	962	13020
1974	82164	91487	1872	2287	32550
1979	90298	274290	2312	5441	67020
1984	123923	473847	2395	7659	86170
1989	149084	679635	2808	10028	98815
1994	185219	1136803	3614	18375	111460
1997	229362	1582796	4630	26218	152185

Source: Sui Northern Gas Pipelines Limited

Table 8.2a OIL RESERVES BY FIELD ON JUNE 30, 1997.

(Million US Barrels)

Table 8.2b GAS RESERVES ON JUNE 30, 1997.

(Trillion Cubic Feet)

Field	Commulative Production	Balance Recoverable	Original Recoverable Reserves	Source	Original Recoverable Reserves	Recoverable
Khaur	3.91	0.40	4.31	Natural Gas Reserves	27.314	17.238
Dhulian	5.88	35.52	41.40	Associated Gas Reserves	1.161	0.647
JoyaMair	0.43	10.02	10.45	Total	28.475	17.885
Balkassar	0.09	33.17	33.26			
Total	10.31	79.11	89.42			

Source: M/O Petroleum and Natural Resources

Source: M/O Petroleum and Natural Resources

Table 8.3 OIL AND GAS PRODUCTION

Year	Oil	Gas	Consumption of POL Products (000MT)^
1947-48	880	.	342
1948-49	1594	.	451
1949-50	2141	.	727
1950-51	2672	.	962
1951-52	3444	.	1019
1952-53	4122	.	1021
1953-54	4634	.	1097
1954-55	4870	.	1250
1955-56	5238	14	1260
1956-57	5389	56	1358
1957-58	5561	47	1021
1958-59	5666	56	1097
1959-60	6126	69	1250
1960-61	6898	99	1260
1961-62	7684	95	1358
1962-63	8715	108	2106
1963-64	9370	129	2234
1964-65	9546	154	2549
1965-66	9774	183	2815
1966-67	9183	199	2913
1967-68	8875	211	3179
1968-69	9380	262	3258
1969-70	9318	307	3769
1970-71	8874	330	3345
1971-72	7964	348	3445
1972-73	7703	400	3514
1973-74	6534	456	3445
1974-75	5355	496	3445
1975-76	5594	490	3769
1976-77	9799	540	3622
1977-78	9674	564	4000
1978-79	10274	610	4520
1979-80	9920	728	4581
1980-81	9815	836	4880
1981-82	10862	901	5497
1982-83	12981	951	5955
1983-84	13343	950	6611
1984-85	26097	991	7321
1985-86	39310	1042	7478
1986-87	41094	1103	8398
1987-88	44562	1198	8899
1988-89	46767	1248	9843
1989-90	53481	1363	10501
1990-91	64348	1421	10609
1991-92	61390	1505	12090
1992-93	59987	1599	13090
1993-94	56643	1710	13825
1994-95	54405	1721	
1995-96	57549	1821	
1996-97	58275	1912	

Source: M/O Petroleum and Natural Resources

Note: ^ Data are on Fiscal year basis. Oil: Avg/day (Barrels), Gas: Avg/day (MMCFD)

Figure 8.1 PRODUCTION OF OIL AND COAL

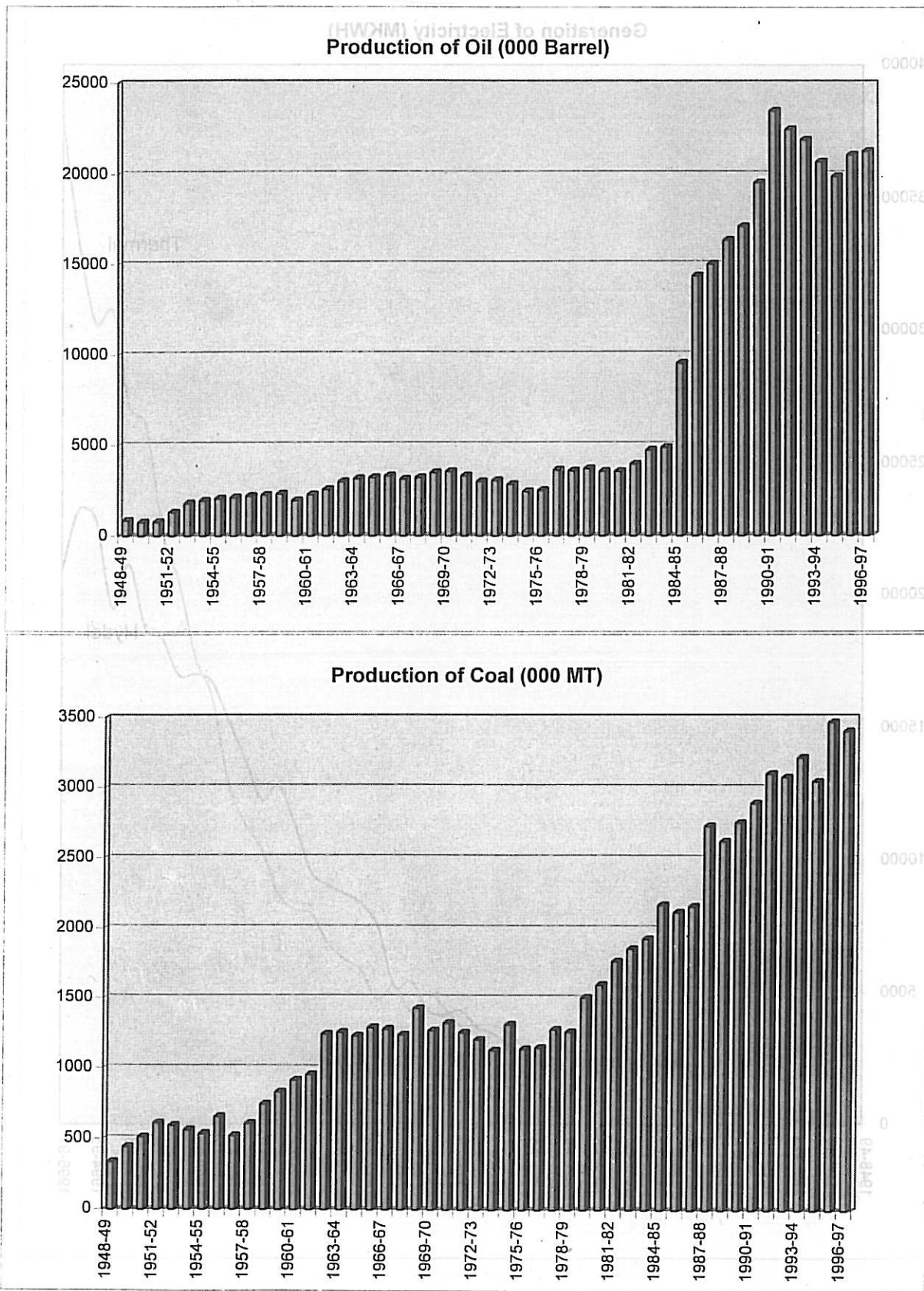


Figure 8.2 GENERATION OF ELECTRICITY

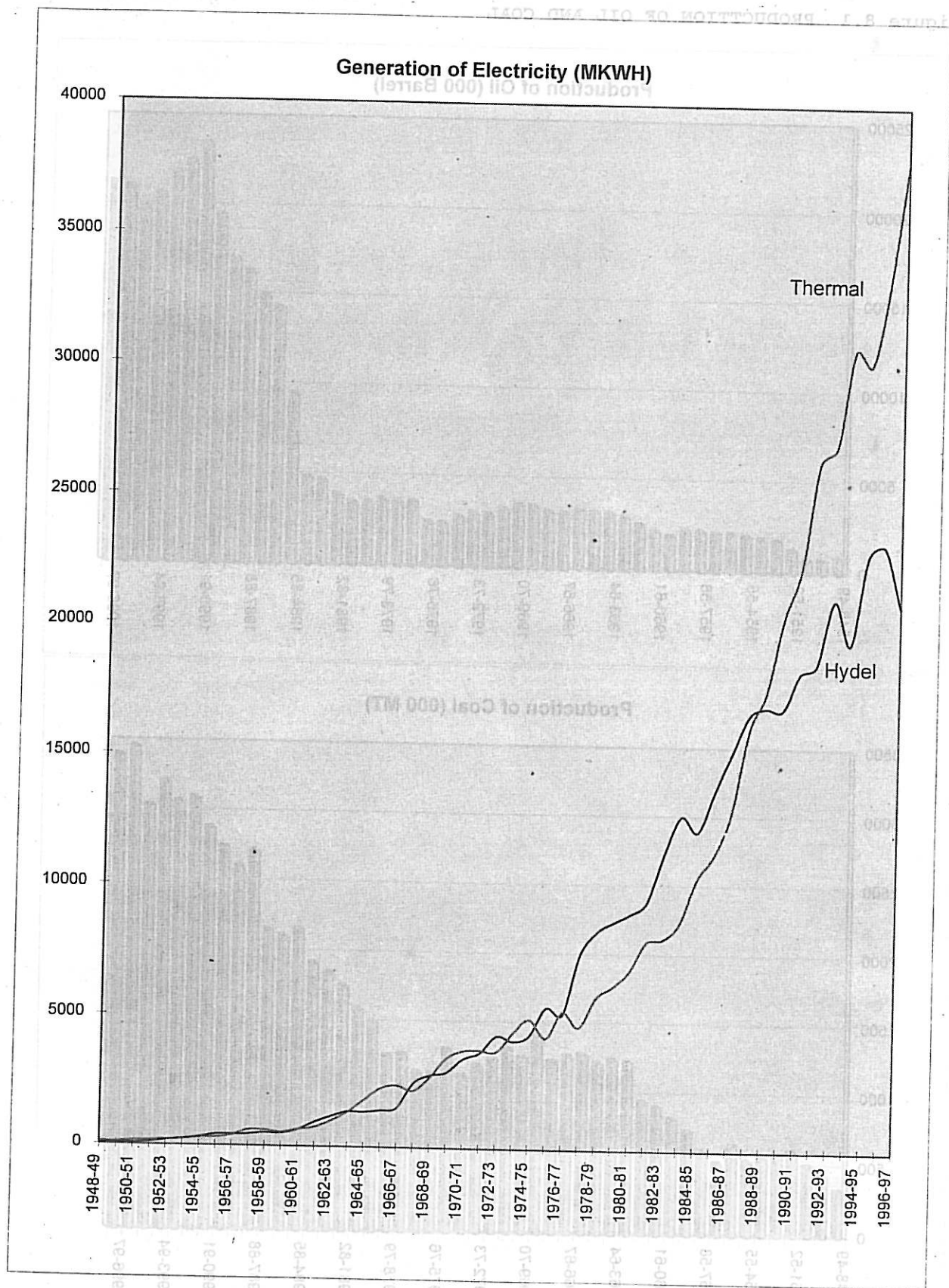


Table 8.4 PRODUCTION OF OIL, COAL, NATURAL GAS AND GENERATION OF ELECTRICITY BY SOURCE

Year	Oil	Coal	Natural Gas	Power		
	Domestic	(000 MT)	(Billion Cubic Metres)	Hydel	Thermal	Nuclear
	Production (000 Barrel)			(Million Kwts)		
1948-49	854	337	-	36	115	-
1949-50	752	444	-	50	106	-
1950-51	768	513	-	59	148	-
1951-52	1300	610	-	102	180	-
1952-53	1801	593	-	185	200	-
1953-54	1938	563	-	242	227	-
1954-55	2060	538	0.1	307	286	-
1955-56	2113	655	0.2	418	308	-
1956-57	2196	523	0.3	437	393	-
1957-58	2257	606	0.4	450	616	-
1958-59	2326	745	0.5	511	615	-
1959-60	1961	830	0.6	507	540	-
1960-61	2280	915	0.7	645	653	-
1961-62	2569	955	0.8	945	747	-
1962-63	3002	1243	0.9	1176	995	-
1963-64	3162	1257	1.2	1366	1346	-
1964-65	3222	1231	1.5	1362	1814	-
1965-66	3314	1291	1.8	1425	2273	-
1966-67	3139	1280	2.0	1530	2395	-
1967-68	3222	1239	2.1	2482	2195	-
1968-69	3488	1428	2.5	2792	2726	-
1969-70	3564	1269	2.9	2915	3465	-
1970-71	3321	1324	3.1	3449	3752	1
1971-72	3007	1255	3.5	3679	3789	104
1972-73	3061	1204	4.1	4335	3738	304
1973-74	2854	1129	4.6	4141	4464	459
1974-75	2443	1314	5.0	4359	4977	605
1975-76	2512	1138	5.1	5436	4274	610
1976-77	3643	1147	5.6	5183	5271	421
1977-78	3583	1279	5.8	7466	4702	231
1978-79	3710	1261	6.3	8353	5836	106
1979-80	3567	1504	7.5	8718	6258	2
1980-81	3554	1597	8.6	9046	6869	150
1981-82	3956	1765	9.3	9526	7983	183
1982-83	4738	1855	9.8	11366	8104	228
1983-84	4883	1926	9.8	12822	8723	324
1984-85	9522	2168	10.3	12245	10416	346
1985-86	14348	2115	10.8	13804	11355	430
1986-87	14999	2157	11.2	15251	12951	502
1987-88	16310	2727	12.4	16689	16147	254
1988-89	17069	2619	12.9	16974	17562	30
1989-90	19520	2751	14.1	16925	20442	292
1990-91	23485	2888	15.0	18298	22354	385
1991-92	22469	3099	15.6	18647	26375	418
1992-93	21895	3074	16.5	21111	27057	582
1993-94	20675	3214	17.7	19436	30707	497
1994-95	19858	3043	17.8	22858	30176	511
1995-96	21063	3465	18.9	23206	33257	483
1996-97	21262	3401	19.8	20858	37915	346

Note: Figures for Oil, Gas and Hydel Source: Ministry of Petroleum and Natural Resources and Wapda and HDIP are on calendar year bases up to 1958-59. Coal production is on calendar year basis upto 1972-73.

Table 8.5 RESERVES AND EXTRACTION OF PRINCIPAL MINERALS

Minerals	Magn- esite MT	Rock Salt 000MT	Silica Sand 000MT	Ochre (MT)	Sul- phur (MT)	Soap Stone 000MT	Bar- yte 000MT	Bauxite/ Laterite (MT)	Iron Ore (MT)	Chro- mite (000 MT)	Lime Stone (000 MT)	Gyp- sum (000 MT)
Reser- ves/ Year	Over 100 MH MT	Very Large dpts. MT	0.8 MH. MT	0.6 MH. MT	5 Mill MT	Over 74 Mill MT	Over 430 MH MT	Fairly large depot.	Very large depot.	350 MH. MT		
1947-48	-	163	1	-	-	-	-	-	19	344	16	
1948-49	-	206	1	-	-	-	-	-	18	313	15	
1949-50	-	169	3	-	-	-	-	-	18	391	16	
1950-51	-	139	5	-	-	-	-	-	18	324	20	
1951-52	-	134	5	-	-	-	-	-	18	451	26	
1952-53	-	136	6	-	-	-	-	-	19	780	28	
1953-54	-	149	10	-	-	-	-	-	23	861	32	
1954-55	-	140	13	-	-	-	-	-	26	815	28	
1955-56	-	156	13	-	-	-	-	-	28	808	31	
1956-57	-	159	12	-	1	1	-	-	16	821	64	
1957-58	-	166	22	-	-	-	-	-	22	948	52	
1958-59	-	161	19	-	-	1	-	-	21	1097	90	
1959-60	-	169	28	331	-	2	-	540	16	927	90	
1960-61	-	210	18	607	-	1	-	911	23	1073	94	
1961-62	-	191	15	246	-	1	-	68	23	1197	103	
1962-63	-	220	19	578	-	1	-	-	22	1154	237	
1963-64	-	212	25	595	-	1	-	-	8	1651	172	
1964-65	632	247	28	196	-	3	11	-	17	2026	183	
1965-66	666	289	25	533	-	2	9	-	20	1890	115	
1966-67	786	231	78	635	-	3	6	-	38	2432	122	
1967-68	1251	273	86	777	-	2	9	477	24	1695	60	
1968-69	1325	365	148	449	-	3	11	2410	26	2232	234	
1969-70	522	305	43	390	-	3	1	949	26	1817	204	
1970-71	648	350	35	2750	-	4	3	337	28	2897	164	
1971-72	103	358	44	5332	2347	4	2	140	34	2628	22	
1972-73	2504	354	27	3780	2885	6	2	516	18	2846	132	
1973-74	3217	375	67	9694	1657	7	2	294	13	3258	282	
1974-75	2087	427	32	12511	1661	5	6	20	10	3008	599	
1975-76	8118	427	43	11835	1552	26	11	125	12	2968	324	
1976-77	1575	336	51	12910	1167	12	17	90	10	3888	282	
1977-78	2344	435	93	7554	1075	27	19	880	10	4029	356	
1978-79	3042	486	84	790	1068	33	32	1726	5	3298	234	
1979-80	1635	495	104	267	294	31	19	2044	4	2798	368	
1980-81	397	514	84	445	403	28	21	1754	1	3464	554	
1981-82	1668	534	99	1460	650	23	28	2755	3	3682	303	
1982-83	1687	548	141	558	824	19	20	2772	4	4232	341	
1983-84	3338	581	99	1086	570	16	36	4173	4	4696	339	
1984-85	3137	573	111	697	884	17	21	2035	3	4634	400	
1985-86	3266	619	193	563	1337	21	42	21749	10	6313	381	
1986-87	2692	503	127	1237	1176	25	20	15645	7	6885	412	
1987-88	3092	502	164	1730	600	33	13	31440	9	7610	404	
1988-89	6754	620	165	936	310	38	30	16618	12	7249	426	
1989-90	7285	735	136	2337	342	31	25	16351	33	7736	491	
1990-91	4242	736	143	1285	295	32	26	24644	24	9009	468	
1991-92	6333	833	132	1001	215	37	30	21818	28	8528	471	
1992-93	5047	895	158	1000	510	48	26	18682	23	9015	533	
1993-94	7000	916	169	745	715	44	18	34984	11	9125	666	
1994-95	5227	890	152	4623	510	34	20	32214	14	9682	620	
1995-96	14981	958	184	8081	20	40	14	19554	32	9740	420	
1996-97	6589	1066	155	2047	290	45	30	34791	34	9488	521	

Sources: Provincial Directorates of Industries and Mineral Developments, Pakistan Mineral Development Corporation and Ministry of Petroleum and Natural Resources.

9 WATER AND POWER

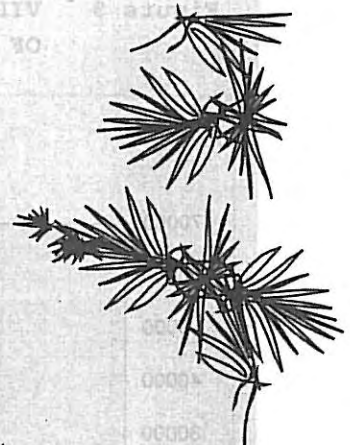
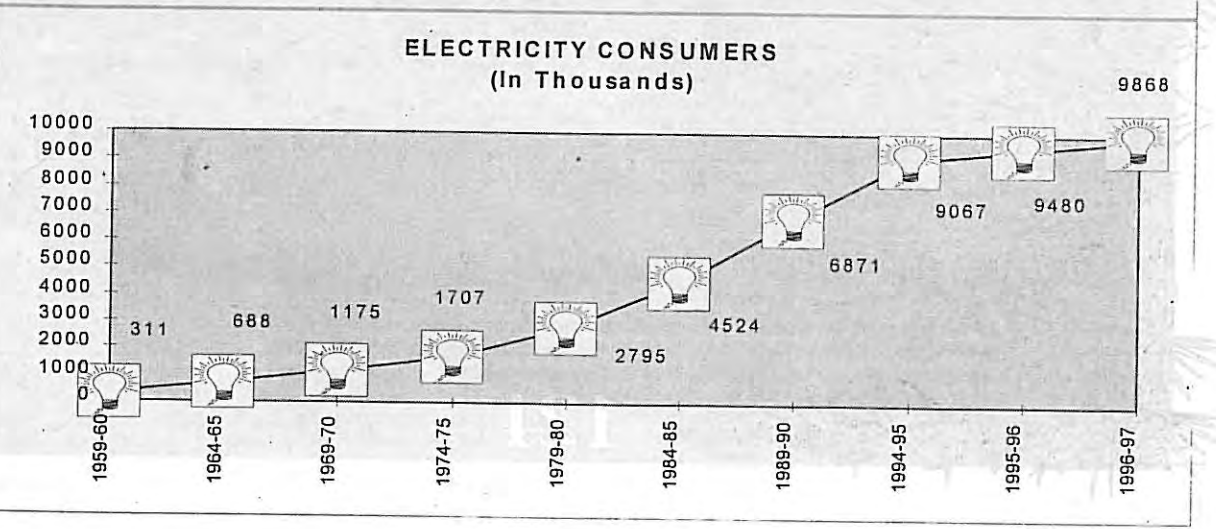
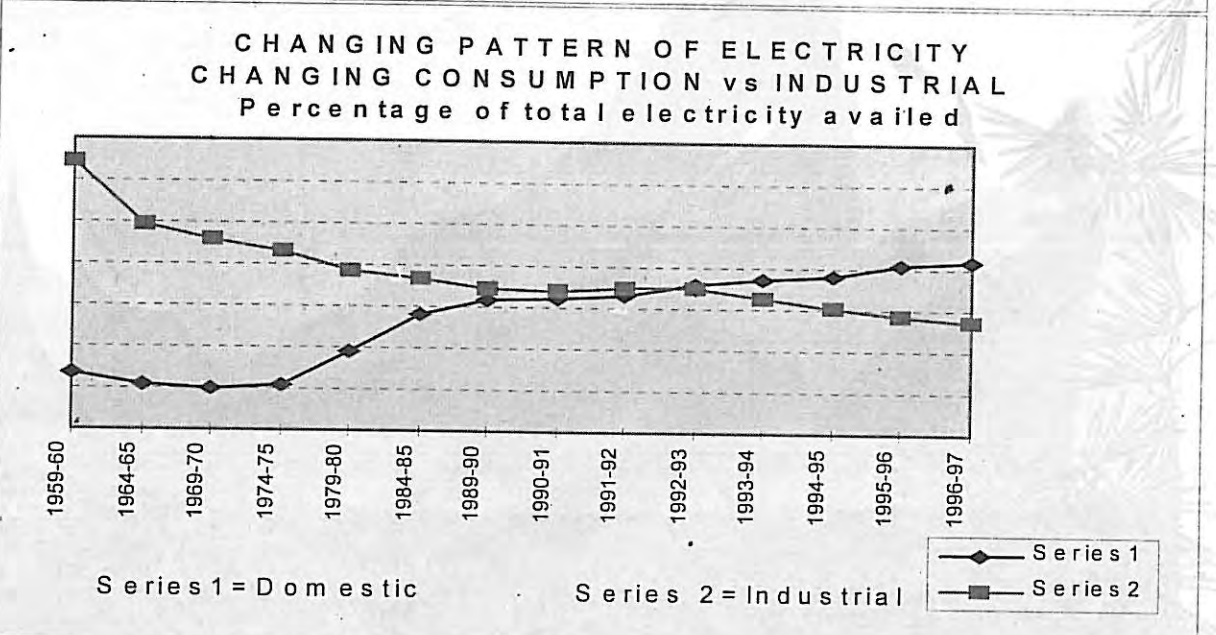
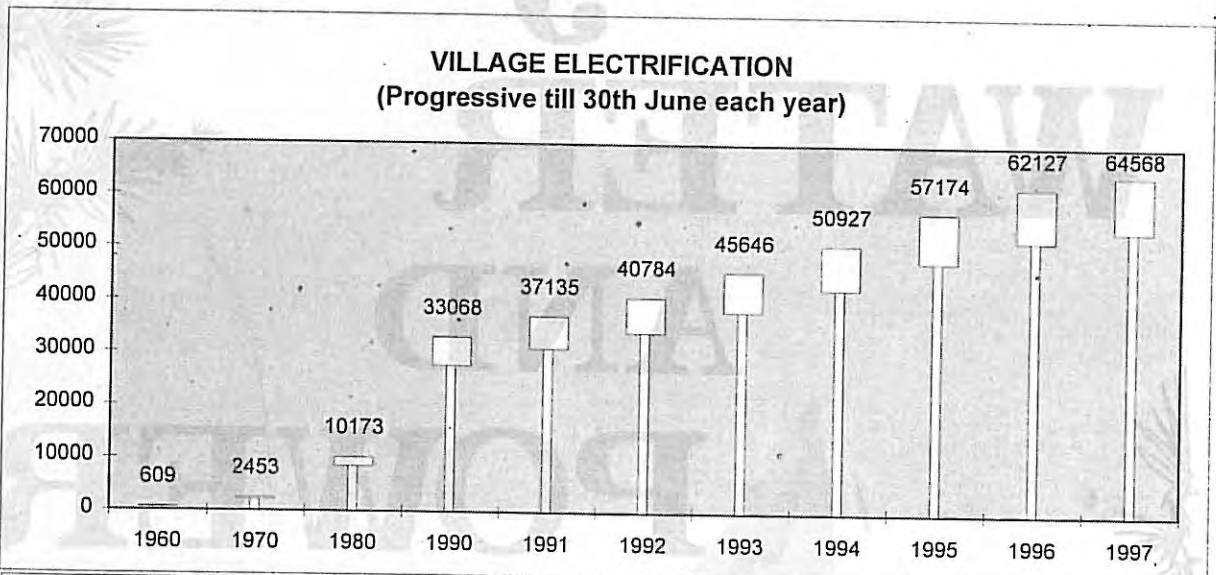


Figure 9 VILLAGE /SETTLEMENT ELECTRIFICATION, CHANGING PATTERNS OF CONSUMPTION AND NUMBER OF CONSUMERS



WATER AND POWER DEVELOPMENT AUTHORITY

In February 1958 Water and Power Development Authority (WAPDA) was created to undertake integrated and rapid development and maintenance of water and power resources alongwith effective control over alarming spread of soil salinity and waterlogging, flood control and internal navigation. The charter of duties assigned to this autonomous body, (amended in March 1959 to transfer the existing electricity departments to it) requires to investigate, plan and execute schemes in

- generation, transmission and distribution of power;
- irrigation, water supply and drainage;
- prevention of waterlogging and reclamation of waterlogged and saline land;
- flood control; and
- internal navigation.

WORKFORCE, MANAGERS AND THE AUTHORITY

During past 39 years, Wapda has created a large and competent workforce, about 138,000 strong, consisting of professionals and specialists, engineers and technicians of various disciplines, scientists, economists, administrators and accounts for planning, building and managing projects in the field of water and power development. The Power Wing, being the developer

and custodian of the largest and most significant utility service in the country, claims more than eighty per cent of the total workforce, followed by Water Wing and Common Services. Wapda's hydel and thermal power stations gave a collective output of 50887 MKWH of electricity in 1996-97 including 10740 units, imported from Independent Power Projects (IPP).

WATER DEVELOPMENT

Having been chartered in 1959 to develop and manage Pakistan's water resources for irrigation, drainage, prevention of waterlogging and salinity, and reclamation of affected land for increased productivity, Wapda assumed the charge of building dams, barrages and canals for creating water reservoirs and diversion facilities for irrigation purposes, and combating the alarming menace of waterlogging and salinity through Salinity Control and Reclamation Projects (SCARPs). On signing of Indus Basin Treaty in 1960 the organisation was entrusted the task of building historic Indus Basin Project (IBP). During 38 years of its operations the Water Wing of Wapda has planned and built sixteen IBP components including two dams at Tarbela and Mangla, five barrages, one gated syphon and eight inter-river link canals, in addition to four dams (Rawal, Tanda, Hub, Khanpur), one barrage Guddu) and one lift irrigation scheme (Chablat Kas). Salient features of the completed tasks are given below in Box 9.1 and Box 9.2.

BOX 9.1 SALIENT FEATURES OF MAJOR PROJECTS UNDERTAKEN BY WAPDA

Project	Cost (Rs. Mil.)	Technical Data	Objectives
Chablat Kas Lift Irrigation Scheme completed in 1961	0.4	Pumping Water from Chablat Kas near Hasan Abdal involving lift of about 90 feet.	Provision of irrigation facilities for 1400 acres.
Rawal Dam completed in 1962	21.2	Type: Stone masonry gravity dam. Height: 113.5 ft Length: 700 ft Live storage capacity 4300 acre ft.	Provision of 20 million gallons per day of potable water to Rawalpindi/Islamabad and irrigation of small area.
Guddu Barrage completed in 1965	474.8	Type: Gate controlled with navigation lock. Width: 64 spans of 60 feet each. Maximum discharge capacity 1.2 million cusecs.	Controlled irrigation supplies (including for 2.9 million acres in Jacobabad, Larkana and Sukkur districts of Sindh and Nasirabad district of Balochistan.
Tanda Dam completed in 1965	66.8	Type: Earthfill dam. Height: 115 ft. Length: 2,340 ft. Outlet capacity: 2000 cusecs.	Irrigation of about 32000 acres in Kohat Valley
Karachi Irrigation Project (Hub Dam) completed in 1983	1022.60	Earthfill dam. Height: 151 ft. Length: 21360 ft. Reservoir capacity: 10600 acre feet Spillway capacity: 458000 cusecs.	Irrigation of 21000 acres in Lasbela and 1000 acres in Karachi district. Drinking water supply of 89 MGD for Karachi and 15 MGD for industries in Balochistan.
Khanpur Dam completed in 1984	1385.0	Type: Earth-cum-rockfill Height: 167 ft. Length: 1547 ft. Reservoir capacity: 106000 acre ft. Spillway capacity: 166000 cusecs.	Irrigation of 36470 acres in Attock, Rawalpindi and Abbottabad district and supply of 131 MGD of water to Islamabad, Rawalpindi, POF Wah and Industries around Taxila.

BOX 9.2 PROJECTS COMPLETED BY WAPDA UNDER INDUS BASIN SETTLEMENT PLAN

Project	Main Technical Features	Objectives
<p>Mangla Dam on river Jhelum (12th largest dam in the world) completed in 1967</p>	<p>Type: Earthfill Height: 380 feet above river bed Length: 10,300 ft. Gross Storage Cap.: 5.35 MAF Live Storage Cap.: 4.81 MAF Main Spillway Cap.: 1100000 Cusecs, Emergency Spillway Capacity: 230000 Cusecs</p>	<p>* Water storage for supplementing irrigation supplies * Hydropower generation 1000 MW from 10 units of 100 MW each * Incidental flood regulation.</p>
<p>Tarbela Dam on river Indus (The largest rock and earthfill dam in the world)</p>	<p>Type: Earthfill and rockfill Height: 485 feet above river bed Length: 9,000 ft. Gross Storage Cap. :11.3 MAF Live Storage Cap. : 9.4 MAF Main Spillway Cap. : 650,000 Cusecs, Emergency Spillway Capacity:840,000 cusecs Lake area: 100 sq. miles</p>	<p>* Water storage for supplementing / regulating irrigation supplies * Hydropower generation: -Units 1-4=700MW in 1977 -Units 5-8=700MW in 1982 -Units 9-10=700MW in 1985 -Units 11-14=1728MW in 92-93 * Repair remedialand additional works completed in 1983 * Reservoir works completed in 1977</p>
<p>Link Canals (08)</p> <ul style="list-style-type: none"> ◆ Trimmu-Sidhnai ◆ Sidhani-Mailsi ◆ Mailsi-Bahawal ◆ Rasul-Qadirabad ◆ Qadirabad-Balloki ◆ Balloki-Suleimanki ◆ Chashma-Suleimanki ◆ Taunsa-Panjnad <p>Link Canals Remodelled</p> <ul style="list-style-type: none"> ◆ Marala-Ravi ◆ Bombanwala-Ravi-Bedian-Depalpur (BRBD) ◆ Balloki- Suleimanki-I 	<p>These link canals comprise a total of 389 miles and have 400 principal structures with discharging capacities varying between 4100 cusecs and 21700 cusecs. Besides, a total of 1,029,000 cusecs can be diverted through these link canals at full.</p>	<p>Completed progressively from 1965 - 1970, these canals are meant to transfer water of three westren rivers, namely Chenab, Jhelum and Indus to the canals dependent on the three eastern rivers, namely Sutlej, Beas and Ravi.</p>
<p>Barrages/Syphon</p> <ul style="list-style-type: none"> ◆ Sidhnai on river Ravi ◆ Qadirabad on river Chenab ◆ Rasul on river Jhelum ◆ Chashma on river Indus ◆ Marala on river Chenab ◆ Mailsi Syphon on river Sutlej 	<p>These barrages and the syphon comprise a total length of over three miles (16,926 feet) with combined design capacity of 4.38 cusecs to facilitate aggregate diversion of 102,900 cusecs in to the link canals.</p>	<p>Completed progressively from 1964 - 1971, these barrages are aimed to provide river control for diverting water from three weastern rivers to the three eastern rivers.</p>

The operation against the onslaught of waterlogging and salinity consists of 57 completed scarps and drainage projects and a number of on-going schemes launched by Wapda to reclaim millions of acres of land lost to soil salinity and prevent its further spread.

Wapda's water Wing operates through the following divisions.

- Dams and Coordination Division
- Planning Division
- Tarbela Dam
- Ghazi Barotha Hydropower Project
- Kalabagh/Hydroelectric Projects
- Water Division (Central)
- Water Division (North)
- Water Division (South)
- Water Division (West)

INDUS BASIN SETTLEMENT PLAN

This historic plan was conceived, and the ensuing Indus Basin Treaty signed by India and Pakistan, after decade long parleys under aegis of World Bank to end the water dispute between two nations arising out of the former closing flow of river water to the lower riparian Pakistan and drying out its vast irrigation network. The settlement plan allocated water of eastern rivers Sutlej, Beas and Ravi to India and the western rivers Chenab, Jhelum and Indus to Pakistan. In order to provide water Pakistan's irrigation network is the largest manmade system in the world. Wapda was made executing agency for construction of sixteen IBP components all of which were completed within a decade of signing of the Treaty except Tarbela which was commissioned in 1975. The replacement system came as a boon for agriculture in years to come sustaining Pakistan's agriculture

economy and providing low cost hydel energy from Tarbela and Mangla.

Wapda handed over all the IBP components to provincial departments except Tarbela and Mangla dams, Chashma barrage and Chashma-Jhelum Link Canal which have since been maintained and operated by Wapda. One of the largest earthfill dams in the world, Mangla dam is built across river Jhelum, about 60 miles south-east of Islamabad. Built under the historic Indus Basin Settlement Plan the world's largest earth and rock-filled dam has greatly enhanced the agricultural and industrial potential of Pakistan. It is now a major support to the country's economy

LAND RECLAMATION

In order to arrest further spread of waterlogging and salinity, mainly because of incessant operation of world's largest man-made canal system and unscientific irrigation of farm land over the past two centuries, the task of combating the devastating soil disease and reclamation of affected land was entrusted to Wapda soon after its creation in 1959.

Total achievement in the land reclamation sector is the completion of fifty seven projects since 1963 when first Scarp was completed by Wapda. Together, the 57 Salinity Control And Reclamation Projects (SCARP) and drainage projects have covered about 20 million acres of affected land through installation of vertical and horizontal drainage systems to stabilize under-ground watertable and surface drainage of affluent, and implementation of land management measures like "On-Farm Water Management" (OFWM), construction of water channels and introduction of other prescribed farm practices.

Other eighteen development projects are under execution with the water wing of Wapda through water divisions, covering a gross area of over eight million acres. The water divisions are responsible for planning, project preparation,

detailed design and implementation of surface and subsurface drainage and allied structural components for the canal irrigated areas:

Wapda's five reservoirs (Chashma, Hub, Khanpur, Mangla, Tarbela) produced 3400 metric tons of fish as by-product earning sizeable revenue, promoted the sport of angling by issuing over 19330 licenses and provided employment to many. Development of fisheries in reservoirs is drawing Wapda's special attention to supplement scarce proteinous food in the country.

POWER DEVELOPMENT

On 14th August 1947, power generation capacity, inherited by Pakistan, was only 60 MW with 142 MKWH of electricity production. Upto 1959, i.e., pre wapda period, it rose to 119 MW only. The charter of duties assigned to Wapda after its creation requires the organisation to investigate, plan, execute, operate and maintain projects in the power sector covering generation, transmission and distribution of electrical energy in the country (except Karachi). During 38 years operation since 1959 up to 1997, Wapda has developed the sector to respectable level by enhancing the installed generating capacity of the system from 119 MW to 11,566 MW or 97 times, with length of transmission and distribution lines to 45 times and number of electricity consumers

THERMAL GENERATION

All the fourteen thermal power stations with total installed capacity of 6741 MW, cumulatively generated 19184 MKWH of electricity during 1996-97 which was 25211 units and this is due to the privatization of Kot Addu Power Station. Capacitywise detail is given below.

Table 9.1 THERMAL POWER STATIONS AND THEIR CAPACITY

Sr. No.	Power Station	Installed Capacity (MW)	Year of Completion
1	Gas Turbine Power Station Shahdara	85.0	1966-69
2	Gas Turbine Power Station Faisalabad	244.0	1975-94
3	Steam Power Station Faisalabad	132.0	1967
4	Natural Gas Power Station Multan	260.0	1960-63
5	Thermal Power Station Multan Cantt	20.0	1960-63
6	Thermal Power Station Guddu	1655.0	1974-94

in various sectors by 32 times. The organisation has achieved notable success in benefitting the rural areas estimated to be inhabited by over 70 percent of country's population, by providing the utility to 64568 villages at the end of year 1996-97 which is 106 times of 609 villages enjoying the facility in 1959. As a result of this development the important economic indicator of per capita power consumption has increased tremendously (over 22 times) despite explosive population rise. Achievements in various formations of Wapda's power wing are summarised below.

POWER GENERATION

On June 30, 1997 the system's power generation capacity was of 11,566 MW. Total thermal capacity stood at 6741 MW after addition of 320 MW from Muzaffargarh Power Station and 137 MW Kot Addu Power Station, which was only 67 MW, pre-wapda, i.e., in 1959. The hydel capacity rested at 4,825 MW which was 52 MW in 1959. The system ratio between thermal and hydel capacity was 56.3 to 43.7 in 1959 which is 58.3 to 41.7 at present, though it was 33 to 67 in 1985. Total generation of the system in 1996-97 was 50782 MKWH which included 10740 MKWH of imported units. It was 48859 units in 1995-96 including 442 imported units.

7	Gas Turbine Power Station, Kotri	174.0	1970-94
8	Thermal Power Station, Sukkur	50.0	1965-67
9	Thermal Power Station, Jamshoro	880.0	1990-91
10	Thermal Power Station, Quetta	83.0	1964-84
11	Thermal Power Station, Pasni	17.0	1991
12	Thermal Power Station, Muzaffargarh	1370.0	1993-95
13	Lakhra Coal Fired Power Station	150.0	1995
14	Gas Turbine Power Station Kot Addu*	1621.0	1987-95
	Total	6741.5	

* It is privatized, included in total

Source: WAPDA

Hydel Generation

Wapda's 13 hydel power stations with total installed capacity of 4,825 MW produced 20858 MKWH of electricity during 1996-97. Capacity-wise detail is given below.

Table 9.2 HYDEL POWER STATIONS AND THEIR CAPACITY

Sr. No.	Power Station	Installed Capacity (MW)	Year Of Completion
1	Tarbala Power Station Units.1-10	1750.0	1977-93
2	Tarbala Power Station Units.11-14	1728.0	1977-93
3	Mangla Power Station	1000.0	1967-94
4	Warsak Hydel Power Station	240.0	1960-80
5	Rasul Hydel Power Station	22.0	1952
6	Dargai Hydel Power Station	20.0	1952
7	Jabban Hydel Power Station	19.6	1952
8	Nandipur Hydel Power Station	14.0	1963
9	Shadiwal Hydel Power Station	13.5	1961
10	Chichokimalian Hydel Power Station	13.2	1959
11	Kurram Ghari Hydel Power Station	4.0	1958
12	Renala Hydel Power Station	1.1	1925
13	Chitral Hydel Power Station	1.0	1984
	Total	4826.4	

Source: WAPDA

TRANSMISSION LINES AND GRID STATIONS (T&GS)

Beside maintaining and operating some 29 thousand kilometers long transmission lines and 633 grid stations(1995-96), both of varying capabilities ranging from 33 KV to 500 KV, Wapda's T&GS Organization plans, designs and constructs vast, and ever-widening, transmission network which serves as the vital link between hydel and thermal generation stations in the north and south with load centres located all over the country to form the gigantic national grid with extra high voltage (500 KV) spine to connect Peshawar in NWFP with Jamshoro in Sindh Province providing a 220 KV interlink with

Karachi for mutual flow of power between Wapda and KESC.

GRID SYSTEM OPERATION (GSO)

Responsible for transmission of power from power houses to load centres through out the country through 595 grid stations and 29,855 km of transmission lines of various voltage ratings, the grid system operation consists of Lahore, Islamabad, Multan and Hyderabad regions. Crew have been trained in the fields of grid station, live line and deadline maintenance. They are also assisted by Technical Services Group.

POWER DISTRIBUTION

Serving some 10 million electricity consumers in industrial,

agricultural, commercial, domestic and other sectors, Wapda's power distribution system covers the entire country, except Karachi, through eight Area Electricity Boards (AEBs), the Lahore, Faisalabad, Gujranwala and Multan AEB's operating in the province of Punjab, and Peshawar, Hyderabad and Quetta AEB's providing the facility to the NWFP, Sindh and Balochistan provinces respectively where as Islamabad AEB is providing electricity to the Federal Capital Territory and Rawalpindi Region. During 1996-97 the organization supplied about 37 billion units of electricity and the system, consisted of over 270 thousand kilometers of high tension (11 KV) and low tension (440/220 volts) distribution lines at the end of the year 1996-97, remained under constant augmentation to match the expanding load areas and increasing consumption in various sectors.

CONSUMPTION PATTERN

Consumption of electricity in the domestic sector in 1996-97 registered further rise to 41.81 percent of total electricity

available from 40.79 % of last year, while consumption in industrial sector in 1996-97 came down to 27.12 percent from 28.59 percent of the last year. The agricultural sector claimed 18.42 percent while commercial and other consumption outlets accounted for the balance 12.25 percent of available power with Wapda's distribution system. Sector-wise detail of percentage consumption of total available electricity in Wapda is given in table 9.6.

VILLAGE/SETTLEMENT ELECTRIFICATION

Total number of electrified villages was 64568 on 30th June, 1997 which include 34044 villages in the Province of Punjab, 13948 in Sindh, 3046 in Balochistan and 13530 villages were brought on the system in the NWFP and Federally Administered Tribal Areas (FATA). In 1959, when Wapda was created for water and power development, only 609 villages enjoyed the facility of electricity in the country. In 38 years of operations Wapda has managed to increase the number of electrified villages to 106 times. Detail is given in table 9.3.

Achievements of WAPDA since inception are highlighted below in Box 9.3.

BOX 9.3 ACHIEVEMENTS AT A GLANCE				
Sr. No.	Subject	1959-60	1996-97	Increase (Times)
Power Sector				
1.	Installed Generating Capacity (MW)	119	11566	97
	Hydel	52	4826	93
	Thermal	67	6741	101
2.	Annual Energy Generation (MKWH)	780	50782	65
3.	Length of transmission lines of 500 KV, 220 KV, 132 KV, 66 KV, 33 KV capacity and distribution lines of 11 KV & 440/220 volts (000KM)	7	300	43
4.	Numer of grid stations	50	633*	13
5.	Number of Consumers(000)	311.6	9868	32
6.	Number of electrified villages	609	64568	106
7.	Per Capita Electricity Consumption(Units)	14	300*	21
Water Sector				
1.	Irrigation water diversion to canal system (MAF)	80	105*	1.3
2.	Water storage capacity of Reservoirs(Million Acre Feet-MAF)	0.15	14.5	97
3.	Salinity Control and Reclamation Projects (SCARP) completed.	-	57	
4.	Scarp tubewells put into operation	-	27211	
5.	Length of drains constructed(KM)	-	21339	
6.	Waterlogged on Saline Area Reclaimed (M. Acre)	-	19.3	

* Data pertains to 1995

Source: WAPDA

Table 9.3 PROVINCE-WISE NUMBER OF VILLAGES/SETTLEMENTS ELECTRIFIED

Year	Pun- jab	NWFP	Sindh	Balo-	Total WAPDA	Progre-	FATA	Progre-	Total	Prog. Total
				chis- tan		ssive Total WAPDA	& PATA	ssive Total & PATA	(WAPDA + FATA & PATA)	(WAPDA + FATA & PATA)
Pre-Wapd	100	509	0	0	609	609	0	0	609	609
1960	167	102	0	0	269	878	0	0	269	878
1961	228	96	20	0	344	1222	0	0	344	1222
1962	212	39	17	0	268	1490	0	0	268	1490
1963	86	40	34	0	160	1650	0	0	160	1650
1964	14	54	31	0	99	1749	0	0	99	1749
1965	68	32	28	5	133	1882	0	0	133	1882
1966	91	34	27	3	155	2037	0	0	155	2037
1967	32	22	28	1	83	2120	0	0	83	2120
1968	37	10	39	1	87	2207	0	0	87	2207
1969	41	17	39	0	97	2304	0	0	97	2304
1970	83	30	36	0	149	2453	0	0	149	2453
1971	21	52	10	1	84	2537	0	0	84	2537
1972	12	44	18	0	74	2611	0	0	74	2611
1973	91	100	121	3	315	2926	0	0	315	2926
1974	310	95	115	10	530	3456	0	0	530	3456
1975	383	152	269	42	846	4302	0	0	846	4302
1976	370	87	262	34	753	5055	102	102	855	5157
1977	428	108	223	25	784	5839	70	172	854	6011
1978	850	167	371	43	1431	7270	175	347	1606	7617
1979	586	197	259	53	1095	8365	151	498	1246	8863
1980	651	192	271	55	1169	9534	137	635	1306	10169
1981	550	186	247	40	1023	10557	158	793	1181	11350
1982	925	226	297	64	1512	12069	189	982	1701	13051
1983	1399	243	303	41	1986	14055	202	1184	2188	15239
1984	1355	240	408	182	2185	16240	140	1324	2325	17564
1985	681	212	280	227	1400	17640	305	1629	1705	19269
1986	1170	363	518	281	2332	19972	245	1874	2577	21846
1987	1536	600	745	312	3193	23165	212	2086	3405	25251
1988	896	304	740	176	2116	25281	324	2410	2440	27691
1989	1090	387	593	41	2111	27392	190	2600	2301	29992
1990	1769	310	720	129	2928	30320	168	2768	3096	33088
1991	2570	511	666	104	3851	34171	196	2964	4047	37135
1992	2051	567	748	132	3498	37669	151	3115	3649	40784
1993	2753	892	933	205	4783	42452	77	3192	4860	45644
1994	2853	1099	1118	112	5182	47634	101	3293	5283	50927
1995	3223	946	1728	262	6159	53793	84	3377	6243	57170
1996	2845	621	1288	203	4957	58750	0	3377	4957	62127
1997	1517	267	398	259	2441	61191	*	3377	2441	64568
Total	34044	10153	13948	3046	61191		3377		64568	

Note = fiscal year ending 30th June

* Villages of FATA Included in NWFP

Source: WAPDA

Table 9.4 PROVINCE-WISE NUMBER OF ELECTRICITY CONSUMERS

Province/ Year	Punjab	N.W.F.P*	Sindh	Baloch- istan	Total
As on 30th June, 1959					278297
1960	175800	116552	19244**		311596
1961	200263	136747	22378**		359388
1962	249083	161917	30971**		441971
1963	337369	145602	37015**		519986
1964	384843	169570	51949**		606362
1965	435478	192542	58377	1469	687866
1966	499156	220491	79846	1982	801475
1967	552575	239429	95311	2785	890100
1968	610455	262719	118086	3420	994680
1969	663970	275804	127976	4710	1072460
1970	795427	230249	142708	6241	1174625
1971	862053	241101	160686	20384	1284224
1972	924032	261943	170967	20846	1377788
1973	996842	273561	184130	22776	1477309
1974	1056206	289519	210692	24737	1581154
1975	1153425	305134	221923	26100	1706582
1976	1269048	320861	238905	27559	1856373
1977	1404625	359440	254117	31648	2049830
1978	1549207	403432	288593	39209	2280441
1979	1719910	437713	323081	47511	2528215
1980	1887172	486622	364240	56757	2794791
1981	2270826	538372	390769	69978	3269945
1982	2503185	591291	411991	81775	3588242
1983	2732685	646673	432406	89672	3901436
1984	2975651	704038	457494	94367	4231550
1985	3184071	766768	473071	100085	4523995
1986	3440409	821950	502358	112340	4877057
1987	3740863	873887	537270	126666	5278686
1988	4115809	945385	578347	140082	5779623
1989	4594517	1040563	631807	152280	6419167
1990	4972438	1099222	642372	156647	6870679
1991	5268047	1158935	663169	170570	7260721
1992	5649209	1223790	679656	183586	7736241
1993	5984052	1300626	698182	192890	8175750
1994	6289578	1361401	736590	204473	8592042
1995	6660655	1415588	769299	221742	9067284
1996	6954402	1482611	809413	235305	9481731
1997					9868000

Note = Fiscal year ending 30th June

Source: WAPDA

* Includes FATA & PATA ** Including consumers of Balochistan Province

Table 9.5 ELECTRICITY GENERATION CAPACITY AND GENERATION (WAPDA) 1984-1997

Year	Installed Generating Capacity			Electricity Generated By Source		
	Hydel (MW)	Thermal (MW)	Total (MW)	Hydel (GWH)	Thermal (GWH)	Total (GWH)
Pre-Wapda	52	67	119			
1960	253	113	366	507	274	781
1961	267	197	464	645	342	987
1962	267	190	457	945	339	1284
1963	267	202	469	1176	504	1680
1964	267	332	599	1366	745	2111
1965	267	369	636	1362	1101	2463
1966	267	375	642	1425	1484	2909
1967	267	441	708	1530	1486	3016
1968	567	573	1140	2482	1166	3648
1969	667	567	1234	2792	1579	4371
1970	667	656	1323	2915	2247	5162
1971	667	650	1317	3449	2291	5740
1972	667	650	1317	3679	2350	6029
1973	667	654	1321	4355	2481	6836
1974	867	753	1620	4141	3038	7179
1975	867	873	1740	4359	3682	8041
1976	867	1068	1935	5436	2840	8276
1977	1567	1068	2635	5183	3551	8734
1978	1567	1068	2635	7466	2623	10089
1979	1567	1118	2685	8353	2256	10609
1980	1567	1118	2685	8718	3406	12124
1981	1847	1407	3254	9046	4160	13206
1982	1847	1407	3254	9526	5242	14768
1983	2547	1407	3954	11366	5126	16492
1984	2547	1407	3954	12822	5230	18052
1985	2897	1442	4339	12245	6532	18777
1986	2897	2052	4949	13804	7251	21055
1987	2897	2452	5349	15251	8379	23630
1988	2897	2652	5549	16689	10762	27451
1989	2897	3052	5949	16974	11924	28898
1990	2897	3512	6409	16925	14502	31427
1991	2897	4156	7053	18298	16137	34435
1992	3329	4164	7493	18647	19419	38066
1993	3761	4391	8152	21111	19680	40791
1994	4725	4956	9681	19436	22960	42396
1995	4825	6028	10853	22858	23268	46126
1996	4825	6288	11113	23206	25653	48859
1997	4825	6741	11566	20858	29924	50782

* Imports from Independent Power Projects are included

Source: WAPDA

Table 9.6 PATTERN OF ELECTRICITY CONSUMPTION

Year	(Percentage to Total sale)							Total
	Domestic	Commer- cial	Indus- trial	Agricul- tural	Public Lighting	Bulk Supply	Tra- ction	
1960	13.43	2.99	64.67	11.11	0.83	6.97	0.00	100
1961	12.87	3.08	60.46	13.67	1.07	8.85	0.00	100
1962	13.56	3.01	54.36	19.16	1.08	8.83	0.00	100
1963	11.68	2.94	51.80	25.08	1.06	7.44	0.00	100
1964	10.63	3.01	48.12	28.76	1.02	8.46	0.00	100
1965	10.76	3.02	49.56	23.27	0.93	12.46	0.00	100
1966	10.20	3.40	49.88	22.98	0.81	12.73	0.00	100
1967	11.06	3.43	52.23	18.55	0.57	14.16	0.00	100
1968	11.58	3.58	49.96	20.15	1.09	13.64	0.00	100
1969	10.48	3.16	46.31	25.59	0.54	13.92	0.00	100
1970	10.19	3.44	45.72	26.56	0.56	13.53	*	100
1971	9.78	3.68	44.28	27.03	0.56	14.67	*	100
1972	9.48	3.43	50.98	24.10	0.46	11.55	*	100
1973	9.87	3.46	48.31	25.44	0.48	12.44	*	100
1974	10.88	3.69	47.47	23.85	0.40	12.82	0.89	100
1975	10.86	3.53	43.06	29.37	0.38	11.59	1.21	100
1976	12.76	4.18	42.54	26.08	0.49	13.11	0.84	100
1977	14.31	4.51	42.09	25.68	0.53	12.09	0.79	100
1978	15.47	4.70	40.00	26.46	0.64	12.08	0.65	100
1979	17.76	4.82	39.68	23.86	1.00	12.26	0.62	100
1980	19.17	4.77	38.65	25.20	0.61	11.04	0.56	100
1981	20.49	4.91	38.40	23.44	0.63	11.65	0.48	100
1982	23.27	5.58	38.63	22.91	0.73	8.48	0.40	100
1983	24.57	5.47	38.28	21.98	0.67	8.65	0.38	100
1984	27.19	5.79	36.89	20.87	0.58	8.34	0.34	100
1985	28.26	5.79	36.79	20.22	0.57	8.10	0.27	100
1986	29.11	5.65	38.02	18.58	0.58	7.83	0.23	100
1987	30.19	5.58	36.27	19.45	0.62	7.67	0.22	100
1988	30.38	5.09	34.95	21.23	0.57	7.59	0.19	100
1989	31.57	4.86	34.47	19.82	0.58	8.54	0.16	100
1990	31.71	4.58	34.65	20.75	0.61	7.54	0.16	100
1991	32.42	4.33	34.28	21.05	0.67	7.13	0.12	100
1992	33.11	4.07	34.90	19.90	0.78	7.14	0.10	100
1993	35.88	4.17	34.89	17.89	0.62	6.46	0.09	100
1994	37.24	4.10	32.78	17.87	0.67	7.26	0.08	100
1995	38.39	4.25	30.27	17.75	0.72	8.55	0.06	100
1996	40.79	4.58	28.74	18.42	0.82	8.59	0.06	100
1997	40.47	4.56	26.26	18.22	**	10.44	0.05	100

Fiscal year ending 30th June * Separate figures are not available ** Included in Bulk supply Source: WAPDA

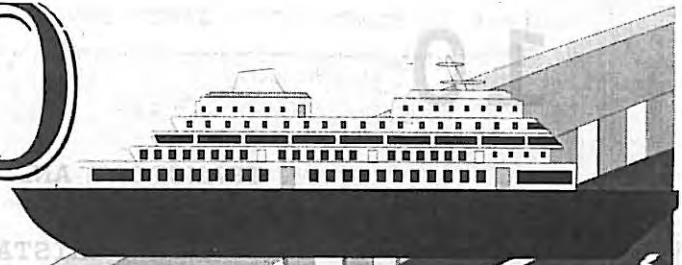
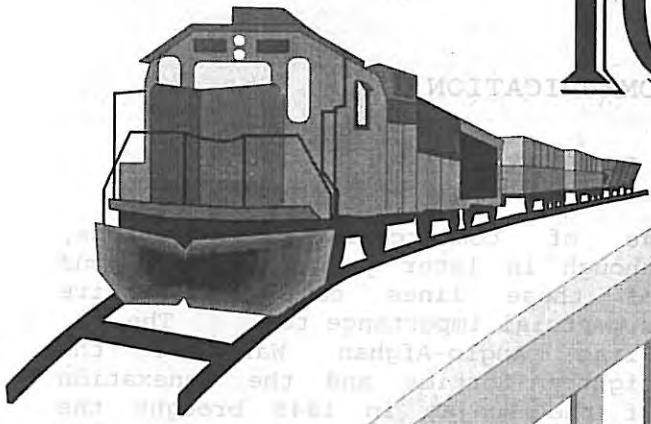
Table 9.7 ELECTRICITY GENERATED, SOLD AND PER CAPITA CONSUMPTION (WAPDA)

Year	Number		Energy			Per Capita		Average units per Consumer	
	Popu- lation (Mln.)	of con- sumers (000's)	Peak Demand (MW)	Genera- ted (GWh)	Sold (GWh)	Gene- ration (kWh)	Consum- ption (kWh)	Gen. (kWh)	Sold (kWh)
1960	39.36	311	131	781	603	20	15	2503	1933
1961	40.84	359	171	987	746	24	18	2749	2078
1962	42.38	442	245	1285	929	30	22	2907	2102
1963	43.98	520	312	1680	1224	38	28	3231	2354
1964	45.64	606	391	2111	1561	46	34	3483	2576
1965	47.36	688	447	2485	1822	52	38	3612	2648
1966	49.15	801	517	2910	2088	59	42	3633	2607
1967	51.01	890	476	3016	2098	59	41	3389	2357
1968	52.93	995	625	3648	2486	69	47	3666	2498
1969	54.93	1072	735	4371	2939	80	53	4077	2742
1970	57.01	1174	834	5074	3600	89	63	4322	3066
1971	59.16	1284	948	5740	3966	97	67	4470	3089
1972	61.70	1378	1024	6029	4137	98	67	4375	3002
1973	63.45	1477	1148	6836	4599	108	72	4628	3113
1974	65.25	1581	1237	7179	4742	110	73	4575	3020
1975	67.10	1707	1396	8041	5212	120	78	4710	3053
1976	69.02	1856	1437	8276	5315	120	77	4459	2863
1977	70.99	2050	1620	8734	5452	123	77	4260	2660
1978	73.04	2280	1836	10089	6490	138	89	4425	2846
1979	75.13	2528	1972	10609	6981	141	93	4194	2761
1980	77.31	2795	2076	12124	8160	157	106	4337	2919
1981	79.04	3270	2473	13206	9068	167	114	4039	2773
1982	81.41	3588	2846	14768	10288	181	126	4116	2867
1983	83.85	3901	3163	16492	11587	197	138	4220	2970
1984	86.37	4231	3295	18052	12762	209	148	4266	3016
1985	88.96	4475	3791	18777	13756	211	155	4151	3041
1986	91.63	4877	3933	21055	15504	230	169	4317	3179
1987	94.38	5279	4325	23630	17745	250	188	4476	3361
1988	97.21	5780	5031	27451	20702	282	213	4749	3582
1989	100.13	6419	5440	28898	21982	289	220	4502	3425
1990	103.23	6871	5680	31427	24121	304	234	4574	3511
1991	106.43	7261	6090	34435	26585	324	250	4742	3661
1992	109.73	7736	6532	38066	29267	347	267	4921	3783
1993	113.02	8176	7522	40791	31272	361	277	4989	3825
1994	116.41	8592	8067	42354	32131	363	275	4934	3740
1995	119.74	9062	8252	46126	35032	384	293	5087	3864
1996	123.12	9481	8278	48659	36925	397	300	5153	3894
1997	123.12	9868	8552	50782	38529				

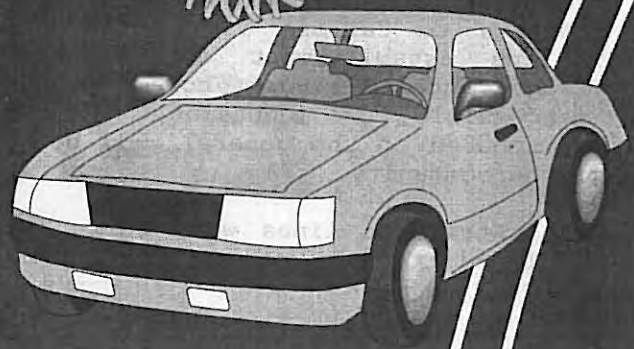
Note = Fiscal year ending 30th June

Source: WAPDA

10



TRANSPORT AND COMMUNICATION



TRANSPORT AND COMMUNICATION

A: PAKISTAN RAILWAYS

ORIGIN AND GROWTH

The history of transport is as old as that of man himself. But not so of the railways. The railways are a younger member of the transport family. On land, the sledge, the litter, the cart, the chariot, the tramway, borne by man or drawn by animal; and on water; the raft, the canoe and the boat moved by wood and wind - all these are much older means of transport. The modern railway was a development of the horse-drawn wagon or tramway, used in England in sixteenth to eighteenth centuries for haulage of minerals to rivers or ports.

In 1825 the first 'common carrier' steam railway was born when the Stockton and Darlington Railway was opened for the general carriage of goods.

The historic day for the Pakistan Railways is 13th MAY 1861, when first railway line was opened between Karachi and Kotri, a distance of 169 kilometers. On 10th April, 1862, the line was opened from Lahore to Amritsar, a distance of 58 kilometers.

The railway brought great benefits to the country. The railways opened up the interior, connected distant places, conquered time, boosted agriculture, carried products to far-off markets, helped in the establishment of industry, bridged untamed rivers, bored through inaccessible mountains, and contributed to the general well-being of the community.

Strategic lines were built for purely military purposes, irrespecti-

ve of commercial considerations, though in later years some sections of these lines came to acquire commercial importance too. The First Anglo-Afghan War in the eighteen-forties and the annexation of the Punjab in 1849 brought the British power into direct contact with the frontier tribes and Afghanistan and opened a new chapter in British frontier policy. From then onward the North-West Frontier became the favourite theme of British civilians, soldiers and Viceroy's.

The plains of the Punjab were separated from the Central Valley of Afghanistan, the deserts of Balochistan and the Russian Empire in the north, by ranges of mountains intersected by passes which had always been regarded as the most vulnerable points of the Indo-Pakistan sub-continent. From these passes, since the earliest days of recorded history, had poured a long succession of invaders into India. Through the Khyber came the armies of Darius, Alexander, Mahmud, Changez, Tamerlane, Babar, Nadir Shah and Abdali. The armies of Alexander came from the Buner and Malakand sides also and Mahmud took the routes of Paiwar Kotal up the Kurram way and those of the Gomal and the Tochi too. History underlined that the control of these passes by British forces was necessary, and it was decided that for marching forward into Afghanistan there should be lines of occupation along:

- The Khyber Pass to Landi Kotal
- The Kurram Valley to Kurram
- The Gomal Valley to Wana

- The Zhob Valley to Lora Lai
- The Bolan Pass to Quetta
- The Harnai route to Pishin and Chaman
- The Balochistan route to Nushki

The most important strategic lines and the most interesting too were the Sindh-Pishin Railway, the Bolan Railway and the Khyber Railway. During World War I, the need for a railway link with Iran was also felt and another strategic line - the Nushki Extension Railway - was built in those years. The Bolan Pass, leading to Quetta and Kandhar, and the Khyber Pass, leading to Kabul were the two important "Gates of India".

The British ruled India till 14th August, 1947, on which date it was divided into two sovereign states, - Pakistan and India. In 1947, North Western Railway, named as such at that time, had 11,088 route-kilometers of which 3,043 were transferred to India leaving 8,045 to Pakistan. The route-kilometers increased to 8,557 with the merger of part of the Jodhpur Railway of undivided India falling in Sindh. In February, 1961, the Railway was renamed as Pakistan Western Railway and in May, 1974 as Pakistan Railways. Pakistan Railways, now comprises 8,774.87 route-kilometers, 781 stations and 42 train halts in 1997

Pakistan Railways forms the life line of the country by catering to its needs for large scale movement of freight as well as passenger traffic. It not only contributes to its economic growth but also promotes national integration. Details are given in Table 10.8

Chronological Developments

1861	Karachi-Kotri Section,	169
	Kilometers	
1862	Lahore-Amritsar Section,	58
	Kilometers	

1947	North Western Railway (then) Route-Kilometers 8045 Km. which increased to 8557 Km with the merger of Jodhpur Railway falling in Sindh.
1952	Construction of Heavy Repair & Diesel Electric Workshop at Rawalpindi.
1954	Railway line was extended to Mardan - Charsadda section, which was opened on 25th August of that year.
1956	The 2'-6" Jacobabad-Kashmore line was converted to 5'-6" broad gauge.
1961	Northern Western Railway renamed as Pakistan Western Railway and renamed as Pakistan Railways in 1974.
1963	Karachi Circular Railway was opened for goods traffic linking Drigh Road and Drigh Colony Station with Wazir Mansion.
1964	Karachi Circular Railway was opened for Passengers Traffic
1967	Railway Hospital (100 bed) was completed at Rawalpindi.
----	Hyderabad Mirpurkhas section was converted from Meter Gauge to Broad Gauge.
----	Construction of Kot Adu-DG Khan-Kashmore Rail Link (306 Km longest construction since independence).
1968	Goods Traffic opened between Kot Adu & DG Khan. Passengers Traffic between Kot Adu-DG Khan (Ist Phase)
1970	Electric Traction on Lahore-Khanewal section 286 Km. in length with 29 electric locomotives was introduced.
1971	Carriage Factory at Islamabad (capacity to manufacture 150 Passenger Coaches) was constructed.

- 1972 DG Khan-Kashmore (IInd Phase) goods traffic opened.
- 1973 DG Khan-Kashmore (IInd Phase) Passengers Traffic opened.
- 1974 Lahore Dry Port to provide direct foreign trade facilities. Later more Dry Ports at Rawalpindi, Peshawar, Larkana, Multan, Faisalabad and Quetta.
- 1980 Kotri Bridge on River Indus providing double & single line track between Guddu and Kotri: strengthening the double track between Karachi-Lodhran (843 Km.)
- 1980 Marshalling Yard Pipri (can handle 2500 Wagon per day with a scope of 5000 W.P.D.)
- 1981-82 Four Concrete Sleeper Factories at Khanewal, Kohat, Kotri and Shaheenabad.
- 1986 Provision of vhf/uhf microwave telecommunication system spreading over 2200 Km between Karachi and Rawalpindi on main line excluding Lahore-Khanewal Section.

1993 First Locomotive was rolled out by the locomotive factory at Risalpur whose capacity is to manufacture 25 locomotives on single shift basis and has manufactured so far 23 locomotion.

Other Achievements

- Improved signalling system on main lines and commercial branch lines
- Computer system for reservation
- Fast non-stop passengers services
- Lower class airconditioned accommodation
- Closed circuit TV in passenger coaches and main stations
- A new building for DS Office, Peshawar (1997)
- Wagah Station re-built (Indo-Pak border)

B: NATIONAL TRANSPORT RESEARCH CENTRE

The nucleus of the National Transport Research Centre was established within the Planning Commission in June, 1964. By 1985, it attained sufficient strength and was renamed as the Operational Research Wing. At the same time it was decided to add a Road Research Wing which has since been commissioned. An Urban Transport Wing has also been established to develop indigenous expertise in preparing comprehensive Urban Transportation Plans. A Railway Research Wing and a Training Wing are being added. In addition, a Multi-Modal Transport Programme has been launched to help facilitate the international trade. The Centre is housed in its own building in H-8. The administrative control of the

Centre has been transferred to the Ministry of Communications with effect from 8th October, 1992.

The Centre is guided by an Inter-Ministerial Committee under the Chairmanship of Minister for Communications with members drawn from the Ministries of Finance, Planning, Railways, Civil Aviation, Science and Technology and four provinces. The Inter-Ministerial Committee is assisted by three Sub Committees namely, Research Coordination Committee, Research Advisory Committee and Cost Appraisal Committee. The Centre has five main Wings, namely Operation Research, Road Research, Urban Transport, Railway Research and Training. The

Centre has completed 201 research studies and 15 are in hand up to 31.7.1997.

Statistical data plays a key role in planning research and policy formulation at regional and national levels. Research, plan formulation or policy framework requires reasonable amount of data initially for carrying out indepth analysis essential for accurate inferences. The data requirements increases exponentially as the economy grows and develop complex interdependencies. National Transport Research Centre since its inception, as one of its highest priorities, undertook the task of collection of required data. Time series data for all modes of transport have been collected since 1947 and is being regularly updated, published and computerised.

One of the most important highway planning data pertains to traffic counts. The Centre has regularly been collecting, compiling, analysing and publishing traffic data since 1986, through 20 Permanent Traffic Count Stations, 10 on

National Highways and 10 on other major roads in the country. The data from these stations has been successfully used for evolving Traffic Factors for Pakistan including hourly, daily, monthly and seasonal variations, Peak-Hour Factor; Directional Distribution; Vehicular Composition, Traffic Growth etc.

Information on origin-destination is specifically required for Comprehensive Transport Planning. It is useful for general planning and operation of transport services in the country as well. The data concerning road transport can only be obtained by means of periodic surveys. The first survey was carried out in 1968-69 with the assistance of foreign consultants and formed basis of comprehensive transport planning studies by TRACO. The second and third surveys has been carried out by the National Transport Research Centre in 1980 and 1990 with its own resources without any outside help. It forms the basis for the Five Year Plans. Details about roads and vehicles on road are given in tables 10.8 and 10.9 respectively.

C: NATIONAL HIGHWAY AUTHORITY

At the time of independence, the total length of roads in Pakistan was 50,367 km. Out of this 9,809 km length was of high type and 40,558 km of low type. During the last 50 years, the road length has increased considerably and by now(1996-97) the total length of roads in Pakistan stood at 228206 km (124711 km of high type and 103495 km of low type), overall increase of over 453% but about 1271% increase in high type roads and 252% increase in low type roads. This clearly shows that road communication is playing a vital role in the transportation system of Pakistan. For the past several years, the railway is unable to take its share of ever increasing transportation load, which is being shifted to roads. At present the rail/road traffic load ratio is 12:88

which indicates the need for massive investment in road section to take upto this extra load.

In 1971, the then Government gave a new concept of communication system in the country and established the Indus Highway Board with objectives of planning, construction and maintenance of highways on the basis of commercial viability as well as strategic needs of Pakistan. Emphasis was laid on linking Karachi with the Northern parts of the country. The increasing economic activities made it imperative that the Indus Highway Board be upgraded as National Highway Board so that it could complete assignments without any interruption. Later, the National Highway Board was remodelled as the National Highway Authority (NHA), in

June, 1991, with a high level governing body which is called the National Highway Council.

It took over the construction and maintenance of national Highways. Realizing the importance of an adequate and efficient highway network, a Gigantic Programme for construction of Motorways and other major highways were undertaken.

National Highway Authority is responsible for the development and maintenance of eight National Highways having a total length of 6,587 Km. The length of National Highways is only 6% of the entire metalled road net work of the country but they carry 63% of the road traffic of the country. The preferred mode of transportation in Pakistan is road transportation carrying 92% of passengers and goods traffic. The present road net work is not adequate to meet the requirements.

The newly liberated Central Asian Republics (CAR) desire to

promote economic activities through the deep sea ports of Karachi and Gawadar for which quality construction of highways in an imperatiave. The construction of Economic Cooperation Organization (ECO) highway (N-40), linking Pakistan, Iran and Turkey and N-25 and improvement and extension of the Korakorum Highway (N-35) is the part of countrywide national highways programme for Transit Trade Traffic with China and CAR. The Government of Pakistan has concluded Transit Trade Agreements with Central Asian Republics and their implementation will consequently give the national highways of Pakistan an international status. Another important communications project is the construction of 635 km long Liari - Ormara - Pasni - Gawadar - Jiwani Makran coastal road which will prove an effective link between the ports.

National Highways, their names, numbers and lengths are given below in table 10.1.

Table 10.1 Highways Names, Designations and Lengths

Highway No	Name of Highway	Length (km)
N - 5	Karachi-Multan-Lahore-Torkham	1762
N - 25	Karachi-Khuzdar-Quetta-Chaman	799
N - 35	Hassanabdal-Gilgit-Khunjrab	306
N - 40	Lakpass(Quetta)-Nokundi-Taftan	610
N - 50	Kuchlak-Zhob-D. I. Khan	531
N - 55	Jamshoro-Larkana-Peshawar	1247
N - 65	Rohri-Sibi-Quetta	385
N - 70	Qila Saifullah-DG Khan-Multan	447
Total:		6587

National highways are briefly described as under.

1. N-5 (Karachi - Lahore - Peshawar - Torkham)

National Highway N-5 having a length of 1,762 km is the main North-South link and carries about 60% of the entire traffic of the

country. N-5 is the life line of Pakistan and 80% of economic activity is in its corridor. There is an urgent need of upgrading this road to a 4-lane facility. Some parts have been dualised and up graded where as the work on the others is going on.

2. N-25 (Karachi - Khuzdar - Quetta - Chaman)

This road provides a shortest route from Karachi Port to Central Asian States via Afghanistan. Starting from Karachi, and covering only 18 kilometers in Sindh, this road, leads to Chaman, a border town on Afghanistan frontier, passing through 781 kilometers of Balochistan. It is 12 feet (3.65 m) wide and is of low specifications. It requires improvements, widening and strengthening according to modern specifications.

3. N-35 (Hassanabdal - Gilgit - Khunjrab)

A symbol of determination and friendship of two neighbouring countries, Pakistan and China, is the Korakoram Highway (KKH). Covering 14 kilometers in the Punjab, 176 kilometers in NWFP, mostly along the "Father of the waters" and 616 kilometers in Northern areas, through scenic views of Hunza, passing through Pasu, Sost, etc., reaches the heights of Khunjrab. This highway is and will be used for transit traffic of China as well as Central Asian Republics.

4. N-40 (Sariab - Dalbandin - Nokundi - Taftan)

National Highway N-40 starts from Lakpass near Quetta and passing through Noshki, Dalbandin, Nokundi, ends at Taftan near Pakistan/Iran border, having a length of 610 Km. This highway also makes a part of ECO Highway linking Pakistan with Iran and Turkey.

5. N-50 (D.I. Khan - Zhob - Kuchlak)

Originating from N-55, at D.I. Khan, covering a distance of 143 kilometers in NWFP, enters in Balochistan and passing through Zhob, reaches Qila Saifullah where N-70 merges in it. It further

reaches Kachlak and merges in to N-25, covering a distance of 388 kilometers in Balochistan.

6. N-55 Indus Highway (Jamshoro-Larkana-D.G.Khan-Peshawar)

The second largest highway after N-5, the Indus Highway (N-55) is an alternate North-South link. Travelling along the Indus river a distance of 491 kilometers in Sindh, and 360 kilometers in Punjab, it reaches D.I. Khan. Further stretching 396 kilometers in NWFP, connecting D.I. Khan, Bannu and Kohat, almost all southern NWFP, it reaches Peshawar, making a short cut of about 400 kilometers as compared to N-5. The Overseas Economic Cooperation Funds of Japan (OECF) is financing the project on a long term soft loan. The Jamshoro-Peshawar length is 1247 km and involves upgrading of the existing inter-city road to a 2-lane asphalt concrete road with a tunnel near Kohat.

7. N-65 (Rohri - Sibi - Quetta)

Originating from N-5 at Rohri, crossing N-55 on the right bank of the Indus river, connecting Jacobabad and Sibi, this highway merges with N-25 near Quetta, covering 89 kilometers of Sindh and 296 kilometers of Balochistan.

8. N-70 (Multan - D.G. Khan - Qila Saifullah)

Starting from Multan, travelling a distance of 186 kilometers in the Punjab, enter in Balochistan and comes to an end at Qila Saifullah after covering a further distance of 261 kilometers where it merges with N-50.

The provincial break up of National Highways is given below in table 10.2.

Designated	Name	Punjab	Sindh	Baloch- istan	NWFP	N. Area	Total Length
N-5	Karachi-Torkham	1023	612	0	127	0	1762
N-25	Karachi-Chaman	0	18	781	0	0	799
N-35	H.Abdal-Khunjrab	14	0	0	176	616	806
N-40	Sariab-Taftan	0	0	610	0	0	610
N-50	Kunchlak-D.I.Khan	0	0	388	143	0	531
N-55	Jamshoro-Peshawar	360	491	0	396	0	1247
N-65	Rohri-Quetta	0	89	296	0	0	385
N-70	Qila Saifullah-Multan	186	0	261	0	0	447
Total length (Kilometres)		1583	1210	2336	842	616	6587
Province wise % age		28.9	22.61	26.15	12.42	9.92	100

MOTORWAYS

1. Islamabad - Peshawar Motorway (M-1), 155 Km is planned to be constructed in near future. The work on the project has been started in December 1997. Expected completion date is 2000.
2. Islamabad-Lahore Motorway (M-2), 339 Km in length, is operational now. The work was awarded to M/S DAEWOO of Korea in March, 1992.
3. Pindi Bhattian - Faisalabad Motorway (M-3), (53 km).
4. Faisalabad - Multan Motorway (M-4), (243 km).
5. Multan - D.G. Khan Motorway (M-5), (85 km). This is further extension of Lahore-Islamabad Motorway upto D.G. Khan (381 Km). This has been awarded priority among the pre-construction state projects. The M-3 project takes off from Pindi Bhattian on Lahore-Islamabad Motorway and terminate at D.G. Khan on Indus Highway after bypassing Faisalabad, Toba Tek Singh, Shorkot, Khanewal and Multan. Two bridges on riever Chenab and Indus will also be constructed.
6. Gawader - Ratodero Motorway (M-6), 895 km is being designed as a 4 lane expressway. Initaly two lane highway will be constructed which will ultimately be converted into four lane expressway on generation of traffic in the future.
7. Karachi - Hub - Dureji - Kakar Motorway (M-7), 341 km in length, will be direct excess to Karachi from up country in addition to the existing network namely N-55 & N-5. Total length of this section will be approximately 341 km. Initially a 2-lane will be constructed and additional lanes will be added later. Design criteria of the Pakistan Motorway is being adopted for this section of Motorway.

D: PORT QASIM - A MULTIFACETED PORT

Fifty Kilometers from the city of Karachi - the economic epicentre and megapolis of Pakistan - at the interface of a vast landscape and mangrove-dotted seascape is located port Muhammad Bin Qasim, the first industrial and multi-purpose deepsea Port of Pakistan with potential to be a state-of-the-art commercial-cum-industrial park of the 21st Century.

Government of Pakistan established Port Qasim Authority (PQA) by an Act of Parliament on 29th June, 1973 to plan, design, develop, operate, manage and maintain 2nd seaport of Pakistan.

Foundation Stone for Port Qasim was laid on 5th August, 1976. The first berth, Iron Ore & Coal Berth (IOCB) was put into operation on 30th September, 1980. Seven multi-purpose berths with requisite supporting infrastructure and back-up facilities were available early 1983 for operation.

Total land area of port Qasim comprises 12000 Acres which is divided in to the following three zones.

1. North Western Industrial Zone (NWIZ) 2700 Acres
2. South Western Industrial Zone (SWIZ) 1000 Acres
3. Eastern Industrial Zone (EIZ) 8300 Acres

A Bulk Oil Terminal started operation in April, 1995 on Build, Own, Operate (BOO) basis, to handle imports of Furnace Oil. A two-berth Container Terminal through conversion of existing 3 berths is expected to

start handling of gearless cellular container vessels early 2nd half of 1997. A chemicals jetty is being developed to start bulk handling and storage of chemicals and chemical products in the last quarter of 1997. Dedicated separate terminals on "Build, Operate, Transfer" (BOT) basis for handling LPG, Grain, Fertilizer, Edible Oil/Molasses have been planned for construction through private sector participation.

Since inauguration of operational activity in 1980, port facilities of PQA have acted as a catalyst and magnet to transform virgin sand dunes into distinct contours of industrial skyline of Greater Karachi. The magnitude of development and the momentum of mutation accomplished so far promise to elevate this area to the prime industrial park of Pakistan early next century. Total or greater part of the area can be developed as Special Zones, as for example in People's Republic of China and other countries in South-East Asia. Investments from different countries, with respective management skills, production system, work ethics, marketing and financial techniques would result in cross-fertilization of these fundamentals of economic development.

OPERATIONAL PERFORMANCE AS SEAPORT

Since inauguration of Iron Ore & Coal Berth (IOCB) in September, 1980, Port Qasim has handled by June, 1997 a cargo volume of 90 million tons carried by 3675 vessels, as detailed below in box 10.1.

Box 10.1 Port Performance	
Cargo Handling At Port Qasim	
Description	Cumulative
A. Multipurpose Terminal	Sept.80 to June,97
(Berths 1-7)	(Million Tonnes)
Furnace Oil (Import)	8.43
Chemicals (Import)	0.19
Edible Oil (Import)	1.39
LPG (Import)	0.18
Crude Oil (Export)	1.44
Wheat (Import)	21.09
Rice (Export)	0.23
Sugar (Import)	0.23
Pulses (Import)	0.32
Jute (Import)	0.21
Others (Imp./Exp.)	3.95
TOTAL Multipurpose	46.86
B. Furnace Oil Terminal	
Furnace Oil (Import)	6.22
C. Iron Ore & Coal Berth	
(Iron Ore & Coal for Paksteel)	36.67
TOTAL Imports (Dry + Liquid)	76.36
TOTAL Exports (Dry + Liquid)	13.38
GRAND TOTAL	89.75
Number of Ships	3675

E: CIVIL AVIATION AUTHORITY

The Civil Aviation Authority is an official organisation to manage and develop civil aviation. The network of PIA covers 55 International and 37 domestic stations. Three private airlines, i. e., Shaheen, Bhoja and Aero Asia are also providing air travel services. Table 10.3 shows the airports which handled the airtraffic whereas table 10.11 gives the details of the air services by airlines.

Table 10.3 AIRPORTS/ACRODROMES WHICH HANDLED TRAFFIC, 1996-97

Sr. No.	Airport	Province	Status of The Airport/Acrodrome	Commence-ment
1.	Karachi	Sindh	International	@1947
2.	Islamabad/ Rawalpindi		International	1947
3.	Peshawar	NWFP	International	1947
4.	Lahore	Punjab	International	1947
5.	Quetta	Balochistan	International	1956
6.	Gwadar	Balochistan	International	1966
7.	Pasni	Balochistan	International	1966
8.	Multan	Punjab	Domestic	1960
9.	D.I.Khan	NWFP	Domestic	1960

10.	Faisalabad	Punjab	Domestic	1961
11.	Chitral	NWFP	Domestic	1961
12.	Gilgit	Northern Areas	Domestic	1962
13.	Skardu	Northern Areas	Domestic	1962
14.	Moenjodaro	Sindh	Domestic	1966
15.	Nawabshah	Sindh	Domestic	1966
16.	Sukkur	Sindh	Domestic	1966
17.	Hyderabad	Sindh	Domestic	1966
18.	Jiwani	Balochistan	Domestic	1966
19.	Panjgur	Balochistan	Domestic	1966
20.	Sui*	Balochistan	Domestic	1966
21.	Turbat	Balochistan	Domestic	1978
22.	Zhob	Balochistan	Domestic	1979
23.	Bannu	NWFP	Domestic	1983
24.	Mianwali	Punjab	Domestic	1985
25.	Jacobabad	Sindh	Domestic	1985
26.	Saidu Sharif	NWFP	Domestic	1985
27.	Bahawalpur	Punjab	Domestic	1986
28.	Dalbandin	Baluchistan	Domestic	1986
29.	Mirpur Khas	Sindh	Domestic	1987
30.	Khuzdar	Balochistan	Domestic	1987
31.	Muzaffarabad	Northern Areas	Domestic	1988
32.	Rawlakot	Northern Areas	Domestic	1988
33.	R.Y.Khan	Punjab	Domestic	1990
34.	Ormara	Balochistan	Domestic	1990
35.	Kohat	NWFP	Domestic	1990
36.	Parachinar	NWFP	Domestic	1993
37.	D. G. Khan	Punjab	Domestic	1995
38.	Sehven Sharif	Sindh	Domestic	1996

@ = Historic Commencement From 1935

* = Managed by Pakistan Petroleum

Table 10.4 AIR PILGRIMS BY ORIGIN AND SEX ,1997 (nos)

Prov/Sex.	Punjab	NWFP	Sindh	Bal.	FATA	AJ&K	NA	Pak.
Male	34568	8805	16367	5427	1038	745	521	67471
Female	32013	5154	12868	1757	419	497	62	52770
Total	66581	13959	29235	7184	1457	1242	583	120241

Table 10.5 HOURS FLOWN BY THE GENERAL AVIATION AIRCRAFT OPERATORS, 1995-96

General Aviation Operator Hours

A. State Operators

* Government Of Punjab	274
* Government Of Balochistan	524
* Government Of Sindh	201
* Department Of Plant Protection	94
* Oil & Gas Development Corporation	459
* W.A.P.D.A.	291
** Sub Total:-	1843

B. Flying Clubs

* Karachi Aero Club Ltd.	724
* Lahore Flying Club.	3247
* Multan Flying Club.	1388
* Rawalpindi Flying Club.	3626
* Peshawar Flying Club.	6582
* Quetta Soaring & Flying Club.	152
** Sub Total:-	15729

C. Private Operators

* M/S Agriculture Aviation Ltd.	-
* M/S Falcon Aviation Ltd.	-
* M/S Aircraft Sales And Services Ltd.	2925
* M/s Raji Aviation Ltd.	-
* M/s Kohistan Flying Academy	-
* M/s Schon Air (Pvt.) Ltd.	4160
* M/s Edhi Air Ambulance Service	610
* M/s Javed Air Services (Pvt.) Ltd.	-
* M/s Flight Express	-
* M/s Panjnad Aviation	13
* M/s Agha Khan Foundation	874
* M/s Wings Aviation Services (Pvt) Ltd.	31
* M/s Pakistan Aviators & Aviation (Pvt) Ltd.	463
* M/s TCS Aviation	113
** Sub Total:-	9189
*** Grand Total:-	26761

Box 10.2 PIAC AIRCRAFT FLEET, 31-3-1998			
Type of Aircraft	No.	Type of Aircraft	No.
* B-747 (Pax)	6	* B-747 (Combi)	2
* DC-10	-	* A-300-B4	10
* A-310	6	* B-707 (Pax)	-
* B-707 (Freight)	2	* B-720 B	-
* B-737	6	* Fokker-27	13
* Twin Otter	2	* 11-86 (Leased)	-
** Total:			47

Box 10.3 KEY FIGURES AIR TRAFFIC DURING THE YEAR 1995-96

Box 10.3a	
Passengers (No.)	1995-96
International Terminal	4077,241
Domestic Terminal	9033,564
Transit	546,390
Total	13657,195

Box 10.3b	
Aircraft Movements (No.)	1995-96
Domestic	134,219
International	32,218
General	16,213
Local	62,569
Total	245,219
Box 10.3c	
Cargo and Mail (Metric Ton)	1995-96
Total Cargo	212,547
Total Mail	3,348.5
Total Cargo & Mail	215,895.5

F: TELECOMMUNICATION

The PT&T Department was established in August, 1947 which was responsible to run the services under the Telegraph Act, 1885. In 1962, the services were separated from the Post Office and new entity called Telegraph & Telephone (T&T) Department was established under Ministry of Communications. On 15 December 1990 Pakistan Telecommunication Corporation (PTC) was established to take over functions of PT&T Department. Its operations were governed by the PTC Act No. XVIII of 1991. The PTC was converted into Pakistan Telecommunication Company Limited (PTCL) on 1st January, 1996 through the Pakistan Telecommunication (Reorganisation) Ordinance No. XV of 1995, subsequently passed by the Parliament as an Act XVII of 1996. PTCL inherited all the assets and liabilities of the PTC.

In 1947 only 8,800 telephones were working in Pakistan. Only telegraph and plain telephone services based on old physical telegraph were available. Now the country has most modern services including telegraph, telephone, telex, data network, cellular mobile, paging, card pay phones, Internet and informatic services, nationally and

internationally, through the latest technologies like Optical Fibre, Satellite, Microwave, Digital Radio Set (DRS), upgraded Coaxial Cable, VHF, UHF, Submarine Cables and VAST.

In 1947 only 5 automatic analogue old version exchanges were working in Pakistan. No city was directly linked nationally and internationally. In 1997, PTCL has more than 3.25 Million lines capacity out of which 80% are digitalized, 2.6 Million telephones working with 2446 exchanges, 756 NWD stations, 10,057 rural PCOs, 433 Telegraph offices, 5,203 international circuits, in the country. Main Fibre Optic Cable is 2738 Kms with subsidiary routes of 2100 Kms with 70,000 channels. Main Microwave length, 6507 Kms, is working for Telecommunication and T.V. through 160 M/W stations.

PTCL took over an installed capacity of 2,862,465 lines from the former PTC as on 31 December 1995. Another 352,783 lines were added which increased the capacity to 3,215,248 lines by 30 June 1996. The working connections increased from 2,227,715 to 2,376,786 on 30 June 1996, thereby utilizing 74% of the total installed capacity as on 30 June 1996. The company has three operational Gateway Exchanges, one at

Karachi and two in Islamabad. These International Gateway Exchanges have the latest 'C-7' signalling system comprising about 8,000 international circuits whereas 4,400 are working. The total international telephone traffic w.e.f 31.12.1995 to 30.6.1996 was 250.870 million minutes, out of which 213.483 million minutes were of incoming calls as compared with outgoing 37.397 million. A state-of-the-art international subscriber dialing system comprising of digital gateway exchanges operating through satellite earth stations and submarine cable is available to PTCL customers.

The country still needs big telecom expansion specially for rural coverage. In information technology and software export area, Government Of Pakistan has adopted a more liberal approach and private sector is already participating in these areas. Over the last seven years, capacity has expanded by 20-25% per annum with ALIS increasing by 21% per annum. The expansion programme succeeded in increasing telephone penetration, reducing pending applications and improving productivity considerably. The network expansion has been accompanied by steady increase in traffic inland and outland. The national long distance traffic has increased by 12-16% per annum, outgoing international traffic by 20-24% per annum and incoming international traffic by 20% per annum.

Telephone penetration which stood at less than 0.012 per 100 people has been increased to 2 per 100 people in 1997. The country also have the following value added services:-

- Call waiting, forwarding, abbreviated dialing, hot line etc.
- Integrated Services Digital Network (ISDN), services including caller ID
- Digital Cross Connect and digital leased lines

- Universal Access Number (UAN) and Free Phone (0800 lines)
- Video conferencing etc.
- IT, Internet, E-Mail and Voice Massaging Services

TRAINING / CENTRAL TELECOM RESEARCH LABORATORY

At the time of independence there were no facilities to train the people in telecom. Now a number of centers in which internal training is provided to the staff:-

- National Post Graduate Institute of Telecoms & Informatics for engineers which aims to promote and improve managerial skills of the officers of Grade 17 & above.
- Telecom Staff College Haripur provides technical training for staff of grade 11 and above.
- Nine Regional Telecom Training Schools which train technicians and supervisors.
- Fifteen Divisional Training Centers which train staff upto the level of departmental technicians.
- Central Telecom Research Laboratory is responsible for research and development activities undertaken by PTCL for modernization and innovation of the present system. In addition to conducting research to meet the broader PTCL requirements, it provides research facilities and guidance to separate manufacturing units of PTCL like TIP and CTI.

MANUFACTURING UNITS

In 1947 there was no manufacturing unit of telecom equipment. Now PTCL manufactures and markets telecommunication equipment through its subsidiaries, Telephone

Industries of Pakistan(Pvt.) Limited and Carrier Telephone Industries. There are a number of other units. Following are the most important, reputed units which are catering the telecom sector.

a) TELEPHONE INDUSTRY OF PAKISTAN (TIP)

TIP is manufacturing automatic digital exchanges, EWSD, Portable exchanges, telephone sets, Energy Meters and parts for exchanges and telephone sets. Production capacity has risen to 500,000 telephone units of various types and 250,000 digital exchange lines.

b) CARRIER TELEPHONE INDUSTRY (CTI)

CTI manufactures digital transmission, fibre optical and multiplexing equipment for voice and data, and provides repair facilities for the analogue transmission equipment owned by PTCL. Equipment produced includes:-

- Digital microwave radios (2 MB to 34 MB).
- Higher order multiplexers/PCM and SDH equipment.
- Grid parabolic antennae.
- Mechanical parts, printed circuit boards, coils and transformer.
- A Quality Assurance System for process control and inward goods inspection, using modern electronic measuring equipment, which has been issued an ISO-9000 certificates.
- Introduction of Surface Mount Device Technology(SMD) to Pakistan.
- In-house software development.

c) ALCATEL PAKISTAN LIMITED (APL)

APL manufactures Alcatel E10 exchanges and transmission equipment.

It also engineers and installs cables, and designs and produces the software required to run the equipment it manufactures.

d) TELECOM FOUNDATION (TF)

TF originally provided consultancy services, such as preliminary project studies, technical and financial feasibility studies and supervision. TF's computer division offers project oriented and computer bureau services to its clients as follows:-

- Geographical information system(GIS) and implementation of rural-based AM/FM software
- Management information system (MIS)
- Laying of outside plant for PTCL etc.)

National Radio Telecommunication Corporation (NRTC)

NRTC is manufacturing digital radio, battery eliminator, DPs for defence forces and PTCL.

QUALITY OF SERVICE

Telecom sector did improve due to digitalization, still there are complaints about service quality like; dropping of calls, and excessive billing, poor response from 17, 18, 109 and higher faults. Telecom sector is confronted with the challenge to minimize complaints. Modernization, change of culture, Creation of customer care culture and competition may improve the situation.

INVOLVEMENT OF PRIVATE SECTOR

In 1990 the private sector was invited to develop Cellular, Card Payphone and Paging services. More than 0.1 Million cellular, about 4000 Payphones and 30,000 Paging customers

are availing these facilities. Deregulated services are given below:

- Card Operated Pay Phone Service
- Cellular Mobile & Paging Services
- Trunked Radio Service
- Data, Internet and Electronic Mail Services
- Audiotex, Voice Mail and other Information Services.
- Satellite (Pak Sat Project) and GMPCS Services
- Manufacturing of Digital Exchanges/ PABXs, Terminal Equipment, Copper/ Fibre Cables and Jointing Material
- Software Development & Data Banks
- Manufacturing of Telephone Sets, Fax, Computer Terminal, Modems, Answering Machines & Intelligent Devices.

Box 10.4 TELEGRAPH OFFICES														
Year	83	84	85	86	87	88	89	90	91	92	93	94	95	96
URBAN	108	111	121	142	152	165	174	186	195	282	285	327	330	319
RURAL	186	199	220	245	268	281	294	300	302	119	119	85	86	104
TOTAL	294	310	341	387	420	446	468	486	497	401	404	412	416	423

Note: Telegraph offices in Azad Jammu & Kashmir and Northern Areas are included in the statistics upto 1991.

Box 10.5 HIGHLIGHTS AS ON JUNE 30, 1996			
* No. of Exchanges	2,307	* Exchange Lines (m)	3.22
* Working Connections (m)	2.377	* Overseas Paid Minutes (m)	491
* International Circuits	4,395	* Staff per 1000 Phones	23
• Domestic NWD call units (000)			10,816,000
• International Incoming Call Minutes (000)			418,203
• International Outgoing Call Minutes (000)			72,385
• Incoming International Calls (000)			135,782
• Outgoing International Calls (000)			26,864
• Incoming Outgoing Calls Ratio			83.5:16.5
• Lines installed (as on June 30)			3,215,248
• Lines in Service (as on June 30)			2,376,786
• Pending Application (as on June 30)			244,275

Table 10.6 TELEPHONE LINES AS ON JUNE 30, 1996

Telecom Region	Exchanges (No.)	Installed Capacity	Working Connections	Pending Demands
Karachi-I	43	385,294	290,412	2,273
Karachi-II	48	443,500	352,680	3,207
Southern (Sind-S)	208	134,526	75,590	579
Southern (Sind-N)	206	90,254	67,885	3,575

Western	269	131,698	72,236	3,900
Central	133	143,067	89,125	10,395
Northern	444	299,873	198,226	76,563
Multan	231	233,524	173,306	33,055
Lahore-I&II	46	497,564	403,968	22,345
Faisalabad	231	300,590	213,920	17,771
Gujranwala	165	241,164	178,227	44,810
Rawalpindi	253	103,355	82,250	15,704
Islamabad	30	210,839	178,961	10,098
<hr/>				
Auto	996	3,098,350	2,277,897	
Manual	1,311	116,898	98,889	
<hr/>				
Total	2,307	3,215,248	2,376,786	244,275

G: POSTAL SERVICE

GENERAL

Existence of postal system is found in the earliest historical records. From the twelfth Pharaonic Dynasty (Era 2000 B.C), in Egypt, we find that letter carriers were in constant danger from wild animals and unfriendly tribes.

The first recorded postal system in China dates from the Chou Dynasty (1122 to 255 B.C.). Marco Polo purported to have encountered foot and mounted couriers of the system throughout the empire and Manchuria. The Persian postal system of Cyrus the Great (558 to 528 B.C) has been admired by the writers of the time. One of the best and perhaps the best organized ancient postal system was the famous *cursus publicus* of the Roman Empire. It grew with the needs of the empire. A messenger could travel over 280 kilometers in less than 24 hours. Five great Roman roads leading towards Carthage, Macedonia, Thracia, Spain, Germany and Britain catered for the postal despatches on fixed schedules.

The succeeding Islamic Empire, took over part of the old Roman System. Some 930 Postal despatch and receipt stations were located along the six great roads, fanning out from the capital at Baghdad. One of the caliphs is reported to have stated, "My throne rests on four pillars, and

my power on four men, a blameless judge, an energetic Chief of Police, an honest minister of finances, and a faithful postmaster who gives me reliable information on everything".

Little is known of the extent of postal arrangement during the Dark Ages. In the middle ages postal systems assumed importance of mankind. Princes, religious organizations and universities created private messenger service. The university messenger services were the remarkable feature of the Middle Ages. The Messenger Service of the University of Paris was outstanding. This service was created in 1297 and was ultimately merged with the Royal Messenger Service after four hundred years in 1719. These messengers probably made their rounds on foot at first. Later they employed horses and afterwards added carts and wagons to convey passengers and luggage as well. The messenger made the rounds from Paris to the various home cities of the students and returned on fixed days.

In 1477 Louis XI of France decreed the establishment of Royal Service and organized a body of 230 couriers. We have seen the development of the "Post" from its inception as an official messenger service to its emergence as a public service institution. There were three major stages in the development of

the Posts. First, the movement on foot then by horses and finally through coaches.

By 1607, there was a regular service by English postmen to and from Brussels to pick up the continental mail. The regular Swedish postal system in 1620 began to operate to Denmark and south to Hamburg. The first Russian Postmaster appointed in 1665, set up a postal route from Moscow to Riga to pick up and send official despatches to Western Europe.

The final stage in the transformation of the Travelling Mail Service took place in the eighteenth and early nineteenth centuries.

50 YEARS OF PAKISTAN POST

Pakistan Post Office is one of the oldest Federal Government Departments in the South Asian Sub-Continent with over 150 years trail of history and traditions. After independence in 1947, the Department commenced its operations under a modified Post Office Act No. VI of 1898 as a combined Post & Telegraph Department. It was decided to bifurcate this large Department into two separate and independent Departments with effect from 1-7-1962. Its network has expanded tremendously from 3036 Post Office in 1947 to the present number of 13414. Today it has a manpower of about 50,000. Apart from collection and delivery of mail and running of Special Services, it performs multifarious functions such as, Life Insurance business (2,35,000 policy holders), Post Office Savings Bank transactions (1.2 million accounts), payment of Military Pensions (0.8 million pensioners), collection of Zakat through its counters all over the country, payment of subsidy to "Mustahikeen" (315,000), collection of several kinds of Provincial Taxes, issue of radio licenses and realization of its fee etc. etc.

Internationally, Pakistan Post has been playing its due role all along. Currently, it is an elected member of the two permanent bodies of

the U.P.U. and is also chairman of one important Select Committee i.e. the strategic Planning Committee of the Postal Operations Council. Its officers are performing commendable duties and services in various capacities (such as consultants, Regional Experts and Advisors) in different parts of the world as International Civil Servants selected by the U.P.U. through global competition.

It has ambitious programs for provision of an efficient but cost effective service to its customers. Some important milestones in its 50 years of operation have been identified in the following calendar of events:-

IMPORTANT LANDMARKS:

- 1947- Office of the Postmaster General at Lahore starts functioning with effect from 15th August
- 1947 - British Indian postage stamps overprinted "PAKISTAN" on 1st October.
- 1947 - Pakistan joins UPU as its 89th member on 10th November.
- 1948 - A set of first four Pakistan Postage stamps with the words "Pakistan Zindabad" issued on 9th July.
- 1950 - Sindh and Balochistan Circle set up with effect from 13th September.
- 1952 - Premier participation in UPU Congress and election to Executive and Liaison Committee.
- 1957 - Fourteenth Congress held at Ottawa (Canada), re-elects Pakistan to the Executive Council. It also sets up another permanent body named the Consultive Council for Postal Studies. Pakistan is

elected as member to this body as well.

- 1959 - Introduction of All-up Scheme for all First class mail.
- 1961 - P & T Model School set up at Lahore.
- 1962 - Bifurcation of PT & T into Pakistan Post Office and T & T completed on 1st July.
- 1964 - The fifteenth Congress held at Vienna, re-elects Pakistan as member of the Consultative Council for Postal Studies (CCPS).
- 1968 - A separate postal circle with Headquarters at Peshawar (NWFP) set up with effect from 1st July.
- 1969 - The Sixteenth Congress held at Tokyo (Japan), elects Pakistan to both the Executive Council and the Consultative Council for Postal Studies.
- 1974 - Seventeenth Congress held at Lausanne (Switzerland), re-elects Pakistan to the Executive Council for Postal Studies. Pakistan chairs UPU-IATA contact committee which worked out agreed air conveyance rates for international mails which remained in force for next 20 years upto 1995.
- 1975 - Northern Punjab Circle with headquarters at Rawalpindi set up with effect from 16th December.
- 1976 - First (RCD) International Philatelic exhibition at Karachi in July.
- 1976 - A 23 carate gold powder stamp issued on 100th birth anniversary of Quaid-i-Azam on 25th December.
- 1977 - Joins APPU
- 1977 - Joins as founder member of South and West Asia Postal Union (SWAPPU).
- 1979 - Postal Directorate General moves to Islamabad
- 1979 - Pakistan participates in Eighteenth Congress and gets re-elected to the Consultative Council for Postal Studies for the fifth time.
- 1979 - Balochistan Circle operates independently w.e.f. July.
- 1981 - Establishment of Pakistan Post Foundation.
- 1984 - Participates in Nineteenth Congress held at Hamburg (Germany). Pakistan presents 18 proposals amending the Acts of UPU out of which 14 are accepted and acts as Vice Chairman of a Congress Committee on latter post (rates-Fixing and Payment). Pakistan is also elected to the Executive Council as well as to the Consultative Council for Postal Studies for the sixth time.
- 1985 - Postal Life Insurance Circle bifurcated into Northern and Southern Zones with effect from 22nd May.
- 1985 - Northern Sindh Circle with headquarters at Hyderabad set up.
- 1986 - Data post (ISP) with 22 countries established.
- 1986 - Airex Service revived.
- 1986 - Eco-philex stamps exhibition at Islamabad.
- 1987 - Inauguration of Postal Staff College

- 1987 - Urgent Mail Service (UMS) introduced on 1st January.
- 1987 - Urgent Money Order Service commenced w.e.f. April. 15.
- 1987 - Local Packet and parcel Service set up w.e.f. April 22
- 1987 - Postal Draft Service introduced on November, 15.
- 1988 - A 5 digit postocode intoruced on 1st January.
- 1988 - Savings Bank Mobile account introduced on january, 12.
- 1988 - Mr.Botto da Barros, DG, UPU visits pakistan
- 1988 - Postal Giro introduced w.e.f. March 5.
- 1988 - Fax Mail started on July, 4.
- 1988 - Fax Money Order Service introduced on August, 15.
- 1989 - Attends Twentieth Congress, held at Washington (USA). Is nominated as coordinator of the General Debate, gets re-elected to the Executive Council and the Consultative Council for Postal Studies. Avails seventh successive term of five-years in the CCPS.
- 1990 - A series of 27 stamps issued on Pioneers of Freedom Movement on August, 14.
- 1991 - Publication of monthly POSTNEWS and first ever Post Office Magazine PAKPOST commences.
- 1991 - Sub-contracting of Express Mail at Karachi.
- 1992 - Setting up of Agency Post Offices on franchised basis.
- 1992 - Revamping of National Mail Transportation System and setting up District Mail Offices.
- 1992 - Establishment of Pakistan Postal Services Corporation on August, 1.
- 1992 - Commercialization of philately and issue of first stamp on that basis on August, 25.
- 1992 - Overseas Circle set up on December, 1.
- 1993 - A separate circle for Azad jammu & Kashmir and Federal Capital Area Starts functioning on May, 1.
- 1993 - Express Post Circle starts operation independently w.e.f. July, 1.
- 1994 - Participates in the twenty-first Congress held at Seoul (Republic of Korea). Elected as Chairman of the Strategic Planning Working Party and also re-elected to the Postal Operations Council (erstwhile CCPS).
- 1994 - A collective incentive scheme for increase in revenue collection introduced on July, 1.
- 1994 - Mail Sorting and Transportation (MST) Circle created on September, 1.
- 1994 - Construction of the first POST PLAZA on commercial lines started in Satellite Town, Rawalpindi at an estimated cost of Rs. 34.735 Million w.e.f. September, 15.
- 1995 - Mr.Thomas Leavey, DG, UPU visits Pakistan.

- 1996 - Utility bills delivery centers set up in 4 major cities.
 - 1996 - Pakistan Post Office again operates as an attached Department of the Ministry of Communications w.e.f. 7th July.
 - 1996 - Computerized tracking system of Express Post items for 5 major cities set up w.e.f. September ,1.
 - 1997 - Revised Time Test in Operation w.e.f. 1st October.
- BROAD FEATURES OF POSTAL SERVICE IN PAKISTAN**
- No. of Post Offices = 13414
 - Area = 796,093 sq. kms
 - One post office for = 9,837 persons
 - One post office covers =60 sq. km
 - UPU standard for developing countries
 - i) One post office for 3000 to 6000 persons
 - ii) One post office for 20 to 40 sq. Km.

Table 10.7 PROVINCE WISE BREAK UP OF POST OFFICES AS ON 31-5-1996

Province	GPO	HSGSO	TSOSG	TSO	APO	EDSO	EDPO	FPGs	NPO	TOTAL
Punjab	94	94	404	764	191	191	6169	117	117	8141
Sindh	55	55	156	282	071	071	1185	091	091	2057
Nwfp	19	19	194	236	084	084	1546	20	20	2222
Balochistan	02	02	069	069	019	019	0445	11	11	637
Azad Kashmir	18	18	026	074	013	013	0360	-	-	522
Norther Areas	01	01	02	021	005	005	0118	-	-	153
Federal Areas Islamabad	03	03	21	046	008	008	0105	10	10	206
Total	192	192	872	1482	391	391	9928	249	249	13946

Note: GPO: General Post Office, HSG: Higher Selection Grade, SO: Sub Office, TSO: Time Scale Office, SG: Selection Grade, APO: Agency Post Office, EDPO: Extra Departmental Post Office, EDSO: Extra Departmental Sub Office, FPO: Franchised Post Office, NPO: Night Post Office,

H: CONSTRUCTION MACHINERY TRAINING INSTITUTE

Physical Achievements of Construction Machinery Training Institute (CMTI), attached with Ministry of Communication, for the period from 1986 to 30 June 1997 are below in Box 10.6.

Description	Number
a. Operator Course	1635
b. Mechanic III Course	738
c. Mechanic II Engine Course	446
d. Mechanic II Chasis Course	373
e. Prime Minister Scheme Operator Course (Evening Shift)	286
f. Construction Machinery Planning and Employment Course	75
g. Construction Machinery Supervision Course	66
h. Diploma of Associate Engineer	91

j.	Third Country Training Programme (TCTP)	37
k.	Repaid Runway Repair Course	18
l.	CMO & M Course	551
m.	Armt Art Course	351
n.	DVR Refresher Cadre	650
o.	Operator Special Cadre	163
p.	Steel Fixer Course Ser-I	15
Total:		5495

I: PRIVATE SOFTWARE EXPORT BOARD

The Private Software Export Board (PSEB) has been formed as an autonomous board under the Ministry of Communications. PSEB came into existence on July 4, 1995. It has a high powered executive board including ten Federal Secretaries and chaired by Special Assistant to the Prime Minister. PSEB has been formed with the objective of boosting the Pakistani software industry. It is working on several projects, implementation and execution of which will put Pakistan on the software map of the world. This is a new and rapidly growing industry and there is a lot of potential for its development in Pakistan.

The PSEB formulated the Policy Framework and Incentive Package for Software and Related Services which had been approved by the Cabinet in its meeting held on October 16, 1995. Its major components are formation of Private Software Export Board as a One Stop Shop to cater to all business needs of a prospective software house, Software Technology Parks scheme, an incentive package with a list of fiscal and corporate incentive, regulatory framework, including intellectual property issues. This policy framework is aimed at providing an attractive environment for the development of the software industry in Pakistan with participation of domestic and international corporations and is expected to make software

development one of Pakistan's major economic activities.

The Software Technology Parks (STP), providing a "One Window" solution to the needs of software houses/Software Companies such as all types of approvals, customs clearance, etc., shall be built in the private sector on Build, Own, Operate (BOO) basis through the collaboration of local and foreign corporations and will be comparable in quality and function to technoparks in the developed countries. Intellectual property rights of the Software Houses shall be protected in Pakistan under Intellectual Property Protection Laws.

PSEB shall facilitate projects between the Pakistani educational institutions and the computer industry to bridge the gap between academia and the industry.

PSEB facilitates the ISO-9000 training certification process in collaboration with Export Promotion Bureau of Software Companies as part of its regulatory function so that Pakistani Software Companies can offer services that are of internationally competitive quality. This will also fulfil the prequalification requirements for competing for sizeable international software contracts.

Figure 10 LENGTH OF HIGH/LOW TYPE ROADS

Table 10.5 TRANSPORT

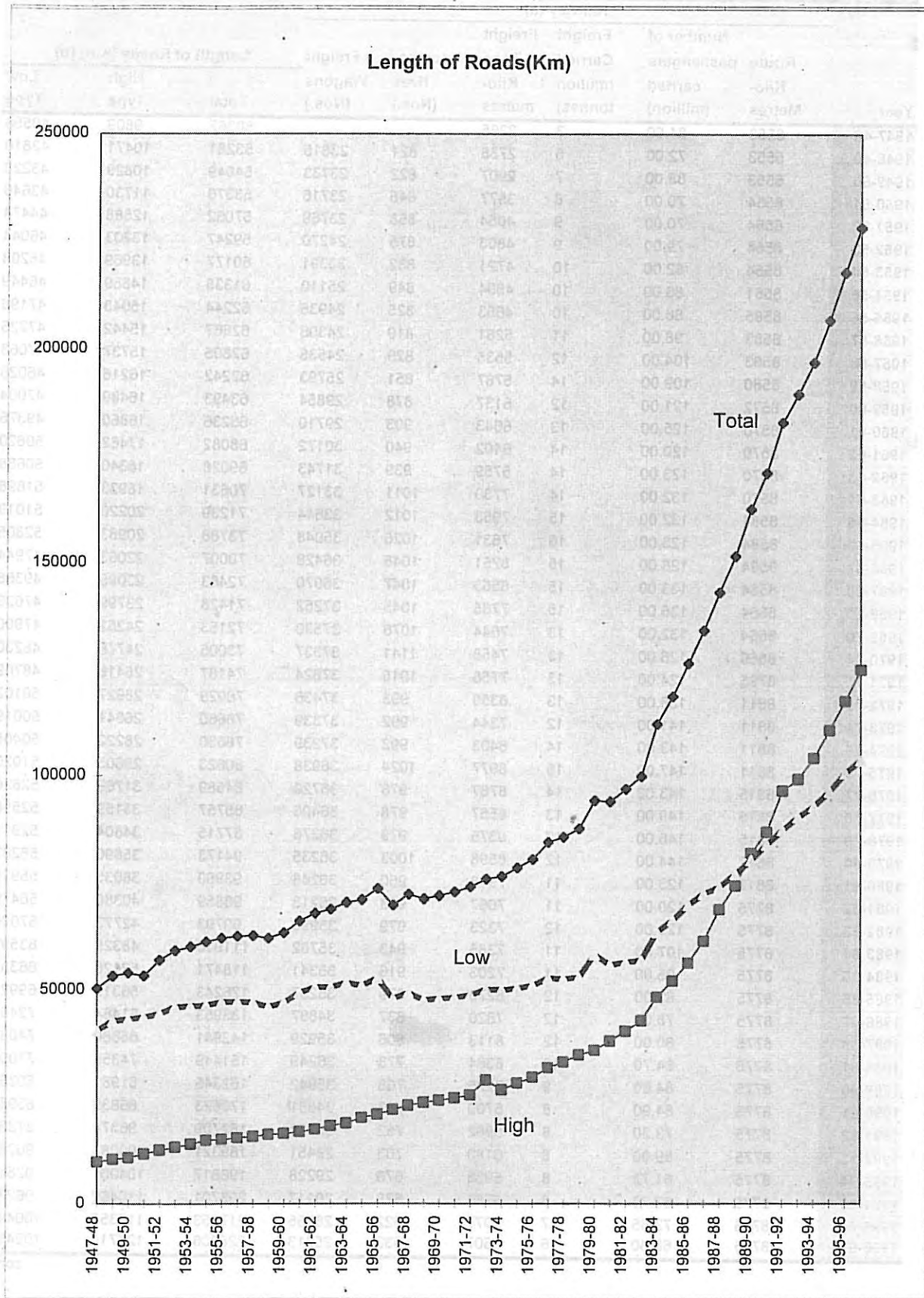


Table 10.8 TRANSPORT

Year	Railway (a)						Length of Roads (Km) (b)		
	Route Kilo- Metres	Number of passengers carried (million)	Freight Carried (million tonnes)	Freight Tone Kilo- metres	Locomo- tives (Nos.)	Freight Wagons (Nos.)	Total	High	Low
								Type	Type
1947-48	8553	81.00	3	2265			50367	9809	40558
1948-49	5553	72.00	6	2738	821	23815	53281	10471	42810
1949-50	5553	68.00	7	2907	822	23733	54049	10829	43220
1950-51	8554	70.00	8	3577	845	23716	53376	11730	43646
1951-52	8554	70.00	9	4054	858	23769	57062	12588	44474
1952-53	8554	79.00	9	4803	875	24270	59247	13203	46044
1953-54	8554	82.00	10	4721	832	23391	60177	13969	46208
1954-55	8561	86.00	10	4594	849	25110	61338	14889	46449
1955-56	8585	88.00	10	4653	825	24935	62244	15048	47196
1956-57	8583	98.00	11	5281	819	24306	62667	15442	47225
1957-58	8583	104.00	12	5535	829	24538	62805	15737	47068
1958-59	8580	109.00	14	5787	851	25793	62242	16216	46026
1959-60	8572	121.00	12	6137	878	29854	63493	16489	47004
1960-61	8570	125.00	13	6643	903	29710	66236	16860	49376
1961-62	8570	120.00	14	6402	940	30172	68082	17462	50620
1962-63	8570	123.00	14	6759	939	31743	69028	18340	50688
1963-64	8570	132.00	14	7730	1011	33127	70631	18933	51698
1964-65	8584	132.00	15	7963	1012	33644	71239	20220	51019
1965-66	8584	123.00	16	7631	1026	35048	73788	20983	52805
1966-67	8584	128.00	15	8251	1045	36428	70007	22063	47944
1967-68	8584	133.00	15	8563	1047	36970	72463	23095	49368
1968-69	8664	136.00	15	7785	1045	37252	71428	23799	47629
1969-70	8564	132.00	13	7644	1076	37530	72153	24253	47900
1970-71	8566	126.00	13	7458	1141	37337	73006	24776	48230
1971-72	8795	124.00	13	7756	1015	37624	74187	25418	48769
1972-73	8811	136.00	13	8359	993	37436	76029	28927	50102
1973-74	8811	141.00	12	7344	992	37339	76660	26641	50019
1974-75	8811	143.00	14	8403	992	37239	78630	28222	50408
1975-76	8811	147.00	15	8977	1024	36938	80623	29603	51020
1976-77	8815	143.00	14	8767	978	36720	84589	31769	52820
1977-78	8815	149.00	13	8557	978	36406	85757	33159	52598
1978-79	8815	146.00	12	9375	979	36276	87715	34804	52911
1979-80	8817	144.00	12	8598	1003	36235	94173	35890	58283
1980-81	8817	123.00	11	7918	960	36248	93960	38035	55925
1981-82	8775	120.00	11	7067	963	26213	96859	40380	56479
1982-83	8775	123.00	12	7323	979	35990	99793	42773	57020
1983-84	8775	107.00	11	7385	943	35782	111916	48325	63591
1984-85	8775	95.00	11	7203	916	35341	118471	52120	66351
1985-86	8775	83.00	12	8270	879	35237	126243	56318	69925
1986-87	8775	78.00	12	7820	837	34867	133953	61464	72489
1987-88	8775	80.00	12	8113	806	35929	142941	68880	74061
1988-89	8775	84.70	10	8364	773	36249	151449	74355	77094
1989-90	8775	84.60	9	7226	768	35842	162345	81981	80364
1990-91	8775	84.90	8	5709	753	34851	170823	86839	83984
1991-92	8775	73.30	8	5962	752	30369	182709	96374	87335
1992-93	8775	59.00	8	6180	703	29451	189321	99083	90238
1993-94	8775	61.72	8	5938	676	29228	196817	104001	92816
1994-95	8775	67.70	8	6711	678	30117	206701	110462	96239
1995-96	8775	73.65	7	5077	622	26755	217853	117356	100497
1996-97	8775	68.80	6	4607	633	25213	228206	124711	103495

cont.

Table 10.8 TRANSPORT

Year	Cargo Handled at Sea Ports (000 Tonnes)			Shipping		Gross Earnings (Rs. Million)					
				No. of Vessels	Dead Weight Tonnes	Pakistan Railways	Pakistan National Shipping Corp.	Punjab Urban Tpt. Corp.	Karachi Tpt. Corp.	NWFP Road Tpt. Board	
	Total	Import	Export			(a)	Corp.	Corp.	Corp.	Board	
1947-48	3552	2216	1336								
1948-49	3472	2225	1247	7	59414	245.1	-	-	-	-	-
1949-50	3409	2238	1170	10	87780	255.4	-	-	-	-	-
1950-51	3530	2339	1191	14	117470	266.3	-	-	-	-	-
1951-52	3824	2731	1093	22	161700	295.5	-	-	-	-	-
1952-53	3977	3065	911	25	190363	321.3	-	-	-	-	-
1953-54	3616	2707	909	25	203656	339.6	-	-	-	-	-
1954-55	3088	2181	906	24	195256	353.6	-	-	-	-	-
1955-56	3684	2571	1114	23	185242	361.8	-	-	-	-	-
1956-57	4357	3323	1033	23	185242	389.2	-	-	-	-	-
1957-58	4306	3448	858	21	168932	418.9	-	-	-	-	-
1958-59	3666	2683	983	29	244922	469.3	-	-	-	-	-
1959-60	4574	3479	1095	35	293256	482.7	-	-	-	-	-
1960-61	5059	3974	1085	41	353945	484.2	-	-	-	-	-
1961-62	4680	3545	1135	43	390212	475.8	-	-	-	-	-
1962-63	5650	4080	1571	43	390212	495.4	-	-	-	-	-
1963-64	5952	4596	1356	43	384449	543.3	-	-	-	-	-
1964-65	7934	6375	1559	50	458304	582.5	-	-	-	-	-
1965-66	7169	5269	1900	53	516137	592.1	-	-	-	-	-
1966-67	9220	6896	2324	59	593826	615.6	-	-	-	-	-
1967-68	8801	6508	2293	61	618758	624.0	-	-	-	-	-
1968-69	8585	5603	2982	65	682913	665.2	-	-	-	-	-
1969-70	9488	6028	3460	66	679692	731.2	-	-	-	-	-
1970-71	9587	6379	3208	71	749046	716.3	-	45.4	-	-	12.1
1971-72	9456	6397	3059	57	635937	785.4	-	36.8	-	-	11.3
1972-73	10512	7304	3208	54	620669	943.4	-	33.2	-	-	10.6
1973-74	10654	7559	3095	53	620734	1026.1	-	52.4	-	-	13.6
1974-75	10161	7858	2303	52	619574	1345.0	-	134.9	-	-	21.2
1975-76	10085	7691	2393	53	602243	1632.8	-	249.8	-	-	38.6
1976-77	9590	7216	2374	49	584195	1748.0	-	237.4	49.2	-	47.0
1977-78	11757	8917	2840	47	590992	2213.0	-	224.0	17.4	-	48.4
1978-79	15025	11987	3038	48	580225	2274.0	-	233.9	19.7	-	52.1
1979-80	14657	11259	3398	50	645450	2709.4	1141.7	274.9	37.1	-	56.7
1980-81	14653	11037	3616	55	738794	2492.4	1507.5	266.6	75.2	-	81.2
1981-82	15137	11589	3548	50	766601	3044.2	1688.4	281.4	89.3	-	164.5
1982-83	14789	13003	3526	47	731545	3395.0	1639.2	301.8	92.0	-	180.9
1983-84	17680	13771	3909	36	602744	3679.9	1625.3	326.2	94.3	-	194.8
1984-85	17910	14551	3359	35	596972	3677.2	2418.6	319.0	80.9	-	199.1
1985-86	20254	15441	4813	34	595209	4419.5	2657.6	238.9	85.8	-	197.6
1986-87	20192	15941	4251	30	522517	4884.0	2209.7	276.6	87.1	-	216.3
1987-88	21437	17226	4211	29	510624	5279.0	2643.3	195.3	98.4	-	254.5
1988-89	23021	18674	4347	29	510624	5318.0	3788.0	140.9	157.9	-	251.0
1989-90	24388	19822	4566	28	492400	5654.0	3165.0	166.0	166.3	-	274.0
1990-91	26367	21217	5150	28	494956	6696.0	3865.0	166.6	156.7	-	266.1
1991-92	27792	21798	5994	28	494956	8235.9	4063.0	107.7	182.7	-	261.2
1992-93	30233	24756	5477	29	518953	9031.0	3137.0	95.7	182.6	-	261.2
1993-94	30011	24376	5635	27	595836	9134.0	3302.0	40.9	-	-	221.3
1994-95	32297	25529	6758	15	264410	9224.0	4311.0	73.2	-	-	210.5
1995-96	33229	27533	5696	17	290353	8365.0	6962.0	61.6	-	-	-
1996-97	*31059	25421	5638	15	261836	9735.0	7761.5	-	-	-	-

Sources: National Transport Research Centre, Karachi Port Trust, Pakistan National shipping corporation, Pakistan Railway, Ministry of Communication and Provincial Bureaus of Statistics

Note: Data of Port Qasim is included in Karachi Port from 1982-83 onward. - Not available

* Port Qasim data is from July to March.

Table 10.10 PASSENGERS, CARGO AND MAIL HANDLED AT CIVIL AIRPORTS
(Scheduled And Non-Scheduled)

Year	Passengers(000)			Cargo(000MT)			Mail(MT)		
	Domes- tic	interna- tional	Total	Domes- tic	interna- tional	Total	Domes- tic	interna- tional	Total
	1970-71	1231	543	1774	12	20	31	1363	3345	4708
1971-72	1075	516	1591	12	20	32	1086	2349	3435
1972-73	1139	625	1764	13	24	37	981	2326	3307
1973-74	1498	757	2255	22	30	52	1299	2233	3532
1974-75	1904	965	2869	20	34	54	1360	2717	4077
1975-76	2364	1240	3605	24	41	65	1632	2549	4181
1976-77	2760	1555	4315	31	44	75	2068	2409	4477
1977-78	3278	1928	5206	32	53	84	2130	2637	4767
1978-79	3358	2317	5676	36	67	102	2253	2848	5101
1979-80	3534	2640	6174	34	84	117	2425	3928	6353
1980-81	3574	2945	6519	38	95	133	2636	3620	6256
1981-82	3534	3201	6735	43	93	135	2882	3855	6737
1982-83	3829	3288	7117	46	106	153	3042	4332	7374
1983-84	4267	3122	7388	47	99	147	3252	3291	6543
1984-85	4646	3384	8030	57	121	178	3138	3291	6429
1985-86	5200	3686	8886	59	131	191	2858	3192	6050
1986-87	5720	3454	9174	60	134	194	3040	2870	5910
1987-88	6255	3751	10006	61	119	181	3224	2725	5949
1988-89	6821	3718	10539	64	124	188	2844	2791	5635
1989-90	6777	3595	10372	70	135	205	2616	2913	5529
1990-91	6787	3573	10360	70	112	183	2642	2482	5124
1991-92	7528	4157	11685	69	122	191	2598	2500	5098
1992-93	7951	4110	12061	81	130	212	2566	2516	5082
1993-94	9107	4093	13201	84	136	220	1372	2119	3491
1994-95	8901	4131	13032	80	136	216	930	2468	3398
1995-96	9504	4297	13801	79	143	222	954	2627	3581

Source: Civil Aviation Authority

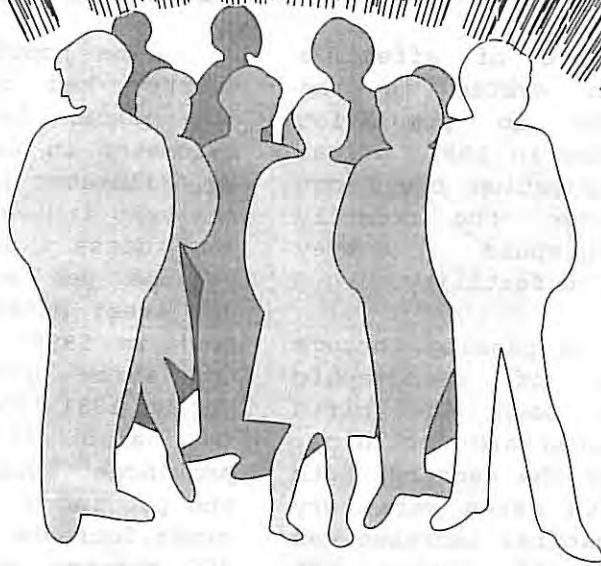
Table 10.11 PASSENGERS, CARGO AND MAIL HANDLED AT CIVIL AIRPORTS BY AIRLINES (1995-96)

Airline	Passengers (#)	Cargo (MT)	Mail (MT)
Domestic			
'PIA	6766255	78102	700.8
Aero Asia	1679664	382	256.0
Bhoja Air	443106	926	-
'Shaheen Air	393616	-	-
Sub Total:-	9282641	79410	956.8
International			
'PIA	2635629	68880	1269.3
Shaheen Air Int.	26761	-	-
Aeroflot	20541	406	1.7
Air France	-	4930	8.9
Air Lanka	18524	503	3.0
British Airways	75042	1800	74.2
Bangladesh Biman	6080	446	0.5
Air hina	17876	359	-
'Xiang Air of China	10081	1	-
'Lufthansa	104628	10428	252.2
'Ethopian Airlines	1677	260	0.3
'Gulf Air	216739	4586	68.7
Indian Airline	16869	158	0.6
'Iran Air	13656	148	27.5
'Yemenia	4775	99	0.1
'Kuwait Airways	32666	1409	42.2
'K.L.M.	54860	5953	64.8
'Malaysian Airlines	23420	1110	0.1
'Egypt Air	32324	664	11.6
'Oman Aviation	21145	50	-
'Qatar Airways	15274	142	1.5
'Royal Jordanian	14566	1467	1.7
'Singapore Airlines	80388	2996	36.0
'Saudia	499663	9688	97.2
'Swiss Air	14712	962	52.8
Syran Arab	18942	433	7.0
Thai Airways	132145	8062	255.3
Turkish Airline	25631	308	17.0
'Emirate	225411	6289	97.5
Uzbekistan Airlines	14529	560	-
Sub Total:-	4374554	133137	2391.7
Total	13657195	212547	3348.5

Source: Civil Aviation Authority

11

POPULATION



166

A: POPULATION

Population Size and Growth

Pakistan with an estimated population of 135.28 million in 1997 stands seventh amongst the ten most populous countries of the world. It ranked 10th in the year 1991, below to Japan, Bangladesh and Nigeria. Among the Asian countries it is at fourth position. Pakistan has second highest annual growth rate of 2.8 percent among these ten countries. With this annual growth rate, the population of the country would be doubled in the next 25 years. This situation is very alarming. On the average about 3.8 million people are being added annually to the country's population.

In the absence of affective civil registration system in the country and delay in population census which was due in 1991, actual growth rate of population could not be assessed. However, the recently conducted Demographic Survey indicate's decline in fertility.

The country is passing through the third stage of demographic transition, where both the birth rates and death rates are declining. At the beginning of the century, both the birth and death rates were very high and rate of natural increase was very low i.e. 0.86% during the intercensal period 1911-1921. Since 1941, the crude death rate started declining and reached to 31.2 per thousand population as compared to 48.6 per thousand population in 1921. It has further declined sharply to 11.8 per thousand population by 1981

due to improved health facilities and better nutrition, whereas, the crude birth rate (CBR) registered slow decline during this period. It declined from 49 per thousand population to 43.3 per thousand population and resulted in high population growth rate in the country. The population of the area now constitutes Pakistan, was 16.576 million in 1901 and has increased to 133.5 million in 1996. Most populous countries are given in table 11.1 where as cities of Pakistan, having population more than hundred thousand are given in table 11.4.

Population Density

The population density in the country had increased three times i.e. from, 54 persons per square kilometer in 1961 to 163 persons per Sq. Kilometer in 1995. Province wise analysis indicates that Punjab is the most densely populated province (355 persons per Sq.Km) and Balochistan has least density(19 persons per Sq. Km.) in 1995. As a result of rapid population growth in the country during 1981-1995, the density per Sq. Km. also increased in all the provinces. However, it varied among the provinces. Punjab registered 2.86 times increase (from 122.4 persons to 355 persons per Sq. Km), Sindh 3.5 times (from 59 persons to 210 persons per Sq. Km) and NWFP about 3 times (from 77 persons to 228 persons per Sq. Km.). Details may be seen in table 11.2.

Urban-Rural Population Distribution

The urban population which was 17.8 percent of the total population in 1951 has increased to 32.2 percent in 1995, thus registering a high annual growth rate of 4.52 percent. As compared to this, the rural population has increased by 2.6 percent per year during the same period. The urban population which was 5.985 million in 1951 was estimated as 41.842 million in 1995 i.e. about 7 times increase in 44 years, whereas, rural population has increased slightly over 3 times which indicates high pressure on urban areas. In 1931, there were only seven cities which had over hundred thousand population. In 1981, there were 29 such cities. The number of cities with more than hundred thousand population must be more now, which at this stage can not be assessed in the absence of population census. Rural urban distribution is given in table 11.3 whereas their literacy rates are given in table 11.10.

Sex and Age composition

The sex composition of population is an important demographic variable which directly relates to births, deaths, marriages and employment. The sex ratio is the basic indicator of sex composition. There is a declining trend in sex ratio during 1951 to 1995, which indicates better female coverage in the censuses and decline in female mortality rates. The male population was 54.1 percent in 1901, which had declined to 52.5 percent according to 1981 census. It was estimated as 51.6 percent in 1995.

Distribution of population by age is an important feature needed for all socio-economic sectors such as education, health and employment. The age structure of the population

depends on fertility, mortality and migration. A comparison of the reported age distribution according to 1981 population census and Pakistan integrated household survey, 1995-96 indicates slight decline in the proportion of 0-4 years age group. It was 15.3 percent of the total population in 1981 which declined to 14.7 percent in 1995-96.

It reveals decline in fertility rate during recent years. The share of school age population i.e. 5-14 years, which was 29.2 percent in 1981 had increased to 30.2 percent in 1995-96, whereas, the proportion of population 0-14 years which was 44.5 percent in 1981, indicates slight increase, i.e. became 44.9 percent of the population in 1995-96. The dependency ratio i.e. the ratio of population under 15 years and 65 years and above with population of working age groups 15-64 years was 89.2 percent in 1961, which increased to 95.1 percent in 1981 and 82 percent in 1995, showing declining trend as compared to 1981. The child dependency ratio was 86.9 percent in 1981. Detail may be seen in table 11.5 while dependency ratio is shown in table 11.6.

Singulate Mean Age at Marriage

The mean age at marriage indicates an increasing trend in the country for both males and females. The Singulate mean age at marriage for males was 22.3 years in 1951, which had increased to 25.5 years in 1991, showing an increase of 3.2 years. Similarly for females, it was 16.9 years in 1951 which had increased to 20.7 years, thus registered an increase of 3.8 years, slightly higher as compared to males. Table 11.7 highlights details.

Fertility

Pakistan Demographic Survey (PDS), conducted by Federal Bureau of

Statistics, indicates decline in total fertility rate (TFR) in the country. The TFR which was around 6 per women in 1991 had declined to 5.6 in 1994, whereas, the crude birth rate which was 40.6 per thousand population in 1990 had declined to 37.6 per thousand population in 1994. Table 11.8 is referred for details.

Mortality

Crude death rate (CDR) provides an overall picture of the level of mortality in the country. CDR was very high in the beginning of the century. It was highest in 1921 i.e. 48.6 deaths per thousand population. It had declined to 11.8 per thousand population in 1981. It is mainly due to better health facilities, availability of life saving drugs and improved nutrition. Besides, epidemics were also eliminated and various diseases were brought under control with the development of effective public health programmes, introduction of vaccination programmes etc.. All these measures improved the health conditions in the country, thus resulting decline in mortality rate. See table 11.9 for details.

Infant Mortality Rate

Infant mortality rate is an important indicator to judge health situation in the country. During 1951-61, Pakistan was among the

countries which had very high infant mortality rate of about 131 per thousand live births. Due to improved public health facilities and introduction of vaccination programme in the country with effective mass media campaign against diarrhoea, the infant deaths have declined from 131 to 101.4 deaths per thousand live births in 1994. Table 11.9 is referred for details.

Life Expectancy

Expectation of life at birth is an important indicator of mortality. In the absence of vital statistics, the adequate data on age specific deaths are not available. Pakistan Demographic survey, conducted by Federal Bureau of Statistics compiled such information on sample basis. Expectation of life at birth declined during the period 1911-1921. Since 1931 the life expectancy at birth improved for both male and female. Since then it has been improving and an increase of 19.2 years was estimated during the period 1941-1994. The life expectancy at birth for males was 32.1 years in 1941 which was estimated at 59.3 years in 1994, whereas, for female it was 31.4 years in 1941 and had increased to 60.7 years in 1994. Expectation of life at birth for female has improved over time and it was 1.4 years higher than males in 1994. Table 11.9 is referred for details.

Table 11.1 TEN MOST POPULOUS COUNTRIES OF THE WORLD, 1996

Country	Population (in million)	Rate of Natural increase	Doubling time in years
China	1236.7	1.0	70
India	969.7	1.9	37
USA	267.7	0.6	116
Indonesia	204.3	1.7	40
Brazil	160.3	1.4	48
Russia	147.3	0.5	-
Pakistan	135.3	2.8	25
Japan	126.1	0.2	289
Bangladesh	122.2	2.0	35
Nigeria	107.1	3.0	23

Source: World Population Data Sheet, 1997. Population Reference Bureau, Washington, D.C.

Table 11.2 AREA, POPULATION AND POPULATION DENSITY BY PROVINCE

Province/ Region	Area	1951 Pop. Million	Density Per Sq.Km	1961 Pop. Million	Density Per Sq.Km	1972 Pop. Million	Density Per Sq.Km	1981 Pop. Million	Density Per Sq.Km	1995 (P) Pop. Million	Density Per Sq.Km
Pakistan	796,095	33.779	42	42.88	54	65.309	82	84.254	106	129.809	163
Punjab a	206,250	20.651	100	25.58	124	37.845	183	47.633	231	73.160	355
Sindh	140,914	6.054	43	8.367	59	14.156	100	19.029	135	29.568	210
NWFP	74,521	5.900	58	5.731	77	8.389	113	11.061	148	16.977	228
Balochistan	347,190	1.174	3	1.353	4	2.429	7	4.332	12	6.738	19
FATA	27,220	**		1.847	68	2.491	92	2.199	81	3.366	124

Sources: Population Census Organization and Planning and Development Division.

a = Includes population of Federal Capital Territory, Islamabad.

** Population and Density are included in NWFP

Table 11.3 POPULATION DISTRIBUTION: PAKISTAN, RURAL AND URBAN AREAS

Year	Population (Million)			Percentage		
	All	Rural	Urban	All	Rural	Urban
	Areas	Areas	Areas	Areas	Areas	Areas
1901	16.576	14.96	1.619	100.0	90.2	9.8
1911	19.382	17.69	1.689	100.0	91.3	8.7
1921	21.109	19.05	2.058	100.0	90.3	9.7
1931	23.542	20.77	2.769	100.0	88.2	11.8
1941	28.282	24.27	4.015	100.0	85.8	14.2
1951	33.740	27.76	5.985	100.0	82.2	17.8
1961	42.880	33.23	9.654	100.0	77.5	22.5
1972	65.309	48.72	16.59	100.0	74.6	25.4
1981	84.254	60.41	23.84	100.0	71.7	28.3
1990 (P)	112.27	78.21	34.07	100.0	69.7	30.3
1995 (P)	129.81	87.97	41.84	100.0	67.8	32.2

(P)=Projected

Sources: Population Census Organization and Planning and Development Division.

Table 11.4 POPULATION (000) OF CITIES OF PAKISTAN WITH MORE THAN 100,000 POPULATION

CITY	CENSUS YEAR						
	1931	1941	1951	1961	1972	1981	*1991
Karachi	301	436	1,066	1,913	3,515	5,208	8445
Lahore	430	672	849	1,296	2,170	2,953	4250
Faisalabad	70	179	425	832	1,104	1104	1562
Rawalpindi	119	185	237	340	615	795	1076
Hyderabad	102	135	242	435	629	752	928
Multan	119	143	190	358	467	732	1051
Gujranwala	59	85	121	196	360	659	1076
Peshawar	122	173	151	218	273	566	1114
Sialkot	101	139	156	167	204	302	487
Sargodha	27	36	78	129	200	291	-
Quetta	60	65	84	107	158	286	589
Islamabad	-	-	-	-	77	204	-
Jhang	36	50	73	95	132	196	-
Sukkar	65	66	77	103	159	193	-
Bahawalpur	21	40	42	84	134	180	-
Kasur	47	53	63	75	101	155	-
Gujrat	27	31	47	60	100	155	-
Okara	11	8	35	68	101	153	-
Sahiwal	26	38	50	75	107	151	-
Mardan	12	42	49	78	115	148	-
Sheikhpura	10	22	30	42	81	141	-
Mirpur Khas	25	20	40	61	82	124	-
Larkana	-	28	33	48	72	124	-
Wah Cantt.	-	-	33	37	108	122	-
Rahim Yar Khan	-	6	15	44	74	119	-
Jhelum	26	-	57	53	70	106	-
Chiniot	23	34	39	47	70	106	-
D.G. Khan	7	32	36	47	72	102	-
Nswabshah	-	-	18	34	46	102	-

* Estimated

Source: Population Census Organization

Table 11.5 MALE AND FEMALE POPULATION OF PAKISTAN, PROPORTION OF MALES AND SEX RATIO

Year	Population (in thousands)			Proportion of Male	Sex Ratio
	Total	Males	Females		
1901	16576	8969	7606	54.1	117.9
1911	19382	10632	8750	54.9	121.5
1921	21109	11618	9491	55.0	122.4
1931	23542	1252	10590	5.3	11.8
1941	28282	15421	12861	54.5	119.9
1951	33740	18147	15593	53.8	116.4
1961	42880	22960	19920	53.5	115.5
1971	65309	34833	30476	53.3	114.3
1981	84254	44233	40021	52.5	110.5
1995 (P)	129809	67022	62787	51.6	106.7

- Sources: 1. Government of Pakistan: Pakistan Census Pakistan, Ministry of Interior, Karachi.
2. Government of Pakistan, Population Census of Pakistan, 1961 Vol.3 Ministry of Home and Kashmir Affairs, Home Affairs Division Karachi.
3. Government of Pakistan, Population Census of Pakistan, 1972, Population Census Organization, Statistics Division, Islamabad.
4. Government of Pakistan, 1981 Census Report of Pakistan, Population Census Organization, Statistics Division, Islamabad.
5. Pakistan Demographic Survey, FBS.
- P = Projected.

Table 11.6 DEPENDENCY RATIO AND INDEX OF AGING, PAKISTAN

Year	Population 0-14 Years	Population 15-64 Years	Population 65+Years	Total De- pendency ratio	Child de- pendency ratio	Old de- pendency ratio	Index of Aging
1961	16.738	20.842	1.862	89.2	80.3	8.9	11.1
1972	27.380	32.491	2.590	92.3	84.3	8.0	9.5
1981	37.517	43.175	3.562	95.1	86.9	8.2	9.5
1990(P)	45.620	62.723	3.931	79.0	72.7	6.3	8.6
1995(P)	53.625	71.305	4.879	82.0	75.2	6.8	9.1

(P) =Projected

Sources:i) Population Census Organization.

ii) Planning and Development Division

Table 11.7 SINGULATE MEAN AGE AT MARRIAGE BY SEX, PAKISTAN

Year	Male	Female
1951 (a)	22.3	16.9
1961 (a)	23.3	16.7
1972 (a)	25.7	19.7
1981 (a)	25.2	20.2
1984 (b)	24.9	20.4
1985 (b)	24.9	20.4
1986 (b)	25.0	20.5
1987 (b)	24.9	20.5
1988 (b)	25.7	20.2
1989 (b)	25.2	20.5
1990 (b)	25.1	20.5
1991 (b)	25.5	20.7

(a) = Census Sources:i) Population Growth Survey, Federal Bureau of Statistics

(b) = Survey ii) Pakistan Demographic Survey, Federal Bureau of Statistics

Table 11.8 CRUDE BIRTH, CRUDE DEATH AND TOTAL FERTILITY RATES

Year	Crude Birth Rate	Crude Death Rate	rate of Natural increase (%)	Total fertility Rate (per Women)
1963 (a)	42.0	16.0	2.6	6.2
1962-65(a)	42.0	15.0	2.7	6.1
1976	24.8	11.5	3.1	6.9
1977	40.6	10.7	3.0	6.6
1978	40.9	10.1	3.1	6.6
1979	41.6	9.6	3.2	6.9
1984	43.3	11.8	3.1	6.9
1985	43.3	11.5	3.2	7.0
1986	43.3	10.1	3.3	6.9
1987	43.3	10.5	3.3	6.9
1988	40.5	10.8	3.0	6.5
1989	40.9	10.1	3.1	6.4
1990	40.6	10.6	3.0	6.2
1991	39.5	9.8	3.0	6.0
1992	39.3	10.1	2.9	5.8
1994	37.6	9.9	2.8	5.6
1995	37.4	9.5	2.8	5.6

Table 11.9 INFANT MORTALITY RATES, CRUDE DEATH RATES AND LIFE EXPECTANCY AT BIRTH, 1901-94

Census Year	Crude Death Rate	Infant Mortality Rate		Life expectancy at Birth (years)	
		(per 1000 persons)		Male	Female
1901	44.4	-	-	23.0	24.0
1911	42.6	-	-	22.6	23.3
1921	48.6	-	-	19.4	20.9
1931	36.3	-	-	26.9	26.6
1941	31.2	-	-	32.1	31.4
1961	-	-	-	33.8	-
1972-73	-	131.0	-	38.7	-
1981	11.8	-	-	-	-
1991	-	107.7	-	59.3	60.7
1992	-	108.0	-	59.3	60.7
1993	10.1	100.8	-	59.3	60.7
1994	9.9	101.4	-	59.3	60.7

Source:

- Sources: 1) Kingsley Davis, the Population of India and Pakistan Princeton, New Jersey, Princeton University Press 1951 pages 36, 39, for the Years 1901-41, Planning Commission, Pakistan Demographic Survey.
- 2) Pakistan Demographic Survey, Federal Bureau of Statistics.
- Crude Birth Rate and Crude Death Rate
 - Infant Mortality Rates Life Expectancy at birth

Table 11.10 LITERACY RATES (10 YEARS & OVER) IN PAKISTAN AND PROVINCES BY SEX AND URBAN-RURAL AREA

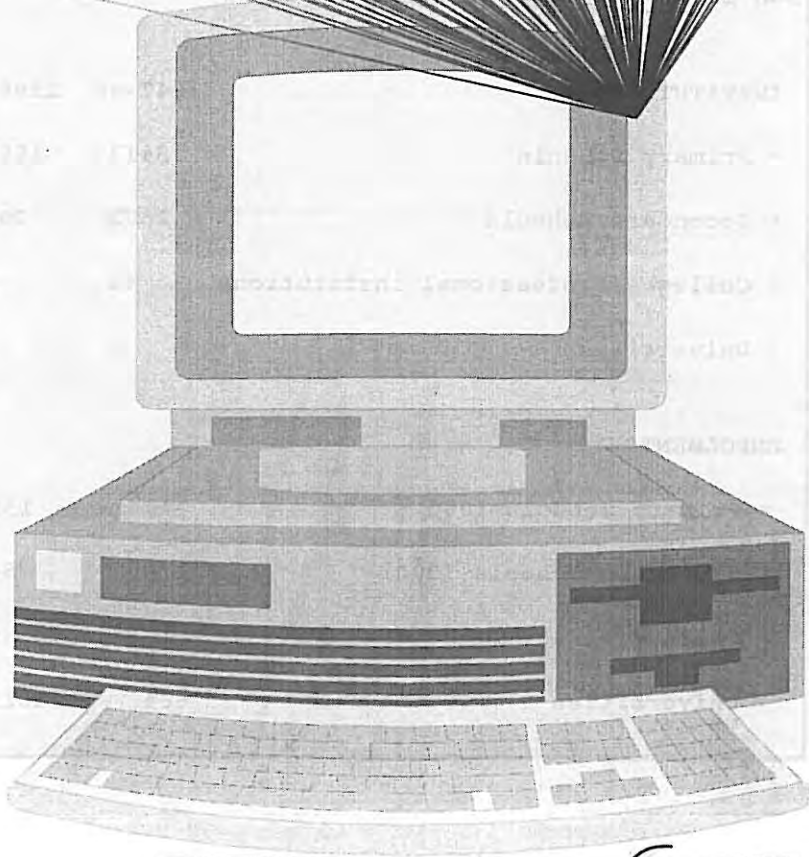
Year/Area	Total			Urban			Rural		
	Both Sex	Male	Female	Both Sex	Male	Female	Both Sex	Male	Female
PAKISTAN									
1961	16.7	25.1	6.7	34.8	44.9	21.3	10.6	18	2.2
1972	21.7	30.2	11.6	41.5	49.9	30.9	14.3	22.6	4.7
1981	26.2	35	16	47.1	55.3	37.3	17.3	26.2	7.3
1995-96*	39	52	26	57	66	49	31	45	16
PUNJAB									
1961	16.1	29.1	6.2	34.6	45.5	20.4	10.9	18.3	2.5
1972	20.7	36.8	10.7	38.9	47.8	28	14.7	22.9	5.2
1981	27.4	52	16.8	46.7	55.2	36.7	20	29.9	9.4
1995-96*	40	52	28	58	65	50	33	46	20
SINDH									
1961	21	29	10.6	36.1	44.3	25	11.5	19	2.2
1972	30.2	39.1	19.2	47.4	54.54	38.4	17.6	27.5	5.8
1981	31.4	39.7	21.6	50.8	57.8	42.2	15.6	24.5	5.2
1995-96*	45	57	31	60	68	53	29	47	10
NWFP									
1961	13.8	23.2	3.4	30.9	43.4	13.3	9.7	17.6	1.4
1972	14.5	23.1	4.7	33.7	44.7	19.9	11	19	2.2
1981	16.7	25.8	6.5	35.8	47	21.9	13.2	21.7	3.8
1995-96*	28	43	14	45	58	31	25	40	11
BALUCHI-STAN									
1961	9.8	15.2	2.9	34.8	46.1	16.2	4	7	0.3
1872	10.1	14.8	4.2	32.2	42.4	19.2	5.6	9.2	1.3
1981	10.3	15.2	4.3	32.2	42.4	18.5	6.2	9.8	1.7
1995-96*	30	47	11	41	58	23	28	45	8

*PIHS.

Source: 1. Population Census Organization.
2. Federal Bureau of Statistics.

12

EDUCATION



174

EDUCATION

Soon after the dawn of independence in August, 1947, those at the helm of affairs seriously addressed themselves to the task of appraising the existing Education System, that was inherited as an imperial legacy, and rebuild it as the exigencies of reconstruction entailing ideological consideration, literacy requirement and preparation of scientific and technical manpower.

Ever since the creation of Pakistan in 1947, successive governments expressed their deep concern to reform the education system, but all their efforts have been nullified due to accelerated population growth rate and lack of adequate financial resources. The statistical profile of education sector since 1947-48 to 1996-97 is given below in Box 12.1.

BOX 12.1 Profile of Education Sector

INSTITUTIONS	1947-48	1996-97
* Primary Schools	8413	155530
* Secondary Schools	2598	25000
* Colleges/Professional institutions	40	959
* Universities	2	37
ENROLMENT		
* Primary Schools (000)	770	15600
* Secondary Schools (000)	279	5400
* Colleges (000)	14	981
* Universities	664	101348

The participation rate at Primary level is near about 74.8%, at secondary level 30% and literacy rate 38.9%. At University level participation rate is less than 2%. It may be pointed out that half the number of children who are enrolled do not complete their primary schooling. The main reason for drop-out is poor quality of instructions, harsh attitude of teachers, lack of physical facilities and in-efficient managerial system. In order to remedy the situation, the Government had taken a number of steps to improve the system like launching of social Action Programme I & II (with donor assistance), emphasis on girls education, specially rural and backward areas etc. Besides a number of foreign aided projects have also been started.

Primary Education have enjoyed a high priority in policy documents since the inception of Pakistan. Ambitious targets of 1947 such as free and compulsory primary education within ten years and universalization of primary education was envisaged within two decades i.e., up to 1967. As time progressed, it became increasingly clear that these targets were unrealistic. According to official figures the 1970 enrolment rate was only 47.4 percent of the 5-9 age group and in the same year a new policy was formulated which aimed to achieve universal education by 1980. Only two years later, however, a new government revised the targets. In this policy document the stated objective was to achieve universal male enrolment by 1979. For only four years later the male and female targets were reset at 1983 and 1987 respectively. Subsequently 1979 policy advanced the dates still further to 1991 and 1993 respectively. Current National Education Policy (1992-2002) envisages that Primary Education shall be made compulsory and free so

as to achieve universal enrolment by the end of the decade.

The Sixth Five Year Plan (1983-88), mentioned "All boys of the relevant age group will be put into class-I in the middle years of the plan and all the girls by the terminal year (1987-88). No student who is in school will be allowed to drop out before class-V". In the Seventh Plan it has been intended that "By 1992-93 almost every child of age 5 years and above will have access to primary or Mosque School". Eighth Five Year Plan set the targets of Universalizing access to primary education for all boys and girls of 5-9 year of age; Enactment and enforcement of legislation for compulsory primary schooling; Removing gender and rural-urban imbalances; Qualitative improvements; and Broadening of the resource base for financing of education.

At present 5-9 years age group population is estimated to be 20.3 Million which may increase to 22 million by the end of this century by projecting the population growth rate at the average of 2.7% Per annum. Under SAP 6.4 Million additional seats were originally to be created by 1998 but by 1996-97 only half of targeted number of schools could be opened which is quite in conformity with the present enrolment picture of 63.1% as against 81.6% enrolment targeted for girls by 1997-98 and 85.5% for boys against 95.5%. The total number of schools opened under SAP including Mosque Schools is 20367. It is, however, expected that by the end of this century capacity for gross enrollment will be enhanced to 20 million.

Science/Technical Education

Science Education/Technical Education is imperative to improve the technical skill of the

individuals and progress of the country. The Government is making all out efforts to increase science and technical education. In this regard the 1st phase of "Science Education Project (SEP) for Secondary schools" has been completed with the assistance of Asian Development Bank (ADB) and feasibility for launching phase-II of the project has been undertaken in collaboration with ADB. The proposed SEP-II has been undertaken in collaboration with ADB. The proposed SEP-II envisages upgradation of physical facilities in about 2000 schools, development of research based mathematics curriculum and Human Resources Development Programmes in Science and Mathematics Education.

Computer Education in Schools

The world is entering into the era of information technology for which knowledge of computer is imperative. Realising the importance of Computer education, a project for introducing computer education in 50 schools has been launched in collaboration with Ministry of Science and Technology. Under this project 16 schools were provided necessary hardware and software and 32 teachers were provided training. These 16 schools have successfully introduced the computer studies as an optional subject against Biology for the students of Classes IX and X. Another 60 teachers of 39 schools have also been provided training.

Technical Education Project

Technical Education Project has been launched in collaboration with the Asian Development Bank at a capital cost of US \$ 78 million w.e.f. March, 1996 for a period of 6 years. The project envisages measures for updating equipment and furniture in 43 polytechnic and 4 technical

teachers training wings. The project also envisages construction of Government Polytechnic Institute for Women Quetta and Technical Teacher Training Centre at Sukkur, establishment of Research and Development units in the Technical Education Wings of Provincial Education Departments. It will introduce 23 new technologies in the existing polytechnic, repair and renovate existing workshops and labs and construction of some new workshops/labs where necessary.

Vocational Education and Training Programme

Vocational Education and Training Programme has been launched by the Ministry of Education for the vocationalization of school education. Under this project 70 Model Vocational schools will be established and vocational stream of education in Class IX and X in 100 selected High school will be introduced. Moreover, an innovative project of production of technical text books for polytechnics to meet the shortage of appropriately structured Teaching Learning Resources (TLR) has been launched. Sixty nine manuals have been produced so far under this scheme and are being used by the polytechnics. Polytechnic Institute for Boys, Islamabad is being established which would impart education in four technologies, i.e., Electronics, Computer, Telecommunication and Civil.

Higher Education in Public and Private Sector

Universities have been recognized the world over as a centre of higher learnings, knowledge and research. University education in Pakistan has expanded considerably in the last few decades. The number of universities in the Public sector has

increased from 2 in 1948 to 25 in 1996. Demand for higher education is escalating rapidly in view of its

high rate of returns and expanding size of middle class. The names of the Public Universities are given below in Box 12.2.

Box 12.2 CHARTERED UNIVERSITIES OF PAKISTAN (In Public Sector)

1. Allama Iqbal Open University, Islamabad
2. International Islamic University, Islamabad
3. Quaid-e-Azam University, Islamabad
4. University of AJ & K, Muzaffarabad
5. University of Balochistan, Quetta
6. University of Karachi, Karachi
7. University of Sindh, Jamshoro
8. Shah Abdul Latif University, Khair Pur, Sindh
9. University of Peshawar, Peshawar
10. Gomal University, D.I. Khan
11. University of the Punjab, Lahore
12. Bahauddin Zakariya University, Multan
13. Islamia University, Bahawal Pur
14. Balochistan University of Engineering. & Technology, Quetta.
15. Mehran University of Engineering & Technology, Jamshoro, Sindh
16. NED University of Engineering & Technology, Karachi
17. Quaid-e-Azam University of Engineering, Science & Technology ,Nawabshah
18. University of Engineering & Technology, Peshawar
19. University of Engineering & Technology, Lahore
20. National University of Science & Technology, Rawalpindi
21. University of Engineering & Technology Texla
22. Sindh Agriculture University, Tandojam
23. Univeristy of Agriculture, Peshawar
24. University of Agriculture, Faisalabad
25. University of Arid Agriculture, Rawalpindi

Modern University education, especially in science and technology is highly cost intensive. Since the scarcity of public finance, apart from consolidation of existing universities does not allow a further desired expansion of university education, a concerted effort is being made to attract private sector to come forward. The Government has adopted a liberal policy of encouraging the private sector to establish high quality institutions. So far 10 universities have been given charter by the government. Detail is given in Boxes 12.3 and 12.4.

Box 12.3 CHARTERED UNIVERSITIES OF PAKISTAN(In Private Sector)

1. The Aga Khan University, Karachi (established in 1983)
2. Lahore University of Management Sciences (1985)
3. Hamdard University, Karachi (1991)
4. Al-Khair University, AJK(1994)
5. Sir Syed Univeristy of Engineering and Technology, Karachi (1995)

6. Zia-ud-din Medical University, Karachi (1995)
7. Baqai Medical University, Karachi (1996).
8. Isra University, Hyderabad

Box 12.4 DEGREE AWARDING AND OTHER INSTITUTIONS

1. Government College, Lahore*
2. National College of Arst, Lahore*
3. Institute of Business Administration, Karachi*
4. Indus Valley School of Ars & Architecture, Karachi(1994)*
5. GIK Institute of Engineering Sciences & Technology, Topi(1992)
6. Shaheed Z.A.B. Institute of Science & Technology, Karachi(1995)
7. Lahore School of Economics
8. Institute of Business Management, PAF Base, Karachi

* Degree awarding institutions in public sector

The Government of Pakistan wishes to encourage philanthropists, business community, national NGOs and international agencies to come forward and establish institution of high quality particularly for the disciplines of science and technology subject to legislative requirements and monitoring by the UGC, Federal and/or Provincial Governments of Pakistan.

University Grants Commission (UGC) has accordingly developed guidelines for establishment of a private university/institutions of higher education in Pakistan. In order to exercise effective control over institutions established in the private sector and to implement liberal policy of granting degrees awarding to major institutions of higher education, a National Council of Academic Award and Accreditation (NCAA) has been approved by the Ministry of Education.

The higher education in Pakistan is highly subsidized. Although liberal grants are being provided by the Federal Government for the promotion and development of higher education in the country, yet these grants do not match with the growing requirements of these

institutions. In order to generate more funds and to create endowment for these institutions, the government has decided that 25% of the seats in higher educational institutions should be filled on self finance basis. In pursuance of the schemes, 22 universities out of 25 public sector universities have introduced the scheme. Universities in Azad Jammu and Kashmir and Balochistan have been exempted from operation of the scheme. 25% of the seats in National College of Arts Lahore have also been offered for admission of students on self finance basis at the rate of Rs.200,000/- per student. Dawood College of Engineering and Technology, Karachi has, however, allocated 100 seats in addition to its existing allocation of 389 seats to be filled on self finance basis at the rate of Rs.200,000 per student. A total of Rs. 170 million have been raised by the universities under self-funding scheme.

Women Education

As a signatory to the world declaration on Education for all and the Framework for Action to meet Basic Learning Needs, emerging out of

the World Conference on Education for all (1990) and the Dehli Declaration (1993), the government of Pakistan is committed to recognize education as a fundamental human right of every individual. Pakistan has made a commitment to universal primary education for all boys and girls of 5-9 year of age and to remove gender disparities.

The thrust of the Social Action Programme is to reduce gender imbalances in education through emphasis on primary and basic education of women in general and rural girls and women in particular. The importance of education for women has been accepted world wide. It improves their earning ability and contributes to their better health and well-being. The National Education Policy of 1992 envisages the strategy for women participation. Special incentive oriented programmes have been created to enrol and retain the girls in schools. In pursuance of policy provision, the Ministry of Education has taken a number of initiatives and formulated programmes to improve women education which inter-alia include Girls Primary Education (ADB assisted project), Punjab Middle Schooling Project (World Bank), NWFP Primary Education Project (World Bank), Sindh Primary Education and Development Project (World Bank), Balochistan Primary Education Project (World Bank), Charsadda Girls Education Project (FRG grant), Women Matriculation Programme (Allama Iqbal Open University), Integrated Functional Literacy Programme (AIOU), Women Middle level programme (AIOU), Women Polytechnic Institute, Islamabad (Ministry of Education), Computer Literacy Programme and Secretariat Training Skills/Vocational Programmes.

To enhance the girls participation in middle schools especially in the rural areas, the

Provincial Implementation Units have launched a systematic information campaign for the enrolment of females at middle schools and support a stipend programme to urban girls. Sindh implementation unit has awarded stipends to 842 students. In NWFP, 2761 students have been awarded the stipend. Similarly, Balochistan Implementation Unit awarded 2080 scholarships to girls in 1996. The project, Rural Female Teachers Stipend Programme, envisages rural female teacher stipend programme so as to produce more female teachers for middle schools. Sindh Implementation Unit has so far awarded 96 stipend for teachers by June, 1996. It is expected that by the year 2000 A.D. female participation at primary level will increase from 57% to 93.5%.

The Academy of Education Planning and Management also conducts training courses and ensures the maximum females participation for these courses. In this context, out of total 55 participants of 3 training programmes organized by the Academy in 1996, 17 were women. Furthermore, in 1996 five data collection workshop were arranged in which 241 participants were trained, 17 of these participants were women.

In order to introduce far reaching reforms in the entire educational system "Education Policy 1992" has also been launched phasing it over a period of ten years (1992-2002). Under policy programmes, 106,937 new primary schools, 19,483 Secondary Schools, 1315 Higher Secondary Schools, 436 degree Colleges, 20 new Universities, 99 Polytechnics, 8 College of Technologies and 233 vocational institutions are being added in the existing stock by the year 2002. Some innovative programmes like National Testing Services, Community participation in educational process,

privatization of Education have also been started.

As far as the financing is concerned, the annual budgets for education have also been enhanced over the past years. In terms of GNP, the allocations have registered an increase from 2.1 percent to 2.59 percent. The Government has also introduced a bill which will ensure, that minimum 3% of GNP will be spent on education by the year 2002. The Eight Five Year Plan has an allocation of Rs. 69.0 billions for education during 1993-98 which is three time higher than the provision of Rs. 23.0 billion during the Seventh Plan period (1988-93).

PRIME MINISTER'S LITERACY COMMISSION

Educational statistics in Pakistan are grim. The optimistic estimated literacy rate of 37% disguises an overall female literacy rate of 21%, this dropping to below 2% in some rural areas such as in Balochistan. By the year 2000, well over 100 millions people in Pakistan will be illiterate. The low level of access to primary education has become a serious threat to the pace and sustainability of the country's development.

Subsequent to an international commitment made by Pakistan to double the literacy rate and universalize primary education the United Nations Inter Agency Mission on Basic Education visited Pakistan from 22 April - 4 May 1995 that recommended, to combat illiteracy and provide Basic Education for All, to offer a "Second Chance" of Primary Education through Non-Formal programmes to the large number of illiterates and semi-literate adolescents and youth.

The Non-Formal basic education concept is based on the home schools

idea. No formal building is provided.

Instead, the community, where there is a demand for such a facility, provides free of charge, one room. A teacher who belongs to the community where the school is set up is engaged. This ensures a cordial relationship between the teacher, taught and their parents. Teacher absenteeism, as in formal schools, is substantially eliminated. Learning timings are not rigid and are set by the community to suit themselves. This allows the children, who often have other chores to take care of in the household, to be able to attend these schools without interfering in those duties. Winter and summer holidays are not pre-scheduled as in the formal system. All vacation are worked out accordingly to cropping patterns or local festivals such as "Urs" or "Melas". For drop-outs of a more mature age than new entrants the curricula is condensed as assimilation and retention abilities of older children are greater.

Decentralisation is a key aspect in the Non-Formal system and grass root i.e. community, as opposed to centralised dictation, is emphasised. Day to day operational decisions are left to those communities whom the education programme is to benefit. NGOs, Community Based Organisation (CBOs) and Village Education Committees (VECs) are encouraged to organise themselves and take on the responsibility of Non-Formal Basic Education. A Non-Formal school costs only Rs.10,000 to set up. A Formal Primary school costs approximately Rs. 1 million. The Non-Formal approach is easier to implement and more cost-effective. A primary schools graduate in the formal system costs approximately Rs. 6000 whereas in the Non-Formal stream the expenses per child is worked out to only Rs. 1444. The Prime Minister's Literacy Commission has been entrusted with the task to sponsor and monitor this

new thrust of Non-Formal Basic Education.

A project "Establishment of 10,000 Non-Formal Basic Education Schools" was approved by ECNEC in December 1995 at a total cost of Rs. 1263.3751 million. Immediately PMLC geared up to start the establishment of Non-Formal Basic Education (NFBE) Schools. However, at the instruction of Social Sector's Coordination Committee of the Cabinet, PMLC established a total number of 1052 schools, nation-wide by 30 June, 1996.

Provincial Non-Formal Basic Education Directorates were established. Identification of locations and teachers continued and training sessions were organized throughout the country to enable rapid establishment of demand based NFBE Schools. As a result up to 30th June, 1997, a total number of 7117 schools have been activated nation-wide.

Teaching Aids and learning materials supplied to date have been 5156 sets. Donation of textbooks (valued at approx. Rs.5 million) for 3300 schools in Punjab and 300 schools in Balochistan was obtained from UNICEF. The programme has been extremely well received by the beneficiary communities, a demand exists for the establishment of several thousand additional such facilities. However, arbitrary cuts in allocation of funds has placed the project's continuity in serious jeopardy. A forced closure of schools, or of the entire programme, due to lack of money would not only have an adverse affect on the progress being made in increasing the literacy rate and providing access to primary education, but would also create a credibility gap between the government and beneficiary communities. Details are given in Box 12.5 below.

Province/Area	School opened in		Total
	1995-96	1996-97	
Punjab	377	2470	2847
Sindh	241	2216	2457
NWFP	117	913	1030
Balochistan	55	315	370
AJK	20	2	22
FATA	13	8	21
FANA	60	62	122
Islamabad	169	79	248
TOTAL	1052	6065	7117

HIGHER EDUCATION AND LEARNED BODIES (HE&LB) WING

This Wing serves as coordinating unit, providing inter and intra-sectoral coordination of higher education and research in Pakistan and abroad, liaison between

Ministry and Provincial Governments, academic cum administrative and legal issues of universities, Centres of Excellence, Areas and Pakistan Study Centres, Centre of Advanced Study, National Institutions and learned bodies. The matters, interalia,

include, legislative works, framing a uniform policy on legal and administrative issues, processing budgetary and extra budgetary requirements release of grants to universities, centres, institutes and nationalized institutions, audit and accounts of universities, and other institutions, expenditure, processing examination, scrutiny, monitoring and evaluation of development projects. It also provides a forum for promotional efforts in education and research for universities, centres, institutes. This Wing also coordinates efforts of university Grants Commission in research and development, affairs of University teachers for scholarships and training, opening of new universities etc.

Higher Education and Learned Bodies Wing (HE & LB) of Ministry of Education is responsible for:-

- Promotion of Higher Education and Research in Pakistan.
- Strengthening and streamlining the functions of national institutions for the sake of national harmony and integration.
- Recognition and encouragement of Scholars, Thinkers and Men of Letters.
- Recognition of publishing and printing of textbooks, as industry.
- Copyright Laws and amendments in conformity with issues of intellectual property rights, inventions, designs, Trade marks etc.
- Libraries and similar institutions controlled and financed by Federal Government.

NATIONAL INSTITUTIONS SECTOR

National Institutions (NI) Sector deals with 9 Centres of Excellence, 6 Area Study Centres, 6 Pakistan Study Centres located in various universities of Pakistan having been established through Act of Parliament. Besides, it deals with 3 National Institutions located at Karachi namely; (Urdu Science College, Urdu Arts College and Dawood College of Engineering and Technology), 2 interior of Sindh (Federal College of Arts and Design and ZAB Agriculture College, Dokri), 1 each at Lahore and Islamabad i.e. (National College of Arts, Lahore and National Institute of Modern Languages Islamabad), 3 Sheikh Zayed Islamic Centres (Karachi, Lahore and Peshawar). These Centres are responsible for:

- Promoting functions of research and development.
- Promoting harmony and integration by forging national unity and cohesion.

This Sector controls two Attached Departments and three Autonomous bodies.

1. **Department of Libraries:** An Attached Department comprises of the National Library of Pakistan, Central Secretariat Library, Model Children Library and Regional Office at Karachi. It mainly deals with the problems of the libraries, formulation of policies, such as standardization of pay scales, library service rules etc. The National Library of Pakistan is a depositary under Copyright Law for all published material in the country.

2. **Central Copyright Office:** It is another Attached Department

responsible for maintaining the following Copyright Registers:-

- Literary, Dramatic and Musical work;
- Artistic Work;
- Cinematographic work;
- Records;

This office is located at Karachi with Sub-Office at Lahore. The Registration of the above items is made under Copyright Act. There exists a Copyright Board which listens to the appeals against the decision of the Registrar Copyright Office.

3. **National Book Foundation:** It is an Autonomous Body created through an Act mainly responsible for reprinting of foreign textbooks and publishing other general reading material so as to make it available to the readers at moderate prices.

4. **Pakistan Academy of Letters:** It works for the welfare of Writers, Poets and other Men of Letters like the disbursement as stipend or other adhoc relief to the Men of Letters with indigent means or bereaved families of deceased Writers/Poets and to other literary organization of the country.

5. **Urdu Science Board:** It is mainly responsible for translating various scientific and technical terms/materials into Urdu. It has published about 400 books so far.

UNIVERSITY GRANTS COMMISSION

The breaking away of East Pakistan showed that universities controlled and funded by the Provinces became centres of Parochialism and anti Pakistan feelings. As a result of this, 1973 Constitution brought a number of educational subjects on concurrent

list. In 1974 the University Grants Commission was set up under an Act of Parliament. In 1976 another Act was passed by the Parliament to give federal control on curricula, syllabi and text books. The University Grants Commission is responsible for regulating these activities in the sector of higher education.

- a) Besides disbursement of grants to the universities the University Grants Commission assesses, coordinates and plans for university requirements.
- b) Interaction between universities to promote national cohesion.
- c) Only forum at the national level where university teachers are brought together for in-service training.
- d) Only institution in the country where university syllabus is periodically reviewed, revised and enforced on the universities.
- e) Only institution at the national level which brings students of different universities all over the country together in inter-universities activities like sports, debates, visits etc.
- f) Only institution at the federal level which can assess, control and regulate private universities.

FUNCTIONS OF NATIONAL EDUCATION FOUNDATION

- To promote public private partnership of basic education development.
- Funding to NGOs/CBOs and Private School Operators

- To encourage innovative programme in ICT, FATA, FANA & AJK
- To provide technical assistance to Provincial Education Foundations.
- To encourage development of voluntary organizations for the development of basic education in the country.
- To launch various schemes or projects and initiate activities for the welfare and development of the beneficiaries.

NATIONAL EDUCATION TESTING SERVICE

In Education Policy 1992, Educational Testing Service was conceived for entry examinations in Professional Colleges and Faculties of Universities. This has been assessed due to certain malpractice, that have crept into the examination system particular at higher secondary level. As such the Ministry of Education developed National Education Testing Service (NETS). The objective is to maintain uniformity of scores of various examination boards through scientifically validated tests and raise the standard of education. The initial task on NETS started in 1993 which is located in IBA, Karachi.

NETS has developed test items in the subjects of physics, chemistry, math, biology and english at Higher Secondary level. The number of such items is 4500. These have been prepared by experts and are based on curriculum being taught at present and encompass the knowledge (memory), comprehension and application of the subjects. These tests have been tried out at post F.Sc level in Karachi and Islamabad. The validity is of the order of 90-95%. The bill is being submitted for

consideration/approval of the parliament.

INTRODUCTION OF QURAN-E-PAK NAZIRA IN SCHOOLS

The Prime Minister Directed that Quran-e-pak Nazira with its translation be introduced compulsory for Muslim Students from class VI to X from the next academic session. The programme should be so scheduled that the study of Quran-e-Pak is completed by the time students leave school on passing of Class X. Ministry of Education has already taken some steps in teaching of Al-Quran.

Nazira Quran is already under implementation and is an integral part of Islamiyat from classes I-VIII and 40% marks are allocated to it. New series of textbooks in Islamiyat from Classes IV-VIII and Arabic from Class VI-VIII have been developed with a new approach drawing vocabulary from Al-Quran and Themes from Islamic Studies.

A meeting in pursuance of the Directive, was held in the Ministry of Education on 4-5th March, 1997 and consequently the recommendations made therein were circulated to education Departments for implementation. In a subsequent meeting of all Provincial Education Secretaries, held in the Ministry of Education on 31st March, 1997, all practicable aspects of recommendations as well as their implementation were discussed. In a workshop in the International Islamic University, Islamabad on 1st May, 1997 chaired by the Education Secretary, the matter was discussed in detail. All the Provincial Education Secretaries, Scholars and Ulama from all schools of thought attended the workshop.

DEENI MADARIS

Deeni Madaris of Pakistan are independent. They prescribe their own

curriculum. They have organized themselves into 5 Wafaqs/ Tanseem / Raibitul Madaris. According to the information collected by Ministry of Education, there are about 6000 Madaris in the country. Ministry of Education has taken the following steps to bridge the existing gulf between formal education system and Deeni Madaris.

- Trained 431 teachers of deeni madaris in formal school subjects.
- Determined equivalence of Asnad of Deeni Madaris at M.A. level.
- Prepared draft act for establishment of Deeni Madaris Board.

Introduced modern subjects in 150 Deeni Madaris (English, Economics, Mathematics, General Science, Pak. Studies & urdu).

Boxes 12.6, 12.7, and 12.8 throw light from different angles.

BOX 12.6 BASIC EDUCATION DEVELOPMENT INDICATORS			
Indicator/Parameter			1996-97
Gross Enrolment (000)	i.	Primary (I-V)	15553
	ii.	Middle (VI-VIII)	3756
No. of Schools (000)	i.	Primary	150.96
	ii.	Middle	14.59
No. of Teacher (000)	i.	Primary Level	339.50
	ii.	Middle Level	95.80
Student Teacher Ratio	i.	Primary	46:1
	ii.	Middle	39:1
Dropout Rate (Primary)			45%
Participation Rate	i.	Primary Level (I-V)	74.8%
	ii.	Middle Level (VI-VIII)	31.6%
Literacy Rate			38.9%

Source: i. Pakistan Education Statistics, 1992-93 CBE M/O Education.
 ii. Economic Survey 1990-91, 1993-94, 1994-95, 1996-97
 iii. Planning wing Ministry of Education

BOX 12.7 PROFILE OF HIGHER EDUCATION IN PAKISTAN			
Public expenditure on education (as % of GNP)			2.7%
No. of Universities:	Public	(1947)	2
		(1997)	25
	Private	(1997)	12
No. of Colleges:	Arts & Science	(1997)	798
	Professional	(")	161

Tertiary Enrolment Ratio (age group 17-23) (1996)	3%
Enrolment in Colleges for 1996-97: Total	990,969
Professional	160,969
Arts & Science	830,000
Enrolment in Public Universities (1996-97): Total	101,348
a) General Universities (excluding AIOU)	72,727
b) Agriculture Universities	9,823
c) Engineering Universities	18,798
Average Expenditure in P.U. (1995-96) per student per year	
a) General Universities	Rs. 29,000
b) Agriculture Universities	Rs. 46,000
c) Engineering Universities	Rs. 37,000
Total Teaching Staff for year 1996-97	
a) Professional Colleges	6173
b) Arts & Science Colleges	20907
c) Universities	6033
Teacher/Student Ratios in Universities (1996-97)	
a) General Univers.	1:18 (Variation is 1:7 - 1:26)
b) Engineering Univers.	1:19 (Variation is 1:11- 1:35)
c) Agriculture Univers.	1:11 (Variation is 1:7 - 1:16)
R & D Scientist (per 1000)	0.1

BOX 12.8 PLAN-WISE (1ST 8TH PLAN) PRIMARY EDUCATION DEVELOPMENT IN PAKISTAN									
Factor	1st 1955-60	2nd 1960-65	3rd 1965-70	N.P. 1970-78	5th 1978-83	6th 1983-88	7th 1988-93	8th 1993-98	
i. NS (opened)	2,442	14,688	8,701	12,674	9,102	26,684	21,000	20,367	
ii. AE (mill.)	.28	1.15	.86	1.1	1.16	1.52	3.1	2.83	
iii. P. Rates	36%	45%	46%	54%	48%	52%	68.9%	74.8%	
POSITION BY THE END OF PLAN YEAR									
	1959-60	1964-65	1969-70	1977-78	1982-83	1987-88	1992-93	1996-97	
i. School	17,901	32,589	41,290	53,964	63,066	89,750	130,596	150,963	
ii. E (000)	1,890	3,050	3,910	5,015	6,179	7,900	12,414	15,553	
Note: NS = New Schools, AE = Additional Enrollment, P = Participation									

Table 12.1 NUMBER OF INSTITUTIONS, ENROLEMENT AND NUMBER OF TEACHERS
BY SEX AND LEVEL

Years	Number of Institutions			Enrollment (000.No.)			Number of Teachers (000 Nos)			Student per Teacher		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
PRIMARY SCHOOLS												
1947-48	18413	6864	1549	770	660	110	17.8	15.4	2.4	43	43	46
1954-55	14162	11688	474	1550	1310	240	35.5	29.7	5.8	44	44	41
1964-65	32589	24658	8021	3050	2350	700	75.9	59.2	16.7	40	40	42
1974-75	51744	36071	15673	4971	541	1430	125.5	83.1	42.4	40	43	34
1984-85	73812	52261	21551	6828	4576	2252	179	121.8	57.2	38	38	39
1994-95P	134050	94063	39987	14264	8626	5626	322	212.4	109.6	44	41	51
1996-97E	150693	104002	46691	15553	9241	6312	339.5	226.9	112.6	46	41	56
MIDDLE SCHOOLS												
1947-48	2190	2037	153	221	200	21	12	11.2	0.08	18	18	26
1954-55	1517	1321	196	332	287	45	10.7	9.2	1.5	31	31	30
1964-65	2701	2112	589	624	496	128	22.1	17.4	4.7	28	29	27
1974-75	4713	3447	1266	1196	917	279	43.5	30.7	12.8	27	30	22
1984-85	6132	4315	1817	1805	1359	446	57.4	40.4	17	31	34	26
1994-95P	12571	7009	5562	3816	2469	1347	86.4	48	38.4	44	51	35
1996-97E	14595	8170	6425	3756	2364	1392	95.8	57.1	38.7	39	41	36
HIGH SECONDARY VOCATIONAL INSTITUTIONS												
1947-48	454	372	82	59	51	8	....	....	....	....	....	....
1954-55	837	649	188	120	102	18	....	....	....	....	....	....
1964-65	1989	1564	425	243	191	52	29.2	22.5	6.7	8	8	8
1974-75	3199	2981	218	504	390	114	53.6	37.7	15.9	9	10	7
1984-85	4920	3486	1434	702	542	160	104.1	78.7	25.4	7	7	6
1994-95P	10113	6703	3410	1622	1082	540	185.6	117.2	68.4	9	9	8
1996-97E	10481	6745	3736	1641	1077	564	168.1	115.9	52.3	10	9	11
ARTS AND SCIENCE COLLEGES												
1947-48	40	35	5	14	13	1	....	....	....	....	....	....
1954-55	77	58	19	43	37	6	....	....	....	....	....	....
1964-65	225	163	62	127	103	24	5.4	4	1.4	23	26	17
1974-75	361	265	96	208	105	58	9.6	7	2.6	22	21	22
1984-85	467	314	153	373	256	117	14	9.6	4.3	27	27	27
1994-95P	688	437	251	723	458	265	20.8	12.8	8	35	36	33
1996-97E	798	502	296	830	513	317	20.9	12.5	8.4	40	41	38
PROFESSIONAL COLLEGES (FIGURES IN NUMBERS)												
1947-48	....	....	....	4368	4041	327	....	....	....	....	....	....
1954-55	24	23	1	8082	7249	833	....	....	....	....	....	....
1964-65	45	40	5	17372	14382	2990	1239	1064	175	14	14	17
1974-75	83	75	8	44734	36648	8086	2624	2146	478	17	17	17
1984-85	100	92	8	59169	49427	9742	3884	3255	629	15	15	15
1994-95P	153	144	9	131911	108342	23569	5969	4864	1087	22	22	22
1996-97E	161	152	9	150969	126840	24129	6173	5066	1107	24	25	22
UNIVERSITIES (FIGURES IN NUMBERS)												
1947-48	2	-	-	644	588	56	....	....	....	....	....	....
1954-55	4	-	-	1998	1949	49	....	....	....	....	....	....
1964-65	6	-	-	13221	10491	2730	1265	1193	72	10	9	38
1974-75	10	-	-	21396	16896	4500	2455	2125	330	9	8	14
1984-85	21	-	-	54031	45624	8407	3589	3080	509	15	15	17
1994-95P	24	-	-	70263	53635	16628	6396	5550	846	11	10	20
1996-97E	25	-	-	719819	53863	17953	6998	6046	952	10	9	19

Note: Not available - Nil

Source:- Central Bureau of Education & Federal Bureau of Statistics

* Professional Colleges includes Agriculture, engineering, Medical, Commerce, Law, Home Economics, Educational Research, Physical Education, Tibb, Homeopath and Fina Arts Institutions

Table 12.2 PRIMARY SCHOOL AGE POPULATION (5-9 YEARS) AND PRIMARY SCHOOL ENROLEMENT

Year	(Thousands)								
	Population 5-9 Years of age			Number of Student Enrolled			Population 5-9 Years not Enrolled		
	Both Sex	Male	Female	Both Sex	Male	Female	Both Sex	Male	Female
1951	5225	2799	2426	1050	910	140	4175	1889	2286
1956	5815	3109	2706	1690	1420	270	4125	1689	2436
1961	6472	3454	3018	2060	1630	430	4412	1824	2588
1966	7976	4223	3753	3160	2410	750	4816	1813	3003
1971	9853	5174	4679	3960	2920	1040	5893	2254	3639
1976	11639	6069	5570	5319	3770	1549	6320	2299	4021
1981	13434	6962	6472	5474	3692	1782	7960	3270	4690
1986	15510	7988	7522	7094	4794	2365	8416	3259	5157
1990	18301	9431	8870	10400	7058	3342	7901	2373	5528
1995	21168	10909	10259	14264	8626	5638	6904	2283	4621

Sources:- Central Bureau of Education, Federal Bureau of Statistics

Table 12.3 RELATIONSHIP OF PRIMARY SCHOOL AND POPULATION (5-9 YEARS)

Year	Primary School (Number)	Population 5-9 Years (000)	Population/School
1950-51	9411	5225	555
1960-61	20909	6472	310
1970-71	45854	9853	215
1980-81	59169	13434	227
1990-91	11442	18301	160
1995-96	143130	21168	148

Sources:- Central Bureau of Education, Federal Bureau of Statistics

Table 12.4 EDUCATIONAL INSTITUTIONS BY LEVEL AND KIND

Year	Primary	Middle	High	Secondary Vocational	Arts & Sc. Colleges	Professional Colleges	Universities
1947-48	8413	2190	408	46	40		2
1948-49	9073	2174	411	49	42	19	2
1949-50	9411	2134	469	59	46	19	2
1954-55	14162	1517	747	90	77	24	4
1959-60	17901	1974	1069	100	126	40	4
1960-61	20909	1798	1172	109	131	42	4
1961-62	24930	2011	1300	103	146	39	6
1962-63	28338	2023	1349	103	159	41	6
1963-64	30950	2379	1459	117	190	43	6
1964-65	32589	2701	1622	145	225	45	6
1965-66	32930	2785	1658	113	228	48	6
1966-67	34678	2970	1776	142	258	48	7
1967-68	36453	3018	1827	165	251	50	7
1968-69	38870	3290	1910	180	270	58	7
1969-70	41290	3560	1995	190	290	59	7
1970-71	43710	3822	2063	206	314	73	7
1971-72	45854	4110	2247	284	339	73	8
1972-73	49580	4406	2498	391	334	76	8
1973-74	50574	4586	2742	314	354	81	8
1974-75	51744	4713	2898	301	361	83	10
1975-76	52800	4783	3047	282	404	98	12
1976-77	53162	4990	3214	231	433	98	12
1977-78	53882	5100	3239	222	430	95	15
1978-79	55265	5194	3221	223	429	99	15
1979-80	57220	5233	3361	219	430	99	15
1980-81	59168	5295	3479	231	433	99	19
1981-82	61117	5362	3597	247	440	99	20
1982-83	71358	5432	3715	263	447	99	20
1983-84	73228	5984	4213	279	469	99	20
1984-85	73812	6132	4630	290	467	99	21
1985-86	77207	6260	4677	293	481	99	22
1986-87	97228	6769	5253	501	502	99	22
1987-88	105884	6993	5492	560	548	99	22
1988-89	103682	7844	6616	999	556	99	22
1989-90	110552	8058	7184	929	575	99	22
1990-91	114142	8761	8210	725	612	99	22
1991-92	112379	9041	8374	608	633	139	23
1992-93	130596	11808	8724	602	649	147	23
1993-94	134050	12126	9181	593	669	149	24
1994-95	139634	12571	9518	595	688	153	24
1995-96	143130	13330	9542	687	707	157	24
1996-97	150963	14595	9808	673	798	161	25

Note: Mosque Schools are included in primary Schools. There are 10 more universities in the private sector which have been granted charter by the government. Central Bureau of Education, M/O Education was responsible for data on edu. system in the country till its abolition in 1993. Thereafter the responsibility of data collection was transferred to the provinces and Academy of Educational Planning and Management.

Sources: (1) Data from 1959-60 to 1991-92, Ministry of Education, Federal Bureau of Statistics. (2) Federal Education Management Information System (EMIS) is responsible for the Data of Primary, Middle and High schools from 92-93 to 96-97. (3) The data for Secondary Vocational Institutions, Arts and Science Colleges, Professional colleges and Universities from 92-93 has been compiled by FBS. (4) The data for Secondary Vocational Institutions, Arts and Science Colleges, Professional colleges from 1993-94 to 1996-97 is provisional. (5) The data for Primary, Middle and High Schools for 1996-97 is based on estimates.

Table with multiple columns and rows of numerical data, likely representing investment figures by level and kind.

13

HEALTH



191

HEALTH

Similar to other social sectors the country inherited very limited resources both interms of infrastructure as well as manpower in the health sector at the time of its creation. The needs for health services were high because of mass migration of Muslims from India to their new home land. Infection diseases were wide spread with poor sanitation and acute housing shortage. Besides, injuries and deaths were also high among the refugees due to Hindu-Muslim riots. The available health manpower and material resources were meger to tackle all these problems. The Government had taken the responsibilities to provide primary health care services free to the citizens. The health programme in the public sector is decentralized i.e. the implementation and supervision of the health policies and programmes are the responsibility of the provincial governments, whereas, at the federal level the Ministry of Health has overall responsibility for formulating policies, plans and ensure its implementation.

During the last 50 years, the country has generally progressed well in establishment of health facilities and training institutions, development of health manpower, initiation and implementation of priority health programmes and establishment of standards of health care according to global commitments.

HEALTH ESTABLISHMENTS

1947 At the time of independence there were 292 hospitals in the country, providing medical treatment for serious illness and emergency care. The dispensaries normally supervised by a MBBS doctor and supported by a Lady Health

Vistor, Midwife, Aya, Chowkidar and Sweeper. There were 722 dispensaries in 1947. There were 91 MCH centres. There were about 14 thousand beds in the hospitals and dispensaries in 1947 i.e. one bed for about two thousand five hundred population in the country.

1949 Institute of Hygiene and Preventive Medicine, Lahore.

1962 College of Physicians and Surgeons, Karachi (a leading research institute and a hospital including one for children and training of doctors, nurses and other para-medical staff.

1966 Federal Government Services Hospital, Islamabad (offers training and health facilities).

1967 National Institute of Health, Islamabad Departments of Biological Production, Vaccines and sera, Nutrition, Drugs Control & Traditional Medicine, Clinical Research, Public Health and College of Medical Laboratory Technology.

Some major public health programs, Expanded Program of Immunization (EDI), Control of Diarrhoeal Diseases Program (CDD), and AIDS Control Program.

1970's Nationwide network of health infra- structure initiated. To establish at least 1 basic health facility at each union council.

1980's Expansion policies resulting in first level care facilities at community/gross root level

(Basic Health Units, Rural Health Centers etc), Tahsil/District Headquarters Hospitals.

Teaching Hospitals and specialized centers (Public, Private) developed in big cities.

1985 Pakistan Institute of Medical Sciences (PIMS), Islamabad (800-bed hospital including one of children's and post-graduate training institute).

1990's

- Health Services Academy (for the training of mid-level managers and other health professionals.
- Provincial Health Development Centers and District Health Development Centers: focal points for in service training of health personnel.
- One medical college of each province: Pilot Project on community oriented medical education.
- Prime Minister's Programmed for Family Planning & Primary Health Care: 43000 Lady Health Workers trained & deployed in rural and under served urban areas.
- Institute of Public Health in Balochistan: To strengthen the training of doctors, nurses and para medical staff.

1996 The number of hospital in 1996 became 866 where as dispensaries increased to 4545. Their were 864 MCH centres. There was more than 6 times increase in availability of beds in hospitals and dispensaries during last 49 years in the country i.e. the number raised to more than ninty thousand in 1996.

Table 13.1 HEALTH FACILITIES

YEAR	HEALTH FACILITIES (No)
1947	1108
1961	2040

1971	3714
1981	6017
1991	10924
1997	12000

(Health facilities include hospitals, dispensaries, MCH Centres, RHCS, BHUs and TBCs).

DOCTORS AND NURSES

At the time of independence, there were only two medical colleges and a handful of qualified medical doctors and nurses in the country. In 1997, there are 72410 doctors and 25000 nurses serving the nation. Currently there are 18 medical colleges in public sector for training of doctors. Numerous medical colleges have been opened in the private sector. First Nursing School was established in 1948 at the Sir Ganga Ram Hospital, Lahore. The Post-Graduate Jinnah College of Nursing, Karachi came into existence in 1956. Another Post-Graduate nursing institute was established in 1985 at the Pakistan Institute of Medical Sciences. In 1988, the Agha Khan University started B.Sc nursing program. A number of nursing schools were established during these 50 years and were attached to all the medical colleges and selected District Headquarters.

There were 233 registered dentists in 1967 i.e. one dentist for about 235 thousand population, the number of registered dentists increased to 2938 in 1996 which means one dentist for about forty five thousand population the number registered dentists increased at an annual growth rate of 9.1 percent during 1967-1996. At present there are 83 recognized Homeopathic Medical Colleges and 22 Tibia Colleges in the country. There are 64,994 registered Hemopathies and 45000 registered Tibias.

Table 13.2 DOCTORS AND NURSES

Year	Doctors	NURSES
1947	48	186
1951	548	1539
1961	4394	-
1971	11782	4480
1981	23188	10570
1991	62504	19973
1997	72410	25000

EXPENDITURES ON HEALTH

The Government expenditures on health were Rs. 65.7 million in 1960, which raised to Rs. 18,343 million in 1986 i.e. 279 fold increase during 36 years. Per capita Government health expenditure were only Rs. 1.46 in 1960 which increased to Rs. 139 in 1996. If the government expenditures on health compared with GNP, it were 0.39 percent in 1960, which increased to 3.26 percent in 1960, which increase to 3.26 Percent in 1996

PERFORMANCE OF HEALTH SECTOR THROUGH INDICATORS AND PROGRAMS

Health Indicators

Health sectors has seen since 1947 a slow but steady improvement, life expectancy has increased from 33.8 years in 1951 to 63 years in 1996. The infant mortality rate has come down from 220 to 101 per 1000 live births in 1994.

Health Programme and Projects

- From the beginning, emphasis was given to preventive aspects of medicine particularly environment, sanitation, organizing material and child health services, family planning, nutrition and control of communicable disease.

- Eradication programmes against malaria, small pox, leprosy, trachoma, mental diseases and mal-nutrition.
- Provision of manufacturing of vaccines and sera was made at the Bureau of Laboratories at Karachi. National Institute of Health assumed the leading role in its production as well as a reference laboratory.
- After the Alme Atta Declaration of 1978 Govt has committed itself to the goal of HEALTH FOR ALL by the year 2000.
- Prime Minister's Programme for Family Planning & Primary Health Care. Lady Health workers with a minimum of 8 years of education and residing in the same area are implementing the programme. Most of the services are focused on women and young children.

- Out of 121 districts, the programme is being currently implemented in 113 districts in all areas of the country. More than 42000 LHWS have been trained and deployed in the field. The Programme has shown very encouraging and good results in the areas of Malir, Chakwal and Mastung.

Table 13.3 LADY HEALTH WORKERS PRESENTLY DEPLOYED UNDER PM'S PROGRAM AND FAMILY PLANNING AND PRIMARY HEALTH CARE, 1997.

Province/area	Punjab	Sindh	NWFP	Baloch.	AJK	FANA	FATA	ICT
LHWS Working (No)	17148	90608	4157	1669	1621	740	232	223

Maternal and Child Health

MCH Centers and special programmes have catered to the needs of antenatal care, safe deliveries, child care and nutritious since 1947.

- Dai Training Program started in 1954

- Traditional birth attendants, 46000 trained since 1988
- Deliveries attended by trained personals are 35%

Child Survival Project, 1990's.
Special emphasis to maternal
and child health

TB Organizations, directly observed
therapies of short duration (DOT-S).

Malaria Control Programme

- 1960 Pakistan joined WHO sponsored malaria eradication campaign (Inter Malaria Control Program)
- 1973 Incidence of malaria was 13 per 1000 population
- 1996 Incidence of malaria was less than 1 per 1000 population

Nutrition Programme

Major Problems: Protein energy, Malnutrition, Iron deficiency Anaemia, Iodine deficiency disorders.

- 1960 Establishment of Directorate of Nutrition Survey. Later food, water and drugs analysis laboratories were created.

Successful Nutrition Interventions:

Use of Iodized salt; Iron and folic acid supplements to pregnant women; growth monitoring; promotion of breast feeding; focus on nutrition of young girls.

TB Control Programme:

Started in 1962, established TB Centers, hospitals, sanatoria, outpatient treatment, voluntary

Small Pox:

Pakistan was the first country to eradicate small pox in the sub-continent (1976). In 1947, 1950's & 1960's, Small Pox was an epidemic disease. In 1968 eradication programme with WHO assistance was started. Zero target (last case on 16-10-1974) was achieved in 1974. Pakistan was declared as small pox free (18-12-1976) in 1976.

Table 13.4 ERADICATION OF SMALL POX

Year	Cases of SP	Deaths due to SP
1947	21319	8377
1951	42237	32453
1958	82545	61128
1967	12732	4521
1971	5832	1123
1973	8258	1122
1974	7868	420
1975	0	0

Extended Programme of Immunization

Extended Programme of Immunization (EPI) was launched in 1979. Objectives of EPI are to reduce morbidity and mortality resulting from six target diseases i.e., Polio, Diphtheria, Whooping Cough, Tetanus, Measles and TB, through immunization of children less than one year of age, and immunization of all women of child bearing age.

Table 13.5 COVERAGE OF CHILDREN(%) BY IMMUNIZATION(MEASLES)

Year	1982	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Coverage	5	11	34	24	41	53	55	64	76	77	76	71	65	53	78

Control of Diarrhoeal Diseases (CDD)

The programme for the control of Diarrhoeal Diseases started in 1983 at national level. Currently it is being implemented with the

expanded program of immunization at National Institute of Health (NIH). It reduces child morbidity & mortality through improved case management and use of ORS. ORS

(Nimkol) production unit was set at NIH in 1981.

Guinea Worm Disease

Guinea worm eradication programme was conceived in 1986. Transmission of disease stopped in 1993 which was a result of better AIDS Prevention and Control Programme

health education, chemical treatment of contaminated ponds and now Pakistan is declared as guinea worm disease free country by WHO.

AIDS was first identified in Pakistan in 1987 and currently, there are over 1000 HIV positive cases.

Table 13.6 REPORTED CASE OF AIDS AND HIV+

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
HIV+	12	-	2	29	31	59	485	150	211	51
AIDS	1	5	7	7	4	8	12	8	9	15

OTHER PROGRAMMES

1989 Acute Respiratory Infection (ARI) control programme launched to reduce mortality of children due to pneumonia and rationalize the use of antibiotics and other drugs.

1992 Health Information System from limited database to a modern Health Management Organization.

1959 National Bureau of Health Education was established for Public Health Education. Health Education units in all provinces at divisional level (at district level in NWFP and Sindh) are working. Effectiveness demonstrated in EPI, CDD and anti-smoking campaigns.

is producing some 10,500 formulation (including injectable, tablets, syrups, suspensions, ointments and creams etc.).

1964 National Pharmacopeia was prepared listing 1036 drugs including indigenous products.

1965 Drugs Control Administration was set-up.

1971 Peoples Health Scheme: Reforms introduced including Fair Price Drug Stores.

1976 Pakistan was first developing country to introduce Good Manufacturing Practices as a mandatory requirement.

1997 First ever National Drug Policy announced.

PROGRESS OF PHARMACEUTICAL SECTOR.

Pharmaceutical industry has shown unprecedented progress. With hardly any unit worth the name in 1947, today over 300 pharmaceutical manufacturing units, including 27 of the multinationals, are producing drugs worth one billion US dollars and meet about 75% of the country's requirements. Presently the industry

Unani System of Medicines (Hakeems)

The Unani system of medicines is one of the most popular of the traditional medicines in the east, commonly known as the Tibbi System in the Indo-Pak sub-continent and its practitioners are called as tabib/hakeem. The matabs/clinics provide health guidance and services

to about 25% population in the country.

Realizing the importance of hakeems in providing health facilities, Government of Pakistan has introduced Tibbi Act, 1965. Under this act Hakeems were registered, whereas, Tibbia Colleges, which were nine in number at that time also recognized. A Tibbi Board was established for the administration of Tibbia Colleges, registration of hakeems and provision and approval of curriculum for Tibbia Colleges.

At present there are about 45000 male Hakeems and 5000 lady Hakeems in Pakistan. There are 23 Tibbia Colleges, from which 2000 students are become qualified every year after studying four years course of "Fazil-e-Tibb-Wal-Jarahat". At the time of independence there were 1500 registered Hakeems, their number become 50,550 in 1997 indicates about 34 fold increase in 50 years for registered Hakeems.

Voluntary Organizations

These Organizations have been active partners in delivering health care and emergency services.

- Pakistan Hilal-e Ahmar (formerly Pakistan Red Cross Society, 1947)
- Pakistan Medical Association (1948)
- Public Health Association of Pakistan (1964)

Numerous important voluntary organizations are serving in the field of MCH, family planning, primary health care and social welfare.

International Collaboration

Successful collaboration with international donors and agencies: WHO, UNICEF, UNDP, UNFPA, USAID, CIDA, JICA, CENTO, SEATO, RCD, GTZ,....

A comparison of basic demographic health indicators of some Asian countries in 1997 indicates that infant mortality rate is higher in Pakistan as compared to other countries, even higher than Bangladesh, Nepal and India. Maternal death per 100,000 live births were 340 in Pakistan, which was however, lowest as compared to Bangladesh, Nepal, India and Indonesia. The life expectancy at birth was also slightly higher than India, Bangladesh and Nepal, however, it is lower than Turkey, Iran, Sri Lanka, Thailand, Indonesia and China.

Detailed health facilities available through the period under reference are given in table 13.7.

Table 13.7 HEALTH FACILITIES

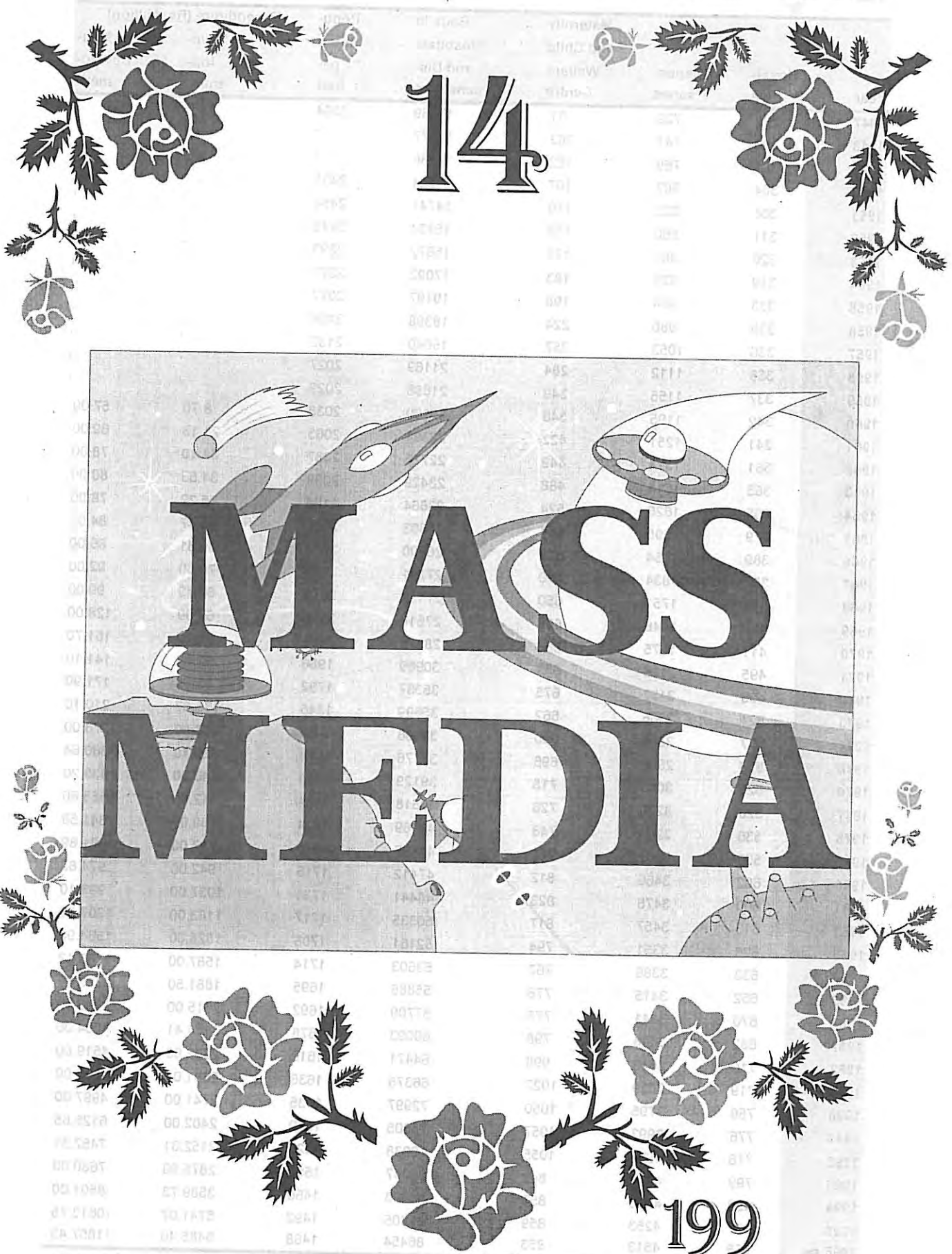
Year	Hospitals	Dispensaries	Maternity and Child Welfare Centre	Beds in Hospitals and Dispensaries	Population per Bed	Expenditure (Rs. Million)	
						Development	Non-Development
1947	292	722	91	13769	2564		
1948	300	741	963	14177			
1949	301	769	102	14180			
1950	304	807	107	14524	2431		
1951	306	823	110	14741	2454		
1952	311	860	153	15324	2419		
1953	320	889	177	15872	2393		
1954	319	928	183	17092	2277		
1955	333	984	198	19197	2077		
1956	335	980	224	19398	2106		
1957	336	1053	257	19640	2132		
1958	338	1112	284	21169	2027		
1959	337	1155	349	21658	2029		
1960	342	1195	348	22100	2038	8.70	57.00
1961	341	1251	422	22394	2063	21.13	69.00
1962	361	1374	449	22775	2087	34.10	78.00
1963	365	1514	488	23429	2088	34.55	80.00
1964	365	1626	524	23664	2126	75.22	78.00
1965	379	1695	554	25603	2022	46.47	84.00
1966	389	1754	558	26200	2033	35.31	86.00
1967	391	1834	650	27291	1678	70.80	92.00
1968	398	1751	650	27112	2079	59.79	99.00
1969	405	1846	668	27618	2100	67.99	128.00
1970	411	1875	668	28976	2061	61.70	151.70
1971	495	2136	631	30969	1986	57.62	141.10
1972	496	2137	675	35337	1792	95.55	171.90
1973	521	2566	662	35699	1846	175.67	210.10
1974	517	2836	690	33866	2005	363.00	278.00
1975	518	2908	696	37776	1852	629.10	360.64
1976	525	3063	715	39129	1843	540.00	439.20
1977	528	3220	726	40518	1834	512.00	558.60
1978	536	3206	748	42469	1804	569.00	641.59
1979	550	3367	772	44367	1779	717.00	661.89
1980	602	3466	812	47412	1716	942.00	974.82
1981	600	3478	823	48441	1731	1037.00	993.10
1982	613	3457	817	50335	1717	1183.00	1207.00
1983	626	3351	794	52161	1708	1526.00	1564.90
1984	633	3386	767	53603	1714	1587.00	1785.12
1985	652	3415	778	55886	1695	1881.50	2393.81
1986	670	3441	773	57709	1692	2615.00	3270.00
1987	682	3498	798	60093	1678	3114.41	4064.00
1988	710	3616	998	64471	1610	2802.00	4519.00
1989	719	3659	1027	66375	1636	2681.00	4537.00
1990	756	3795	1050	72997	1535	2741.00	4997.00
1991	776	3993	1057	75805	1500	2402.00	6126.65
1992	778	4095	1055	76938	1525	2152.31	7452.31
1993	799	4206	849	80047	1509	2875.00	7680.00
1994	822	4280	853	84883	1466	3589.73	8501.00
1995	827	4253	859	85805	1492	5741.07	10613.75
1996 p	858	4513	853	86454	1488	6485.40	11857.43

" Not available P Provisional

14

MASS MEDIA

199



A: PAKISTAN BROADCASTING CORPORATION

It was exactly one minute past twelve at midnight of 14th August 1947, that the words "This is Pakistan Broadcasting Service" came on the air, which denoted the birth of a government organisation, later to assume the shape of Pakistan Broadcasting Corporation (PBC), with the objective of making it professionally more effective and autonomous, on 20th December 1972, as a statutory body governed by Board of Directors and Director General as its Chief Executive. The Board of Directors is composed of Chairman, Director General and Directors of Programmes, News, Engineering, Finance and Administration. Managing Director PTV is Ex-officio member of the Board.

It has a very modest beginning with two small transmitters - a 5 KW medium-wave transmitter at Lahore and a 10 KW medium-wave transmitter at Peshawar which, together, covered only 4.5% of the country's area and 6.7% of its population. Upto 19 December, 1972, Radio Pakistan continued to operate as an attached department of the Ministry of Information and Broadcasting. By then, it consisted of seven Radio Stations in major cities.

The PBC network, at present, consists of 23 broadcasting Units (21 Home Service Stations and 2 Azad Kashmir Stations) and the World and External Services. The transmitting power of these units ranges from 250 Watts to 1000 KW transmitters, both medium-wave and shortwave. The present coverage on mediumwave is 95% of population and 75% of area while coverage on shortwave and through Satellite is 100% in population and area.

Pakistan Broadcasting Corporation broadcasts News and Programmes totalling 322 hours every day on

mediumwave, shortwave and on FM. It broadcasts national news bulletins on the hour, besides regional news bulletins in the main provincial/regional languages. The Monitoring Unit of PBC monitors the broadcasts of foreign networks which are of direct or indirect concern to Pakistan. The External Services project the national image to 70 countries abroad for 20 hours of programmes in foreign languages every day. PBC has also established its National Sound Archives containing more than twenty thousand recorded tapes of audio material pertaining to all walks of national life.

With its ready access to the broad mass of people, Radio plays the pivotal role of integrating them into the mainstream of the nation's social, political and economic life through its broadcasts in national and various regional languages. According to a recent survey by Pakistan Agricultural Research Council (PARC), 60% of the information on agriculture reaches the farming community through Radio.

PBC has played a pioneering role in providing information and education to the category of listeners who are not literate and also providing healthy entertainment to the masses who do not even enjoy the benefit of electricity by allocating its time for folk and light music. Radio has a distinct role in grooming and developing artistic talent in the country.

PROGRAMMES

Duration & Main Classification of Programmes

Radio Pakistan, through its 23 stations spread across the country and the External and World Service,

is on air for 322 hours daily in the Home Service using 20 languages and dialects and reaches 75% of the area and 95% of the population of the country. Nearly half the time is devoted to information and education and the remaining half to entertainment. In its programme-fare, PBC makes use of almost all the formats known to broadcasters. A broad classification of main programme categories alongwith the percentage of time devoted to them is as under:-

• Religious	12%
• News & Current Affairs	11%
• Rural & Farm	10%
• Women, Children & Labour	5%
• Forces	2%
• Youth & Students	3%
• Sports	2%
• Science, Technology, Health	2%
• Drama/Features	2%
• Publicity Campaigns	2%
• Music	48%

Pakistan Broadcasting Corporation covers development activities and policy/official statements of State functionaries. It meticulously avoids anything which is likely to fan parochial, racial, tribal, sectarian, linguistic or provincial prejudices. Programmes broadcast are aimed at promoting Islamic Ideology, national unity, principles of democracy, freedom, equality, tolerance and social justice. The country's relations with other States and steps taken in this connection are given coverage as per guidelines given by the Government.

External Services

The External Services of Radio Pakistan cover 71 countries in Asia, Africa and Europe with over 20 hours of broadcasts daily in fifteen languages. The Services are; Arabic; Bangla, Sylheti, Dari, Farsi, French, Gujrati, Tamil, Turki, Turkish, Hindi, Hazargi, Indonesian, Myanmar and Swahili. The main purpose of these services is to project Pakistan's point of view on various matters of national and international

importance, achievements of the country and its people, so as to promote goodwill between Pakistan and countries of target areas. These services also serve as an effective vehicle to stem the tide of hostile propanganda about Pakistan.

PBC commissioned its World Service on April 21, 1973 with the purpose to keep Pakistanies, living abroad, informed of the happenings in their mother country. Five transmissions are targeted to various parts of the world, including, South East Asia, the Middle East and Europe. The World Service broadcasts 10 hours of programmes a day in Urdu and English and present a comprehensive picture of what is happening in Pakistan in ideological, religious, social and cultural fields.

CENTRAL PRODUCTION UNIT

The Central Productions Unit, set up in 1960 as Transcription Service, is concerned with the production and preservation of quality programmes and is the biggest custodian of our heritage in the medium of sound. With over 10,000 hours of recordings, covering all aspects of national life, it has about 20,000 tapes and 62,000 manuscripts of talks, plays, features, etc. relating to different aspects of life by eminent personalities. It preserves recordings which include speeches of the Quaid-e-Azam, Presidents, Prime Ministers and national figures in different fields. The catalogue of recordings has been computerised.

PUBLICATIONS

The Publication Unit, set up in 1948, brings out two monthly periodicals viz. Ahang and Pakistan Calling. The monthly Ahang which is in Urdu carries details of programmes of different stations besides selected reading material. Pakistan Calling with sections in Urdu, English, Arabic and Persian reflects programmes in the External Services.

FM CHANNELS

Radio Pakistan started its FM Channels in April, 1993 in Islamabad, Lahore and Karachi, introducing local listeners to real high fidelity sound in the country for the first time.

NEWS & CURRENT AFFAIRS

The Central News Organisation (CNO), located in Islamabad, is the nerve centre of all news collection and broadcasting activity of PBC. Regional Units of CNO are located at 16 places all over the country. Apart from Current Affairs Programmes, CNO broadcasts 102 news bulletins daily in the Home and External Services.

The Central News Organization of Radio Pakistan, computerised itself. It was a revolutionary development on the technical side for the dissemination of news. Now in the Central News Organization the news is being received from various domestic and international sources through computers. It is being edited on computer. The broadcast system is also computerised. Similarly, the monitoring of various foreign radio stations has also been computerised with the result that the news material so received and broadcast can also be made available to all those who have PCs and internet connections. The computerisation of the Organization has made the receiving, editing, broadcasting and preservation of news material very quick and authentic.

Home and External News Bulletins

From 6 a.m. till 11 p.m. 18 national news bulletins are presented, on the hour, in Urdu and English. A total of 102 news bulletins with a total duration of 606 minutes are put out every day in the Home Service, External Services and the World Service. Of these, 82 news bulletins are in the Home Service including Regional and Local.

Seventeen news bulletins in Urdu, English, French, Mitali

(Bangla), Farsi, Burmese, Indonesian, Turki, Dari, Turkish, Arabic, Hindi, Gujrati, Swahili, Tamil, Sylheti are broadcast in the External Services and World Service for listeners in various target areas and for the Pakistani citizens working abroad.

Overseas Slow Speed Bulletins

Three General Overseas Service Slow Speed bulletins detailing developments in Pakistan are also broadcast for Pakistani Missions in the Far East, Middle East and Europe. A Special Daily News Summary is also sent to Pakistani Mission in New York for the information of Pakistani community there.

Current Affairs

The Current Affairs programmes of CNO provide indepth treatment of main news events. This is done through three news commentaries, a daily 15 minutes Current Affairs Programme titled Gird-o-Pesh and a 10-minute presentation of editorials of leading newspapers. A daily resume of the proceedings of Senate/National Assembly is broadcast in the National Hookup at 10.30 p.m. for 15 to 25 minutes whenever the Parliament is in session. Discussion programme on national and international issues is another important feature.

CENTRAL MONITORING

At present 21 foreign radio stations are monitored in 7 languages by the Central Monitoring Unit with the total duration of broadcasts listened to and monitored about 2263 minutes daily. Monitoring includes items of news, commentaries and features, discussions, interviews etc. Copies of this Monitoring Report produced in a book form containing 60 to 80 pages are supplied to VVIPs, sensitive organisations and top officials. The material is used in news bulletins.. It is also utilised in countering anti-Pakistan propaganda and evaluating the

policies of foreign government about events in Pakistan.

PAKISTAN BROADCASTING ACADEMY

PBC has a fairly advanced training Academy, called Pakistan Broadcasting Academy, in which Training / refresher courses are conducted for newly inductee/in-service staff as well as upgrading the technical / professional knowledge of Senior Staff. The Academy is recognised by various reputed international Broadcasting and Training Institutions who frequently sponsor and conduct training courses in PBA with participants from the whole South Asian region.

MISCELLANEOUS

In the field of Engineering, 10 KW MW transmitters of Peshawar has been replaced by 100 KW MW transmitters, which has been commissioned since April, 1996. Such schemes will materialise very soon for Karachi and Rawalpindi.

Transmitters of 0.25 KW station has been replaced by 10 KW MW at Faisalabad, Gilgit and Skardu while at Khuzdar it has been replaced by 300 KW MW transmitter. A work on two 10 KW MW transmitters and Broadcasting House planned for Loralai and Zhob have been completed and the stations have been commissioned since April, 1996. The Loralai station was inaugurated on 20.7.1996.

BASIC FACTS

- Radio Stations 23
- Total Employees 4950
- Population covered 95%
- Area covered 75%

23 Radio Stations broadcast programmes in 21 languages/ dialects with a total duration of 322 hours daily in the Home Service as detailed in boxes 14.1, 14.2 and news.

Box 14.1 RADIO STATIONS AND BROADCASTING LANGUAGES

STATIONS	LANGUAGES/DIALECTS
• Islamabad	Urdu, Balti, Shina, English
• Lahore	Urdu, Punjabi, English
• Rawalpindi	Urdu, Punjabi, Potohari, Kashmiri
• Rawalpindi-II	Urdu, Kashmiri, Pahari, Gojri
• Rawalpindi-III	Urdu, Kashmiri, Gojri
• Faisalabad	Urdu, Punjabi
• Multan	Urdu, Saraiki, Punjabi
• Bahawalpur	Urdu, Saraiki
• Peshawar	Urdu, Pushto, Hindko, Chitrali, Kohistani
• Chitral	Urdu, Chitrali
• Abbottabad	Urdu, Hindko
• D.I. Khan	Urdu, Saraiki, Pushto
• Karachi	Urdu, Sindhi, Gujrati, English
• Hyderabad	Urdu, Sindhi
• Khairpur	Urdu, Sindhi
• Larkana	Urdu, Sindhi
• Quetta	Urdu, Pushto, Balochi, Brahvi, Hazargi
• Turbat	Urdu, Balochi
• Khuzdar	Urdu, Balochi, Brahvi
• Sibi	Relay Islamabad
• Loralai	Relay Quetta
• Gilgit	Urdu, Shina, Brushinshki, Wakhi
• Skardu	Urdu, Balti
• Duration of External Services:	Over 9 Hours daily
• Languages:	14 (Arabic, Bangia, Dari, Farsi, French, Gujrati, Hindi, Hazargi, Indonesian, Tamil, Turki, Turkish, Chinese, Russian)
• Duration of World Service (Urdu & English):	10 hrs daily

Box 14.2 CENTRAL PRODUCTIONS (national sound archives)

• Recorded programmes (No.)	10,11,236
• Tilawat-e-Kalam-e-Pak	30,000 mts
• Duration of Tafseer-o-Taleemul Quran (Urdu)	6,050 mts
• Duration of Tafseer-o-Taleemul Quran (Kashmiri)	7,500 mts
• Hamd-o-Naat	5,550 mts
• Interviews (leaders and workers of Pak. Movement)	3,082 mts
• Speeches of National leaders (Governor-Generals, Presidents, Prime Ministers)	8,15,000 mts
• Music	1,10,744 mts
• Drama	32,050 mts
• No. of Foreign VIPs recording	282
• No. of historians/intellectuals' recordings	200
• No. of Countries on CPU regular mailing list	55

NEWS

• Home Service Bulletins	82 daily	462 mts
• External Services Bulletins	15 "	97 mts
• World Service Bulletins	10 "	55 mts
• Overseas slow speed Bulletins	3 "	45 mts
• Current Affairs Programmes	7 "	70 mts
• Total Bulletins	104 daily	606 mts

MONITORING

• Number of Foreign Radio Stations monitored	20
• Number of Broadcasts	70
• Number of languages : 6 (English, Urdu, Pushto, Arabic, Persian, Sindhi)	

ENGINEERING

• Transmitters	Nos.	Power
• Medium-Wave	27	2611 KW
• Short-Wave	13	1131 KW
• F.M.	4	12 KW
• Medium wave coverage, population wise		95 %
• Medium-wave coverage, area wise		75 %

EQUIPMENT PRODUCTION UNIT

• Manufactured MW Transmitters (ranging 10-300 KW)	8
• F.M. Transmitters 50 Watts (for use as STL)	32

SPORTS COVERAGE

• Air time on Cricket and Hockey (1995-96)	4164 hrs
• Commercial time on cricket and Hockey (")	57 hrs 4 mts

B: PAKISTAN TELEVISION CORPORATION LIMITED

An important day in the history of communications in Pakistan is 26th November. The country's first pilot television station went on air from Lahore that day in 1964.

Television was introduced in Pakistan to promote an enlightened awareness of the world as well as to foster a consciousness of Pakistan's own heritage, the social and economic growth of the country and to provide inspiration and guidance for progress

and prosperity. Television was considered necessary also for bringing about a genuine revolution in the social and cultural life of the masses, apart from its role as an instrument and most effective medium of education, entertainment and information.

In October, 1963, it was decided to establish a general purpose television service with the participation of private capital and

under the general supervision of the Government of Pakistan. The first step towards the introduction of television was taken when the Government of Pakistan signed an agreement with the Nippon Electrical Company of Japan, allowing it to operate two pilot stations in Pakistan. The first of these went on air in Lahore on November 26, 1964. The era of the electronic medium of mass communication had arrived.

On the completion of the experimental phase, a private limited company called Television Promoters Ltd. was set up in 1965. This Company was later converted into a Public Limited Company in May 1967, when the Pakistan Television Corporation came into being. PTV is a Public Limited Company, registered under the Companies Act 1913 (replaced by Companies Ordinance 1984), with an authorised capital of Rs. 2000 million and a paid up capital of Rs. 1592 million. The entire shares of the Corporation are held by the Government of Pakistan. Headquarter of the Corporation is at Islamabad.

With modest beginnings, PTV quickly progressed to become an established TV network, recognized as one of the leading TV organizations in South East Asia.

Today in its thirty-third year, television has a National Network covering six main programme producing and transmitting Centres at Lahore, Islamabad, Karachi, Peshawar, Quetta and ETV centre, Islamabad (PTV2). These are linked with thirty-six high powered re-broadcast stations (Boosters). The Telephone and Telegraph Department of the Government of Pakistan has established a microwave link connecting all these five Centres and their re-broadcast stations to form the PTV hook-up, known as the National Network.

The coverage now extends to about 90% of the total population and 38% of the area and is viewed by people in all the four Provinces of the country. Millions more are expected to be brought under the

viewing range with the establishment of more re-broadcast stations. The area under the umbrella of TV signals has steadily risen, from 8,029 sq.km in 1964 to approximately 275,618 sq. km. in 1986, an increase of nearly 3500 percent over 1964 or 156% annual increase in area coverage since inception. The PTV signal also covers some parts of Azad Kashmir.

The total estimated TV set count now stands at nearly 2.8 million, viewership and is higher in semi-urban and rural areas, as also on special including live transmissions via satellite and telecast of sports events.

Majority of programme are relayed on terrestrial microwave network, provided by the Pakistan Telecommunication Corporation (PTC). The network links PTV's five television centres and 36 transmitters called Re-broadcast stations (Boosters). Programmes are also telecast via satellite (Asia-SAT 1).

The national network carries most of the telecasts while individual Centres put on air programmes of regional interest. Transmissions via satellite, which commenced as early as 1972, are now a regular feature and cover important international events, including sports of interest to the viewers in the country.

Colour television came to Pakistan in 1976, and has added immeasurably to the viewing pleasure of the masses.

During the early years of PTV, a Central Training Institute was set up for the training of programme producers and engineering personnel. This Institute has been elevated to a full-fledged PTV Academy, located at H-9 sector, Islamabad, imparting training to television personnel in all fields i.e., news, engineering, management, finance, current affairs, programme production etc. Besides arranging a number of local courses for on-the-job training of PTV producers, engineers, designers, cameramen and accountants. PTV Academy

has conducted 94 courses in collaboration with Asia-Pacific Institute for Broadcasting Development (AIBD). Participants from members countries including China, India, Bangladesh, Indonesia, Thailand, Nepal, Malaysia, Singapore, Sri Lanka, Philippines, and Brunei attended some of these courses.

PTV is a member of various international/regional broadcasting organizations including Asia-Pacific Broadcasting Union (ABU), Arab States Broadcasting Union (ASBU), Islamic States Broadcasting Organization (ISBO) and Commonwealth Broadcasting Union (COMBROAD). PTV is also an associated member of European Broadcasting Union. Participation in these organizations helps PTV project abroad Pakistan's cultural heritage.

PTV is a commercial organization and bulk of its income (63%) comes from advertisements. Besides Central Sales Office at Karachi, sales offices are also located at Lahore, Islamabad, Peshawar, Quetta, Faisalabad, Hyderabad and Gujranwala.

FEDERAL TELEVISION COMPLEX, ISLAMABAD

The Federal TV Complex is under completion and presently serves as the PTV-Headquarters and accommodates the various Divisions of PTV as well as the Managing Director's office.

PTV-LAHORE

The first television station in Pakistan made its appearance through a pilot transmitter at Lahore, in November, 1964. A permanent transmitter was installed in December, 1968 and the main building was inaugurated in December, 1976. Over the years its productions flowered and achieved high standards of professional skills. In 1964, 4 millions were covered, while today the coverage has increased many times through the Re-broadcast Stations at Shujaabad, Sahiwal, Jamal Din Wali, Faisalabad, Pasrur.etc.

PTV-RAWALPINDI-ISLAMABAD

This Centre went on air on January 15, 1967. Later, a powerful transmitter, installed at a height of 7,000 feet at Murree Hills in March, 1969 boosted its range of transmissions. As expansion plans gradually progressed, Re-broadcast Stations installed at Sakesar, Thandiani, Mangla etc further enhanced its coverage.

PTV-KARACHI

The Karachi Centre commenced its transmissions on November 2, 1967 and was the first full-fledged station housed in its own building fully and properly equipped with better technical facilities.

Facilities for the transmission and receipt of programmes in colour via satellite through the earth satellite station at Deh Mandro also exist at this Centre. These can be fed to the other Centres via satellite programmes through the national network link. The PTV-Karachi Centre, Re-broadcast through its Stations at Thana Bulla Khan, Shikarpur, Noorpur and Tando Allah Yar etc.

PTV-QUETTA

The era of audio-visual broadcasting began in the scenic capital of the province of Balochistan when television signals started beaming out to the masses of the Quetta valley in November, 1974. This Centre now originates and contributes programmes to the national network link from its new building-commissioned in early 1985 which houses all the facilities necessary for a modern Television Centre with a re-broadcast centres at Sibi.etc.

PTV-PESHAWAR

The Peshawar Centre of the Pakistan Television Corporation Ltd.

was inaugurated in December 1974. The Centre, fully equipped with modern and sophisticated facilities as well as professional colour studios, provides coverage through Re-broadcast Stations at Cherat, Razmak, Mingora, Morasar Chitral.etc.

NEWS AND PROGRAMMES

In 1975, it was decided to handle the newscasts centrally, and the National News Bureau was set up. It has its headquarters at Rawalpindi-Islamabad Centre, while full-fledged news units function at television centres of Lahore, Karachi, Peshawar and Quetta. In addition to these, PTV has News Units located at Faisalabad, Hyderabad, Multan, Muzaffarabad, Sukkur and Abbottabad. Major News Bulletins are telecast from National News Bureau at Islamabad.

News are telecast in 10 languages which are Urdu, English, Sindhi, Punjabi, Hindko, Pushto, Balochi, Brahvi, Kashmiri and Arabic.

Programmes are telecast in 10 languages which are Urdu, English, Punjabi, Sindhi, Seraiki, Pushto, Hindko, Balochi, Brahvi and Kashmiri.

EDUCATION TELEVISION

PTV holds the cause of education very close to its heart, and today it is in the forefront of the nation's fight against illiteracy. PTV has a separate Educational Television Division which started functioning as early as 1973. The main production unit of ETV is based at Lahore.

PTV-2, located at H-9 Islamabad was inaugurated on 26 November, 1992 with the objectives to

- Help eradicate illiteracy
- Supplement formal education
- Provide non-formal education in social sectors

Mode of Telecast of PTV-2 is via Asia SAT-1. Transmission is also relayed by PTV's 16 conventional transmitters. Its coverage (terrestrial) of Population is 56% (64 million) and of Area is 24%. Its coverage (via Satellite) is 100% (Footprints available from Indonesia to Turkey).

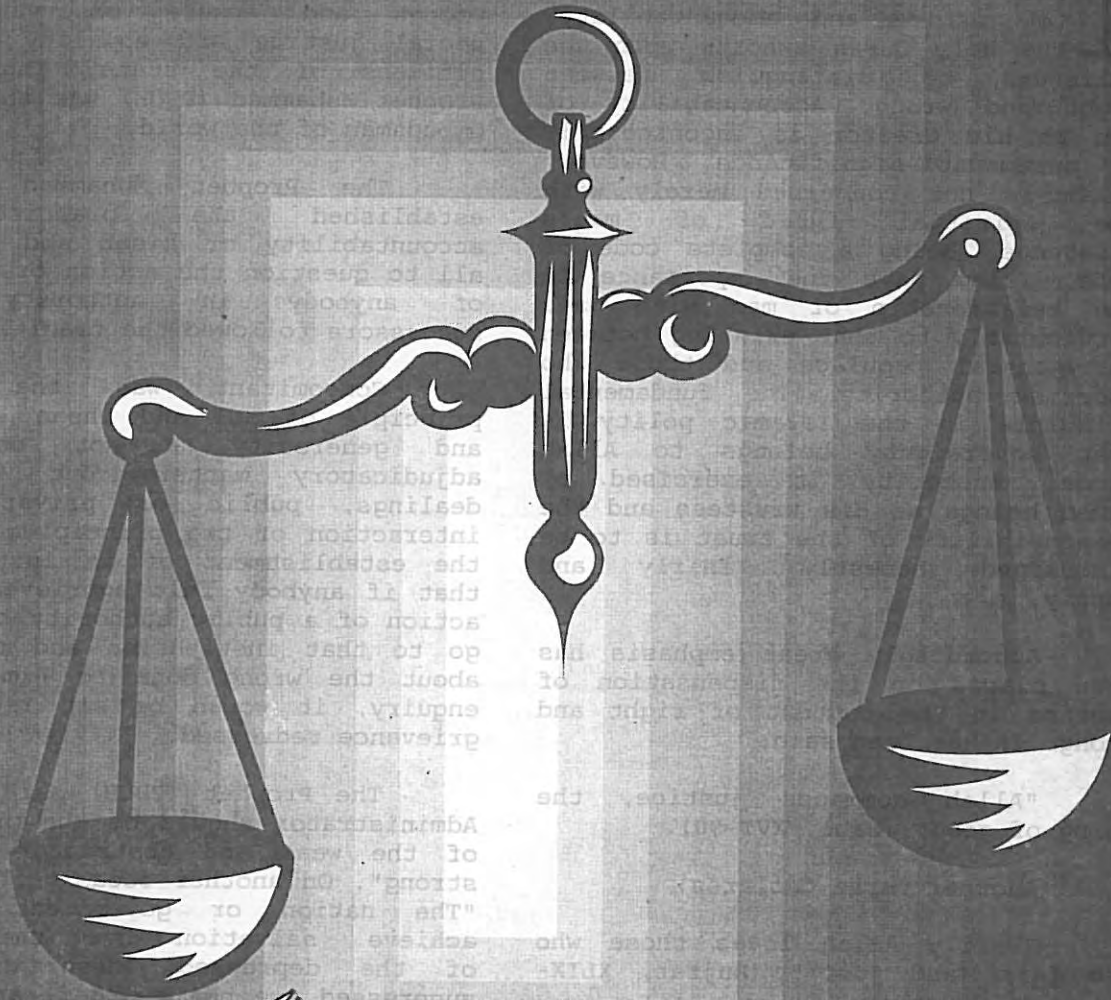
Literacy tele-lessons are produced and telecast as required by the Literacy and Mass Education Commission (LAMEC). ETV also produces and telecasts programmes for Allama Iqbal Open University for its distance-teaching target audiences.

Table 14 PRESS IN PAKISTAN BY PROVINCE

YEAR	TOTAL	DAILIES	WEEKLIES	FORTNI- GHTLIES	MONTHL- IES	QUARTER- LIES	REST
PAKISTAN							
1953	370	46	175	25	119	5	-
1960	840	61	269	100	330	50	30
1969	1332	91	279	85	466	181	230
1972	839	90	284	82	383	-	-
1980	1468	115	350	107	516	173	-
1990	3883	379	972	252	1848	432	207
1995	889	141	249	83	367	44	-
PUNJAB							
1972	479	43	163	49	224	-	-
1980	938	58	200	66	284	124	206
1990	2197	192	600	120	970	315	-
1995	422	27	113	49	211	22	-
SINDH							
1972	286	34	83	27	142	-	-
1980	454	36	111	33	225	48	1
1990	1558	156	317	118	850	117	-
1996	259	40	48	23	135	13	-
N.W.F.P.							
1972	49	8	24	3	14	-	-
1980	46	13	23	5	5	-	-
1990	57	19	20	3	15	-	-
1995	93	48	33	-	12	-	-
BALUCHISTAN							
1972	25	5	14	3	3	-	-
1980	30	8	16	3	2	1	-
1990	71	12	35	11	13	-	-
1996	125	28	62	-	34	1	-

Source: Provincial Information/Public Relation Departments

15



W A F A Q I
M O H T A S I B

210

WAFaqI MOHTASIB

Islam accords pivotal importance to justice and accountability. The Holy Quran exhorts upon the believers to distinguish between right and wrong. Accountability of man to his Creator is incontestably of paramount significance. However, Islam is not concerned merely with the spiritual facet of man's existence. Being a complete code of life, Islam pays due importance to the relationship of man with man, particularly to that existing between the general populace and those who exercise authority. The fundamental principle in the Islamic polity is that sovereignty belongs to Allah alone. Authority is exercised by human beings as His trustees and the responsibility of the trust is to be discharged honestly, fairly and justly.

Accordingly great emphasis has been placed on the dispensation of justice in the context of right and wrong. It has been said:

"Allah commands justice, the doing of good" (Nahl, XVI-90).

Another verse declares:

"Verily Allah loves those who are fair (and just)" (Hujrat, XLIX-9).

The Quranic injunctions about justice are binding on every public functionary in the Islamic State. And the higher one is placed, the greater is the level of responsibility, and more rigorous the standard of accountability.

At the Dawn of Islam, the Holy Quran laid special emphasis on accountability here and hereafter. The Holy Prophet (PBUH) himself acted as a Mohtasib. He used to inspect market places to check prices and

quality of goods, rectify moral wrongs and ensure observance of social justice and equality to the citizens of the state. Thus Holy Prophet Muhammad (PBUH) was the first Ombudsman of the world.

The Prophet Muhammad (PBUH) established the practice of accountability or hisab and allowed all to question the action or conduct of anybody in authority. His successors followed the tradition.

Concomitant was the other principle of adl and ihsan, justice and generosity - not only in adjudicatory matters but in all dealings, public or private. The interaction of two principles led to the establishment of an institution that if anybody felt aggrieved of an action of a public authority he could go to that institution and complain about the wrong done to him. After enquiry, it would be set right and grievance redressed.

The Prophet (PBUH) said: "The Administrator should be the protector of the weak and obstructor of the strong". On another occasion he said, "The nation or government cannot achieve salvation where the rights of the depressed, destitutes and suppressed are not guarded, and where mighty and powerful persons are not forced to accede to these rights."

The first Caliph Hazrat Abu Bakr (May Allah be pleased with him), in his khutba (address) on the assumption of office, said, "The weakest amongst you will be the strongest before me till I have restored to him his rights and the strongest will be the weakest in my eyes till I have extracted from him what he forcibly wrested from others."

A typical example of accountability and answerability by the ruler is that of the Second Khalifa (Caliph) of Islam Hazrat Umar Bin Khattab (RA). He had proclaimed it throughout the Muslim world that whoever suffered oppression at the hands of any public functionary may approach him during the Hajj season. He had likewise ordered his Governors to meet him on this occasion. The attitude continued during the era of the caliphs.

The era of Caliphs was followed by the reign of the Umayyads and of the Abbasids (upto 847 AD). It was marked by foreign influences, specially from the Byzantines and the Sasanids. In North Africa, Roman influence was predominant. Nevertheless, the institution of special office to examine grievances was preserved. With increasing frequency independent judges were entrusted with this function. It was also in the era of the Abbasids (750-847 AD) that the complaint handling agencies called Diwan-ul-Mazalim were established. Diwan means an office, a secretariat of an official agency.

The function of the Diwan-ul-Mazalim was to examine complaints brought by the public against government officials. This institution was headed by a senior judge responsible for examining these grievances. The practice of entrusting high judges with the function of handling complaints has been retained to the present day. Under Turkish rule it was the Quadi-ul-Qudat, the Judge of Judges, who exercised this office. In Saudi Arabia today the members of the "Board of Grievances" enjoy judicial privileges and in fact, have the status of supreme court judges.

An interesting fact in this context is that the institution of hisbah and its function was also adopted by the Crusaders in Jerusalem. They even used the Arabic word Muhtasib although they spelled it Mathessep. The institution of Quadi-al-Qudat of Turkey influenced the establishment of the Ombudsman's Institution in Sweden in 1809.

The twentieth century has been termed "the century of the common man. Our own Constitution contains a resolve of the nation to ensure equality before law, to observe principles of social justice, to strive for and to attain an egalitarian society through a new order. It has been remarked that whatever action is taken by Governments to improve or reorganise their administrations it always results in increases in the size and power of the executive. Thus, while the administration has created a place for itself in every corner and recess of day to day life of human beings, the common man has not been allowed comparable access to the administration, and for this reason a unique one-sided relationship of "Little Man and Big government" has come into existence. To bridge this inequality, to reduce the inaccessibility, to inform and to educate the citizen and alleviate his sufferings at the hands of the administration, to evoke responsiveness and attention and to make the administration more humane, institutions like that of the ombudsman are multiplying the world over. The informality, the cheapness, the rapidity of action, the flexibility, the ability to enforce new policy, the freedom from elaborate rules of procedure and of evidence, all these make this institution an ideal one for the common man to seek relief against administrative excess and to get his grievances, small or great, redressed without expending time or money. It is an institution of the present and the future.

The principal objective for establishing the institution of Wafaqi Mohtasib (Ombudsman) is to ensure dispensation of free, fair, transparent and prompt justice in matter arising out of the interaction of the citizen with the state in administrative matters. The process simultaneously involves enforcement of administrative accountability. By setting up this organisation a new mechanism has been sought to be institutionalised for diagnosing, investigating, rectifying and

redressing injustice done to a person through maladministration. The basic principle is Ubi ius ibi remedium i.e., where there is a right there is a remedy.

The concept of Ombudsman was picked up across the world by New Zealand which appointed the first Ombudsman in 1962. In Europe, the office was established in the United Kingdom under the Parliamentary Commissioner Act of 1967.

The institution of Ombudsman is now accepted as an important and very useful part of a democratic society. Institutions of Ombudsmen with different nomenclature are functioning around the world at various levels. These operate over Federal Provincial, Local or Municipal areas. These are also established for special purposes like Hospitals, Education, Prisons, Press etc.

The Ombudsman institution has developed rapidly all over the world. In 1983, only 27 countries had the Ombudsman Office whereas presently over 75 countries have an Ombudsman or an Ombudsman-like institution at the national or at regional/local level.

The Institution of Ombudsman finds its first serious mention in Pakistan in the interim Constitution of 1972 which provides for the appointment of Ombudsman both at Federal and Provincial levels. However, in the constitution of 1973, the subject is mentioned only in the Federal Legislative List. Ombudsman can be appointed in the Provinces by enactments by the provincial legislatures.

The institution of Wafaqi Mohtasib (Ombudsman) was established under the Establishment of the Office of Wafaqi Mohtasib (Ombudsman) Order, 1983 (President's Order No.1 of 1983) also indicated under Statutory Provision. Wafaqi Mohtasib (Federal Ombudsman) is appointed by the President and has a tenure of 4 years. The first Federal Ombudsman took oath of the office in August, 1983. The institution of Wafaqi

Mohtasib (Federal Ombudsman) has its headquarters at Islamabad, the capital of the country and has four Regional Offices. These are located at the Provincial headquarters, i.e. Lahore, Karachi, Peshawar and Quetta.

The salient features of the Institution as enunciated in the said Order are:-

- Independence from the Executive Authority
- Easy accessibility to the complainants
- Informality of procedure and
- Totally free service to the citizens.

The Wafaqi Mohtasib (Ombudsman) is charged with the responsibilities to investigate matters of maladministration defined in the Law as below:-

- ♦ a decision, process, recommendation, act of omission or commission which:
 - is contrary to law, rules or regulations or is a departure from established practice or procedure, unless it is bona fide and for valid reasons; or
 - is perverse, arbitrary or unreasonable, unjust, biased, oppressive, or discriminatory;
 - is based on irrelevant grounds; or
 - involves the exercise of powers or the failure or refusal to do so, for corrupt or improper motives, such as, bribery, jobbery, favouritism, nepotism and administrative excesses; and
- ♦ neglect, inattention, delay, incompetence, inefficiency, and ineptitude, in the administration or discharge of duties and responsibilities.

The most populous province of Punjab and Sindh now have Provincial Ombudsman. The Institution of Ombudsman also exists in Azad Jammu and Kashmir. It is hoped that the provinces of North West Frontier and Balochistan will also follow suit.

PERFORMANCE

Since the inception of Wafaqi Mohtasib's Office in August, 1983 upto 31st August, 1997, 557,010 cases were received in the Secretariat. Out of these 392,762 were against the agencies belonging the Federal government whereas remaining 164,248 grievances related to Provincial matters. During the same period relief was provided in 151,216 cases. 13,555 cases were under various stages of inquisition/inquiry of investigation in the Secretariat. It is to be noted that the complaint handling system has a broad spectrum since relief provided in one case has a multiplier effect and may be instrumental for relief to hundreds and thousands of other people also. Generally the proportion of relief comes to 75% as far as total complaints have been dealt so far is concerned and this ratio is increasing year to year. For the current year the proportion of relief has increased to 87% of the total cases disposed of after detailed investigation.

The year 1996 marks the 14th year of the establishment of Ombudsman Institution in Pakistan. First Asian Ombudsman Conference in Islamabad was held on 15th and 16th April, 1996. Eighteen delegations from various Asian countries, as well as the Ombudsman of Sudan, and the Northern Territories of Australia, attended the Conference. The significant achievement of the Conference was the formation of the Asian Ombudsman Association. The delegates chose the Ombudsman of Pakistan as the first Chairman, and Islamabad as the Secretariate of the Association. The formation of this Association would lead to the exchange of information and facilitate the learning from each others' experience for relieving the suffering of the citizens.

On first of January 1996, there were 14,403 cases pending for disposal. 42,178 complaints were received during the year under report upto 31st of December, 1996. All pending cases (14,403) were disposed of during the year under report upto 31st December, 1996. Out of the cases filed during the year 1996, 29,741 were disposed of making the total disposal to 44,144. Pending cases on 1st of January, 1997 were 12,437.

The detailed statistics including year to year disposal of cases is given in table 15.

Table 15 COMPLAINTS HANDLED BY WAFAQI MOHTASIB

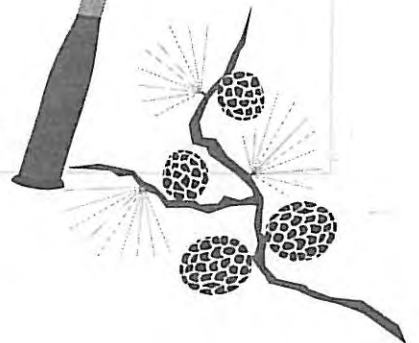
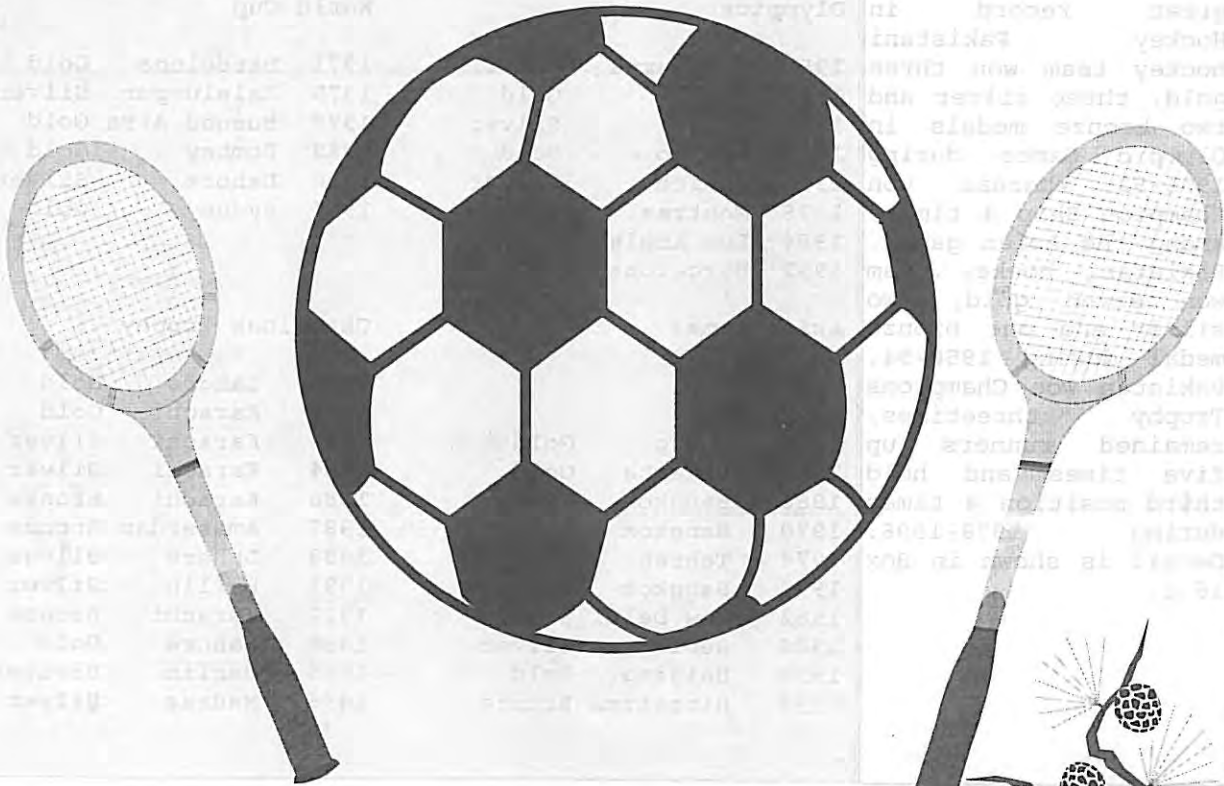
Year	Complaints received						Disposal			
	Total	Fed. Agen.	Prov. Agen.	Not Entertained	Entertained	Brought Forward	Total	Relief	Reject	Total
1983	7812	3922	3890	5871	1941		1941	334	253	58
		50	50	75	25			57	43	30
1984	38030	18509	19521	31633	6397	1354	7751	2048	1942	3990
		49	51	83	17			51	49	51
1985	34937	19546	15391	27518	7419	3761	11180	3733	2472	6205
		56	44	79	21			60	40	56
1986	42744	26413	16331	33723	9021	4975	13996	5040	3331	8371
		62	38	79	21			60	40	60
1987	44323	28415	15908	33396	10927	5625	16552	7337	3925	11262
		64	36	75	25			65	35	68
1988	30007	20030	9977	20406	9601	5290	14891	6771	3333	10104
		67	33	68	32			67	33	68
1989	26634	19808	6826	14897	11737	4778	16524	7540	3602	11142
		74	26	56	44			68	32	67
1990	31489	24114	7375	18505	12984	5328	18366	8349	3361	11710
		77	23	59	41			71	29	64
1991	49044	34914	14130	28343	20701	6990	27691	11722	3325	15047
		71	29	58	42			78	22	54
1992	52299	38515	13784	28744	23555	12644	36199	16042	4525	20567
		74	26	55	45			78	22	57
1993	44578	33048	11530	23644	20934	15632	36566	16249	4450	20699
		74	26	53	47			81	19	60
1994	44244	33419	10825	23888	20356	15867	36223	17510	4211	21721
		76	24	54	46			81	19	60
1995	39921	33175	6746	21477	18444	14843	33287	16057	2827	18884
		83	17	54	46			85	15	57
1996	42178	34642	7536	21985	20193	14403	34596	18961	3198	22159
		82	18	52	48			86	14	64
1997	28770	24292	4478	11961	16809	12437	29246	13523	2215	15738
		82	18	52	48			86	14	54
Total	557010	392762	164248	345991	211019			151216	46970	198186
		71	29	62	38			76	24	94

Note: Second line figures are percentages

Source: Wafaqi Mohtasib, Islamabad

16

SPORTS



SPORTS

Sports play vital role in the nations development as well as country's popularity at the International levels, whereas, sportsmen are the best Embassadors to promote freindly relationship among the nations. This section highlights sucesses of Pakistani sportsmen in teams as well as individual events during last fifty years. Cricket, Hockey and Squash are the most popular games in Pakistan and the country has the honour to remain world champion in these games, whereas, Pakistani Sportsmen have various world records in these games. Some of the remarkable achievements in different games are presented as under.

Squash

Squash is one of the most popular game in the world, Pakistan is the leading nation in it. Pakistani Players have distinguished records in Squash since early fifties. They hold British Open Squash Champion Ship continuously since 1951 to 1963 and then from 1982 to 1997. Pakistanis performance in World Open Squash Champion Ships since 1975 is also remarkable, they remained 14 times winners and 6 times runners up in twenty such tournaments during 1975-96.

Hockey

Pakistan has a great record in Hockey. Pakistani hockey team won three gold, three silver and two bronze medals in Olympic Games during 1956-92 whereas won Champion Ship 4 times, among the Asian games. Pakistani hockey team won seven gold, two silver and one bronze medal during 1958-94. Pakistan won Champions Trophy threetimes, remained runners up five times and hold third position 4 times during 1978-1996. Detail is shown in Box 16.1.

Box 16.1 PERFORMANCE OF HOCKEY TEAM

Year	Venue	Medal Won	Year	Venue	Medal Won
Olympics			World Cup		
1956	Melbourne	Silver	1971	Barcelona	Gold
1960	Rome	Gold	1975	Kalalumpur	Silver
1964	Tokyo	Silver	1978	Buenos Aires	Gold
1968	Mexico	Gold	1982	Bombay	Gold
1972	Munich	Silver	1990	Lahore	Silver
1976	Montreal	Bronze	1994	Sydney	Gold
1984	Los Angles	Gold			
1992	Barcelona	Bronze			
Asian Games			Champions Trophy		
			1978	Lahore	Gold
1958	Tokyo	Gold	1980	Karachi	Gold
1962	Jakarta	Gold	1983	Karachi	Silver
1966	Bangkok	Silver	1984	Karachi	Silver
1970	Bangkok	Gold	1986	Karachi	Bronze
1974	Tehran	Gold	1987	Amsterdam	Bronze
1978	Bangkok	Gold	1988	Lahore	Silver
1982	New Delhi	Gold	1991	Berlin	Silver
1986	Seol	Silver	1992	Karachi	Bronze
1990	Beijing	Gold	1994	Lahore	Gold
1994	Hiroshima	Bronze	1995	Berlin	Bronze
			1996	Madras	Silver

Cricket

Pakistan Cricket team is also one of the leading teams in the cricket playing nations. Pakistani cricketers hold various world records in all departments of cricket i.e. batting, bowling and fielding. Pakistan won 5th World Cup (1992-93). Pakistani Cricket team won various international championships during 1984-97. Performance of Pakistani cricket team in different international / one day tournaments is given in Box 16.2.

Olympic/Common Wealth and SAF Games

Pakistani players participated in various Olympic, Common Wealth and seven SAF games in different events.

Box 16.2 PERFORMANCE OF CRICKET TEAM

International Matches

Year	Name of Tournament	Venue	Position
1984-85	World Championship	Australia	Runner Up
1985-86	2nd Asian Cup	Sri Lanka	Runner Up
1985-86	John Players League	Sri Lanka	Winner
1985-86	1st Australasia Cup	U.A.E.	Winner
1986-87	Challenge Trophy	Australia	Runner Up
1988-89	Champions Trophy	U.A.E.	Runner Up
1988-89	Sharja Cup	U.A.E.	Winner
1989-90	Champions Trophy	U.A.E.	Winner
1989-90	Nehru Cup	India	Winner
1989-90	World Cup Series	Australia	Runner Up
1989-90	2nd Australasia Cup	U.A.E.	Winner
1990-91	Shahrja Cup	U.A.E.	Winner
1991-92	Wills Trophy	U.A.E.	Winner
1991-92	5th World Series	Aust. & N.Z.	Winner
1992-93	Shahrja Cup	U.A.E.	Winner
1992-93	Totla World Series	S.Africa	Runner Up
1993-94	Champions Trophy	U.A.E.	Runner Up
1993-94	3rd Australasia Cup	U.A.E.	Winner
1994-95	Wills Triangular	Pakistan	Runner Up
1994-95	Mandala Trophy	S. Africa	Runner Up
1995-96	Singer Cup	Singapur	Winner
1996-97	Sahara Cup	Canada	Winner
1996-97	Samer Cup	Kenya	Runner Up
1996-97	Singer Cup	U.A.E.	Winner
1996-97	World Series Cup	Australia	Winner
1996-97	Singer Akai Cup	U.A.E.	Runner Up
1996-97	Independence Cup	India	Runner Up

One Day Matches

Country	Matches (no)	Won	Lost	Tie	Not Decided	% of Winning
Australia	46	21	22	1	2	48.91
England	40	14	25		1	36.25
New Zealand	48	28	18	1	1	60.41
W. Indies	81	25	54	2		32.09
India	51	33	16		2	66.66
Sri Lanka	66	44	20		2	68.18
Zimbabwe	14	12	1	1		89.28
S. Africa	16	7	9			43.75
Bangladesh	3	3				100.00
Canada	1	1				100.00
Holland	1	1				100.00
Kenya	1	1				100.00
U.A.E.	2	2				100.00
In Country	93	57	32	1	3	63.44
Out side Country	277	135	133	4	5	50.36
Total	370	192	165	5	8	100.00

ACRONYMS AND INITIALS

ADEP:	Agricultural Development Bank of Pakistan
ADFC:	Agricultural Development Finance Corporation
ADP:	Annual Development Plan
AIDS:	Acquired Immune Deficiency Syndrome
AJK:	Azad jammu and Kashmir
APL	Alcatel Pak. Limited
APPU	Asian Pacific Postal Union
ASEAN:	Association of South East Asian Countries
BOD	Build, Own, Operate
BOP	Balance of Payment
BOT	Build, Operate, Transfer
CAA:	Civil Aviation Authority
CAR:	Central Asian Republics
CBO:	Community Based Organization
CBR:	Central board of Revenue
CCA	Canal Comand Area
CCPS	Consultative Council for Postal Studies
CIDA	Canadian International Development Agency
CIMMYT:	International Wheat and Maize Institute
CMEA:	Council of Mutual Economic Association
CTI	Carrier Telephone Industry
DRS	Digital Radio Set
DWT	Dead Weight Tonnes
EAD	Economic Affairs Division
ECC	Economic Coordination Committee (of the Cabinet)
ECNEC	Executive Committee of National Economic Council
ECPS	Executive Council for Postal Studies
ERO:	Economic Reforms Order
FANA:	Federaly Administered Northern Areas
FATA:	Federaly Administered Tribal Areas
FBS	Federal Bureau of Statistics
FC:	Factor Cost
GDP	Gross Domestic Product
GIS	Geographical Information System
GNP	Gross National Product
GWH	Giga Watt Hours
HDIP	Hydro Carbon Development Institute of Pakistan
HIES	Household Integrated Economic Survey
HIV:	Human Immun Deficiency Virus
HP	Horse Power
IATA	International Air Transport Association
IMF	International Monetary Fund
IOCB:	Iron Ore and Coal Berth
IPP:	Independent Power Projects
IRRI:	International Rice Research Institute
ISDN	Integrated Services Digital Network
ISP	International Speed Mail
KANUPP	Karachi Nuclear Powr Plant
KESC	Karachi Electric Supply Corporation
Km	Kilometer
LPG	Liquified Petroleum Gas

MAF	Million Acre Feet
MB	Mega Bite
MINFAL	Ministry of Food, Agriculture and Livestock
MIS	Management Information System
MKWH	Million Kilowatt Hours
MMCFD	Million Cubic Feet per Day
MP	Market Price
MST	Mail Sorting and Transportation
MT	Metric Tons
NCCC	National Credit Consultative Council
NEC	National Economic Council
NFBE	Non-Formal Basic Education
NGO	Non Governmental Organization
NHA	National Highway Authority
NRTC	National Radio Telecommunication Corporation
NTRC	National Transport Research Centre
NWD	National Wide Dailing
NWFP	North West Frontier Province
OECD	Organization for Economic Cooperation and Development
OFWM	On-Farm Water Management
OGDC	Oil and Gas Development Corporation
OIC	Organization of Islamic Countries
P & D	Planning and Development
PARC	Pakistan Agricultural Research Council
PARCO	Pak Arab Refinery Company
PBC	Pakistan Broadcasting Corporation
PBUH:	Peace Be Upon Him
PCO	Public Call Office
PIA	Pakistan International Airlines
PIHS	Pakistan Integrated Household Survey
PQA	Port Qasim Authority
PSDP	Public Sector Development Programme
PSEB	Private Software Export Board
PTC	Pakistan Telecommunication Corporation
PTCL	Pakistan Telecommunication Company Limited
RCD	Regional Cooperation for Development
SAARC	South Asian Association for Regional Cooperation
SAP	Social Action Programme
SCADA	Supervisory Control and Data Acquisition
SGC	Sui Southern Gas Company
SGTCL	Sui Gas Transmission Company
SMD	Surface Mount Device
SNGPL	Sui Northern Gas Pipeline Limited
SSGCL	Sui Southern Gas Company Limited
STP	Software Technology Parks
SWAPPU	South and West Asia Postal Union
TF	Telecom Foundation
TIP	Telephone Industry of Pakistan
T & T	Telegraph & Telephone
UAN	Universal Accesss Number
UGC	University Grants Commission
UHF	Ultra High Frequency
UMS	Urgent Mail Service
UNDCP	United Nation Drug Control Programme

CONVERSION FACTORS

Weights

One pound (16 Oz)	=	0.45359 Kgs	=	0.48609 Seer
One hundred weight (112 lbs)	=	50.89325 Kgs	=	1.361 Maunds
One ton (2240 lbs)	=	1.01605 M.tons	=	27.22 Maunds
	=	5.60 bales of jute or	5.71	bales of cotton
Cotton bale (375 Lbs)	=	170.09 Kgs	=	4.5571 Maunds
1 Bushel	=	0.73 Maund.	=	29.17 Seers.
1 Bushel per acre	=	67.253 Kgs. per hectare	=	60.00 Lbs.

Length

One inch	=	25.3999 Millimeters
One foot (12 inches)	=	0.3048 Meter
One yard (3 feet)	=	0.9144 Meter
One mile (1760 yards)	=	1.60934 Kilo meters

Square Measures

One square yard	=	0.83613 Square meter
One acre	=	0.40468 Hectare
One square mile	=	258.99842 Hectares

Liquid

One imperial gallon	=	4.5461 litres or 1.2 U.S gallons
One U.S. gallon	=	3.7853 litres

GENERAL CONVERSIONS

Divide	By Factor	To obtain
Acres	2.4711	Hectares
Long ton	0.9842	M.tons
Cotton bales (375 lbs)	5.973	Long tons
Cotton bales (375 lbs)	5.879	M.tons

Maunds

Maunds	26.79	M.tons
Price per 40 kgs	1.0716	Price/maund
Yield kgs per hect.	92.2313	Yield maunds/acre.

N.B.- In case of vice-versa multiply with the factor.

Million	=	1000 Hundreds
Billion	=	1000 Millions
Trillion	=	1000 Billions

CONVERSION FACTORS

One pound (16 oz)	=	0.45359 Kgs	=	0.45359 Seer
One hundred weight (112 lbs)	=	50.80325 Kgs	=	1.361 Mounds
One ton (2240 lbs)	=	1.01605 M.Tons	=	27.32 Mounds
Cotton bale (375 lbs)	=	170.09 Kgs	=	4.5271 Mounds
1 Bushel	=	0.73 Mound	=	29.17 Seers
1 Bushel per acre	=	67.223 Kgs. per hectare		

Length

One inch	=	25.3999 Millimeters
One foot (12 inches)	=	0.3048 Meter
One yard (3 feet)	=	0.9144 Meter
One mile (1760 yards)	=	1.60934 Kilo meters

Square Measures

One square yard	=	0.83613 Square meter
One acre	=	0.40468 Hectare
One square mile	=	258.99843 Hectares

Liquid

One imperial gallon	=	4.5461 liters or 1.2 U.S. gallons
One U.S. gallon	=	3.7853 liters

GENERAL CONVERSIONS

Divide	By Factor	To obtain
Acres	2.4711	Hectares
Long ton	0.9842	M.Tons
Cotton bales (375 lbs)	2.973	Long tons
Cotton bales (375 lbs)	2.879	M.Tons
Mounds		
Mounds	28.75	M.Tons
Price per 40 Kgs	1.0716	Price/mound
Yield Kgs per hect	92.2313	Yield mounds/acre

N.B. - In case of vice-versa multiply with the factor

Million	=	1000 Hundreds
Billion	=	1000 Millions
Trillion	=	1000 Billions