HIGHER EDUCATION NEWS SUPPLEMENT

اِقْرَاْ بِاسْمِ رَبِّكَ الَّذِیْ خَلَقَ

اپنے رب کے نام سے پڑھ جس نے سب کو پیدا کیا

Read in the name of Allah,
Who created you.

بخوان بنام پروردگارت که (جان را) آفرید

Lis au nom de ton Allah,
Celui qui a créé!

Lies im Namen Allahs,
der alles erschaffen hat

Yaratan Rabbinin adıyla oku

Читай во имя Господа-
Творца нашего

Bacalah dengan(menyebut) nama
Tuhanmu yang menciptakan

HEC

Annual Report 2002-2003

Promoting Quality and Creativity

Vision Statement

The Higher Education Commission will be a key driving force for providing accessible and world class higher education through int'l linkages so that it can serve as an engine for socio-economic development and enhancement of the quality of life for all Pakistanis.

2002 2003

Editor's Note

This annual report of Higher Education Commission has been specially developed for the constituent members of the higher education public sector. The idea to circulate a short report on the activities of HEC to teachers and professors is innovative and unprecedented as reports are generally submitted to the prime Minister of Pakistan and Commission Members in the first instance and Vice Chancellors (being administrative head of the universities) in the second instance. As HEC has made the effort and performed multiple tasks for welfare of the higher education sector, it has become a right of at least informing the university faculty as to what has been done for them. Hence this publication: HEC, Annual Report 2002-2003, Higher Education News Supplement.

Ms. Tahira Brohi
Director Media

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HIGHER EDUCATION COMMISSION

On 11th September 2002, the President of Pakistan promulgated a Higher Education Ordinance No LIII of 2002 establishing thereby Higher Education Commission, having an autonomous status. The President of Pakistan appointed Prof. Dr. Atta-ur-Rahman, the then Minister of Science and Technology as Chairman of Higher Education Commission for four years with the status of Federal Minister. The Chairperson, members, servants, consultants and advisors of the Commission are all deemed by law to be public servants.

The reform process, that also led to the establishment of HEC, began in 2001 when the President of Pakistan initiated a 'President's Task Force on Higher Education as well as a Study Group on Science and Engineering Education. The former was headed by Minister of Education, Mrs Zobaida Jalal and latter by Minister of Science and Technology, Dr. Atta-ur-Rahman. Both these team leaders and their team members of senior govt. officers, academics and professionals in S&T undertook the task of reviewing the state of higher education and recommended ways and means to improve it.

Recommendations of both the teams translated into action plan by the Steering Committee, led by Mr. Shams Kassim Lakha, President of the Aga Khan University, centered on a holistic and integrated approach to the public sector's involvement in higher education. Their underlying principle of recommendations was for an enhanced role of State in higher education financially and greater autonomy to universities for improved governance. Recommendations of both, the Task Force as well as the Study Group, led to the higher education reforms for increase in enrollment; increase in allocation of funds; increase in quality of education and research; and increase in access of students with low parental support by providing scholarships, stipends and placement in university campus.

The Steering Committee recommended the establishment of Higher Education Commission (HEC), a central body that would facilitate quality assurance of higher education in both the public and private sectors, and link funding by the federal government for public universities to quality performance. Consequently the HEC, an independent autonomous body under its own board of governors replaced University Grants Commission (UGC) with Chief Executive/Prime Minister as the controlling authority (in case of UGC, Education Minister was the controlling authority)

On 11th December, 2002, in the first Commission Meeting of the Board of Governors, Chairman HEC (also Chairman of Board of Governors of HEC) presented to its members “Vision of HEC” which was essentially a statement on the Mission of HEC, i.e. as to what its functions would be with regard to higher education sector. This Mission Statement of the HEC is available on the website of HEC.

1st Row: L to R. Lt. Gen (R) S. Shujaat Hussain; Dr. S. A. Chaudhry; Ms. Nadira Panjwani: Prof. Dr. Atta-ur-Rahman; Prof. Dr. Saadia Chishti; Dr. M. Akram Sheikh; Dr. Anwar Nasim; Dr. S. M. Qureshi

2nd Row: L to R. Prof. Dr. Abdul Matin; Prof. Qasim Jan; Lt. Gen. (R) M. A. Khan; Mr. S. Fazal Haleem; Mr. S.Ahmed Syed; Dr. A.Q. Mughal; Mr. H. Ahmed Khan; Mr. M. Yaqoob

3rd Row: L to R. Dr. S.M. Hassan; Prof. Dr. Maqsood Alik; Dr. S. Sohail H. Naqvi

HIGHER EDUCATION COMMISSION

Structure of the Commission

According to the HEC Ordinance, the Controlling Authority of the Commission is the Prime Minister of Pakistan

The Chairman who heads the Commission by Constitution is a person of international eminence and proven ability who has made significant contributions to higher education as a teacher, researcher or administrator.

The Chairman of the Commission carries the status of a Federal Minister.

The Executive Director with status of ex-officer Federal Secretary heads the HEC Secretariat. The HEC Secretariat is the executive wing of the Commission and is responsible for implementation of all orders, decisions, directives, and

Members of the Board of Governors

Prof. Dr. Atta-ur-Rahman. Chairman,
Higher Education Commission

Dr. M. Akram Sheikh, Executive Director,
Ex-officio / Federal Secretary

Dr. Shahid Amjad Chaudhry,
Rector, Lahore School of Economics

Mr. Shafquat Ezdi Shah
Secretary, Ministry of Education, Islamabad

Dr. Zafar Saeed Saifi,
Vice-Chancellor, Karachi University, Karachi (Sindh)*

Mr. Khushnood Akhtar Lashari,
Secretary, Education Department, Lahore (Punjab)*

Lt. Gen R. S. Shujaat Hussain,
Rector, NUST, Rawalpindi

Lt. Gen. R. Muhammad Akram Khan,
Vice-Chancellor, Univ. Eng. & Tech., Lahore

Prof. Dr. Abdul Matin,
Peshawar (NWFP)*

Prof. Dr. Maqsood Ali,
Principal, Garrison Academy, Quetta (Balochistan)*

Prof. Dr. Qasim Jan,
Vice-Chancellor, Sarhad Univ. of S&T, Peshawar

Dr. Anwar Nasim,
Advisor Science, COMSTECH, Islambad

Prof. Dr. Saadia Chishti,
Lahore

Mrs. Nadira Panjwani,
Chairperson, Panjwani Foundation & Trust, Karachi

* These are provincial representatives (members) of the Commission.

PAKISTAN'S EDUCATIONAL DEVELOPMENT

Prof. Dr. Atta-ur-Rahman
Chairman HEC

The tremendous advances made in the field of science and technology in the last several decades has transformed our lives in a multitude ways. This is evident in almost every facet of human endeavor including health, transportation, communication, agriculture and engineering.

These advances have been driven by an ever-growing volume of exciting discoveries, largely emanating from the science laboratories in the West, and their transformation into new products or processes which have flooded world markets, thereby showering vast economic rewards on those nations which have had the courage and vision to make science and technology the cornerstone of their respective development programs. It is imperative that we invest massively in education, particularly in basic and applied sciences, in order to shrug off their paralytic dependence on the West for meeting all their needs.

This is only possible if we build world-class Centers of Excellence where new knowledge can be created and applied towards the development of new products and processes. We must realize that our real wealth is not the oil, minerals or other natural resources that we may possess but our children. It is only through investing in them by incorporating a challenging educational system which can unleash their creativity and by providing them the opportunities of contributing to our national development.

At the very outset it is worthwhile to dwell on what constitutes development. Some would simply assess development from the GDP of a country or the per capita income. However these parameters do not reflect that distribution of money within a society. Other parameters need also to be looked at, such as literacy, levels of skills in the workforce, average life expectancy, infant mortality rates, sanitary facilities, availability of clean water, access to medical facilities and technological development, among others.

Essentially it is the quality of life of the common man which must improve if he is to have true development, and the Human Development Index (HDI) is therefore a better indicator of the status of development of a country than the GDP or the balance of payment levels.

Development is therefore a complex process and a number of factors must come together before real development can take place.

There is an international consensus that the key to development lies in the ability of a country to effectively tap into the creative talents of its people. This can be achieved in three clear steps:

(a) the establishment of a high quality education system which dynamically unleashes the creativity of the youth and properly prepares them to come forward with innovative solutions to problems in real life. In a country of the size of Pakistan with about 150 million people, there are surely tens of thousands of students in the "genius category with the potential of transforming this nation within a couple of decades. The challenge is to discover

them, nurture them first at the school, college and university level in Pakistan and then, after giving them the best postgraduate training in the top universities of the world, offer them irresistible package of incentives in the form of salary, housing, research grants and excellent institutional facilities in order to attract them back to Pakistan and work for this country. They must be allowed to become the focal points of the development effort and it is only through them that Pakistan can escape the shackles of poverty and ignorance and emerge as a developed country through knowledge-driven economic development.

(b) the strengthening of basic and applied sciences without which it is not possible to develop the applied sciences in a sustainable manner. Basic and applied sciences need to interact vigorously together, each posing problems to the other to solve, and the importance of this synergy needs to be fully appreciated. Strength in basic sciences must of course be accompanied by focused programs in various applied scientific fields which yield discernible results within a short/medium time-frame. For instance information technology has opened up exciting new

opportunities and within a matter of two and a half years, Pakistan is already 40% ahead of India in connectivity and ICT diffusion-no mean achievement (UNCTAD Report, 2003).

Vast opportunities also exist in agricultural biotechnology, particularly the development of new disease resistant high yielding crops through genetic engineering. Similarly applications in health biotechnology offer considerable economic potential such as the industrial production of fermentation-based medicinal products, vaccines, diagnostic kits, hormones, antibiotics, gene-therapy products and pharmaceuticals.

Health foods and nutraceuticals also offer multi-billion dollar opportunities, particularly in the developing world can derive benefit from medicinal plants, especially due to the rich indigenous experience in use of traditional medicine and the vast biodiversity that many developing countries have.

Another area of significance is new materials. The advent of composites and nano-science has opened up a multi-billion dollar market, which Pakistan needs to pursue with vigor through development of strong educational and R&D programs. Nano-technology is developing rapidly. The different applications in a variety of fields include new materials, electronic devices, surface engineering, cosmetics, nano-tubes and many other applications. The market of nano-particles is around US$ 40 billion and is expanding dramatically. These and other such applications hold enormous potential for rapid economic development but such technology-based development is passing the Islamic World by, and such opportunities are being lost.

The third step (c) is the introduction of strong mechanisms to link the national R&D effort to industry, agriculture and defense. Expertise in science and technology alone is not sufficient unless the R&D effort is marketable. An example is that of the Soviet Union, which in spite of being very powerful in certain basic and applied sciences collapsed economically as it could not market good automobiles, computers, household appliances etc. at the international level-it could not therefore reap economic rewards from its science. Hence this "third step" is of critical importance and requires an "out-of-box" innovative approach in order to launch a strong scheme of incentives in order to encourage entrepreneurship development and foster new start-up companies to emerge fast around emerging technologies.

It is important also to realize the new challenges which the implementation of WTO is going to pose for Pakistan. The process of globalization will unleash strong external market forces and it will be a free-for-all, ensuring "survival of the fittest". The "fittest", at least for the next few decades, is going to be largely the industry in advanced Western countries. Many companies in these countries have set up large production facilities in China, and industry in Pakistan will suddenly face a massive influx of cheap imported goods, produced at low cost either by mass production technologies directly from advanced Western countries, or through other countries where a combination of cheap labor and new mass production techniques allows production of high quality goods and materials at very low cost. Since the bulk of our industry is not prepared to meet this strong challenge, we could suffer enormously and many industries will close down, thereby relegating our role to that of consumers of high-tech industrial products and further increasing the digital divide.

The small and medium industry will suffer the most, creating pressures of increasing unemployment. The powerful industries in the West will benefit enormously, and only the best industries in Pakistan will be able to survive this impending global onslaught. The introduction of demanding non-tariff barriers to import of goods will all ensure that only a select group of industries will be able to compete in the global trade.

Thus we see the emergence of a new global "economic warfare" which has many dimensions-USA versus Europe, USA/Europe versus Japan, USA/Europe/Japan versus China, and the advanced countries versus the rest of the world. The "rules of the game" are already such as to allow only those countries to prosper which can invest massively in research and development and use this to make their products and processes internationally competitive.

How does Pakistan prepare itself to meet these challenges? It is important for our planners to understand in this context that the quality and quantum of human resources with the necessary technical and entrepreneurship skills have a critical role to play. We now live in a world where knowledge has become the key engine for socio-economic growth.

Thus development is no longer determined by oil, or minerals or other natural resources that a country may possess but by the ability of a nation to tap into the creativity of its human resources. This requires the establishment of a high quality school system, the presence of world class universities and R&D institutions and measures to vigorously introduce the "third factor",

PAKISTAN'S EDUCATIONAL DEVELOPMENT

mentioned earlier-sustainable linkages of the R&D effort with the economy.

A country such as Pakistan has therefore to come forward with a clear medium and long-term national vision for development-where are we going to be by the year 2020 and 2030? What are our core competencies and how do we develop them? Are we going to be a manufactures of automobiles or of ships? Are we to become a world leader in the production of chemicals and pharmaceuticals? Should we focus on becoming world class in chip designing? Once there is a clear national vision and directions set, then the strategy and action plan must be prepared around building such a knowledge-driven economy.

A political commitment with a clear set of direction at the higher level (such as "Pakistan will manufacture and export one million buses and trucks annually by 2020") can set a chain reaction of mobilizing human and material resources, on the same pattern as was done for our nuclear program. The commitment that "Pakistan must become a nuclear power", with a determined support by successive governments, allowed this to happen within 15 years. The same can be done for any mega product of commercial importance. However for this we need to urgently develop a vision and a strategy so that the population of 140 million that we possess can be transformed from a liability of teeming millions of uneducated and poverty-stricken masses to a huge asset comprising a highly educated and creative work force.

How this can be done? Simple! Education! This is why in his very eloquent address to the Labour Party in Brighton about two years ago, and again on 30th September 2003 at Bournemouth, Mr. Tony Blair, Prime Minister of the United Kingdom had forcefully stated that the three top priorities of his government were "Education, Education and Education" with a special emphasis on Higher Education.

It is this kind of thinking which has allowed certain nations to forge ahead. The "digital divide" often spoken of now-a-days is no more than a "knowledge divide". Pakistan can achieve anything, given the opportunity and full freedom and support. This was proved in a spectacular manner in the nuclear program. A dynamic vision and implementation of an excellent IT policy has provided us with an IT infrastructure which is now superior to India within 3 years although India started to invest in this field two decades before Pakistan.

With our own full-fledged satellite PAKSAT-1 now fully operational in space at 380 East and some 400 towns, cities and villages connected up with fiber, we are well placed to start using IT as an engine for socio-economic development. All public and private sector universities are being connected together under the Pakistan Educational Research Network (PERN).

Major programs have been initiated to reverse the brain-drain and attract our best talent back to Pakistan. A project has been initiated to increase the Ph.D. output from 250 PhDs to 1500 PhDs annually over the next five years. Pakistan has at long last taken some critically important steps towards development.

The setting up of the Higher Education Commission is one such step but it is extremely important that Science and Technology as well as Higher Education be developed around a well thought out medium and long term national strategy focused on certain critical high-tech industrial development programs, so that Pakistan can emerge as a global player in certain selected industrial sectors by 2020. The National Industrial Vision of Pakistan should be formulated and the rest of the national development programs including the major portion of the Public Sector Development Programs should be directed to achieve the goals set by this Vision.

Prof. Dr. Atta-ur-Rahman
N.I., H.I., S.I., T.I.

The above is an edited version of the paper, Roadmap to Pakistan's Socio-Economic Development' written by Dr. Atta-ur-Rahman and published in a Daily National.

CHALLENGING ROLE OF HEC

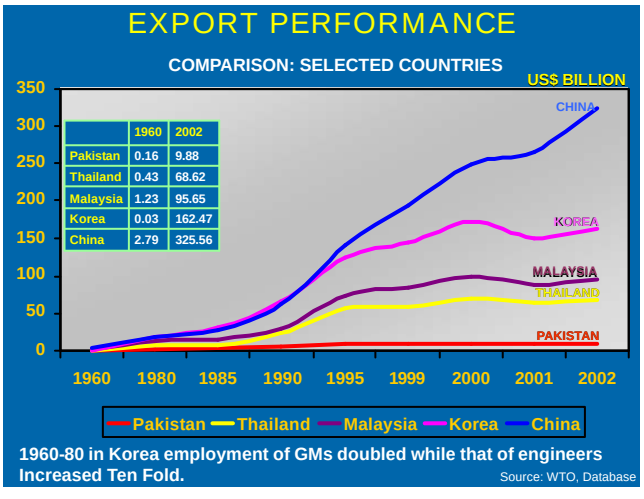
Dr. Akram Sheikh
Executive Director, HEC

Access to advanced knowledge and skills is emerging as the single most important competitive advantage in the national and regional economies and corporations in the international marketplace. The education and training of 'knowledge workers'

Is becoming one of the defining enterprises of the 21st century with the emergence of globalization and increasing global competition. In this fast changing and competitive world, higher education and technology are the maser keys for respectable survival and progress of Pakistan.

Universities of global excellence emerge from a framework of diversity and flexibility that can only be built on a coherent policy and a funds base that recognizes a new priority for higher education in the country. The fundamental reality is that Pakistani universities are under-resourced in international terms. Higher Education Commission is mandated to play major role through development of high quality human capital capable of innovation, creative technologies, forward thinking and professional quality management at organizational and national level.

Pakistan needs to positively respond to these emerging opportunities and challenges of globalization. This is possible only if the constituency of education, which is the sacred home ground of knowledge, is given its due importance. Present day state of education is the result of low financial priority to education as well as ill-conceived non-consistent education policies in the past. We have wasted decades in having neglected education. The nations which were way behind Pakistan are now far ahead of us in practically all aspects.



	1960	2002
Pakistan	0.16	9.88
Thailand	0.43	68.62
Malaysia	1.23	95.65
Korea	0.03	162.47
China	2.79	325.56

The Fig. I indicates that Korean exports were less than Pakistan's in 1960 but in 2002 Korean exports were about 18 times of Pakistani exports. Similarly, Chinese, Thai and Malaysian economies have done wonders during the last 40 years.

The world community has realized the importance of knowledge based economy and concluded that degree of success is directly proportional to strategic investments in science, engineering technology & information systems and established centers of excellence for S&T to enhance the capabilities of industry, government and educational institutions. These countries made huge investments in upgrading their educational constituencies.

Technology Capability During Building Phase
S. Korea Pakistan

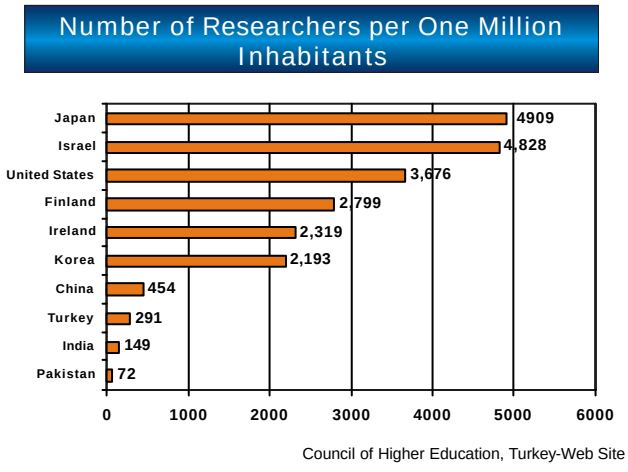
	S. Korea	Pakistan
Growth of merchandise exports: 1965-80/1980-86 %	27.3/13.1	8.5/4.3
Central government expenditure on education as % of total government expenditure (1986)	**18.1**	**2.1**
Vocational educational enrolment (1984) nos. ('000s) as % population working age	3.06	0.07
(Years)	**1985**	**2002**
No. of tertiary level students % population in S&E fields	1.39	<0.1
(years)	**1987**	**2002**
No. of tertiary level students % population in engineering	0.54	<0.05
R&D % GNP	2.3	<0.9
All scientists/engineers Per million population	8,706	1200-1400

Source: National Technological Capability/internet

Fig. II depicts huge investment by South Korea on education particularly vocational, Science & Engineering, tertiary education and R&D in 1960's to 1980's which helped them achieve the export performance given in Fig. I. Neglect of these aspects in Pakistan resulted in low technological capability and thus poor export performance.

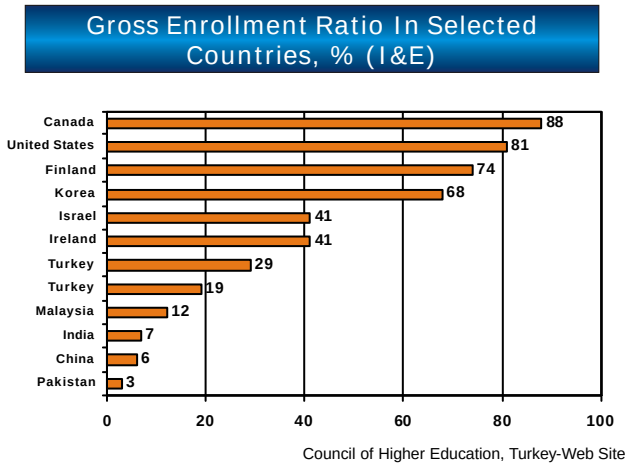
Knowledge and people with knowledge are the key factors of development, main drivers of growth and major determinants of competitiveness in the global economy. Knowledge, both as an input and an output, is seen a key source of long-term growth and job creation. The brisk changing information and communication technologies

have radically changed not only the methods and structures of production but also the relative importance of factors of production. The transformation from the "Ustad & Chota" concept (unfortunately still widely practiced in Pakistan) to knowledge based economy requires recognition of increased importance of knowledge, both technical knowledge (know-how), and knowledge about attributes (information and awareness), which would resultantly produce a well-trained workforce that can apply not only know-how, but is also equipped with capability of analytic decision-making based on information.



Council of Higher Education, Turkey-Web Site

Fig.III depicts a direct relationship of successful economies with the number of engineers and scientists per million population while the Fig. IV depicts the unsatisfactory state of Pakistan in the comity of nations in respect of gross enrollment ratio in universities.



Council of Higher Education, Turkey-Web Site

According to the World Bank, economic growth can be the result of increasing inputs such as capital and labour, and/or using inputs in a more productive way.

The latter measure, commonly referred to as "Total Factor Productivity (TFP)" is very closely linked to the way in which knowledge is used in production. At the completion of its two year Growth Project, the OECD also concluded that " ... to enhance long term growth, more emphasis should be given to policies focusing on Institutes of Creative Technologies, human capital, innovation, and firm creation" (OECD 2001 a). Higher (or tertiary) education plays a dual role as vital components of both the national education and R&D systems. Its contributions to developing human resources and knowledge creation are vital. Especially the university, the major component of a tertiary education system, has been aptly referred to as " …. not just a creator of knowledge, a trainer of young minds and a transmitter of culture, but also as a major agent of economic growth: the knowledge factory, as it were, at the center of the knowledge economy".

The basic functions of tertiary education institutions comprise: a) the capacity to train a qualified and adaptable labour force, including high-level scientists, professionals, technicians, teachers for primary and secondary education, as well as future government, civil service and business leaders, b) the capacity to generate knowledge through all sorts of R&D activity; and c) the capacity to access existing stores of global knowledge and adapt it to local use through community services such as contract research, consultancy, patent care, etc.

Establishment of HEC In recognition of the importance of higher education, the President of Pakistan, established HEC with the mandate to develop, improve and upgrade higher education to prepare the country for the sustainable development of economy and society. In this global world with increasing competitiveness, the Higher Education Commission aims for:

Development of premium institutions of academic excellence: The foremost aim is to facilitate access to higher education through expansion of infrastructure necessary for imparting higher education. This will be done by upgrading & strengthening the existing faculties and development of new institutions equipped with facilities conforming to international standards.

Promotion of higher education: Promotion of higher education through attractive scholarship schemes and subsequent incentives in the practical field.

Diversification of higher education: To meet the divergent needs of technological challenges, HEC aims to diversify the existing scope of higher education for a sustainable and integrated growth in all fields.

Future Outlook. For the double-digit growth of the economy to make any significant impact on the lives of ordinary citizens, Pakistan needs to promote industrialization as done by newly industrialized countries because industry is the main source of creation of national wealth, generation of job opportunities and eradication of poverty. The sustainable industrialization necessitates the continued input of knowledge and skill from its workforce. Higher Education Commission has envisioned tertiary

CHALLENGING ROLE OF HEC

level enrollment of 8.0% in next 15 years against the existing enrollment of less than 3% to equip the country's workforce with higher level of knowledge, technology and skill. This implies that number of students getting enrolled in universities and colleges will at least increase from 0.55 million to over 2.4 million.

Provision of appropriate facilities at the existing institutes and the establishment of new educational institutes in public and private sector to cater for such a number would be a huge sacred task not only for HEC but also for the leaders and policy & decision makers of this country. If we follow the practice of past decades, the results could be disastrous. Lack of importance particularly to higher education has meant very low growth and higher poverty index in the last century. During the current century the price of such a barren policy would be far worse.

Categorization of economic issues in simple terms of import substitution and export led growth are misleading depictions of strategies that are far more complex and require an integrated approach for developing national technological capabilities to achieve rapid and sustainable economic development. During the last four years the integrated approach has produced good results but much more needs to be done for the country to achieve its due economic place in the comity of nations. We trust that the leaders will develop full appreciation of this sector and would allocate requisite funds for development of institutes of higher learning comparable to international standards. These institutes are imminent for Pakistan's rapid and sustainable economic development.

Dr. M. Akram Shaikh

"Higher education exists to serve the public interest and is not a commodity ..... The mission of higher education is to contribute to the sustainable development and improvement of society as a whole by educating highly qualified graduates able to meet the needs of all sectors of human activity"

A UNESCO Report

RESEARCH AND DEVELOPMENT

Dr. A. Q. Mughal
Member Academics and R&D

Emerging knowledge based economy recognizes that institutional research is a spur to national economic growth. It also enhances culture and societal tolerance. Universities in combined role of teaching & research, along with their social functions can lead research towards national goals.

Out of the total federal recurring grant to the universities, 70% of this grant is allocated for teaching and research. However the vice-chancellor who, being the administrative head of the university, re-appropriates the grant in accordance with requirements of the institution, which includes improving library facilities, maintenance of research and other laboratory equipments, faculty development that includes granting funds for visiting programs, conferences/seminars etc, and research scholarships for Masters and Doctorate students for their own research as well as assisting faculty members in doing joint research, etc.

At the HEC Secretariat, its Research & Development Division develops and carries out research programs and projects that include scholarships that provide support service to research in science, technology and social sciences…etc. Then there are academic projects developed by HEC to assist teachers one way or the other in the fields of research.

Promotion of Research in Universities

Through efforts made by HEC authorities the special allocated grant 'Promotion of Research in Universities' has been enhanced from Rs. 47.000 million in 2002-2003 to Rs. 270.000 million for the year 2003-2004, which is an increase by Rs. 474.47%. This grants release is calculated in terms of 5 installments (20 % per installment) during the year and in which the first installment has been received, being 54.000 million. Research Grants Program has been initiated by HEC and through which 42 projects were initiated at the cost of Rs. 44.04 million, approximate grant of each project amounting to Rs. 2.0 million. As an on going program numerous projects are being received daily and processed under procedures established by HEC.

Pakistan Organization on Collaborative Research

For support and encouragement of collaborative research, HEC has launched this program, which provides a one-window operation for academics worldwide to collaborate with participating researchers in Pakistan. It provides local universities with a forum to leverage the expertise, contacts and resources of academics abroad to help improve their standard of research. Collaborative efforts within the program enable organized groups of experienced researchers to set research directions in their respective areas, assist in writing collaborative research proposals, coordinate proposal reviews and mentor research projects according to international standards. POCR's core expert groups also help in evaluation of local universities for future research funding and tenure evaluation of Pakistani faculty and providing funds for collaborative research by bringing together research grants from government and donor agencies, as well as donations from the corporate sector. These funds will support exchange visits of researchers, joint supervision of PhD/MPhil students in Pakistan, research workshops and conferences, equipment required for research in Pakistan and, perhaps at a later stage, seed-funding to spin-off companies for commercializing research results.

Faculty Research Support

Indigenous Ph.D Program

- Merit/ Indigenous Scholarship in S & E
- Humanities and Social Sciences Scholarships
- Visiting Foreign Scholarship Program
- Short term Faculty Exchange program
- Post-doc. Fellowship Program
- Hiring Retired Professors
- Foreign Faculty Hiring

RESEARCH AND DEVELOPMENT

Sr. No.	HEC Support Research Projects and Programs	Total Financial Provisions
1.	Research Grant Program	Rs. 4.5 million.
2.	Short Term Training Program for Scientific & Technical Staff	Rs. 2.5 million
3.	Young Talent Support Program	Rs. 1.5 million
4.	Support to Pak. Scholars to Participate in Conferences/Seminars Abroad	Rs. 3.00 million
5.	Starter Support for Teaching & Research	Rs. 3.0 million
6.	Grants for Organizing Seminars/Meetings&etc.	Rs.7.5 million
7.	Post- Doc. Fellowship	Rs. 7.0 million
8.	Support to Institutional Strengthening	Rs. 5.00 million
9.	Visiting Foreign Scholar Program	Rs. 2.50 million
10.	Short Term Faculty Exchange	Rs.1.25 million
11.	Supply of Spare Parts & Maintenance of Equipment in the Universities	Rs. 1,5 million
12.	Partial Sponsorship for PhD Studies From Abroad	Rs. 4.5 million
13.	Sabbatical Funding Program	Rs. 1.25 million
14.	Re-employment Opportunities for Retired Active Researchers Univ. Teachers.	Rs. 36.204 million
15.	HEC National Professorship	Rs. 10.80 million
16	Support to Scientific Journals	Rs. 3 to 5 lac Perannum
17	Support to Scientific to Scientific Talent / Subsistence Allowance to unemployed Graduates	Rs. 120.00 millon
18	Book Bank Scheme	Rs. 39.914 million for 3 years.
	Other Non-Research Projects of the Division	
20	Best University Teacher Awards	Rs. 7.686 million for 3 yrs.
21	Pacts and protocols	Not Applicable
22	Transfer of Knowledge Through Expatriate Pakistani National Residing Abroad	Not Applicable
23	Nominations	Not Applicable
24	Student Good Will Mission / Student Moot	Not Applicable
25	Foreign Student Services	Not Applicable
26	NOC to Univ. Teachers	Not Applicable
27	Civil ; Presidential and General Awards	Not Applicable
28	Travel Grant	Not Applicable
29	Recommendations against various facilities	Not Applicable
28	Extension lectures	Not Applicable
30	Talent Farming Scheme	
31	Allama Iqbal Shield Award	

HUMAN RESOURCE DEVELOPMENT

Dr. S. Sohail H. Naqvi
Member HRD/SP

The HEC is taking a holistic approach to the development of the higher education sector in Pakistan. It is clear that faculty is the heart and soul of the university, and without an active and well qualified faculty it will not be possible to have meaningful development in this sector.

The essential issue here is the mechanism for development, and in this regards HEC will strive for the development of programs that address the higher education sector as a whole, and not in piecemeal. The development programs will also address issues of improvement and retention of qualified faculty and the development of an environment conducive to academics, research and development in the universities.

An institute of higher learning is distinguished by the quality of its faculty. The faculty members are the key determinants of the quality of education, and regrettably, an. area where Pakistani universities are particularly weak. It is estimated that about 25% (average) of the current faculty members hold Ph.D. degrees, whereas the holding of Ph.D degrees is universally considered to be an essential pre-requisite to imparting quality education. It is understood here that while the holding of a Ph.D. degree by a faculty member does not guarantee quality, the lack of a Ph.D. does present a high barrier to sustained provision of quality education. The major thrust of programs being developed by the Higher Education Commission is, therefore, directed towards developing a strong .base of Ph.D. level highly qualified faculty members. This involves scholarship programs for increasing the Ph.D. faculty base, as well as provision of enhanced facilities to existing Ph.D. qualified faculty to ensure that they have an intellectually stimulating academic career. The scholarship programs are being developed for students to attain Ph.D. degrees both within, as well as, outside the country. The Higher Education Commission here is guided by the principle of supporting excellence, as defined by universal indicators. Relevant areas, where the ability to provide quality education exists within the country, will be supported to the best possible degree in Pakistan. For other areas, where Pakistan is weak, scholarship programs are being developed.

To meet the human resource requirements of Pakistani institutions, the HEC is initiating various schemes for faculty development. However, as scholarship programs have long gestation periods, an emphasis is also being placed on the development of faculty training programs that will enhance the teaching skills, communication skills and subject knowledge of current lecturers at Universities. These programs are being specifically developed to address key weaknesses of post graduate education in Pakistan that include weak problem analysis and problem solving skills, weak communication skills, (including English language comprehension and expression skills) and a lack of exposure to the latest advances in the respective fields of specialization.

Nineteen scholarship projects are currently being implemented by the Higher Education Commission including nine foreign scholarship and fellowship programs and 10 indigenous programs. The major projects in this respect are: 5000 Indigenous Ph.D. fellowship program, Development of Manpower through Indigenous Ph.D. Scholarships; Provincial Scholarships Programs for IT Human Resource Development; Development of High Level Scientific and Technological Manpower through Split Ph.D. Program; Post Doctoral Fellowship Program; Faculty Development Program in Social Sciences and Humanities. The HEC has successfully negotiated for the elimination of tuition fees in various universities of Europe and under this scheme Ph.D. scholars in Engineering and Science disciplines are proceeding to Austria and Germany. In addition two scholarship programs are underway with China.

Since its inception, the HEC has conducted 9 English Language Teachers Training Courses and 9 Curriculum-based Teachers Training Courses. The proposed National Faculty Academy (NFA) for the training and retraining of faculty in higher education institutions across the country will seek to enhance basic competencies in teaching of the core sciences and mathematics, computer sciences, and functional English (at the B.Sc. and M.Sc.levels) in Pakistani universities and colleges. It will offer training programs for junior faculty at the level of Lecturers and Assistant Professors. These nine month training courses will be complemented by a program for short term pedagogical training courses to be initiated in Jan. 2004.

FOCUS AREA SUPPORT

It is an open story that public sector development funds are limited. Great care is usually exercised to ensure that the funds are targeted towards areas that are keys towards developing and achieving the social and economic objectives of the nation. It is necessary therefore to ensure that a proper management and monitoring framework is available to ensure optimum utilization of these funds and achievement of agreed milestones.

While working towards the overall uplift of the entire higher education sector, HEC is under way of developing targeted programs in focus areas of Engineering Sciences; Pharmaceuticals; Biotechnology; Information Technology; Health Sciences; Social Sciences; Economics; Management and Agricultural Sciences.

HEC is initiating the introduction of Quality Assurance Mechanisms to align education delivered in Pakistani institutions with international indicators of quality. This mechanism was primarily introduced in the focus area of Biotechnology, Pharmaceuticals and Engineering. HEC has encouraged engineering institutions to initiate a process of self-assessment in order to prepare them for an accreditation process aligned with international benchmarks. The successful implementation of the principles directed toward achieving international prescribed standards of quality through this program will gradually be extended to all academic disciplines.

Development programs are being drawn by the universities for all the above focus areas and many of these are now at an implementation stage. However HEC has given special attention towards development of Social Science & Humanities, because of its dismal condition in the universities of the public sector.

Social Sciences and Humanities

Mr. Abad Ahmad Khan
Director General (SAIC)

In recognition of multiple problems and present day low state of social sciences and humanities, HEC constituted a Committee of 18 members on Development of Social Sciences and Humanities, drawing members from leading higher education institutions to identify and deliberate on problems and issues and recommend immediate, short term and long term measures to make the respective disciplines attuned to present and future problems.

During the year, the Committee met at HEC Secretariat 5 times. Their recommendations were to: 1) create a list of social scientists within Pakistan (CV's, contact information, publications and research interest) and expatriate Pakistani social scientists; 2) provide funding for interdisciplinary research on understanding of human and social issues of Pakistan; 3) encourage indigenous research leading to development of Pakistani social sciences and humanities; 4) develop networking of data bases of research available in national institutions and abroad; 5) disseminate research findings through conferences, seminars and data base networking; 6) generate create and disseminate findings for research in institutions as well as individual faculty members; 7) support institutional and individual research and academic development; 8) organize seminar, conferences on regular basis on issues addressing current and future societal needs; and also 9) organize research and training workshops.

For immediate actions, decision was taken to hold following conferences and workshops:

1) State of Social Sciences: The Current Scenario Suggested Venue QAU, Islamabad. October, 2003.

2) Ethics Values and Society: Venue LUMS Lahore, February, 2004;

3) Social and Human Sciences: Endangered and Engendered: Venue FJWU Rawalpindi. April-May, 2004;

4) Multi-culturalism and Human Security. Venue (HEC) June-July, 2004;

5) Research and Training Workshop;

Three Schemes on Social Science & humanities have been developed, being; Faculty Development, Institutional Development and Establishment of Social Science and Humanities Research Council.

RECURRENT FUNDING

Mr. Muhammad Yaqoob
Director General Finance

In 2000-2001, while reviewing the financial position of the varsities by President's Task Force on Higher Education, Study Group on Sciences and Engineering Education conceded that universities require more financial resources than the current allocations, specially on the recurrent side.

Wherein a blind ad hoc increment by 5% on the existing budget of individual university, per annum was a permanent practice.

The Task Force, Study Group and later the Steering Committee all agreed to recommend an enhancement of the government grant annually in order to improve recruitment and retention of competent and qualified faculty; develop infrastructure for research; provide adequate library facilities electronic access to information and communication, equipment and maintenance; and refurbish the physical facilities of the universities.

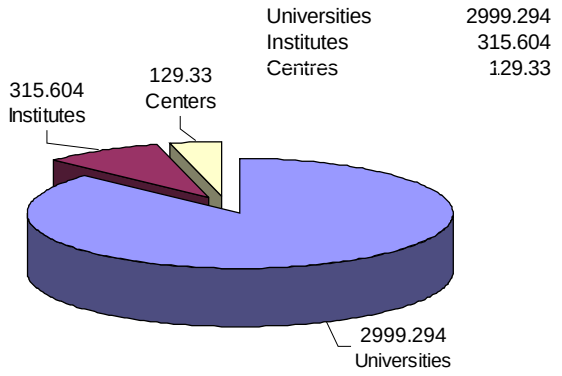
Supplementary Grant

On August 16, 2002 during his presentation on Implementation Plans for Higher Education Commission before the President of Pakistan, Chairman HEC, Dr. Atta-ur-Rahman requested for a decision (among others) that the current level of allocation for the higher education sector be doubled. He also made a plea for provision of additional resources of Rs. 1 billion (Supplementary grant)i.e., Rs. 500,000 as development grant and Rs. 500,000 as recurrent grant for the financial year university budget 2002-03.

A Presidential Directive was issued the following day regarding the doubling of allocation to the university in a phased program (2004-5), and in addition, an immediate fusion of Rs. 1 billion in the university budget. The grant of 1 billion was disbursed immediately to the universities. Deputy Chairman, Planning Commission and Secretary General Finance were directed to work out exact year allocation wise for the following years

Recurrent Grant for the financial year 2002-03

After the establishment of HEC in September 2002, the organization has released a recurring grant of Rs.6443.532 million to public sector universities and centers for the financial year 2002-2003. This included the grant of Rs. 500.000 million on the recurrent side (and Rs.500.000 million as development grant) announced in the Presidential Directive dated 16th August 2002 on an immediate grant release of Rs. 1 billion to the universities.



Special Grants

In addition, and on the recurring side for two financial years 2001-2002 and 2002-2003, a *Special Science and Technology Allowance* of Rs.98.112 million was also released to 1168 university teachers having Ph.D. degrees in science disciplines and Rs.16.600 million for research activities.

Grants for New Universities & Institutions

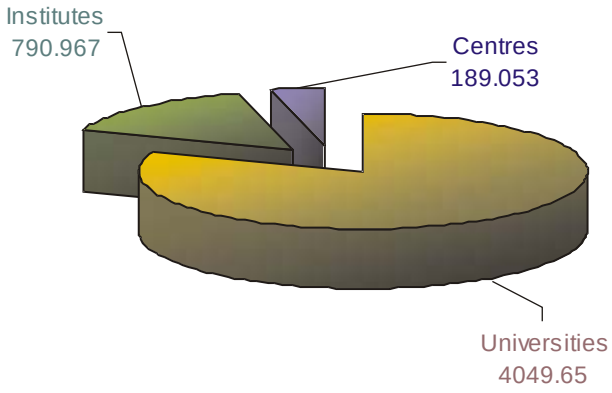
The Higher Education Commission further recommended a grant of Rs. 5229.670 million on the recurring side for the financial year 2003-04 for public sector new universities or institutions.

In addition to enhanced budgetary allocations, grants have also been enhanced for the budget head, Inter-Universities Academic Activities. From the allocation in 2002-03 of Rs 3.600, the grant is increased to Rs 78.000 million, being an increase by 2066.67% . This grant is made out to meet the emergent needs of the universities.

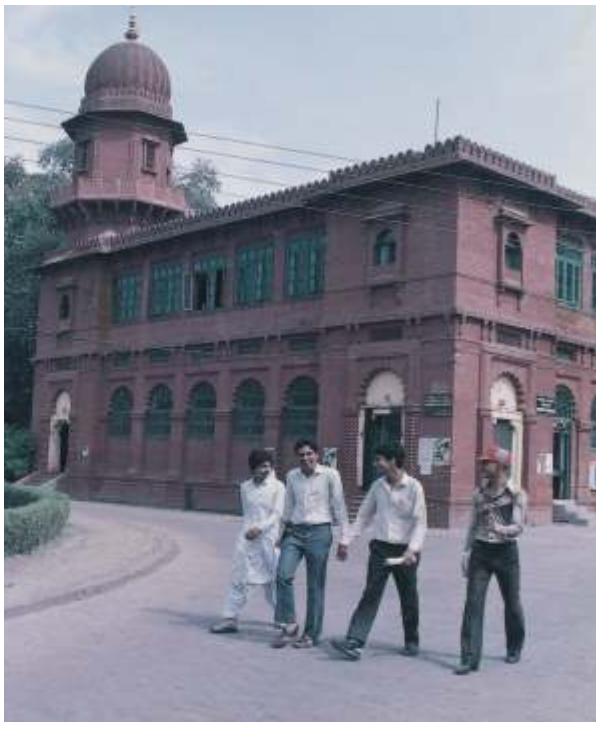
RECURRENT FUNDING

Allocation of Recurring Grant for 2003-04

Universities	4049.65
Institutes	790.967
Centres	189.053

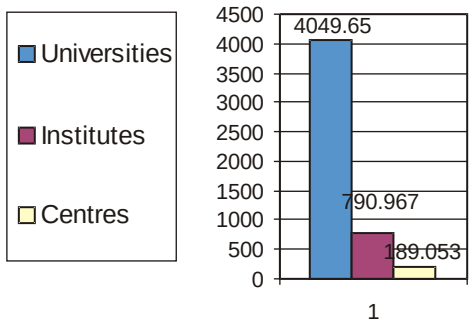


It had been intimated by the universities that there had been on 100% increase towards the departmental Budget for the year 2003-2004 on the basis of the actual expenditure for 2001-2002. In this regard, on 20th August, 2003, Chairman HEC in this letter addressed to vice chancellors of public sector universities requested that there should be a distribution of the 'increased grant' for strengthening of departments as 'Research & Teaching Support' so as to enhance faculty efficiency and give impetus to research programs. With regard to the distribution of disbursement of increase, he directed that at least 30% should be for operational expenditure and 70% for Research and Teaching Support



This 100% increase towards departmental budget for the year 2003-04 was drawn on the actual expenditure for 2001-02 as intimated by the universities.

Comparative Increase as Reflected in Budgets: 2002-03 & 2003-04



With remaining balance on the 30% operational expenditures, Chairman HEC directed that following requirements may be undertaken by the universities as:

1. Hiring of Teaching and Research Faculty on Contract
2. Tenure Track System
3. Education and Research Intranet
4. Additional Bandwidths
5. Strengthening of Departmental Libraries
6. Teaching Aids/Chemicals/Consumables …etc
7. Internships
8. Fellowships
9. Etc.

DEVELOPMENT FUNDING

Dr. S. M. Hassan
Adviser Planning & Development

Universities were guided to prepare their own development programs in accordance with the guidelines provided under the HEC vision document so as to mold the development of higher education in the country. The universities were sent specimen document to develop projects for approval focusing on priority areas.

Networking Communication

The HEC has established networking communication system in seven universities in the public sector. Thirty universities out of thirty seven have been provided grants under the approved development schemes to develop similar facilities in order to inter connect them within the university as well as different campuses of distant locations and other universities, including HEC and outside academies/universities of the world through Pak-Education and Research Network (PERN) and Pak-Sat-II. This would help the university students to have access to research material through internet. They would also benefit from the lectures, seminars, conferences, academic deliberations etc. in the world. Rs. 45.000 million were provided to nine (9) universities in 2002-03 and another Rs. 624.577 million have been provided under the current year PSDP 2003-04 to complete the projects of the universities. The remaining 2 universities which are not able to absorb this fund are preparing the ground work. They will be provided necessary funds to facilitate for the purpose early next year.

I.T. Education

This program is designed to help expand either computer science departments or establish new I.T. education programs in the universities. Twenty seven universities have been provided Rs. 11.28.659 million for establishing and enhancing I.T. education in the universities for 2002-03 last year. In addition, they were also earmarked Rs. 682.177 million in the current year for the purpose.

Human Resource Development

To overcome the shortage of trained manpower in Education and Research, 22 programs of Human Resource Development and Faculty Training worth Rs. 9072.525 million have been launched for which PSDP allocation of Rs. 882.291 million have been made for 2003-2004. It includes Rs. 200 million for Ph.D fellowship program for 5000 scholarships. Under this scheme 1000 scholarships will be awarded each year for 5 years at a total cost of Rs. 6.419 billion. After completion of this scheme, the dearth of Ph.D faculty in Pakistani universities and R&D organizations is expected to be over come.

Faculty training program for faculty members includes foreign scholarship for the countries like Germany, Austria and China. These scholarships have been launched to help train teachers in Sciences and Engineering disciplines. A Teacher Development Program for college and university teachers has also been launched to equip them with latest knowledge and techniques of teaching in emerging fields.

Besides, four (4) projects regarding human resource development were completed in 2002-03 at the cost of Rs. 144.211.

Strengthening and Development of University Laboratories & Libraries

Twenty (21) schemes at a total cost of Rs.680.653 million at various universities are at the implementation stage. A PSDP provision of Rs.234.995 million exists for 2003-04. State of the art technology and latest books and journals will be available to universities students/researchers as a result of execution of these schemes.

Fourteen (14) projects for strengthening of laboratories and libraries of the different universities were completed by June 2003 at a cost of Rs. 553.331 million.

Hi-Tech Centralized Laboratories

These laboratories are being established in 13 universities of the country at a total cost of Rs.501.077 million. Also Rs.203.533 million is available in PSDP for 2003-04. These project are envisaged to be implemented at each university so that all the faculty/researcher of concerned departments may have access to these sophisticated equipments for research activities.

DEVELOPMENT FUNDING

S.No.	Higher Education Commission Programs	R.E. 2002-03	B.E. 2003-04
1	Development of S&T Manpower through Indigenous Ph.D. (300) Scholars	150.000	166.950
2	Ph.D Fellowship for 5,000 Scholars	0.000	200.000
3	Support to Scientific Talent	6.000	30.000
4	Book Bank Scheme Phase-II HEC.	21.703	3.211
5	Strengthening of Curriculum and Teachers Training Division, HEC	10.000	2.535
6	Scholarship for Punjab IT HRD Program	10.394	13.394
7	Scholarship for Sindh IT HRD Program	4.171	4.170
8	Scholarship for NWFP IT HRD Program	1.418	1.417
9	Scholarship for Baluchistan IT HRD Program	0.252	0.252
10	Re-training Public Service Engineering and Scientists	21.578	0.120
11	Development of High Level S&T Manpower through Split Ph.D Program	13.500	60.800
12	Merit Scholarship for Ph.D students in Science & Technology	70.000	90.000
13	Retaining Retiring Active Researchers University Teachers Holding Ph.D Degree	5.000	15.000
14	Scholarship for Ph.D Students in Social Sciences, & Humanities for Univ. Teacher	0.000	44.730
15	Post Doctoral Fellowship Program	0.000	86.436
16	Reclamation of Talented Pakistanis	0.000	9.000
17	Inter Provincial Exchange of Students Delegations	0.000	3.000
18	Talent Farming Scheme III	0.000	7.610
19	Ph.D. Scholarship for Engineering Sciences (40) China	0.000	47.209
20	Foreign Faculty Hiring	0.000	200.000
21	Ph.D Fellowship for Scientists in Austria (HEC)	0.000	50.000
22	Ph.D Scholarships for Basic Sciences in China	0.000	20.000
23	Improvement and Enhancement of Higher Education in Pakistan (World Bank)	0.000	10.000
24	National Faculty Academy	0.000	90.000
25	Ph.D. Scholarships for Engineering Sciences -Germany	0.000	30.000
26	Scholarships for FATA, Capital, AJK & NA IT HRD Program Phase II	2.876	2.876
27	Overseas scholarship scheme for MS/ M. Phil / Ph.D.	0.000	150.000
28	Teachers Development Program for College and University Teachers. Phase II.	0.000	6.567
29	Access Scientific Instrumentation, HEC Islamabad.	0.000	10.726
30	Monitoring and Development of Programs of HEC Islamabad.	0.000	8.304
31	Strengthening of Education and Research in Life Sciences.(HEC)	0.000	8.000
32	Advancement of Mathematical Science Education and Research (HEC)	0.000	9.000
33	Strengthening of Chemical Science Education in R&D in Pakistan (HEC)	0.000	12.190
34	Development / Strengthening of Selected Departments of Social Sciences & Humanities in General Universities in Pakistan (HEC),	0.000	10.000
35	Establishment of Social Sciences and Humanities Research Council. HEC	0.000	20.000
36	National Technology Incubator Feasibility Report, HEC	0.000	5.000
37	Curriculum Development at Graduate and Post-Graduate Level Phase II, HEC	0.000	10.924
38	Master Trainer for Physics at Quaid-e-Azam University, HEC	0.000	10.000
	Total:	**316.892**	**1449.421**

Promotion of Bio-technology. Education in Universities.

At a total cost of Rs.310.325 million institutes or departments of Bio-technology have been established in four universities viz.

- Quaid-e-Azam University, Islamabad
- Hazara University, Mansehra
- University of Karachi, Karachi
- NWFP Agricultural University, Peshawar

Out of this grant Rs.138.000 million has been provided during 2002-03 where as Rs.103.650 million are being provided for the year 2003-2004. These institutes or department with research facilities in fields of Bio-technology and Genetic Engineering will lead to diagnosis and treatment of human diseases as well as diseases of plants and crops.

A Center of Bio-technology was established at University of Peshawar, Peshawar in 2002-2003 at the cost of Rs.21.915 million.

Development of Infrastructure

In order to meet the academic growth of the university, the infrastructure development was absolutely necessary for the universities. HEC assisted universities in completing 25 projects at the cost of Rs.2071.905 million during 2002-03.

This year 38 projects are under implementation at different universities of the country at a total cost of Rs.7,663.797 million against which Rs.1623.383 million were provided up to June 2003 and Rs. 1066.054 million are available in PSDP 2003-04.

CURRICULUM DEVELOPMENT

Dr. Altaf Ali G. Shaikh
Director General Curriculum

The importance of HEC curricula development lies in effecting uniformity among national academic standards in the universities and post-graduate colleges of private and public higher education institutions. The courses are periodically revised every three years.

Revision of subjects is undertaken with a view to modernizing and updating the curriculum contents, keeping in line with national requirement.

Revision of courses is made with intent to meet the needs of industry and introduce innovations and ensure quality of education as well as incorporate new research global trends.

During the year, revision courses at graduate and post-graduate levels were undertaken. Revision of curricula was carried out through expert committees, members of which were selected from university departments and user organizations.

The Curriculum Division administered the curricula revision of S&T subjects sponsored by Ministry of Science & Technology under following heads:

A) Engineering:

Chemical; Electronic; Electrical; Mechanical; Mining; Civil Metallurgy & Material; Industrial; Petroleum; Environmental; Textile, and City & Regional Planning Engineering.

B) Basic & Agricultural Sciences:

Bio-Chemistry; Land Water Management; Forestry; Agriculture Chemistry; Anthropology; Veterinary Sciences; Agriculture; Soil & Environmental Sciences; Chemistry; Biological Sciences; Mathematics; Physics; Zoology; Pharmacy; Earth Sciences; Bio- Technology and Material Sciences.

C) Computer Science & Information Technology

Computer Science & Information Technology; and Computer Engineering.

* * * * * *

The Curriculum Division also revise curricula sponsored by of Ministry of Education were under the following heads:

A) Social Sciences, Arts & Linguistics

General History/Muslim History; Urdu; Social Work; Fine Arts; Pak Studies; Criminology; Archeology; Home Economics; Food & Nutrition; Home Management; Clothing & Textile; Child Development; Related Arts; Women Studies; Arabic; Sociology,

B) Management Sciences

Public Administration and Business Administration.

C) Medicine & Dentistry

Operative; Dental Chemistry; Prosthetic; Oral Surgery; Period Ontology; Orthodontics; Oral Pathology and Oral Medicine and Dental Antonymy.

Curricula in all the above subjects were printed and circulated to 73 private & public sector universities and allied institutions for adoption & implementation.

CURRICULUM DEVELOPMENT

Workshop on Engineering Curriculum

In view of the importance of the above subject that is also included in the mission work of HEC, an Orientation Workshop on Engineering Curriculum Review was held on May 8, 2003 at HEC Secretariat. Main focus was the alignment of curricula with the requirement of industry.

Project on Human Rights

The Human Rights and Mass Awareness Education Program is supported by the Norwegian Agency for Development (NORAD), Swiss Agency for Development Cooperation (SDC) and Government of Pakistan through Ministry of Law, Justice and Human Rights.

During the year, the Agreement of Cooperation to Preserve Dignity of Human and other Human Rights, through Mass Awareness and Education Program was concluded between the Kingdom of Norway, Government of Swiss Federation and Pakistan.

The objectives planned to be realized through multi dimensional and diversified projects as per approved program were assigned to HEC in order to bring about awareness of Human Rights among the youth.

The component of Human Rights was incorporated in the text of curriculum of Pakistan Studies (compulsory) and English for B.A/B. Sc. students. On the subject of Pakistan Studies and English, a monograph for each was developed for the purpose of inducting the topic of human rights, which were published and circulated to the relevant quarters.

TEACHER TRAINING

The Higher Education Commission is undertaking short and long term training/refresher courses, workshops, seminars and conferences of college and university teachers, exposing them to most recent developments, innovations and modern trends in the field of Social and Natural Sciences. Many of the training courses so organized were the outcome of curriculum development and revision exercise, which identified the need for training in the relevant field. Dispensation of quality education relies heavily upon the active participation of professionally motivated and skillful trained teachers. The Commission played an important role by conducting training programs for the teaching staff to raise their pedagogical skills.

The HEC also conducted courses in the provinces and AJ&K to acquaint teachers with the latest techniques, especially in science subjects and thematic approaches. These in-service refresher courses help the working teachers to gain a fresh insight into their subject area and return to their duties with new zeal and confidence. The interaction with specialists in the field assist to clarify concepts and perceptions; as these learned resource persons put real life in proceedings of a training workshop.

HEC In-Service Training Program

S.#	Course title	Date	Venue	#of participants	# of Male	# of F.male
1.	History	Sep 23-28, 02	B.Z.Univ,Multan	26	17	9
2.	ELT	Oct 14-19, 02	FJWU, Rawalpindi	15	4	11
3.	ELT	Oct 21-26, 02	HEC Regional Center Karachi	33	25	8
4.	ELT	Dec 16-21, 02	SAL Khairpur	32	27	5
5.	Mathematics	Dec 16-21, 02	HEC Regional Center Lahore	25	17	8
6.	ELT	Dec 23-28, 02	University of Peshawar	38	27	11
7.	ELT	Jan 06-11, 03	Mehran Univ, Jamshoro	28	20	8
8.	Chemistry	Jan 06-11, 03	HEC Regional Center Karachi	60	40	20
9.	Designing Crop Experiment.	Jan 06-11, 03	NWFP Agriculture University, Peshawar	29	29	-
10.	Conducting Crop Experiment.	Jan 13-18, 03	NWFP Agriculture Univ. Peshawar	29	29	-
11.	Zoology	Jan 27-Feb 01, 03	HEC Regional Center Karachi	46	24	22
12.	ELT	Feb 3-8, 03	Univ. of Punjab	24	12	12
13.	Statistics	Feb 3-8, 03	HEC Lahore	31	23	8
14.	Physics	March 3-8, 03	Univ. of Sindh	46	28	18
15.	Economics	March 3-8, 03	HEC Karachi	51	35	16
16.	ELT	March 17-22, 03	Gomal Univ. D.I.Khan	24	21	3
17.	ELT	March 24-29, 03	Agric. Univ Faisalabad	29	17	12
18.	Mass Communication	April 7-12, 03	Islamia Univ,Bahawalp	43	28	15
19.	ELT	April 21-26, 03	Univ of Sindh	27	16	11
20.	Statistics	May 19-24, 03	Univ of Balochistan	39	34	5
21.	ELT	May 19-24, 03	AJK University	34	17	17
22.	Botany	May 26-31, 03	Univ of Sindh	24	13	11
23.	Zoology	June 02-07, 03	Univ of Sindh	33	17	16
24.	Psychology	June 02-07, 03	HEC Regional Center Lahore	28	8	20
25.	ELT	June 16-21, 03	Univ of Balochistan	28	21	7
26.	10^{th} Six Months PGCOC	April 7 ,2003	HEC Secretariat,Islamabad	10	10	-
27.	Bio Chemistry	Aug 4-9, 03	Univ.of Sindh, Jamshoro	29	12	16
28.	Statistics	Aug 25-29, 03	Univ.of Peshawar	22	16	6

TEACHER TRAINING

Course Coordinators of Training Courses

1. Akhtar, Raja Nasim
2. Ali, Bahadur
3. Bhatti, Shaban Ali
4. Hassan, Bodlo M.
5. Khan, Ehsanullah Khan
6. Khan, Kaleem Raza
7. Khan, Muhammad Munif
8. Khush, Muhammad Maroof
9. Memon, Allah Nawaz
10. Naqvi, Iftikhar Imam
11. Pervaiz, Muhammad Khalid
12. Qadir, Samina
13. Qadir, Khurram
14. Qureshi, Muhammad Akhtar
15. Rashid, Rehana
16. Raza, Yasmeen
17. Rehman, Mujibur
18. Rehman, Mushtaqur
19. Rehman, Shafiqur
20. Salahuddin
21. Shaikh, Shamsuddin
22. Shah, Pegham
23. Shah, Zafar Ali
24. Shamsuddin
25. Sirajuddin, Shaista Sonnu
26. Suhag, Asif Ali
27. Tirmizi, SAS

National Committee on English (NCE)

The Committee was constituted on the 26th April, 2003. Members are head/senior members of English Language departments at various public/private sector universities in Pakistan who have earned a good name in their respective careers.

Director of the British Council, Karachi, Mr. Charlie Walker has also offered his services, which has been accepted by the NCE. During the year, 4 NCE Meetings were held.

The NCE was formed to review and improve the current status of the English Language with respect to developing a framework for the improvement of the standard of English Language in Pakistan. The NCE will formulate recommendations regarding improvements in the standard of English in higher education through a review of existing language policies and practices, English language course provisions, materials, methodologies, testing and evaluation procedures.

Pre-Service Training Program: In order to re-initiate Pre-Service Training Program, a scheme on 'Teachers Development Program for College/University Teachers' Phase-II, has been recently approved by DDWP at the cost of Rs.16.084 million. Ref. Appendix (p-26).

AWARDS

Dr. Muhammad Afzal
Director General Academics

The Higher Education Commission as apex body of the universities and other institutions of the higher education sector grant awards to university teachers for their performances according to the criteria laid for each category of the award.

Best University Teacher Award

Under the scheme, every year one award is given each in the Faculty of Science and Faculty of Arts to the best teacher in recognition of his/her contributions and meritorious achievements through highest percentage of score. The award is given by the National Award Committee constituted at HEC on recommendations of the Deans Committee of each university, duly endorsed by the Vice-Chancellor.

The Award carries a certificate and cash prize worth Rs. 40,000/- each. Teachers awarded for the year 2002 are listed as under:

Quaid-i-Azam University, Islamabad

Prof. Dr. Asghari Maqsood
Department of Physics

Bahauddin Zakariya University, Multan

Assoc. Prof. Dr. Muhammad Ali
Department of Zoology

Prof. Dr. Rubina Tareen
Department of Urdu

University of Engineering & Technology, Taxila

Prof. Abdul Razzaq Ghumman
Faculty of Civil and Environmental Engineering

University of the Punjab, Lahore

Dr. M. Waheed Akhtar
Inst. of Bio-Chemistry & Bio-Technology

Dr. Munawar Sultana Mirza
Institute of Education and Research

Government College University, Lahore

Dr. Ikram-ul-Haq
Professor of Botany

Pakistan Instt. of Engg. & Applied Sciences, Ibd.

Dr. Nasir Majid Mirza
Associate Professor

University of Engg & Tech., Lahore

Prof. Dr. Abdul Rehman
Department of Architecture

University of Agriculture, Faisalabad

Dr. Muhammad Ashraf
Department of Botany

Dr. Muhammad Ashfaq
Department of Agricultural Entomology

University of Sindh, Jamshoro

Dr. Muhammad Umar Dahot,
Inst. of bio-Tech. & Genetic Engg

Shah Abdul Latif University, Khairpur

Prof. Dr. Yasmeen Faiz Kazi
Department of Microbiology

Dr. Muuhammad Yousuf Khushk
Department of Urdu

Mehran University of Engg & Tech,, Jamshoro

Prof. Dr. Abdul Karim Baloch
Department of Electronics

Prof. Dr. Bakhshal Khan Lashari
Institute of Irrigation & Drainage Engineering

Sindh Agriculture University, Tandojam

Dr. Muhammad Khan Lohar
Professor of Entomology

NED University of Engg. & Tech., Karachi

Dr. Nazim-ud-Din Qureshi,
Department of Industrial & Manufacturing Engineering

Dr. Sarosh Hashmat Lodhi
Department of civil Engineering

Liaquat University of Medical & Health Sciences, Jamshoro

Professor Abdul Sattar Memon
Department of Surgery

Instt of Business Administration, Karachi

Assoc. Prof.Dr. Qazi Masood Ahmed
Department of Finance & Economics

University of Engg. & Tech., Peshawar

Prof. Dr. M.A. Q. Jahangir Durrani
Department of Civil Engineering

Allama Iqbal Shield Award

This is an Inter-university debating contest through which a shield is awarded. Organized by HEC the contest is held annually, both in English and Urdu, and is held in three stages: 1) at each university level, wherein students from affiliated/constituent colleges and university departments participate, 2) following this debate, three prize winners are nominated to take part at Regional Debates organized at provincial capitals, 3) Prize winners of Regional Debates then participate in the final round of Inter-University Debating Contest at HEC Secretariat, Islamabad.

The winners of the final round in the first, second and third positions in the English and Urdu debates are given respective cash prizes of Rs. 25,000/-, Rs. 15,000/- and Rs. 10,000/-

The contest culminates in the award of Allama Iqbal Shield which is won by a university on the basis of its over all highest score in the competition at final round.

The first 3 position holders at National level were awarded cash prizes while the Allama Iqbal Shield for the year 2002 was won by Peshawar University.

Result of three position holders of the English debate:

Position	Name of Student & University	Marks
I	Miss Shabana, University of Peshawar, Peshawar	112
II	Mr. Omar Mehmood, Government College, Lahore	107
III	Miss Saima Pervaiz, University of Balochistan, Quetta	106

Result of three position holders of the Urdu debate:

Position	Name of Student & University	Marks
I	Mr. Sajjad Hussain, University of Agriculture, Faisalabad	112
II	Miss Hiba Gul, Gomal University of Balochistan, Quetta	105
III	Miss Shamama tul Amber, Bahauddin Zakariya University, Multan	104

EQUIVALENCE OF DEGREES ACCREDITATION & ATTESTATION

Mr. M.Javid Khan
Director (A & A)

HEC determines the equivalence and recognition of degrees, diplomas and certificates awarded by higher education institutions and establishment of new universities. It also caters for granting of charters to higher education institutions in pursuance of HEC Ordinance.

■ Establishment of Universities & Granting of Charters

The HEC has provided guidelines on establishment of a new university or an institution of higher education, as approved by the Federal Cabinet to sponsors of higher education institutes of the private sectors

Universities/Institutions established prior to the approval of this guidelines/criteria (i.e before February, 2002) have been given 5 years commencing March 2002 for fulfilling the prescribed conditions approved by the Cabinet. Institutions failing to meet the required standards have been informed that their charters would be withdrawn.

On completion of one year of the approval of the conditions set out in the criteria, HEC has initiated the process of monitoring of these institutions and looking into their progress towards the realization of academic targets.

Establishment of Universities Institutes in Public & Private Sectors

1. Hajvery University, Lahore
2. University of Faisalabad, Faisalabad
3. Instt. of Management Science, Peshawar
4. University of Lahore, Lahore
5. Riphah International University, Ibd.
6. Foundation University, Islamabad
7. Kinnaird College for Women, Lahore
8. Air University, Islamabad
9. Northern University, Nowshera
10. Iqra University, Quetta
11. Gandhara University, Peshawar
12. Preston University, Kohat
13. Federal Urdu University of Arts, Sciences and Technology, Ibd.
14. Institute of South Asia, Lahore
15. National Textile University, Faisalabad
16. Govt. College University, Faisalabad
17. University of Sargodha, Sargodha

Foreign Collaboration

HEC has also initiated measures to enforce legal statutes with regard to the opening of ancillary campuses of private institutions in areas beyond their legal limitations. There were instances where campuses were established or private institutions affiliated by a university in another province; these institutions were also operating in the jurisdiction of other provinces in violation of their own charters of establishment. The sponsors of such affiliated colleges have been advised to abide by the provisions of law while seeking affiliation with universities chartered in other provinces. A booklet on Guidelines for the Collaboration of Institutions of Higher Education with Institutions Abroad. The degree awarded by Multimedia University, Malaysia through its campus located at Cyberjaya and Melaka have been recognized by the HEC from the date of registration of these campuses in National Accreditation Board and Ministry of Education, Malaysia i.e. 6.12.1999 to 15.6.2004 and 15.5.2001 to 14.6.2006.

The names of institutions that have been allowed foreign collaborations have been brought to the attention of the public through press.

Seven public sector and ten private sector institutions have been awarded the degree-awarding status by the Federal and Provincial Governments

■ Equivalence and Accreditation Committee (E&AC)

HEC adopts a rather democratic procedure for determining equivalence. Before reviewing cases, views of universities are obtained and the E&AC takes decision in the light of university comments. This procedure ensures that the decisions will be adopted uniformly by all universities.

During the year this statutory body of HEC met to decide many equivalence cases included in appendix (p-34). D.G.(Admn. & Coordination) convened this meeting, now known as the 1st Meeting of the Steering Committee on H.E. The Committee met to formulate and adopt a uniform policy on grant of charters based on recommendations by HEC for:1) consideration as a pre-requisite for effective implementation of criteria, and 2) establishment of a university/ institution of H.E as approved by the Federal Cabinet .

At the meeting it was further decided that the Steering Committee would henceforth meet regularly (4 times a year) to decide on issues and problems emerging in the higher education sector.

Attestation of Degrees: HEC confiscated 41 fake degrees and attested 19,245 degrees/diplomas/certificates issued by universities of higher learning both in public and private sectors.

REGIONAL CENTERS

Centers of Higher Education Commission located at Karachi, Lahore and Peshawar continued to perform their routine activities effectively and efficiently. As most public sector universities are region based, the HEC Regional Centers acted as effective means of carring out programs and projects of the Commission.

Placement of Foreign Students in Varsities

During the year the Regional Centers organized, supervised and promoted foreign students advisory services in universities and affiliated degree colleges. The In-charge of the Centers provided foreign students guidance for alternative courses, assistance with regard to equating their diploma, certificate of degree through respective equivalence of universities/boards and attesting their educational documents; arranging for their visa extension etc.

The Regional Centers also provided help in students admissions and various scholarship nominations. They also partook to foresee the English Language Tests that are held in some of the universities.

The Centers also carried out the work on various schemes and programs such as Support to Scientific Talent, Revision of Curriculum, In-Service Teachers Training Courses, Cultural Exchange Program, Merit Scholarship Scheme …. etc.

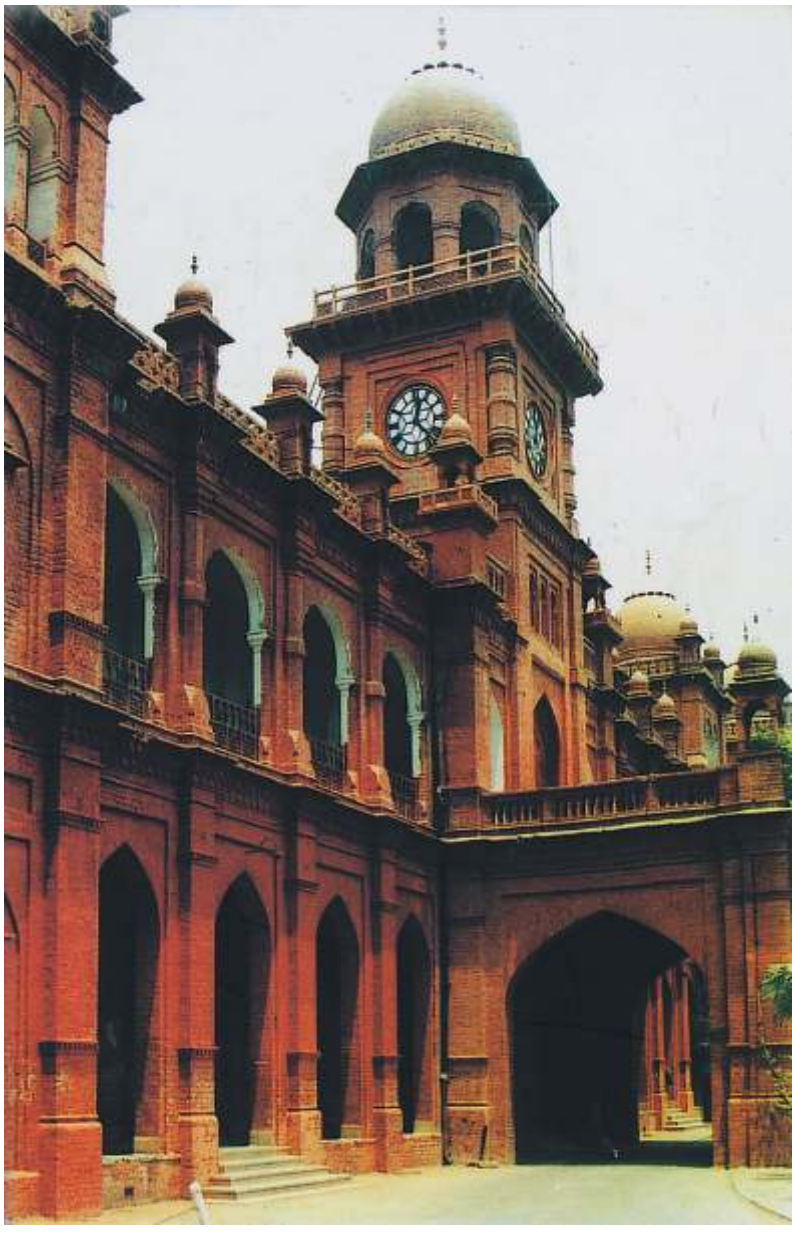
Protocols and Other Services to Visitors

The Regional Centers also performed protocols and other services to visitors. They received VIP guests (educationists) from abroad, and above all catered for residential accommodation of teachers interacting between universities in teaching exchange programs, and those involved in conducting workshops, seminars and conferences.

Public Lecture Series Program

The HEC Secretariat has also directed the Regional Centers of Lahore and Karachi to arrange programs on Public Lecture Series on aspects of national interest. The aim behind the program is not only to established academic activities but also to create social interaction between academia and the rest of the civil society. Renowned academicians, researchers, scientists, and professors of the universities/institutios of higher learning of the country are invited to deliver lectures of general interest but academic in nature, and in which all interested persons are invited to attend.

The program was initiated in the middle of 2003 and so far 52 lectures were delivered together at both the Regional Centers of Lahore and Karachi.



UNIVERSITY & INDUSTRIAL LINKAGES

HEC is now Pakistan's national instrument for making strategic investments in training and research in the Natural Sciences and Engineering. These investments will be geared toward supporting university based basic research projects. Investments will support the education of young people engaged in research activities and encourage/facilitate links between universities, colleges, governments and private sector industries as well as other stake holders.

Through its investment, the HEC aims to build Pakistan's capabilities in science and technology and support innovation that would propel the growth for its rapid and sustainable economic development.

HEC's investments to promote development of a knowledge-based economy in Pakistan will lead to innovations and reverse engineering in industry. In order to thrive, our industries will need to take full advantage of the nation's capacity for science-based innovation. HEC's research partnership program will help in expanding research expertise and facilitate exchange of knowledge, technology to people across all sectors. With funding from HEC, university researchers would be able to connect with those who are able to apply knowledge productively and enhance Pakistan's capacity for innovation and reverse engineering which in turn would contribute to the creation of wealth

ACTION PLAN FOR UNIVERSITY & INDUSTRY LINKAGES

The reorientation of universities' working and building sustainable relationship through inclusion of industrialists and/or stakeholders with postgraduate qualifications (of fields suiting the particular university) in senates with the concurrence of HEC.

Constitution of Coordination Committees and their establishment under these industrialists to identify research/R&D projects which the industry and Govt. would be funded jointly.

Formulation of long-term vision and policy objectives by every university and endorsement by its chancellors and HEC. These plans would reflect the strengths and needs of local industries, to be updated every year, keeping in view actual progress as well as changing national and international scenario.

Formation of HEC Sectoral Standing Committees with representation from academia, industry, HEC and the Government on the following subjects with appropriate Terms of Reference:

- Agriculture (including inputs)
- Agric based Industries (Sugar, edible oils etc.)
- Textile Industrial Sector
- Microbiology, Biotechnology & Genetic Engineering
- Chemical Industrial Sector
- Pharmaceuticals
- Engineering, (Steel and Auto) Sectors
- Mining and Minerals
- Power Sectors including alternative Energy
- Energy Sector
- Petroleum Sector
- Future Technologies
- Electronics
- Materials (including ceramics, plastics and other non-metals)

UNIVERSITY & INDUSTRIAL LINKAGES

Technology Parks

Technology Parks are being established in the universities to provide a dedicated fully service environment to engineers and scientist to develop innovative products, designs and solutions addressing relevant problems. For this purpose HEC has launched the National Technology Incubator (NTI) Projects. This will accelerate the process of technology commercialization and encourage entre-preneurship among the newly emerging tech-nology graduates. At present there are 21 S&T and 34 agricultural research establishments operating in the private and public sector. Some of these are: HEJ Institute of Chemistry; Foundation for the Advancement of S&T; Center of Excellence in Marine Biology ; National University of Science & Technology; GIK, Institute of Science and Technology and Applied Economics Research Center, Karachi.

Venture Capital Fund

To encourage entrepreneurship HEC has given support for the teaching of entrepreneurship related skills at universities, set up of subsidized research and development facilities and support for the set up of a venture capital fund dedicated to promoting relevant projects showing great promise.

Constitution of Industrial Coordination Cell is to be developed (industrial liaison offices) and existing cells at the universities will be strengthened, with a mandate to devise and increase links between universities and external organizations. Successful collaborative activities would result in greater funding for research from industry, which would consequently lead to better teaching and research facilities, access to new ideas, techniques and development of specific research initiatives within industrial firms. Expansion of the scope of academic activities would enable the university to make greater and more relevant contribution to economic needs of the region. Close partnerships with industry would add to the quality of research, through feedback on applicability of research results.

The encouragement of cooperation between university and industry through joint projects or consulting opportunities will allow academics to apply their existing technological skills and experience in the context of industry (technology transfer initiatives). Increasing the efficiency of collaboration between universities and hi-technology firms would be a priority. Universities would be encouraged to help upgrade the skills of industrial managers and other professionals through collaborative training programs

University Industry Liaison offices will be given additional responsibility to coordinate internships and industrial placements for students with local firms. The involvement of industry in Final-Year projects and conducting of periodic seminars in collaboration with institutions would be encouraged.

Government organizations will provide services to industries with regard to technology acquisition and negotiation.

Terms of Reference of Standing Committees of the Sectors are outlined as follows: Situation Analysis, future directions, Visions, Targets, identification of needs of technologies and requirement of manpower for 10 year time frame. Reports to be submitted/ presented to Chairman. These rollover plans would be reviewed and updated every year.

Formation of HEC Steering Committee comprising Executive Director and Conveners of above Committees will oversee and ensure an integrated national approach.

PROGRAMS FOR COLLABORATIVE RESEARCH

Collaborative and Health Research Projects (CHRP)

These projects would support focused collaborative research projects in any field of the natural sciences and engineering, which if successful, would lead to health benefits for Pakistanis, more effective health services/ facilities and economic development in health related areas. Depending upon complexity of research project, industry (25 to 50%) and HEC (50-75%) would share the cost.

Strategic Project Grant (SPG)

The project would fund research project in emerging significant target areas of national importance.

Collaborative Research and Development Grant (CRD)

These 10 proposed projects will be undertaken by university researchers and their private sector partners. CRD' grant should cover 50-75% of the total eligible direct project costs with the industrial partner(s) providing the balance in cash and in kind.

Chairs & Faculty Support Program to Promote University/Industrial Linkages:

Industrial Research Chairs (IRC) in various fields.
Chairs in the Management of Technological Change (CMTC)
Chairs in Design Engineering (CDE)
New faculty Support (NFS) Grant: To assist universities

PERN & DIGITAL LIBRARY

Pakistan Education and Research Network (PERN)

This PERN project has been designed to connect all the public and private sector universities of Pakistan to each other via a high-speed network allowing real-time transfer of audio and video, multimedia-enabled lectures, and remote research partnerships.

The HEC aims to capitalize on this infrastructure and greatly enhance the capabilities of Pakistani universities to provide high quality higher education to all who wish to benefit from it.

The project currently provides access to 14 public and private sector institutions, and will be gradually expanded to connect all institutions in the country, providing a platform for the development of a digital library and research network**.**

University Computerization and Networking

The main objective of the project is to establish a computerized infrastructure, providing a modern and effective working environment within public and private sector universities. By installing Local and Wide Area Networking systems (LAN/WAN) the project will furnish universities with modern communications systems, supporting local intranet and internet accessibility. The public sector universities for which the projects of computerization & networking enhancement have been approved by the HEC.

Pakistan Education Network

The Pakistan Education Network. is already a reality and will, when fully deployed, connect all public 'and private sector universities of Pakistan to each other. This network provides a perfect platform to build an "internet2 compatible" truly high-speed network that will allow real-time transfer of audio and video, multimedia-enabled lectures, remote research partnerships, and many other applications hitherto unknown.

The terrestrial computer network is complemented by the four digital television channels dedicated for education in the new Pakistan satellite that is expected to be operational by the end of the year. This combination of video over dedicated satellite channels and data/audio/multimedia over the Pakistan Education Network is truly a world-class distance-learning platform. The HECaims to capitalize on this infrastructure and greatly enhance the capabilities of Pakistani universities to provide high quality higher education to all who wish to benefit from it.

Digital Library

Increasing access to research information has been identified as a key mechanism for increasing the research productivity of Pakistani institutions. There is an increased recognition of the vital role that information and knowledge can play in development and of the potential of new information and communication technologies. The strategy adopted by HEC to achieve the increase in development by enhancing research productivity has centered on the development of a digital library.

The primary objective of this digital library project is to provide researchers within public and private universities in Pakistan with access to international scholarly literature based on electronic (online) delivery, with access to high quality, peer-reviewed journals, databases and articles across a wide range of disciplines.

By achieving this objective, the HEC aims to support capacity building in the research sector in Pakistan by strengthening the production, access and dissemination of information & knowledge.

HEC will be launching the Digital Library Program in January 2004. Through this program the HEC aims to achieve the following: to facilitate acquisition of international information and knowledge; to improve access to research through promotion of national and regional journals ; to provide awareness or training in the use, evaluation and management of to electronic information and communication technologies ;to enhance skills in preparation, production and management of journals.

HEC's Digital Library Program will be providing access to over 10,000 full-text online journals and many world's leading bibliographic and reference databases. Access to all of the resources will be country-wide, and will be available to all of the universities in the public and private sector, as well as research and development organizations.

INNOVATION IN TEACHING & LEARNING

Dr. Zarrin S. Siddiqui,
D.G. Learning & Innovations

This is an effective educational program that involves both educational skills as well as subject expertise of the faculty members. Unfortunately in the context of higher education in Pakistan it is widely neglected. Hence, this is identified as one of the priority areas by HEC and strategies are defined to extend a professional approach to teaching and the support of learning through a number of educational activities. These in the long run will serve to establish and facilitate a culture of professional development among faculty members in higher education.

The proposed activities include:

1. Lectures by eminent educators and scholars
2. Seminars on topics of interest to educators
3. Journal Clubs
4. Research presentations
5. Advisory support
6. Resource Center
7. Certificate Course in teaching & learning in higher education.

Graduate Certificate Course in Teaching and Learning (GCCTL)

It is now a worldwide practice that all new academic staff is required to participate in a Teaching and Learning Orientation Course. This will help in laying the foundations for an effective teaching career. It covers training and support in learning, teaching, assessment and supervision. On the same note HEC is also planning to introduce a six week intensive course to acquaint the faculty members with the process of teaching and learning starting from Jan 2004. In the first phase the course will be delivered face to face but keeping in demands of faculty commitments flexible delivery options will be considered. The focus of the program will initially be on training Master trainers who can later on disseminate training to wider population serving in educational institutions. The certificate course is designed for those who are relatively new to teaching in higher education faculty members may also find the course helpful as an opportunity to reflect on current practice. It will improve their understanding of educational principles and approaches and facilitate their application in day to day educational practice.

The GCCTL aims to produce to develop competent, confident and reflective practitioners capable of evaluating and developing their own teaching and learning, support practices in the context of theory, research and evidence. There is a particular emphasis on developing generic competencies underpinned by professional values within the context of disciplinary practice. These competencies include designing effective educational programs, the use of a variety of teaching and learning support methods and resources, the assessment of students, supporting student learning, reviewing and evaluating teaching, professional development and quality issues.

The course which consists of various modules and assessment will include conventional written assignments, group projects and a portfolio. The above Program has already received approval at the cost of Rs. 14.068 billion. By the end of this 3-year Program, 210 teachers would have received training in2 batches per year, each batch consisting of 35 teachers.

PAY INCENTIVES FOR FACULTY MEMBERS

Tenure Track System (TTS)

The Tenure Track System (TTS) is now at the implementation stage in the public sector universities and institutions. The TTS has specially been instituted to benefit services and achievements made by faculty members so that they may work with more dedication and devotion.

The TTS is designed for academics of merit, and performance excellence in teaching & research. The package is applicable to faculty members in science, engineering, agriculture, medical disciplines. Additional disciplines in social sciences which matter in economics development and poverty alleviation are also inclusive of this package.

The TTS criterion and its notification have been made by HEC for its admissibility and selection of the faculty members. Regular faculty performance will be made by the Peer Review Committee for continuing of their services under the TTS. The TTS pay package would be accommodated in the already prevailing scales (M- Scales or MP- Scales) instead of introducing a totally new pay package.

Pay package is reflected as under

Category of Faculty Member	Pay Scales	House Rent Allowance	Utility Allowance	Minimum Monthly Salary	Maximum Monthly Salary
Professor	**50,000-7,5000-80,000**	**30,000-50,000**	**5% of pay**	**82,500**	**134.000**
Assoc. Professor	**35,000-5,000-50,000**	**15,000-20,000**	**5% of pay**	**51,750**	**72,500**
Assist. Professor	**25,000-3,000-37,000**	**10,000-12,000**	**5% of pay**	**36,250**	**50,850**

The TTS would be availed by 10% faculty, including the existing and the likely new inductions in the first instance.

Letters have been circulated to the Vice Chancellors of the public sector universities which includes a complete package of new pay structure for the implementation of Tenure Track System.

The induction of Tenure Track System is in fulfillment of the Government of Pakistan’s commitment to pay enhancement of teachers working in the higher education sector.

Better Incentives for Faculty Members

HEC has also devised another pay package for implementation to benefit teachers of the higher education sector. Strict criteria have been laid down for determining the eligibility of faculty members/researchers for better incentives.

The incentive award is 3 or more salary increments based on academic performance, which includes research publication of international repute; number of M.Phils /PhD's produced; grants won at national /international levels; honors /awards received.

The assessment for the award is carried out be Peer Review Committee comprising which will include nominee of HEC and the University/Institute/Centre concerned. The incentives extended on merit to recipients will not exceed the limits of 25% of the faculty strength of each department.

MONOGRAPH & TEXT BOOK WRITING

Textbook & Monograph Writing Scheme

Instruction work at pre-university levels is largely conducted through the use of authorised textbooks specially prepared for the purpose. This is unfortunately not true at the university level. The curriculum is derived from a large number of books This is understandable because apart from core areas, which are common to almost all universities, special areas and topics are included in different universities to give greater depth and variety to a subject.

Keeping this huge variety in mind, one suffers from a serious shortage of quality textbooks and other supporting materials at the university level. The Higher Education Commission, therefore, has embarked upon a Publication Scheme of Monograph and Text book writing based on curriculum topics and areas of interests. This Scheme on curriculum based 'Monographs and Textbook Writing' is, therefore, attempt to create and establish a strong cadre of authors among academics.

Procedure and Remuneration for Monograph and Textbook Writing

A teacher intending to write a monograph/textbook would forward the proposal to HEC which is peer reviewed by two experts. Upon the approval of synopsis from both subject experts, the author will be asked to write the manuscript of monograph or textbook, as the case may be. Once the author completes the manuscript, it will be sent to HEC Secretariat, from where it will be forwarded to the subject experts for second evaluation and final approval.

The textbook writer is paid remuneration at the rate of Rs.1,00,000 for writing textbook at M.A/M.Sc. level; Rs.80,000 for monograph writing at M.A/M.Sc. level, and Rs.60,000 for monograph writing at B.A/B.Sc. level.

In case a textbook or monograph is co-authored by two or more persons, the remuneration will be distributed equally. Actual expenditure involved in preparing the textbooks and monograph material is paid up to the maximum of Rs.25,000/-.

During the Year following Monographs were published by Higher Education Commission;

1. **Enzyme Kinetics and clinical Applications** by Dr. S.I. Ahmed, Karach University

2. **Biophysical Process in Plants** by Dr. Ihsan Illahi, Peshawar University

3. **Bacterial Virus; Basic & Applied concepts** by Dr. S. Ajaz Rasool, Karachi University

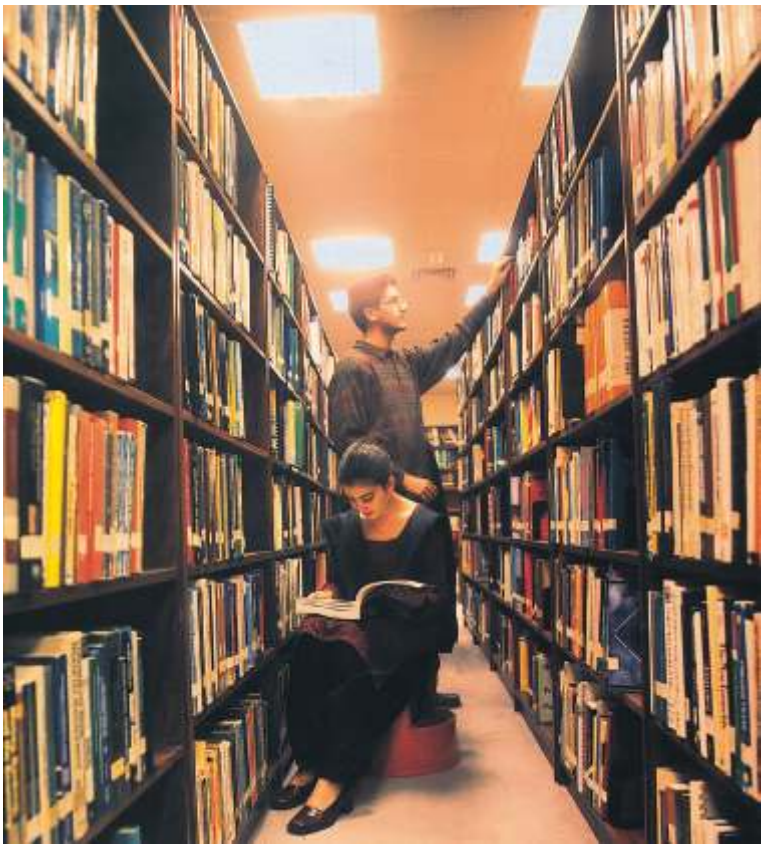
4. **Theory and Practice of Chromatography** by Dr. Javed Iqbal & Dr. Aminuddin, Islamia University, Bahawalpur

5. **Parasitic Research on Domesticated Animals in Pakistan** by Dr. Zafar Iqbal, Agric. University Faisalabad.

6. **Principles of Insect Pest Management** by Dr. Muhammad Shahid, NWFP University of Agric

7. **A to Zee: Communicative Techniques & Activities** by Mrs. Wasima Shehzad, National University of Sciences & Technology, Rawalpindi

8. **Retrosynthetic Approach to Organic Synthesis** by Dr. Shaikh Sirajuddin Nizzami, University of Karachi, Karachi



HEC FUNDED INSTITUTIONS

UNIVERSITIES *

University of Karachi, Karachi
NED Univ. of Engg & Tech., Karachi
Sindh Agriculture Univ., Tandojam
University of Sindh, Jamshoro
Shah Abdul Latif University, Khairpur
Mehran Univ. of Engg. & Tech., Jamshoro
Q.A. Univ. Of Engg. & Tech., Nawabshah
University of the Punjab, Lahore
Univ. of Engg. & Tech., Lahore
Univ. of Engg. & Tech., Taxila
Univ. of Agriculture, Faisalabad
Bahauddin Zakariya University, Multan
Islamia Univ., Bahawalpur
Univ. of Arid Agri., Rawalpindi
Fatima Jinnah Women University, Rwp
University of Peshawar, Peshawar
Univ. of Engg. & Tech., Peshawar
Univ. of Agriculture, Peshawar
Gomal University, D.I. Khan
Univ. of Balochistan, Quetta
Univ. of Engg. & Tech., Khuzdar
Quaid-i-Azam Univ., Islamabad
Allama Iqbal Open Univ., Islamabad
International Islamic Univ., Islamabad
National Univ. of Modern Languages, Ibd.
AJK Univ., Muzaffarabad
Karakurram International Univ., Gilgit

AFFILIATED

CENTERS OF EXCELLENCE

Geology, Peshawar
Physical Chemistry, Peshawar
Solid State Physics, Lahore
Water Resources Engg., UET, Lahore
Molecular Biology, Lahore

* References of newly established universities & institutes during the year are available in the HEC Website : www.hec.gov.pk

HEC FUNDED INSTITUTIONS

Analytical Chemistry, Jamshoro
Mineralogy, Quetta
Psychology, Islamabad
History and Culture, QAU

AREA STUDY CENTERS

South Asia, Lahore
Europe, Karachi
Far East & South East Asia, Jamshoro
Central Asia, Peshawar
Middle East & Arab Countries, Quetta
Africa, N & S America, QAU, Islamabad

PAKISTAN STUDY CENTER

Univ. of the Punjab, Lahore
Univ. of Karachi, Karachi
Univ. of Sindh, Jamshoro
Univ. of Peshawar
Univ. of Balochistan, Quetta
Instt. of Pak. Studies, QAU, Islamabad

INSTITUTES

Applied Economics Res. Centre, Karachi
Instt. of Business Administration, Karachi
HEJ Research Instt. of Chemistry, Karachi
Third World Centre for S&T, at HEJ, Karachi
Instt. of Clinical Psychology, Karachi
Instt. of Clinical Psychology, Lahore
Instt. of Bio-Chemistry & Bio-Tech., Lahore
Water Management Research Centre, Faisalabad
Scientific Instrumentation Centre, Peshawar
Shaikh Zayed Islamic Centre, Peshawar
Shaikh Zayed Islamic Centre, Lahore
Shaikh Zayed Islamic Centre, Karachi

COLLEGES

National College of Arts, Lahore
Z.A.B. Agriculture College, Dokri
B.Z. Univ. Agriculture College, Multan
B.Z. Univ. Engg. College, Multan

CHAIRS

Chair on Quaid-i-Azam, QAU
Shah Abdul Latif Bhitai Chair, Karachi
Seerat Chair, Islamia Univ. Bahawalpur
Seerat Chair, Univ. of Karachi, Karachi
Dr. Salam Chair in Physics, Lahore

STATUTORY BODIES OF THE COMMISSION

The HEC Ordinance provides for the Higher Education Commission to establish as many committees as may be required to effectively perform its functions. The Ordinance allows the Commission to determine its composition and functions. Statutory Committees are as under:

Vice-Chancellors Committee

All vice-chancellors are members of the Vice- Chancellors Committee. The VC Committee elects its chairman for successive committee meeting by rotation from amongst its members. The Director General (Administration & Coordination) is Secretary of the Committee. The HEC Chairman and the HEC Executive Director attend these committee meetings as observers only.

Functions of the VC Committee are to: advise the Commission on all matters connected with academics, research, and administration of the universities; initiate proposals for promotion and improvement of higher education in the country; perform equivalence on the examination and standard of Pakistani universities vis-à-vis foreign universities; advise on matters relating to student discipline and problem of teachers and other employees of the universities; help coordination of activities of the universities and implementation of Commission's programs; present 'Universities View' for improving standards of teaching and examination and securing approximations of examination of different universities; and do all other things as may be thought incidental or conducive to the fulfillment of the stated functions.

Accreditation & Equivalence Committee

The Committee consists of Chairman HEC, who is Chairman of this Committee. Members are Executive Director, HEC; Chairman VC Committee; Member, Strategic Planning/Human Resource Development (HEC); Secretary Inter-Board Committee of Chairman; Rep. of the Ministry of Education, (not below the rank of J.S. or J.E.A.); Director General (A&C) of HEC, who is Member/Secretary.

Functions of the Committee are to consider the recognition of degrees and diplomas of Pakistani universities; to decide all cases of equivalence of degrees and diplomas of foreign universities vis-à-vis the degrees and diplomas of Pakistani universities ; and consider any other matter that is referred to the Commission by universities, institutions of higher education , the Provincial or Federal Governments.

Planning & Development Committee

The Planning & Development Committee consists of Chairman HEC, who is Chairman of the Committee. Members are E.D., HEC; Rep of Ministry of Education (not below the rank of J.S. or J.E.A.); Rep of the Planning Commission; and Advisor P&D who is Member /Secretary

Functions of the Committee are to: advise the Commission on matters relating to P&D of the universities; consider schemes and proposals for the establishment of new universities and the expansion of existing universities; examine and review various development schemes received from the universities; examine and review schemes prepared by the P&D Division of HEC; initiate proposals for the developing fields of specialization of the various centers and institutions of the higher education public sector.

Finance Planning Committee

The Committee comprises of Chairman HEC, who is Chairman of the Committee. Members are Executive Director HEC; one member nominated by the Commission from amongst themselves; Financial Advisor, Ministry of Education; and Advisor Finance/D. G. Finance (HEC) who is Member/ Secretary.

Functions of the Committee are to; consider the annual budget and advise the Commission thereon; review periodically the financial position of the Commission and recommend towards its financial improvement; examine and report on financial implications of any new major development program; examine the annual audit report and make suggestions to the Commission and perform such functions as may be prescribes the Committee.

Pakistan University Sports Board

The Board comprises of Chairman HEC, who is Chairman of the Board. Other members are the Executive Director (HEC), all vice-chancellors, a Rep. of the Ministry of Education; Director, Pakistan Sports Board; Director General, National Sports Trust; Director General/ Director Sports, who is member Secretary.

Functions are to: encourage, promote and develop the standard of games and sports in the universities of the country; plan and execute various sports and cultural activities in order to offer occasions for social contact and understanding amongst the students of the universities; organize the Inter-University Sport and to awaken the interest of students in recreation and sports; arrange coaching camps, matches with visiting teams, and provincial teams; select teams for foreign visits and international meets; recommend award such as medals, trophies and colors to the students showing outstanding merit and performance; undertake such other activities as may be conductive to promote these aims.

National Curriculum Revision Committee

These are subject based Committees whose membership comprises of subject experts from either college/university teaching departments or user organizations. Chairman HEC decides on the composition of membership while D. G. Curriculum remains the Member/Secretary.

AND ITS ORGANIZATIONAL STRUCTURE

Function of National Curriculum Revision Committee is to review and update the curriculum of subject of each discipline every three years.

Peer Review Committees

There are many Peer Review Committees. Each Committee is subject based whose membership is decided by Chairman HEC. The Committees review projects prior to their submission for approval at the Developing Departmental Working Party (DDWP).

Steering Committee on Higher Education

This is a high profile Committee. Its membership consists of Executive Director, HEC who is Chairman of the Committee. Other members are all provincial secretaries of education with Director General, Administration & Coordination, as Secretary.

The Steering Committee was formed in the middle of the year and will meet regularly to decide on issues and problems emerging in the higher education sector.

The Department Development Working Party

Pursuant to Section 10 (i) of the Ordinance of Higher Education Commission, the DDWP (HEC) was constituted to review and approve/disapprove all development projects of the higher education public sector up to the ceiling of less than Rs. 40 million.

Membership of the DDWP comprise of Chairman, who is the Executive Director (HEC); Advisor Planning & Development (HEC); Member HRD & SP (HEC); DG. Monitoring & Evaluation (HEC); Chief, S&T, Planning Commission; Rep. of Min. of Finance; Rep. of Pakistan Science Foundation and relevant subject experts.

HEC ORGANIZATIONAL STRUCTURE

The following Divisions discharge the work of the Commission

Administration & Coordination: The Division prescribes minimum criteria and qualification for appointment, promotions, salary structure and other terms and conditions of service of the employees and faculty for adoption by individual institutions and reviews its implementation.

Finance Operation & Management: The Division allocates out of bulk financial provision received from the government and other resources and provide funds out of these resources to public sector institutions on performance and needs basis. It also assists institutions in raising funds from sources other than the government.

Accreditation & Legal Affairs: The Division prescribes conditions under which institutions that are not part of the state education system may be opened and operated. It advises the Provisional Governments on proposals for granting a charter to award degrees in both public and private sectors and review the performance affairs on any other matter of any institution in pursuance of HEC Ordinance and after such review make appropriate recommendations to its chancellor for necessary action. It also advises the Federal Government on proposals for granting charter to award degrees in both public and private sectors and review the performance affairs of any other matter of any other institution in pursuance of the HEC Ordinance and after such review makes appropriate recommendations to its chancellor for necessary action.

It determines the equivalence and recognition of degrees, diplomas and certificates awarded by institutions within the country and abroad. The Division also advises the chancellor of any institution on its statutes and regulations

Planning & Development: The Division finalizes and implements plan for the development of higher education on all matters and expresses opinion on all matters concerning therewith. It reviews and examines the needs of institutions, approve and provide those funds for their annual recurring expenses and development projects as well as research and developmental activities ensuring that at least 20% of their resources are allocated to research support and libraries. It also sets up committees comprising national and international experts in various disciplines that will advise HEC on its affairs.

Quality Assurance & Learning Innovation: The Division evaluates the performance of the institutions for all matters relating to higher education. It submits to the Federal Government the recurrent and development budgets for institutions and ensures that the budgets of the institutions are balanced and performances based, and make appropriate arrangements accrediting and rating institutions including their departments, faculties and disciplines. It sets up testing bodies or designates any existing body for the purpose. It also sets up guidelines and facilitates the implementation of a system of evaluation of performance of faculty members and institutions. It organizes training programs, workshops and symposia. It sets up guidelines and assists institutions in designing curricula and facilitates a proper content of the basic sciences, engineering, technology, social sciences and humanities in the curriculum of each tier. It collects information and statistics on higher education and institutions as it may deem fit and may cause it published

Human Resource Development & Academics: The Division supports the development of linkages between institutions of higher education and industry as well as the national and international organizations that fund research and development with a view to enhancing contractual research. It takes necessary measures for the introduction of educational programs that meets the needs of the employment market and promotes the study of basic and applied sciences in every field of national and international importance in the institutions. It assists the institutions to ensure a proper balance between teaching and research. It takes necessary measures for the establishment of fellowships, scholarships, visiting professorship programs or any other program, in addition to assistance of similar program of institutions and allocate funds in accordance with national need performance and progress and facilitate greater mobility of faculty through national and international contacts. It promotes formal links between institutions in the country to make the most effective use of experience and specialized equipment and promote national and international linkages with respect to knowledge sharing, collaborative research, personal exchange and cost-sharing it. It examines and brings to the notice of the head and government bodies of the institutions as well as federal or a provincial governments , as necessary, the problem of institutions including those of researchers, teachers and students and recommend measures for solution thereof.

STEERING COMMITTEE DECISIONS

Decisions of the 1st Steering Committee Meeting held on July, 14, 2003 at HEC Secretariat:

Participating in the discussion, the Executive Director stressed the need for making education more result oriented and compatible to the needs of society. He suggested that:

- The Steering Committee on Higher Education be a consultative and coordinating body and
- Will meet on quarterly basis either at Islamabad or in a Provincial Capital or any other city (as proposed by a host Provincial Govt.).

The Committee, upon taking up the agenda was briefed by Dr. Naqvi on the operation of private universities /institutions and how they were overstepping their territorial jurisdiction by opening campuses illegally in the provinces (other than the province of their charter) as well as the federal capital territory. Making reference to the guidelines for establishment of a university and the institutions of higher education as well as the provisions of HEC Ordinance, he called for evolving a well thought out mechanism to check such institutions. He observed that, most of the universities in private sector did not meet the minimum requirements of academic, financial and physical infrastructure and had never offered themselves for inspection of facilities in relation to the academic programs they were offering. He also presented a comparative statement of the requirements prescribed by different provinces vis-à-vis the criteria approved by the Federal Government. He, therefore, asked for more concerted efforts to bring the requirements at par with those followed by HEC and therefore suggested to further raise the pre-conditions for a university or institution of higher education.

The Education Secretary, Sindh told the Committee that the Government of Sindh awards charter to universities / institutions for operation only in a particular city and that too after the fulfillment of the required criteria. He stated that, the Provincial Charter Evaluation Committee carries out inspection of the facilities in relation to the programs to be offered and recommends thereafter the grant of charter.

The Secretary Higher Education, Government of NWFP informed that there were only four universities which were given Charter before the introduction of the revised criteria by the erstwhile UGC and that these universities also had the power of affiliation. He informed that, these provisions, which were incorporated in their charter, are being withdrawn through legislation. He stated that the universities with charter from the government of NWFP could open only two campuses in the province. He informed that, for the operation of the universities chartered by other provinces, an NOC from the government of NWFP was pre-requisite (as the Govt. of NWFP presumed that the universities, enacted by other provinces, must have fulfilled all the necessary requirements). After discussion on this point, he agreed to the proposal that the campuses of universities would be asked to develop the required level of infrastructure for continuation of their operation.

Taking part in the discussion, the Special Secretary, Higher Education, Government of the Punjab informed that his Govt. did not allow the universities/ institutions given charter by the Govt. of the Punjab or by other provinces to open campuses in Punjab. He informed that, even in respect of grant of charter to the universities/institutions in the Punjab requesting for it, the charter is not given without a rigorous evaluation and assessment of availability of academic, financial and physical resources of the applicant. He stated that, though the minimum requirements set out for the purpose appear to be relatively softer, yet the same are observed stringently. According to him, the letter of Ministry of Law, Justice and Human Rights, with regard to observance of territorial jurisdiction of public sector universities, needed to be followed in letter and spirit. All the members agreed to this.

Participating in the discussion, the Secretary Education, Government of Balochistan sought help of other provinces in revamping of technical education and welcomed the suggestion of Executive Director, HEC for opening of campuses or affiliation of colleges/institutions established in his province and imparting education in emerging fields of studies.

Thereafter a lively discussion on various issues involved took place in which all the Provincial Education Secretaries as well as the Executive Director, the Member (HRD & SP) and other Members participated. As a sequel to this discussion, the following resolutions were made.

That private university/institutions having a provincial charter, the following is to be noted:

1. Punjab and Sindh Governments do not currently allow (either within the provinces or elsewhere) the opening of new campuses by a private sector university for a period of 10 years after grant of charter.

STEERING COMMITTEE DECISIONS

2. NWFP allows the opening of two campuses within NWFP, provided the main campus has been fully developed and satisfies all criteria of the Provincial Government.

3. Balochistan encourages quality universities/institutions to open campuses in Balochistan.

4. No information is available for AJ&K.

Any private or public sector university/degree awarding institution desiring to open a new campus at a different physical location in Pakistan will have to obtain the permission of the relevant authority having jurisdiction over the area in which the campus is to be opened. These authorities are:

S. No	Province/territory in which campus is to be opened	Relevant authority
1.	Punjab, Sindh, NWFP & Balochistan	Provincial Ministry of Education
2.	Federal territory, FATA	HEC
3.	Azad Jammu & Kashmir territory	AJ&K Gov., Ministry of Education

The following was agreed upon by all present:

1. Any authority receiving an application for opening of a campus will refer the application to the province granting charter to the parent institution.

2. For the case of Balochistan a pro-active approach will be adopted and quality institutes/universities will be encouraged and incentives given to open campuses there.

3. No application for opening of additional campuses will be considered until the main campus of the university fulfils the minimum criteria of the relevant authority.

4. Each campus of the university/degree awarding institution would be required to possess all academic, financial and physical requirements as needed under the relevant criteria.

5. HEC would issue notices to campuses of provincial universities operating in Islamabad asking them to regularize their operation by fulfilling minimum criteria for opening a campus within a specified time frame. A copy of the letter will be sent to the relevant provincial governments of the parent institution asking them to initiate action against the university/institution including visitation and withdrawal of charter.

6. A list of all legal and illegal campuses of educational institutions operating in the various provinces will be sent to HEC, so that it may be placed on the Website of HEC and suitable action may be initiated against campuses operating illegally including publishing these lists in the press with HEC advice and/or notices.

7. The existing campuses fulfilling 70 to 80% of the requirements would be given chance to improve their infrastructure within specified time to be fixed by respective provincial government.

8. The provincial governments will also take action against all illegal campuses in their provinces on the lines HEC plans to take action in the federal capital territory.

EQUIVALENCE & ACCREDITATION COMMITTEE DECISIONS

The Committee considered as final "Sanad, Shahadatul Almiya Fil Uloomal Arabia wal Islamia" awarded by the Wafaq/Tanzeem/Rabita-tul Madaris and five (recognized) Madaris, as equivalent to M.A Arabic/Islamic Studies for purpose of teaching Arabic and Islamic Studies in colleges/universities and for pursuing higher studies. For employment in fields other than teaching, such Sanad holders would be required to qualify in two additional elective subjects other than Arabic and Islamic Studies at B.A level from a university. They would also need to qualify in compulsory subjects of Pakistan Studies and Islamic Studies at B.A level.

With regard to equating degrees of foreign as well as local universities, decisions by the Committee were decided as under:

Oct. 2002 to June 2003	Cases Received	Decided	Regretted
Foreign	419	358	61
Local	429	364	65
Deeni	121	99	22
Total	969	821	148

Regarding equivalence of degrees to be granted to Virtual/Online distance learning institutions, the Committee decided that a university/institution accredited/chartered by a body which is recognized by the HEC, and the university/institution that has both on campus and distance education programs, and the degrees granted by the university/institution to students studying on campus or through distance education are indistinguishable. In such cases both degrees will be treated at par.

In recognition of degrees granted by universities in private sector the Committee having considered different proposed hypothetical options noted that the recommendation letter for grant of charter from HEC or the No Objection Certificates (NOC) to the universities/institutions in private sector were issued on the basis of academic, financial and physical infrastructure available with them.

The Committee therefore, decided to: validate the degrees awarded to students who qualified the terminal examination after the date of grant of charter by the Federal or Provincial Governments:

validate the degrees obtained from foreign universities through local institutions running collaborative/franchise degree programs from the date of issue of NOC or recommendation letter and subject to the condition that these institutions are finally registered and allowed to operate in territorial jurisdiction of respective public university and provincial Education Department. (In case of institutions in Federal Capital Territory, the approval of HEC will remain mandatory for recognition of degrees) Not grant on NOC or recommendation letter to any body wishing to operate in a province or AJ&K unless it has obtained clearance from the respective Provincial/AJK Governments.

The sponsors of Beacon-house Informatics and Asia Pacific Institute of Informatics Technology (APTT), Karachi were recommended by the Equivalence and Accreditation Committee for foreign collaboration with the Informatics Holding Limited, Singapore and Curtin Malaysia University of Technology, Australia to run BB IT degree program and APIIT, respectively. However, both sponsors have been asked to fulfill mandatory legal requirements/conditions of respective Provincial Governments before establishment of said foreign collaboration.

The degree awarded by Multimedia University, Malaysia through its campus located at Cyberjaya and Melaka have also been recognized by HEC.

With Compliments From Media Office

AN ANNUAL REPORT: 2002-2003 OF HIGHER EDUCATION COMMISSION, (ISLAMABAD) PAKISTAN
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Composition and Design by Mr. Munir Zaidi, Editor: Ms. Tahira Brohi, Printed at HEC Printshop.