Annual Report

2012
13



HIGHER EDUCATION COMMISSION - PAKISTAN

Annual Report 2012 13

HEC Mission

To Facilitate Institutions of Higher Learning to Serve as an Engine of Socio-Economic Development of Pakistan

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Executive Summary



Increase in research output of Pakistani universities, continuous enhancement of quality standards for higher education sector, development of qualified human resource, increase in equitable access, improvement in academia-industry linkages, and strengthening of universities' physical and technological infrastructure are just a few achievements made by the Higher Education Commission of Pakistan in the last decade.

As a result of various HEC initiatives, six Pakistani universities are now ranked among top 300 Asian universities while two Pakistani universities are now ranked among top 300 science and technology institutions of the world. Higher education is now accessible to all regions of the country with an increase in number of university campuses in Pakistan from 168 to 258 including establishment of 41 new universities.

The increase in student enrolment at universities from 330,000 to over a million, increase in the number of women enrolled in universities from 36% to 46%, award of more than 10,000 local and foreign scholarships through a well-defined and transparent mechanism that has made no compromise on merit and award of 2,000 scholarships for the talented youth of Balochistan and Fata are remarkable accomplishments.

The Government of Pakistan is making significant investments towards developing institutional facilities, introducing new disciplines in cutting-edge and market based technologies, developing human resource including faculty, improving research facilities and student services, creating linkages with local and foreign universities and promoting university-industry interaction, amongst many others.

HEC has been spearheading research in universities which has led to the creation and growth of indigenous knowledge in all academic fields. And the universities in Pakistan have equally responded passionately to all the initiatives taken by HEC towards research and development and many projects have made their presence felt at national and international fora. The activities of HEC for promotion of R&D encompass capacity building of researchers and faculty, support to universities in promoting research, and commercialization of research.

The Commission has put great emphasis on production of highly qualified manpower for higher education institutions and R&D organizations of Pakistan so that they could play their multiple academic and research roles with an ultimate objective of socio-economic development of Pakistan. Talented scholars have been provided foreign PhD scholarships and Post-doctoral Fellowships for top universities of the world, local scholarships for PhD studies, besides ensuring placements of fresh PhDs.

Under HEC overseas scholarship schemes, over 6000 scholars have been sent abroad/financed under various HRD programmes for MS, PhD, Post-doctoral research and under the International Research Support Initiative Programme. Out of these, around 4000 have successfully completed their studies and

returned to serve in Pakistan. While more than 5000 scholarships have been awarded under indigenous schemes of which around 1200 scholars have completed their doctoral degrees. In addition, the first batch of 1000 scholars has been provisionally selected during 2012-13 under Phase-II of the Indigenous PhD Fellowships.

Similarly, the Information Technology Division at HEC continues to keep abreast with rapid changes in technology, offering modern and latest solutions and support to tap possibilities. HEC has introduced programmes to establish world-class IT facilities in the higher learning institutions. These applications range from offering information roads across the nation and beyond through PERN2 and TEIN4, nationwide video conferencing network, to applications like campus management solution for universities to help them handle academic life-cycle.

HEC's quality assurance programme focuses on three broader areas; sensitizing academia for quality and standards, developing these standards, building capacity of HEIs to implement these standards for quality improvements and evaluating implementation of these standards with reflections of a quality culture.

Dr. Mukhtar Ahmed
Executive Director

GLOSSARY

A&A	Accreditation and Attestation
A&C	Administration and Coordination
AAUR	Arid Agriculture University, Rawalpindi
AIOU	Allama Iqbal Open University
AIT	Asian Institute of Technology
AJK	Azad Jammu and Kashmir
APAN	Asia Pacific Advanced Network
APQN	Asia Pacific Quality Network
ASSMS	Abdus Salam School of Mathematical Sciences
AUP	Agricultural University Peshawar
AWKU	Abdul Wali Khan University
BAS	Business Automation System
BIC	Business Incubation Centre
BIRT	Business Intelligence Resource Team
BISP	Benazir Income Support Programme
BOLD	Barcode of Life Data Systems
BPAS	Business Processes Automation System
BPM	Business Process Management
BUITEMS	Balochistan University of Information Technology, Engineering and Management Sciences
BZU	Bahauddin Zakariya University
CALL	Computer Assisted Language Learning
CASE	Council for Advancement and Support of Education
CASE	Centre for Advanced Studies in Engineering
CDSSHP	Committee for Development of Social Sciences and Humanities in Pakistan
CDWP	Central Development Working Party
CGPA	Cumulative Grading Point Average
CIIT	COMSATS Institute of Information Technology
CPD	Continuous Professional Development
DAI	Degree Awarding Institution
DAS	Degree Attestation System
DDWP	Departmental Development Working Party
DES	Degree Equivalence System
DLP	Digital Library Programme
DNS	Domain Name System
DSF	Degree Supplement Form
DUHS	Dow University of Health Sciences
ELTR	English Language Teaching Reforms
e-Rater	Essay Rater
ESP	English for Specific Purposes
ETS	Educational Testing Service
FAQs	Frequently Asked Questions
FATA	Federally Administered Tribal Areas
FDP	Faculty Development Programme

FFHP	Foreign Faculty Hiring Programme
FPSC	Federal Public Service Commission
FUO	Federal Universities Ordinance
FUUAST	Federal Urdu University of Arts, Sciences and Technology
FY	Financial Year
GPA	Grade Point Average
GCU	Government College University
GIS	Geographic Information System
HEC	Higher Education Commission
HRD	Human Resources Development
HRM	Human Resource Management
HSSC	Higher Secondary School Certificate
IBA	Institute of Business Administration
ICT	Information and Communication Technology
IDB	Islamic Development Bank
IDRC	International Development Research Centre
IEEE	Institute of Electrical and Electronics Engineers
IF	Impact Factor
IFIP	International Federation for Information Processing
IIU	International Islamic University
IMF	International Monetary Fund
INASP	International Network for the Availability of Scientific Publications
INQAAHE	International Network of Quality Assurance in Higher Education
INSPIRE	International Strategic Partnership in Research and Education
IP	Internet Protocol
IPFP	Interim Placement of Fresh PhDs
IRP	International Resource Persons
IRSIP	International Research Support Initiative Programme
ISESCO	Islamic Educational, Scientific and Cultural Organization
ISI	Inter-Services Intelligence
ISTIC	International Science, Technology and Innovation Centre
ITE	Incorporating Technology in Education
KAIST	Korean Advanced Institute of Science & Technology
KIU	Karakoram International University
KUST	Kohat University of Science and Technology
LAN	Local Area Network
LID	Learning Innovation Division
LUMS	Lahore University of Management Sciences
LUWAMS	Lasbela University of Agriculture, Water and Marine Sciences, Uthal
M&E	Monitoring and Evaluation
MNBSP	Merit and Needs Based Scholarship Programme
MOAC	Microsoft Official Academic Curriculum
MoST	Ministry of Science and Technology
MPhil	Master of Philosophy
MTDF	Medium Term Development Framework

MT-FPDP	Master Trainers-Faculty Professional Development Programme
MUET	Mehran University of Engineering and Technology
MUG	Modern University Governance
NAEAC	National Agriculture Education Accreditation Council
NAHE	National Academy of Higher Education
NBEAC	National Business Education Accreditation Council
NCBAE	National College of Business Administration and Economics
NCE	National Committee on English
NCEAC	National Computing Education Accreditation Council
NCRC	National Curriculum Revision Committee
NIBGE	National Institute for Biotechnology and Genetic Engineering
NIS	New Item Statement
NREN(s)	National Research and Education Networks
NRPU	National Research Programme for Universities
NSMC	National Scholarship Management Committee
NTS	National Testing Service (NTS)
NUML	National University of Modern Languages
NUST	National University of Sciences and Technology
ORIC	Office of Research Innovation and Commercialization
PCEPT	Professional Competency Enhancement Programme for Teachers
PCST	Pakistan Council of Science and Technology
PERN	Pakistan Education and Research Network
PhD	Doctor of Philosophy
PIREN	Pan-Islamic Research and Education Network
PJSI	Pakistan Journal of Social Issues
POA	Pakistan Olympic Association
PQR	Pakistan Qualification Register
PRR	Pakistan Research Repository
PSB	Pakistan Sports Board
PSDP	Public Sector Development Programme
PUSB	Pakistan University Sports Board
QA	Quality Assurance
QAA	Quality Assurance Agency
QAU	Quaid-i-Azam University
R&D	Research and Development
RDA	Rural Development Administration
RFID	Radio Frequency Identification
SAARC	South Asian Association for Regional Cooperation
SAC	Self Access Centre
SALU	Shah Abdul Latif University
SAU	Sindh Agriculture University
SAU	South Asian University
SBBU	Shaheed Benazir Bhutto University
SBKWU	Sardar Bahadur Khan Women University
SDPI	Sustainable Development Policy Institute

SIU	Statistical Information Unit
SOPs	Standard Operating Procedures
SPELT	Society of Pakistan English Language Teachers
SSHRCP	Social Sciences and Humanities Research Council of Pakistan
SZABIST	Shaheed Zulfikar Ali Bhutto Institute of Science and Technology
TEIN	TransEurasia Information Network
TELS	Transforming English Language Skills
TESL	Teaching English as a Second Language
TESP	Tertiary Education Support Programme
TIP	Textile Institute of Pakistan
TTS	Tenure Track System
UAT	User Acceptance Test
UBDS	Universal Bioactive Delivery Systems
UCP	University of Central Punjab
UET	University of Engineering and Technology
UGC	University Grants Commission
UHS	University of Health Sciences
UITSP	University Industry Technology Support Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UoB	University of Balochistan
UTCC	University of Thailand Chamber of Commerce
VC	Vice Chancellor
VSP	Visiting Scholars Programme
WISE	World Innovation Summit for Education
YEF	Young Entrepreneurs Forum

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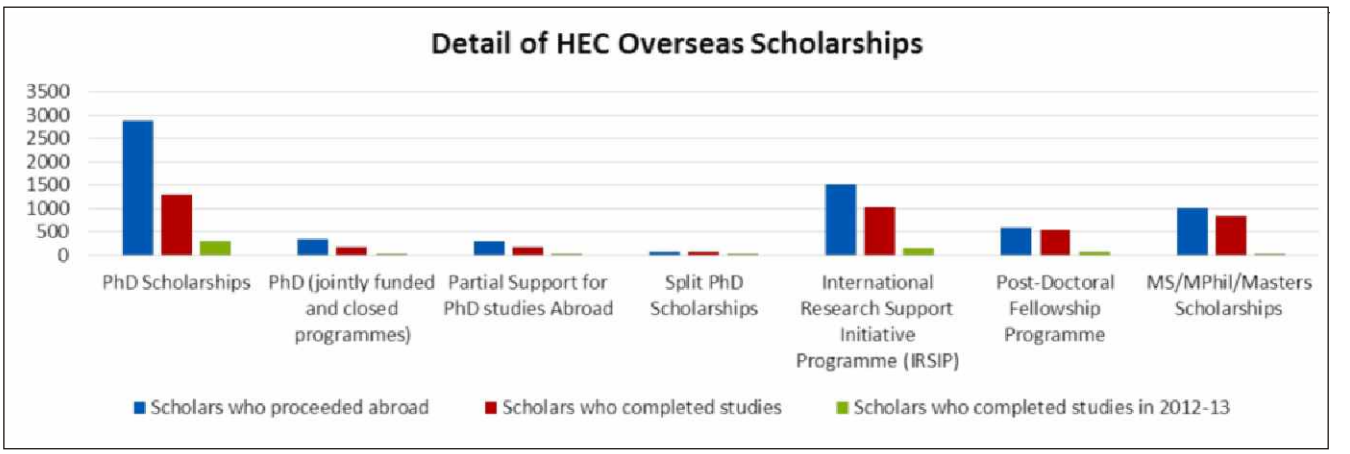
HUMAN RESOURCE DEVELOPMENT

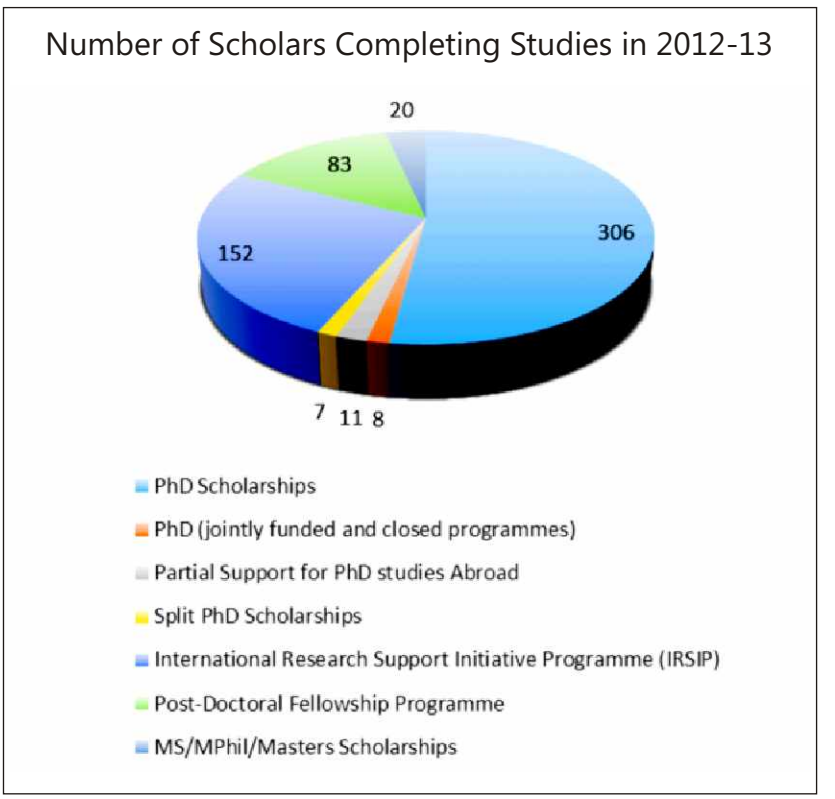
Highly-qualified faculty is the primary requirement of higher education institutions for quality teaching and research and development. Higher education institutions of Pakistan have overcome the shortage of highly qualified faculty in the last decade to an extent by initiating major faculty development programmes but still require a further boost to come up to international standards. Faculty development is the core component of human recourse development for the higher education institutions; therefore, during the year the focus of HEC remained on the production and placement of the highly qualified faculty besides providing the opportunities to the talented youth of Pakistan to improve qualifications by availing HEC scholarships. HRD strategy of HEC is the production of highly qualified manpower for the higher education institutions and R&D organizations of Pakistan so that they could play their academic and research roles with an ultimate objective of socio-economic development of Pakistan. Human Resource Development division is effectively managing its various programmes by awarding foreign PhD scholarships and Post Doc fellowships for the top universities of the world, local scholarships up to PhD level studies, placements of the fresh PhDs and ensuring the standards for PhD supervisors.

Since 2003, various HRD overseas scholarship schemes have been launched for MS and PhD level studies in universities of Austria, France, Germany, Sweden, Norway, Netherlands, Turkey and Italy and also in South Korea, China and New Zealand, where fee structure is comparatively low. Some of the scholars have also been sent to the UK, USA, Australia and Canada. A jointly funded by USAID and HEC Fulbright Scholarship Programme, was also launched for higher level studies in the USA. Transparency in the selection of candidates for the award of scholarships is an outstanding feature of the HEC. A special Committee was constituted by the Executive Committee of the National Economic Council (ECNEC), Government of Pakistan named "National Scholarship Management Committee (NSMC)" for the selection of suitable candidates on merit. The Committee is also responsible for policy decisions to regulate major HRD scholarship programmes. NSMC has representatives from all four provinces, Planning Commission, Pakistan Atomic Energy Commission (PAEC) and federal ministries apart from the HEC.

HEC also offers a six-month research fellowship abroad to full time PhD students enrolled in Pakistani universities under its International Research Support Initiative Programme (IRSIP) to enhance their research skills and broaden their vision in the technologically advanced countries. The scheme is assisting ongoing Indigenous PhD programmes by providing a mechanism for PhD scholars to conduct research abroad. A total of 1511 scholars have been provided this opportunity while during the year 2012-13, 241 scholars proceeded abroad to join the foreign universities and 152 scholars returned after completion of their studies. HEC Post-Doctoral Fellowship Programme provides advanced level research opportunities to the faculty members of universities and researchers of R&D organizations. This programme on one hand helps researchers to improve their research skills at state-of-the-art laboratories and on the other hand to establish strong linkages with universities and Research Centres of the world. During the year 2012-13, 37 scholars proceeded to join the host universities and 83 scholars completed their post doc studies and returned to their parent organizations.

Under the HEC overseas scholarship schemes, a total of 6726 scholars have been sent abroad/financed under various HRD programmes for MS, PhD, Post-Doc research and IRSIP. Out of these, total 4084 have successfully completed their studies and returned to serve in Pakistan. During 2012-13, 712 scholars proceeded abroad to join their studies while 587 scholars completed their studies under various HRD programmes.





During 2012-13, 325 scholars, financed under various HEC foreign scholarship schemes, returned to serve the country after the completion of PhD to fulfil the agreement signed with HEC.

Besides HRD overseas scholarship schemes, HEC has also launched a number of Indigenous Scholarship schemes for PhD studies in all disciplines. A total of 5,524 scholars were awarded under Indigenous PhD scholarships. Out of these, 1268 have completed their PhD from universities of Pakistan. In addition, during 2012-13, the first batch of 1,000 scholars has been provisionally selected under the Indigenous PhD Fellowships (Phase-II). The discipline wise and gender wise detail of the PhD completed scholars during the year is as follows:

PhDs completed by June 2013 (Discipline/Gender-wise)										
Scholarships	Gender		Discipline							
	Male	Female	Agriculture and Veterinary Sciences	Biological and Medical Sciences	Physical Sciences	Engineering and Technology	Business Education	Social Sciences & Arts and Humanities	PhDs Completed by June 2013	PhDs Completed in 2012-13
Foreign	1412	220	194	211	555	443	72	157	1632	325
Indigenous	1001	267	227	247	505	129	44	116	1268	227
Total	2413	487	421	458	1060	572	116	273	2900	552

- To provide supervisors to indigenous PhD scholars in all disciplines and to promote the research culture in Pakistan, HEC started faculty hiring programmes from abroad in 2003 under its Foreign Faculty Hiring Programme (FFHP). Foreign nationals as well as expatriate Pakistani scientists and engineers in academia have also been invited under HEC's Short-term Foreign Faculty Hiring Programme (SFHP) and Visiting Scholars Programme (VSP). A number of 594 foreign professors have been hired under this programme where 317 foreign professors joined the programme and 60 are currently serving in various institutions/universities of Pakistan. During the year 2012-13 around 32 foreign professors visited the public sectors universities under SFHP and 29 under VSP.

- HEC Distinguished National Professors programme was also launched in 2003 to recognize the dedicated services of the eminent Professors and Scientists in their specialized fields and to get benefit of their research experiences. Forty one Distinguished National Professors have been selected by the HEC since the commencement of the programme while eight Distinguished National Professors are currently onboard.

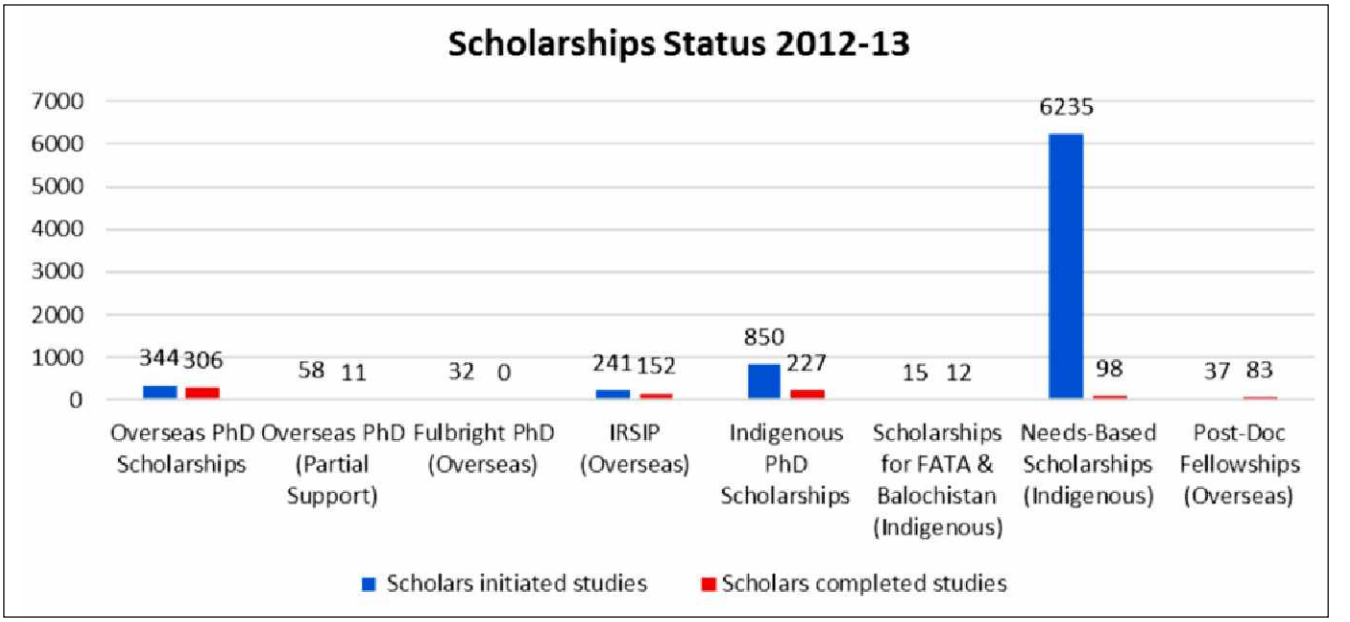
- HEC continued its efforts to support the economically deprived scholars studying in Pakistan by managing foreign and locally funded "Need-based Scholarship Programmes" at graduate and undergraduate level. The objective of the programmes is to extend help to those students who are good in academics but lack resources and may not be able to continue studies. HEC Need-based Scholarship Programme contributed significantly in this regard by awarding 6145 scholarships during the year 2012-13 under its need based scholarship scheme.

- Prime Minister's Tuition Fee Payment Scheme for Masters, MS/MPhil and PhD Students of Balochistan, Gilgit/Baltistan and FATA was also launched in year 2012-13, while 7048 scholars have benefitted from the scheme during the year.

- Another scheme "Master Leading to PhD Scholarship Programme (Indigenous and Overseas) for the students of Balochistan (An Initiative of Aghaz-e-Haqooq-e-Balochistan Package-HEC) was also approved by the Federal Government during the year.

- A major scholarship programme for FATA and Balochistan being undertaken since 2007 to address the issues of less privileged areas of Pakistan has also achieved the target of awarding 2000 indigenous graduate and postgraduate level scholarships. In broader perspective, these projects supplement the efforts of Government of Pakistan through HEC in Human Resource Development and poverty alleviation.

HEC during 2012-13 awarded 8317 foreign and indigenous scholarships under its various schemes while 889 scholars completed their studies. The following table provides the details in this regard.



The Faculty Development Programmes (FDP) of universities and public sector degree awarding institutions (DAIs) of Pakistan is also providing an opportunity to its faculty to complete PhD from the reputed institutions of technologically advanced countries. There are 119 development projects having HRD component for 58 Pakistani universities. All Universities/DAIs running FDP under the umbrella of HEC have their own approved projects. The scholars are selected under the HEC scholarship criteria. The role of HEC is to monitor and coordinate with the universities. Under the FDP programme 2158 overseas scholarships have been awarded for MS leading to PhD and PhD programme, out of these 807 have completed their studies successfully and returned to their parent institutions.

HRD Division regularly monitors the progress of its scholars and manages their placement after completion of their PhD as faculty member in the universities of the country at handsome salary structure provided by the Tenure Track scales. Interim Placement of Fresh PhDs (IPFP) programme of HEC provides all Pakistani fresh PhD graduates an opportunity for one year to start their career as Assistant Professor in public or private university. Under the programme, during the year 2012-13, 505 scholars were placed as faculty member in a local university in various educational institutions.

Pakistan is now getting the dividend from its investment in the higher education sector. The condition of teaching and research in the higher education institutions of Pakistan has significantly improved which is evident from the increasing research publication in the reputed national and international journals. Through HEC's Faculty Development and Scholarship Programmes, a number of PhDs have been produced to guide and supervise the local scholars in all academic disciplines. Access to the higher education to the talented students coming from the disadvantaged families and comparatively undeveloped areas is also being ensured through need based scholarships and financial aid programmes. A significant pool of foreign and locally trained researchers is now available in the country to carry out various high-tech projects.

Overseas PhD Scholarships

HEC continues its efforts during the year to place scholars for MS/MPhil leading to PhD at reputed foreign universities while scholars of early batches are returning home to serve the country. HEC signed MoUs with educational exchange agencies and universities aboard for the successful implementation of the scholarship schemes for the admissions, monitoring of its scholars and discounted tuition fee. These agencies are: DAAD (Germany), SFERE and EGIDE (France), NUFFIC (Netherlands), KTH (Sweden), CSC (China), OAED (Austria). HEC has also signed MoUs with the Massey and Auckland University of New Zealand and reputed universities of Turkey and Italy.

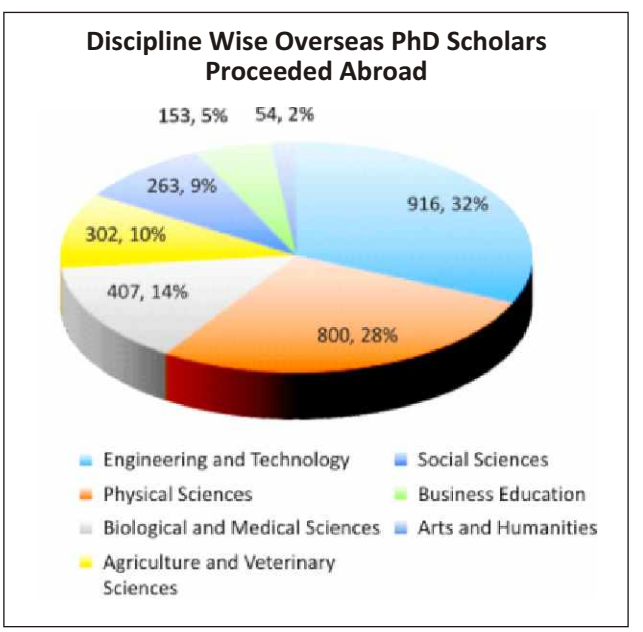
Foreign Agreements Signed During the Year 2012-13
China Scholarship Council (Revised)
OeAD, Austria (Revised)
Hong Kong University of Science & Technology
Hasselt University, Belgium
Sungkyunkwan University, South Korea
KOC University, Turkey
Florida State University, U SA
University of New Mexico,, USA

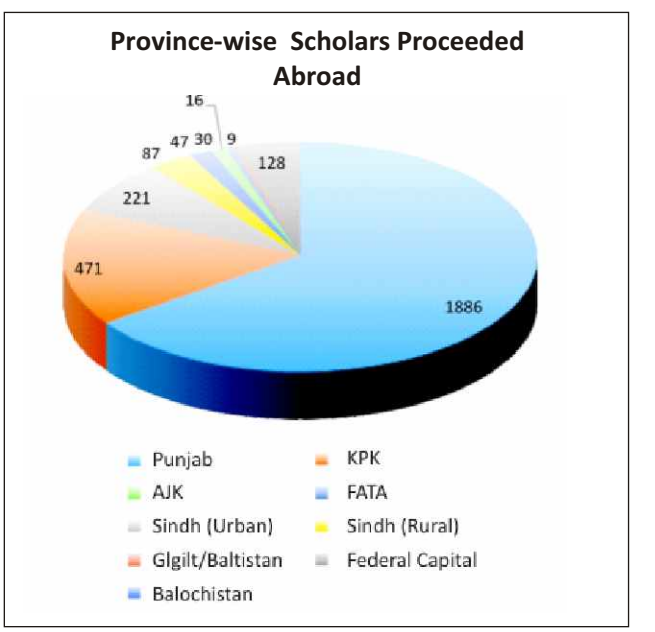
The following table provides the detail of existing foreign PhD scholarship schemes and the approved number of scholarships.

Scholarship Schemes	**Number of Scholarships**
Overseas Scholarships for MS/MPhil Leading to PhD in Selected Fields (Phase-II)	2000
Overseas Scholarships for PhD in Selected Fields (Phase-I)	800
Human Resource Development Initiative MS leading to PhD for Faculty Development Programme for the UESTPs (Phase-I)	1500
MS/MPhil leading to PhD Scholarship in Engineering, Natural and Basic Sciences/ Humanities/ Social Sciences, for the Teachers of Weaker Universities	100
PhD Scholarship for Study of Science, Engineering and Technology, Austria	55
PhD Scholarship in Natural and Basic Sciences, Austria	45
PhD Scholarship for Natural and Basic Sciences, France	40
PhD Scholarship in Engineering and Sciences, Germany	40
Masters leading to PhD in Economics and Finance Abroad	50

Discipline and Country wise detail of the overseas PhD scholars proceeded abroad till June 2013 under the above mentioned schemes is as under:

Country/Discipline Wise Overseas PhD Scholars Proceeded till June 2013									
S. No.	Country	Discipline							Total
		Engineering and Technology	Physical Sciences	Biological and Medical Sciences	Agriculture and Veterinary Sciences	Social Sciences	Business Education	Arts and Humanities	
1	**France**	167	154	87	82	50	52	12	604
2	**The Netherlands**	40	68	26	48	22	15	3	222
3	**Austria**	74	190	63	17	27	13	3	387
4	**Germany**	169	135	70	52	33	7	7	473
5	**New Zealand**	40	45	11	14	18	18	13	159
6	**China**	65	26	26	25	7	6	2	157
7	**Sweden**	76	74	27	15			1	193
8	**Australia**	4		10	12	10	5	2	43
9	**Canada**	3	2		2	1	1		9
10	**United Kingdom**	39	30	50	27	54	19	10	229
11	**USA**	18	3			10	2		33
12	**Norway**	15	22	4	2	9	2		54
13	**South Korea**	76	15	22		5	3		121
14	**Italy**	79	21		1				101
15	**Thailand**	29	14	2	4	15	8		72
16	**Turkey**	21	1	9	1	2	2	1	37
17	**Malaysia**	1							1
Total		**916**	**800**	**407**	**302**	**263**	**153**	**54**	**2895**





Overseas Scholarships for PhD in Selected Fields (Phase-I)

Overseas Scholarship Scheme for PhD in Selected Fields - Phase 1 (OS-1), the first-ever mega project for PhD scholarships, was approved in January 2004 by ECNEC for execution with the objective to create a critical mass of highly qualified human resource to improve the R&D potential of our teaching and research institutions, training potentials of our universities, and to feed the industrial entrepreneurial sector of Pakistan. A total of 732 scholars joined high ranking universities of Asian and European countries i.e. Australia, Canada, USA, UK, France, Germany, Sweden, Netherlands, China, Austria, New Zealand and South Korea. So far, 487 scholars have successfully completed their PhD and have returned home. During 2012-13, 38 scholars completed their PhDs and returned home and joined the universities/R&D organizations in Pakistan. After reviewing the financial and physical status of the project, National Scholarship Management Committee (NSMC) allowed for new intake of 70 scholars to fill the vacant slots within approved cost of the project and allowed to extend the project life accordingly. In this regard 45 scholars proceeded abroad during the year to join their PhD studies.

Overseas Scholarships for MS/MPhil Leading to PhD in Selected Fields (Phase-II)

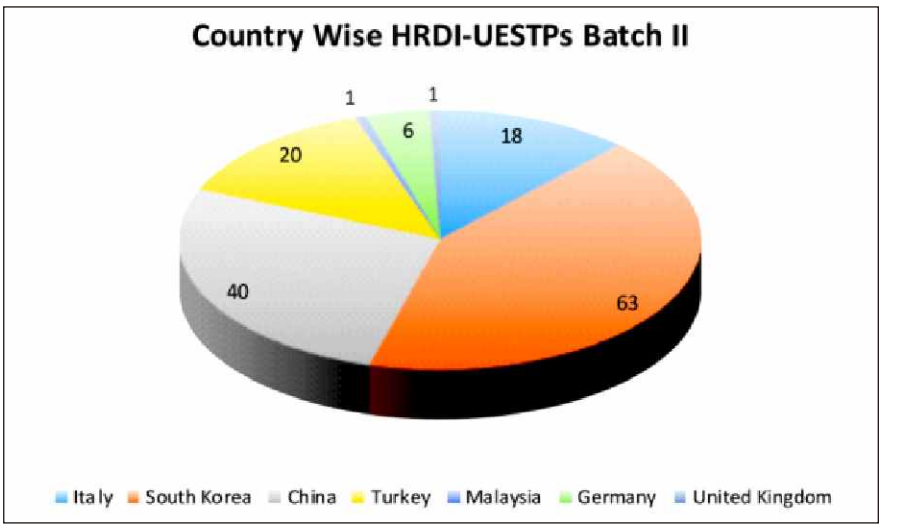
This scholarship programme continues to process awards for PhD studies at top ranked institutions of USA, UK, Canada, Australia, Austria, China, France, Germany, Netherlands, Norway, Sweden, Thailand, Italy and New Zealand etc. Most of the countries and universities are offering discounted tuition fee to HEC where a good number of scholars are being placed for doctoral programme. Since the initiation of the project, 1541 candidates have availed the scholarship. Out of these, 850 are currently studying abroad in seven major disciplines i.e. 84 in Agriculture, 151 in Biological & Medical Sciences, 188 in Physical Sciences, 219 in Engineering and Technology, 62 in Business Education, 110 in Social Sciences and 36 in Arts and Humanities; 544 scholars have successfully completed PhD under the programme. In addition, 48 scholars have also completed their MS but they could not continue further for PhD due to personal reasons; currently they are serving in Pakistan for a period of three years. During the current financial year, 114 scholars, who were selected by foreign professors, proceeded to foreign countries for PhD, whereas, 218 scholars returned during 2012-13 after the successful completion of PhD.

Signing of New Agreements

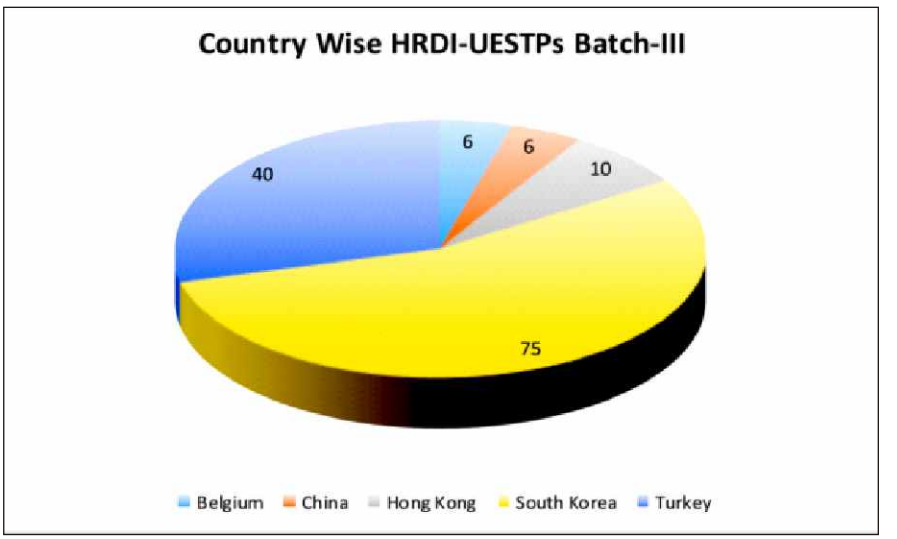
In 2012-13, The Project Management Unit continued its efforts to find new agencies/partners for the placement of HEC scholars. Agreements were revised with China Scholarship Council and OeAD, Austria while new agreement was signed with University of New Mexico, USA.

Human Resource Development Initiative MS leading to PhD under Faculty Development Programme for the UESTPs (Phase-I)

Under this scheme, 1500 PhD scholars will be produced from top ranked Foreign Universities in the field of Engineering Sciences, who would be potential faculty members and academic resource persons for the Universities of Engineering and Technology in Pakistan. The first batch of 144 scholars was sent abroad for PhD in different disciplines of engineering in European countries and China etc., out of which 25 scholars have successfully completed their Study Programme. In second batch, 249 scholarships were awarded out of which 149 scholars proceeded in different disciplines for MS leading to PhD or PhD programmes. Country-wise placement of 149 scholars is as under:



In year 2012-13 through third batch 460 scholars were awarded out of which 137 are admitted in MS leading to PhD or PhD programmes in foreign universities as per following detail:



Signing of New Documentation of Understanding (DoUs)

In 2012-13, The Project Management Unit continued its efforts to make agreements with top ranked universities to place HEC scholars in MS and PhD programmes, and DoUs were signed with the following universities:

- Hong Kong University of Science and Technology, Hong Kong
- Hasselt University, Belgium
- Sungkyunkwan University, South Korea
- KOC University, Turkey
- Florida State University, USA

MS/MPhil leading to PhD Scholarship in Engineering, Natural and Basic Sciences/ Humanities/Social Sciences for Teachers of Weaker Universities

The project was approved in August 2004 with the objective to create a critical mass of highly qualified manpower in high-tech fields for capacity building of the Weaker Universities in Pakistan through addition of 100 PhDs. Out of the 100 awarded scholarships, 98 scholars availed the opportunity. A total of 64 scholars have graduated, returned and joined their parent universities while 21 are still pursuing their PhDs while nine scholars have returned without completion either due to medical reasons or weak background in their respective fields. In the year 2012-13, a total of 17 scholars have completed their PhD, returned and joined their parent universities.

Detail of University-wise and Country-wise Awarded Scholarships

Name of the Parent University	Austria	France	Germany	Total
Hazara University Dhodial, Mansehra		01	07	08
Gomal University, D.I. Khan		02	04	06
Kohat University of Science and Technology		01	01	02
Karakuram International University, Gilgit		01	02	03
University of Malakand, Chakdara		02	01	03
University of AJK, Muzaffarabad	02	02	02	06
Quaid-e-Awam University of Engineering, Sciences and Technology, Nawabshah	01	05	02	08
Shah Abdul Latif University, Khairpur		02	02	04
Sindh Agriculture University, Tandojam	02	04	07	13
Government College University, Faisalabad		03	04	07
Islamia University, Bahawalpur	03	03	03	09
University of Sargodha, Sargodha	03	08		11
University of Balochistan, Quetta		05	05	10
Balochistan University of Engineering and Technology, Khuzdar		02	01	03
Balochistan University of IT, Engineering and Management Sciences, Quetta		04	01	05
Total	11	45	42	98

Other Foreign PhD Scholarship Projects

Project	Number of Scholarships	Proceeded Abroad	Completed Studies by June 2013	Completed in FY 2012-13	Status
PhD Scholarships for Study of Science, Engineering and Technology, Austria	55	54	51	01	New intake closed
PhD Scholarships in Natural and Basic Sciences, Austria	45	43	40	01	New intake closed
PhD Scholarships for Natural and Basic Sciences, France	40	33	31		New intake closed
PhD Scholarships in Engineering and Sciences, Germany	40	37	34		New intake closed
Master Leading to PhD in Economics and Finance abroad	50	42	16		New intake closed

Distinctions Earned by Overseas scholars



Dr. Rafi-ud-din completed his PhD from University of Science and Technology Beijing, China in Material Sciences. He was awarded PhD scholarship by HEC in 2008 under the scheme titled 'Overseas scholarship for PhD in Selected Fields'. His thesis was 'A Study of Hydrogen Storage Properties of Light Metal Hydrides doped with Various Nano-sized catalysts' that was declared the 'Excellent Dissertation' by the examination committee of the University. During his PhD tenure he published 34 research articles as a principal and co-author in the world renowned internationally abstracted (ISI Index) journals of repute with a total impact factor of about 60**.** The doctoral thesis of Dr. Rafi-ud-din was nominated for the Excellent Dissertation. Later he appeared in another short defense to compete for Excellent Dissertation Award among the best doctoral students of the university and finally he got this prestigious award on the basis of innovative and meritorious achievement in his respective field of research as well as his high quality of publications.



Dr. Asghar Nasir completed his PhD from King's College London, UK in Immunology in October 2012. He was awarded PhD scholarship by HEC under the scheme entitled "Overseas scholarship for PhD in Selected Fields", at the Department of Immunology, Infection and Inflammatory Disease (School of Medicine). There he investigated "the role of the post-transcriptional regulator protein ZFP36L1 in B-cell functions". Results from his project provided insights into gene expression changes that control plasma-cell differentiation. The scholar is currently working as Research Fellow at Aga Khan University, Karachi.



Mr. Yasar Amin is pursuing PhD studies in RFID Antennas and Sensors at the Royal Institute of Technology (KTH) Sweden, under Overseas Scholarships for MS/MPhil leading to PhD in Selected Fields (Phase II). The scholar received best paper award for his article "Design of Novel Paper-based Inkjet Printed Rounded Corner Bowtie Antenna for RFID Applications". His paper was selected from the 10 best papers of 2012 published in the leading international journals. His paper was published in the Journal "Sensors & Transducers", published by International Frequency Sensor Association (IFSA). The scholar has published more than 30 international conference and journal papers in the leading conferences and journals in the field of RF Packaging and antennas. The scholar intends to establish infrastructure in Pakistan for the development and packaging of electronics on organic, flexible and high performance substrates in collaboration with international institutions.



Dr. Sarwat Afridi, the first female HEC scholar from BUITEMS, Quetta, Balochistan completed her PhD from Université Aix-Marseille II, France. Ms. Sarwat was awarded HEC overseas scholarship under the scheme 'MS / MPhil leading to PhD Scholarships for teachers of Weaker Universities' in 2008. She completed her PhD in July 2012 entitled "Influence of candidate gene variants on *Plasmodium falciparum* malaria related phenotypes and functional effects of *NCR3*-412 polymorphism associated to malaria". During her PhD, she worked on diverse projects related to genomics, bioinformatics and biochemistry. Main focus of her research was genetic analysis of resistance to malaria. She has successfully graduated and returned to Pakistan and rejoined her parent University, BUITEMS, Quetta.



Dr. Muhammad Irfan completed his PhD in Pharmaceutical Technology from College of Pharmacy, Freie Universität Berlin, Germany. Dr. Irfan was awarded HEC overseas scholarship for Germany under the scheme titled "MS/MPhil leading to PhD Scholarships for the teachers of Weaker Universities". He worked as a PhD scholar under the supervision of Prof. Dr. Roland Bodmeier, a world renowned scientist. The group of Prof. Bodmeier has big industrial collaborations worldwide with many Pharmaceutical industries for developing various drug delivery systems on a commercial scale. After the completion of studies the scholar has returned to Pakistan and has joined College of Pharmacy, GC University Faisalabad.



Dr. Imran Khan completed his PhD in Biotechnology from RWTH Aachen University, Germany in February 2013. He was awarded HEC overseas scholarship for Germany under the scheme entitled "MS/MPhil leading to PhD Scholarships for the teachers of Weaker Universities". Dr. Imran completed his thesis entitled "Induction of Recombinant Proteins in Wheat Seed and Vegetative Tissues" under the supervision of Prof. Dr. Rainer Fischer and Prof. Dr. Eva Stoger. The main focus of his research was Molecular Pharming, the new term for production of recombinant proteins of industrial importance in plants as cheaper alternative to existing production systems. He also had opportunity to work for one year in collaborative laboratory at Vienna Institute for Biotechnology, Austria with Prof. Eva Stoger. Dr. Imran has achieved a milestone by winning multimillion research project under "German-Pakistan Research Collaboration" funded by German Academic Exchange Service (DAAD). A memorandum of understanding (MOU) has been signed between two universities i.e. University of Bonn, Germany and University of Peshawar, Pakistan. The

project titled "Evaluation of Root System Variation for Sustainable Development in Agriculture Crops". Currently, he is serving as Lecturer in the Gomal Centre for Biochemistry and Biotechnology, Gomal University.



Dr. Sarmad Ullah Khan, completed his PhD studies from Politecnico di Torino, Italy in Computer Science under HRDI-UESTP programme. He specialized in "Wireless systems and related technologies". For the completion of his specialization, Dr. Sarmad also joined Wes.Net Laboratory in Electronics and Telecommunication Department in Italy. His specialization is more focused on key management in wireless sensor networks, IP-Based wireless sensor networks and Content Centric networks (CCNs). Dr. Sarmad published six conference papers and three journal papers.



Dr. Naeem Ahmed, completed his PhD studies from Politecnico di Torino, Italy in Information Technology under HRDI-UESTP programme. He specialized in "Software Engineering GRID Computer". Dr. Naeem published three international journal papers, one conference paper and two book chapters.



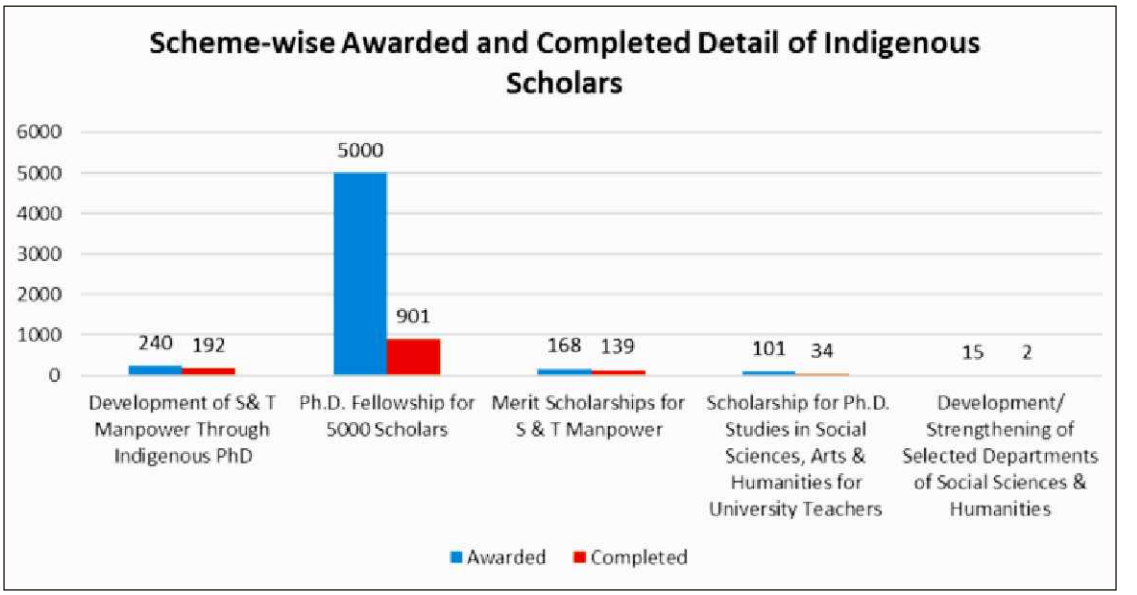
Dr. Adeel Anjum completed his PhD studies from University of Paris Sud, France in Computer Sciences under HRDI-UESTP programme. He specialized in an area of "Computer Sciences" and published nine conference papers and three papers for journals.

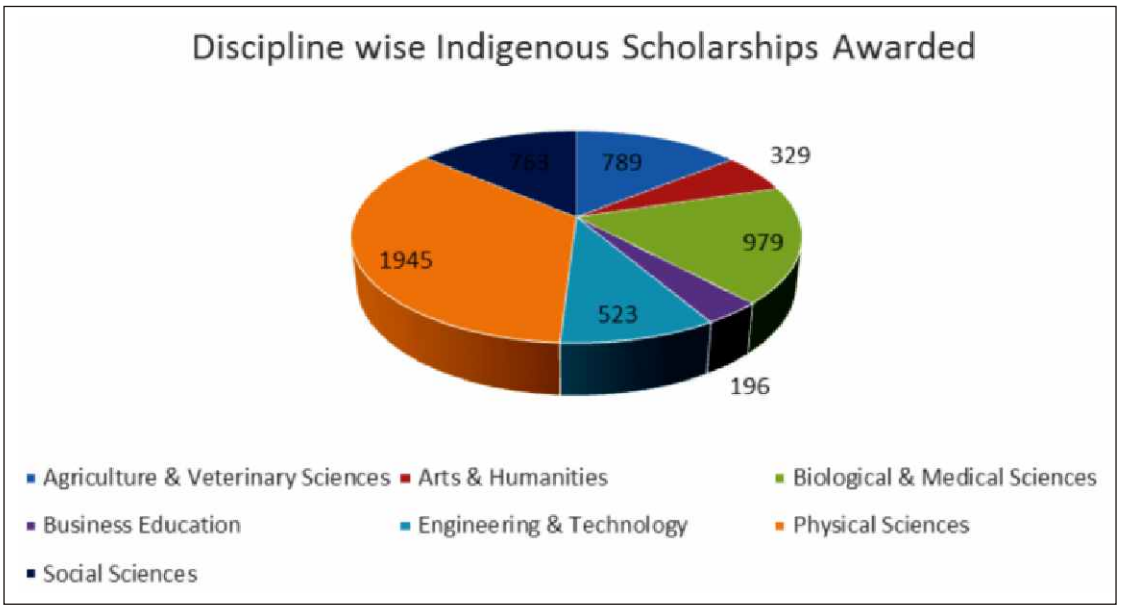
Indigenous PhD Scholarships

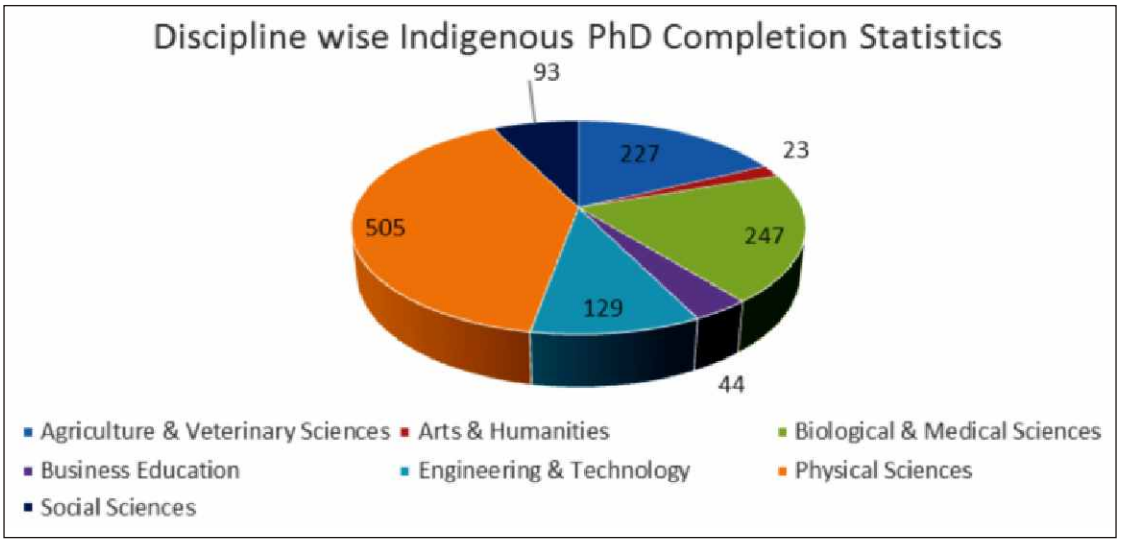
The objective of the Indigenous Scholarship Schemes is to create a critical mass of highly qualified human resources in all fields of studies taught at the advanced level in local universities. These projects are focused at diversified disciplines belonging to all fields of Science and Technology, Social Sciences, Humanities and Life Sciences. To enhance the research facilities in these fields, the Higher Education Commission has also funded many Departments/Universities to establish research laboratories. This has brought tremendous change in research culture of the universities of Pakistan. It is evident from the publication of around 4,000 research papers in national/international journals addressing the social and economic problems of the country.

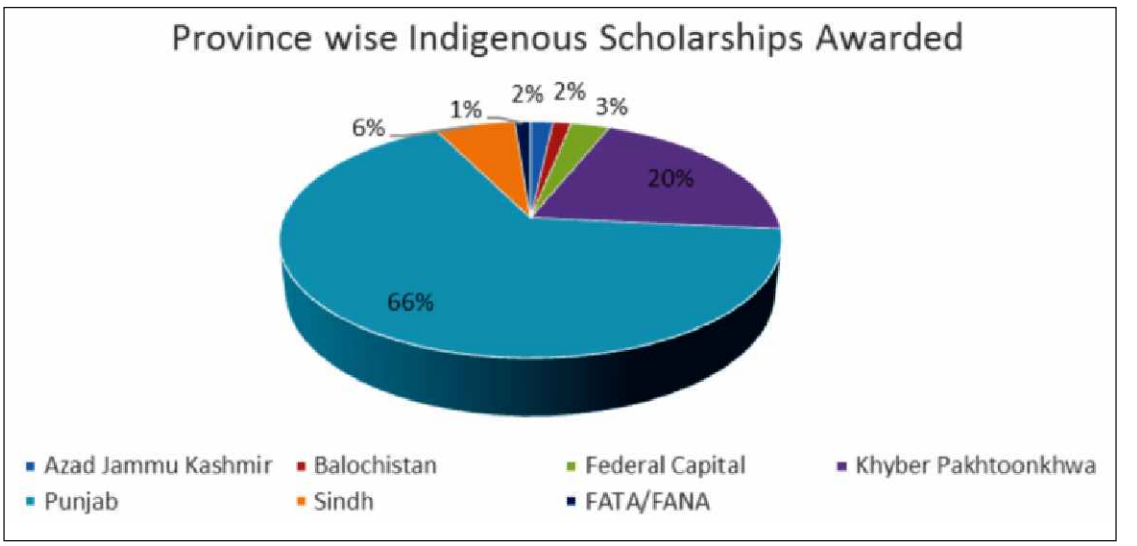
Scholarship Schemes	Number of Scholarships
Indigenous PhD Fellowship Program me	5000
Indigenous PhD Fellowships - Phase-II	5000
Merit Scholarship Scheme for PhD Studies in Science and Technology	200
Development of S&T Manpower through Indigenous PhD	300
Scholarship for PhD Studies in Social Sciences, Arts and Humanities for University Teachers	175
Development/Strengthening of Selected Departments of Social Science and Humanities in General Universities	15

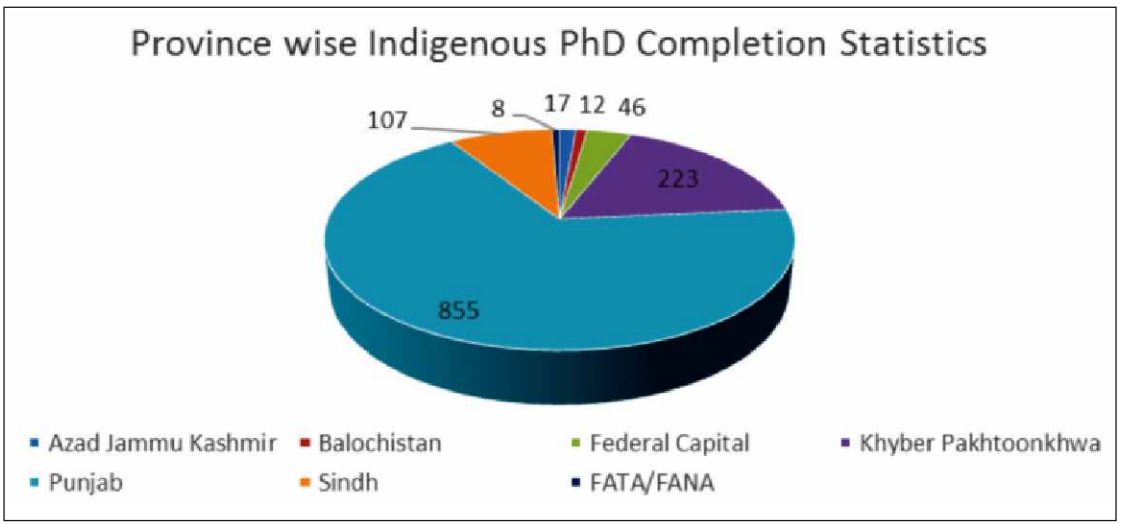
A total of 5,524 scholarships have been awarded under the said schemes while 1268 scholars have completed their doctoral degrees and are serving Pakistan. In addition, the first batch of 1,000 scholars has been provisionally selected during 2012-13 under the Indigenous PhD Fellowships (Phase-II). During the year 227 scholars have successfully completed their PhD study. The Project wise detail is as under:






Discipline wise Indigenous PhD Completion Statistics
93
227
23
247
505
129
44
Agriculture & Veterinary Sciences
Arts & Humanities
Biological & Medical Sciences
Business Education
Engineering & Technology
Physical Sciences
Social Sciences


Province wise Indigenous Scholarships Awarded
6%
1%
2%
2%
3%
20%
66%
Azad Jammu Kashmir
Balochistan
Federal Capital
Khyber Pakhtoonkhwa
Punjab
Sindh
FATA/FANA


Province wise Indigenous PhD Completion Statistics
107
8
17
12
46
223
855
Azad Jammu Kashmir
Balochistan
Federal Capital
Khyber Pakhtoonkhwa
Punjab
Sindh
FATA/FANA

Indigenous PhD Fellowship Programme (5000 Fellowships) Phase I

This mega project was approved by ECNEC, with a revised capital cost of Rs. 6,394.537 million on November 12, 2007. A total number of 5,000 scholarships were to be awarded over a period of five years. The awarded 5,000 scholars are pursuing their studies in various universities/DAI's of Pakistan and 901 candidates have completed their PhD degrees till date and are serving various universities /DAI's and other R&D organizations.

During 2012-13, 450 scholarships have been finally awarded and 400 are in process of final selection, 205 scholars have completed their PhD studies during the year. Over 1,100 research articles of the scholars have been published in recognized national and international journals.

Indigenous PhD (5000 Fellowship) Phase-II

A PC-1 of Indigenous PhD fellowship programme for 5,000 scholars with the capital cost of Rs. 9,972.593 million with an execution period of 120 months has been approved. First batch of 1,000 scholars has been provisionally selected and disbursement of 1st release is in process to selected scholars.

Other Indigenous PhD Scholarship Schemes

Name of the Project	No. of Scholarships	Scholarships Availed	Completed Studies by June 2013	Completed in FY 2012-13	Status
Merit Scholarship Scheme for PhD Studies in Science &Technology	200	168	139	3	New intake closed
Development of S&T Manpower through Indigenous PhD	300	240	192	4	New intake closed
Scholarship for PhD Studies in Social Sciences, Arts and Humanities for University Teachers	175	101	34	2	New intake closed

Split PhD and Foreign Research Fellowships

Many countries have successfully implemented Split PhD Programmes, where a local or a foreign university awards degree to the scholar, who spends part of the study period in either country. By using this model, the Split PhD programme was designed to minimize the cost of high level training in foreign countries. The scholars are thus being given opportunities to gain experience of research at international level through Split PhD Programme.

Shining Indigenous PhD Scholars



Dr. Mazhar Hossain completed his PhD from GC University Lahore in Nuclear Sciences. His major interests are Nuclear Data Analysis and Nuclear Medicines. Dr. Hossain also pursued his studies in Debrecen University, Hungary under IRSIP. He was awarded a training opportunity at the International Atomic Energy Agency (IAEA), Vienna, Austria. After the completion of PhD degree, he joined COMSATS, Lahore campus as an Assistant Professor and later joined GC University Lahore. Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste (Italy) selected him for training in the field of Nuclear Physics and he received a joint certificate from the IAEA and ICTP on the completion of the training.



Dr. Hamdullah Khan Tareen completed his PhD in Physics from Quaid-i-Azam University, Islamabad. During PhD research he worked on the "Study of soft x-rays from depleted uranium assisted pre-ionized plasma in a low energy Mather type plasma focus device." There are seven international publications at his credit and currently he is serving as an Assistant Professor, Department of Physics, BUITEMS, Quetta, Balochistan. The scholar is grateful to the HEC for providing him financial assistance to complete his PhD.



Dr. Sobia Nisa completed her PhD from Quaid-i-Azam University, Islamabad. She conducted research on local plants to be used as drugs against bacterial pathogens as well as against breast cancer and on isolation of active components from these natural products. She was also sent abroad under IRSIP programme of HEC for a period of six months as a visiting researcher in Kingston University, UK. The scholar said that "It was not an ordinary feat for a girl of a small village to have won a prestigious Government scholarship, which was contested by thousands". Currently she is serving at University of Haripur as an Assistant Professor.

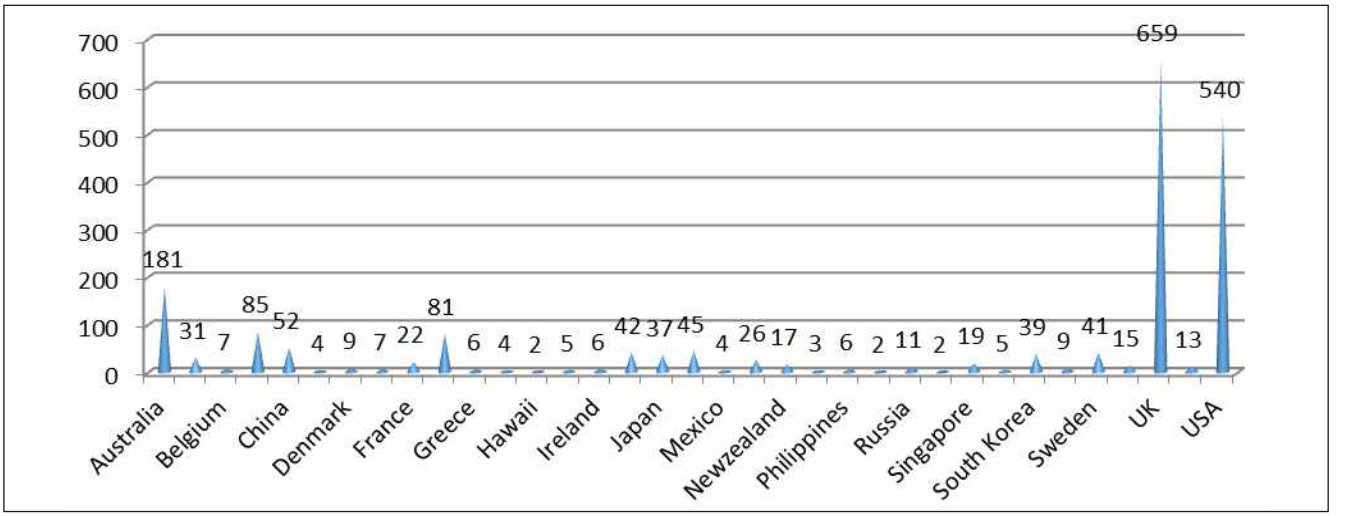


Dr. Naila Yaqoob completed her PhD from Lahore College for Women University (LCWU). She won the Endeavour Award to carry out a part of the research at School of Chemistry, University of Tasmania, Australia. While working under Endeavour Scholarship, she was awarded with Common Wealth/Federation Star from Department of Education, Employment and Workplace Relations (DEEWR), Australia. In 2010, RISI, USA, has revealed the list of Finalists of the Pulp and Paper Industry's most prestigious awards for contribution in the field of Pulp and Paper Science and she was declared as one of the Finalists in the category of "Research Achievement of the Year Award". Besides these achievements, she has been successful to produce one US Patent and three international papers out of her PhD thesis and, therefore, was awarded with Begum Iqbal Sikandar Gill Gold Medal for best PhD Scholar at LCWU.

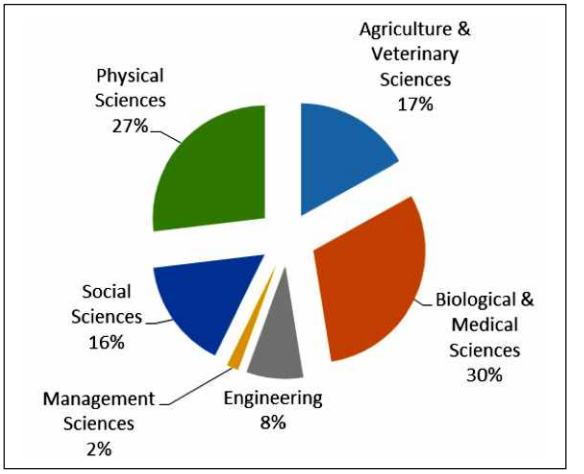
International Research Support Initiative Programme (IRSIP)

To complement indigenous PhD programmes, HEC offers a six-month research fellowship abroad to full time PhD students enrolled in Pakistan to enhance their research capabilities. It is of utmost importance that the doctoral studies carried out in Pakistan are of good standard and at par with international reputed institutions. This is only possible if candidates are provided with adequate support in research projects. This scheme is helping to provide doctoral students international exposure to carry out research projects of high standard. The scheme is assisting ongoing Indigenous PhD programmes by providing a mechanism for PhD scholars to travel abroad and conduct research in advanced industrialized countries for a period of up to six months. This exposure is enhancing the quality of research that the scholars are conducting in Pakistan. It is also serving to develop linkages between Pakistani and foreign institutions. Total 2050 scholars have been provided this opportunity and 1511 scholars proceeded abroad. 1018 scholars have completed their research while 350 scholars are waiting for visa to proceed abroad. In 2012-13, 645 scholars were awarded scholarships while 241 proceeded abroad. In the year under report, 152 scholars returned after successful completion of their studies.

Country-wise Distribution of Awards



Discipline-wise Distribution of Awards

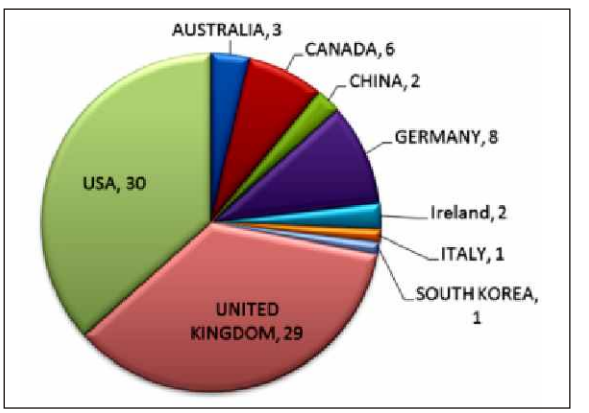




Ms. Barkat-ul-Ain, a PhD scholar at Quaid-i-Azam University, Islamabad got the opportunity through IRSIP to visit the Material Research Institute of Pennsylvania State University, U.S.A, one of the top Material Research Institutes of the world. She worked with Dr. Clive Randall on the synthesis of new thermoelectrics and ferroelectrics. She prepared and characterized the materials which have significant electrical properties and can be used as capacitors and energy storage devices. Such expertise is of vital importance for the scholars of energy deficient country like Pakistan. The scholar told that IRSIP provided her a chance to meet the intellectual professors and colleagues, and exchange the ideas about the scientific problems. It gave her the opportunity to experience the high quality research environment and broaden her vision. One of the important benefits of this programme was to learn new instruments, safety programmes and perform all the experiments with state-of-the-art equipment. In addition, she presented her research work as an only representative of Pakistan in 2nd Global Congress on Microwave Energy held in California, USA and was appreciated by the participants.

Development of High Level Manpower S&T through Split PhD Programme

The Split PhD programme was approved by the Government of Pakistan for a period of five years to train 100 teachers/researchers in Science and Engineering. The Ministry of Science and Technology was designated as the implementing agency. After the establishment of HEC, the execution and monitoring of the scheme was transferred to HEC in June 2003. Under this scheme, arrangement has been made for the scholars to undertake a part of their studies/research work in the Pakistani universities (1-2 years), while they will undertake some part of their studies/research work in a reputed foreign university (2-3 years). The scheme which was initially implemented in Jan 2002 has currently been extended till March 2014 to achieve the targets. In total 98 scholars were selected, out of which 78 are on board while 65 scholars after the completion of their PhD have resumed their duties in their parent organizations. The last inducted batch of the scholars is expected to complete their studies by the end of 2013. During 2012-13, seven scholars completed their PhD studies. It is worth mentioning here that so far the scholars studying under this programme have published more than 900 papers in journals of international recognition. The country wise enrolment through the programme is as under:



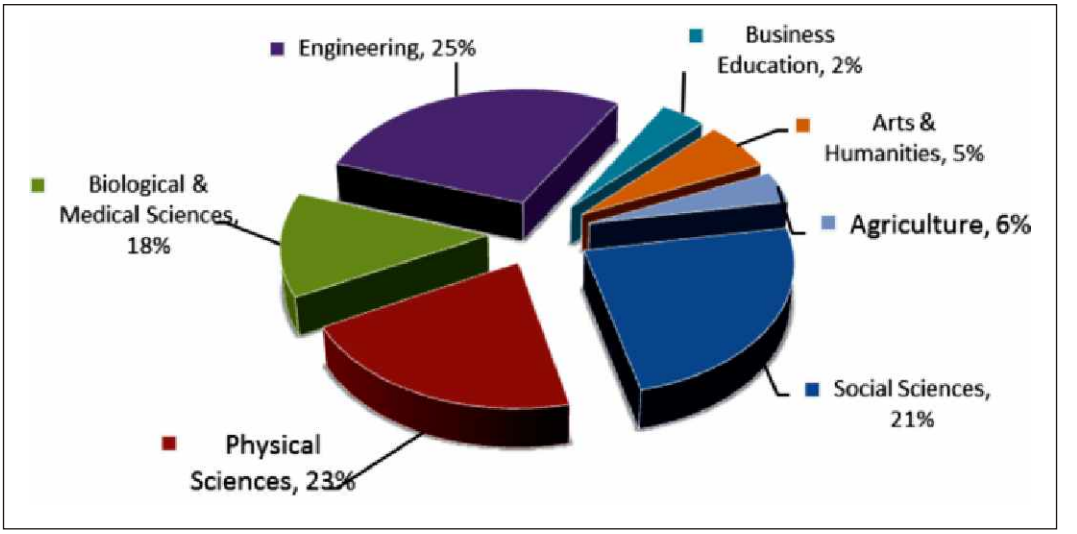
Joint and Partial Support Scholarship Programmes

HEC is managing jointly funded and partial support programmes for MBBS, MS and PhD level studies to provide training and research opportunities to the youth of Pakistan at advanced laboratories of reputed universities abroad.

Scholarship Schemes	No. of Scholarships
HEC-USAID Fulbright Scholarship Support Programme	Masters 500 - 550 PhD 240 - 265
1000 Cuban Scholarships for Studies in General Comprehensive Medicine (Equivalent to MBBS)—HEC	1000
Joint Scholarship Programme of HEC and AIT Thailand	Masters 20 PhD 10
Partial Support for PhD Studies Abroad	Target depends on availability of funds

HEC-USAID Fulbright Scholarship Support Programme

The project envisages providing PhD, MPhil/Masters level scholarships to Pakistani scholars at reputable US universities. A major part of the scholarship is funded by USAID, which is helping to train human resource in emerging fields. An MoU was signed between HEC and USAID in December 2005. As per the agreement, the Government of Pakistan had to contribute US$ 10 million each year for five years to cover the cost of Fulbright PhD scholarships. The Scheme envisages 500-550 Master/MPhil level scholarships and 240-265 PhD level scholarships depending on tuition fee at the US Universities. Scholarships are awarded mainly in Engineering, Medicine, Science and Technology and Social Sciences focusing on the national need.



So far, 657 scholarships have been awarded for Master's Programme and 263 scholarships have been awarded for PhD programme as per PC-1 plan. As many as 573 scholars completed their Masters and have returned while 104 are still abroad and are expected to return in 2013-14. Seventy PhDs have returned after completion of their doctorate degree and are currently serving in Pakistan. Remaining 193 will return during 2013 to 2015. In FY 2012-13, seven PhD and 20 MS scholars returned after completion of their studies.

S. No.	Financial Year	HEC PhD			USAID Masters	
		Selected	Returned	In Process	Returned	In Process
1.	2005-6	13	-	-	13	-
2.	2006-7	33	-	-	74	-
3.	2007-8	27	-	-	79	-
4.	2008-9	35	2	-	105	-
5.	2009-10	36	10		87	10
6.	2010-11	30	20	-	77	94
7.	2011-12	29	31	-	118	74
8.	2012-13	32	07	58	20	-
9.	2013-14	28	-	73	-	-
10.	2014-15	-	-	62	-	-
	Total	**263**	**70**	**193**	**573**	**178**

Keeping in view the success of the programme, HEC intends to extend the programme for another five years.

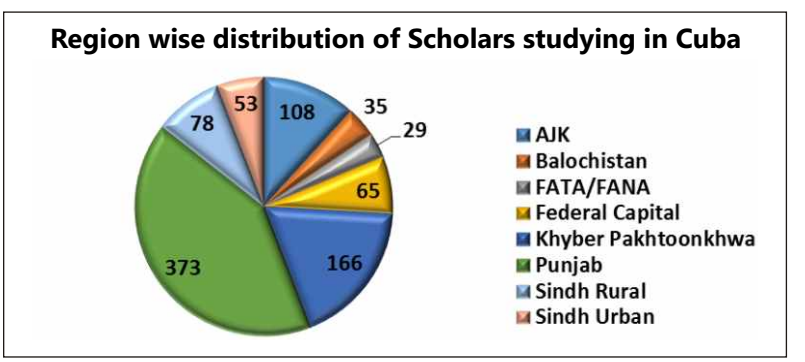
Cuban Scholarships for Studies in General Comprehensive Medicine (Equivalent to MBBS)

After the 2005 earthquake, the Cuban government offered 1000 undergraduate medical scholarships (MBBS) to the Pakistani students. These were fully funded by the Cuban Government which includes tuition fees, boarding, lodging and health facilities. In addition Government of Pakistan is providing a monthly stipend of Euro 50/- per month and two return air tickets during the complete course of studies. There are 907 Pakistani students studying in following three different medical universities of Cuba which are included in the directory of WHO:

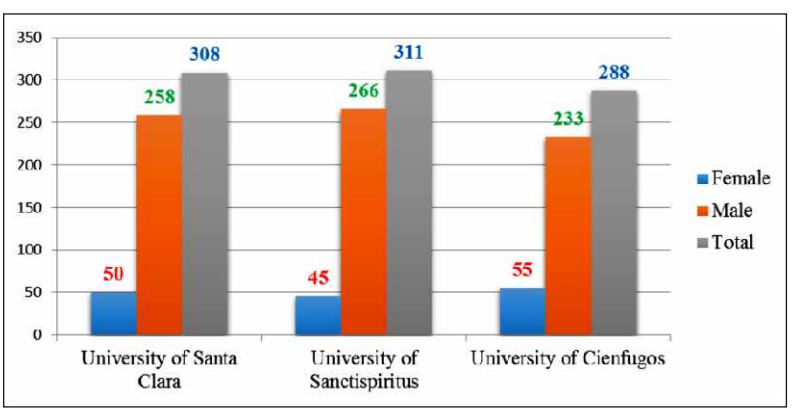
1. University of Medical Sciences Santa Clara
2. University of Cienfuegos
3. University of Sancti Spiritus

The Pakistani students are in the completion stage of their medical studies. First batch of students has completed five years of medical study and have started their house job in Cuba. It is expected that 308 students shall complete their degrees in early 2014. The second batch of 599 students has completed fourth year of medical study and has started their final year of classes. These students shall complete their studies in early 2015. After successful completion of the studies in Cuba, Pakistani students would contribute to improve the health sector of Pakistan and also strengthen the bilateral relations between Pakistan and Cuba.

Statistics of Pakistani Scholars in Cuba



Male / Female Ratio of Scholars in Cuban Universities

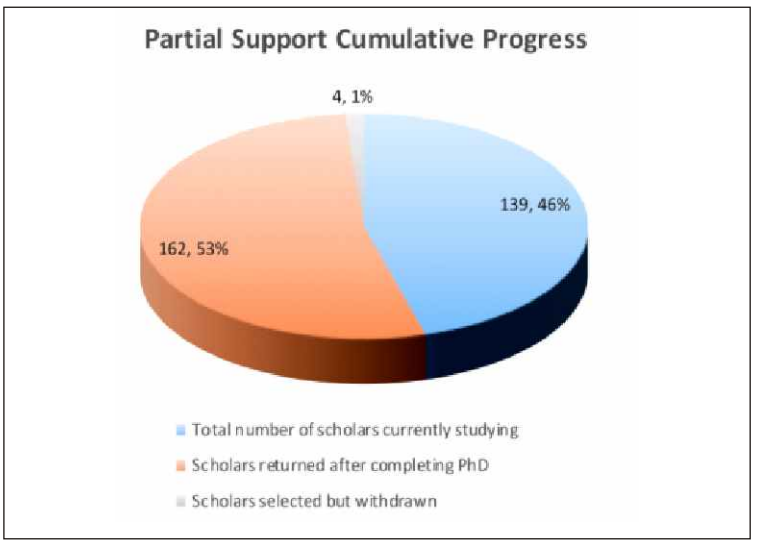


Joint Scholarship Programme of HEC and AIT Thailand

The subject programme was approved at a revised capital cost of Rs. 35.95 million to support the 16 Master level and nine PhD level scholars at the Asian Institute of Technology, Thailand. University faculty members and employees of research organizations in the field of Sciences, Engineering and Technology were the prospective candidates. Under the programme, 25 scholarships were awarded to individuals from around the country to pursue Masters and PhD level studies. Out of the 25, 16 scholars have completed their Masters and nine have completed their PhD. All scholars have completed their studies during 2011-12.

Partial Support for PhD Studies Abroad

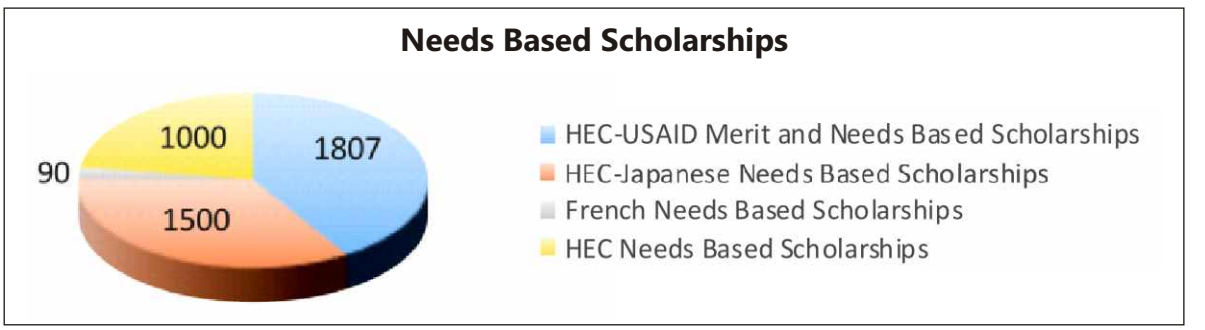
The main objective of the project is to provide financial support of up to US $ 15,000/- to Pakistani scholars who are in the final stages of the completion of their PhD studies abroad and need partial support (e.g. tuition, thesis evaluation/submission fee, living expenditure etc.) without which their PhD degree programme will remain incomplete. However, preference is being given to faculty members of public-sector universities/degree awarding institutions and employees of R&D organizations.



The faculty members of public sector universities/R&D organization are given preference, therefore, most of the scholarships were awarded to these organizations i.e. 56 per cent to faculty members and 15 per cent to R&D organizations. During 2012-13, 60 scholarships were awarded and 11 scholars returned after completion of their studies.

Needs Based Scholarship Programmes

HEC continued its efforts by managing foreign and locally funded Needs-based scholarship programmes for graduate and undergraduate level studies in Pakistan. These programmes are focused to support the academically good students belonging to financially deprived families.



USAID Merit and Needs Based Scholarship Programme

HEC in collaboration with the United States Agency for International Development (USAID) initiated Need Based Scholarship programme to support financially disadvantaged students to study at undergraduate and graduate level. The scholarship covers funds for tuition fee, transportation, books, lodging and incidental costs. Nine public sector and two private sector institutions are participating in the programme. So far, 1807 scholarships have been awarded in 11 Pakistani public and private sector universities and more than 1250 students have completed their degree programmes.

Programme/Discipline-wise Detail of Awarded Scholarships

Academic Programme	Agriculture	Business Administration	Total
Undergraduate	425	334	759
Graduate	553	495	1048
Total	**978**	**829**	**1807**

Year/Gender-Wise Detail of Awarded Scholarships

	Agriculture			Business Administration			
	Male	Female	SubTotal	Male	Female	SubTotal	Grand Total
2004-05	134	11	145	116	31	147	292
2005-06	275	60	335	125	32	157	492
2006-07	47	6	53	53	16	69	122
2007-08	37	12	49	24	10	34	83
2008-09	2	1	3	2	0	2	5
2009-10	119	54	173	137	35	172	345
2010-11	73	11	84	13	4	15	101
2011-12	163	43	206	121	40	117	367
Total	**718**	**165**	**1048**	**591**	**168**	**795**	**1807**

Geographical Diversification of Programme's Beneficiaries

The Programme has an excellent track record of serving young people from underserved, remote areas of Pakistan. The recipients of scholarships belong to wide geographic locations; 25 per cent of the scholars are from FATA/KP. The project also increased its percentage of female recipients from 13 per cent in 2004 to of 23 per cent in 2013.

Achievements

- The overall slots available for the scholarships have been awarded to the deserving students and among them 1250 students have completed with their academic programmes.
- The Student Financial Aid and University Advancement Offices have been established in all partner institutions to strengthen the system of Financial Aid.
- For continuous improvement of the System, Implementation of Upfront Payments has been implemented to reduce the payment delays to needy students.
- To attract the needy students from the remote areas of Pakistan in higher education, a comprehensive strategy was implemented for the communication and outreach.
- National fundraising week was conducted in the partner universities in April 2013.
- Strategy based Action plan was designed and circulated to 11 partner universities.
- A training on "Resource Mobilization and Fundraising" was arranged in which 28 people from 11 partner universities participated.
- To excel in the fundraising endeavours, collaboration with Council for Advancement and Support of Education (CASE), USA has also been initiated.
- Different trainings/ workshops were organized to build capacity of the staff of university.
- Linkages with the community, organizations, corporations and individuals were developed in order to build long-term relationships in the future.
- In order to establish student endowment fund for the scholarships of meritorious and Need based students, the universities have signed MOU with interested donor the "Promotion of Education in Pakistan (PEP) Foundation Inc. USA", a U.S. based, non- profit organization in 2012 to invest at least one million rupees in each public sector university

Fund Raising

With the successful execution of the programme in 11 universities and combined fundraising of more than five billion rupees during 2009-13, HEC as per latest MTDF has expanded the programme to all public and private HEIs of the country. As a result 16 more universities have opened the advancement offices in their campuses, whereas other universities are taking keen interest to establish these offices and start fundraising and income generation activities.

Establishment of Student Endowment Fund

As per MTDF (2009-14), HEC has issued letters to all the public and private sector HEIs to establish Student Endowment Fund in order to have a long term pool of scholarships for the needy and deprived males/ female students. The MNBSP Advancement office found a dedicated donor, the PEP (Promotion of Education in Pakistan) Foundation, Inc. USA to donate seed money of one million rupees to each public sector and nonprofit private university. In the first Phase, 21 universities signed MoUs in March 2013 with the PEP Foundation and are in process of receiving the seed amount for Student Endowment Fund Account from the donor. Rest of the universities shall get advantage in Phase II.

National Education Fundraising Week

The programme facilitated and provided guidelines to universities to organize National Education Fundraising Week during 2013 in order to raise the capital amount of Student Endowment Fund. From March-July 2013, 12 public sector universities organized the Week and collected an aggregate amount of Rs. 8.109 million. Detail of the amount raised under the National Fundraising Week is as under:

University	Funds Raised (In Million)	University	Funds Raised (In Million)
Quaid-e-Azam University, Islamabad	0.300	LCWU	1.409
Institute of Management Sciences, Peshawar	1.445	SALU, Khairpur	0.550
Sukkur IBA	0.140	University of Gujrat	0.054
University of Agriculture, Faisalabad	1.700	University of Malakand	0.140
Agricultural University, Peshawar	0.205	Gomal University, D. I. Khan	0.255
Islamia University, Bahwalpur	0.745	NUST	1.167
Grand Total			**8.11**

Trainings and Workshops

The programme organized the following productive trainings and executive level workshops for the Vice Chancellors and the Staff of University Advancement and Financial Aid Offices in HEIs.

Corporate Social Responsibility

A two-day training/workshop on "Corporate Social Responsibility" for senior staff of University Advancement offices at HEIs was organized in January 2013, with the objective to communicate to participants an insight about types of funding opportunities existent in the form of Corporate Social Responsibility in the business sector. Twenty two participants attended the workshop from 16 public and private universities of the country.

Workshop for Vice Chancellors at LUMS

HEC organized a workshop at LUMS for the Vice Chancellors of public and private sector universities of all provinces and AJK, with an objective to explore tools and techniques for Fundraising and to create a forum of discussion on the topic with industry. The workshop also contained a session with a group of Chief Executives of industry, including Ferozsons Laboratory Ltd., Shaukat Khanum Memorial Trust Hospital and Service Sales Corporation (Pvt.) Ltd.

Scholars Wins Gold Medals

Three USAID scholarship recipients won gold medals in the sixth convocation of the Sindh Agriculture University, Tandojam held in October 2012, while a total of 22 scholars graduated on the occasion. The Project team also presented appreciation shields to the position holders.

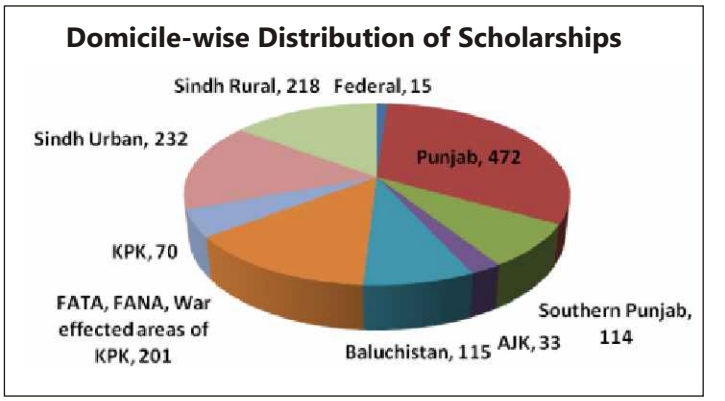
Wali Sultan, MBA from QAU Islamabad



"My father died when I was 10 years old. My mother is a teacher, who exhausted her resources while providing me basic schooling and college studies. MBA from Quaid-i-Azam University of Islamabad was not possible for me. USAID and HEC made it happen by awarding me a scholarship. Now I am a successful professional and doing my job in Mobilink as an Associate Procurement office with a handsome salary package."

HEC-Japanese Needs Based Scholarship Programme

HEC initiated Needs Based Scholarship Programme in collaboration with the Government of Japan to assist needy and financially disadvantaged students. Objective was to provide an opportunity to talented students at graduate and undergraduate levels.



The programme started in 2005 with an initial target to award 1500 scholarships, which was achieved in 2011. The programme supported the students of 37 public and 13 private sector participating universities. Additional 174 scholarships have been awarded during 2011-12 to the students of 14 participating universities at graduate level.

HEC-French Needs Based Scholarship Programme

HEC-French Needs Based Scholarship Programme was initiated by the Government of France through its Embassy in Pakistan with the collaboration of HEC. Ninety scholarships were offered for studious but needy students of six participating universities/institutions in the fields of Business Administration, Social Sciences and Architecture. The participating institutions are Quaid-e-Azam University, Islamabad, COMSATS Institute of Technology, Islamabad, Government College University, Lahore, Institute of Management Sciences, Peshawar, Institute of Business and Management, Karachi and Sardar Bahadur Khan Women University, Quetta.

Students Visit Paris

A group of students representing each participating university of the programme visited Paris, France in May 2013 along with two officials from HEC on the invitation from the French Government. The delegation met different officials of French government, besides meeting a few Pakistani students who are pursuing their PhD in top French universities on HEC scholarships. Keeping in view the success of first phase, the French Embassy has informed HEC that cooperation will be extended and about 150 to 200 scholarships will be financed for students taking admission in Fall 2013. More universities and disciplines have been added in the second phase of the programme.

HEC Needs Based Scholarship Programme

This programme was initiated in 2011-12 by HEC to support the financially disadvantaged students of all the public sector universities. A total of 891 scholarships have been awarded during 2011-12. During 2012-13, 6145 scholarships have been awarded to the students of 59 public sector universities in all the disciplines. The Scholarship Management Committee for needs-based scholarships meets periodically and approves scholarship recommendations presented by the participating universities. The scholarship covers tuition fee and monthly stipend.

Opportunities for Balochistan, FATA and Gilgit/Baltistan Scholars

On the directive of the Government of Pakistan, special schemes are being implemented by HEC to facilitate the scholars of Balochistan, FATA and Gilgit/Baltistan.

Provision of Higher Education Opportunities for Students of Balochistan and FATA

The project was approved in 2007 and has successfully achieved the target of awarding 2000 indigenous scholarships till January 2012. So far, 1300 undergraduate and 700 postgraduate scholarships have been awarded to the scholars of Balochistan and FATA at a ratio of 60:40 respectively. So far, 76 scholars from FATA and Balochistan have completed their undergraduate and postgraduate degrees from reputed institutions. During 2012-13, 27 undergraduate and 17 postgraduate scholarships were awarded scholarship from waiting list and 12 scholars completed their studies including two distinctions.

- Mr. Muhammad Salman from FATA selected in year 2009 successfully completed DVM from University of Veterinary and Animal Sciences, Lahore and secured 6th position out of 200 students in final year DVM Internship programme.

- Mr. Imran Sarwar from Kalat, Balochistan was selected for undergraduate scholarship programme in the year 2009. He has successfully completed BSc Electrical Engineering from Balochistan University of Engineering and Technology Khuzdar and secured second position. He was again selected for HRDI-UESTP scholarship programme for Italy in 2012.

PhD scholarship for working Journalists of FATA

There was provision of 10 PhD scholarships for working journalists of FATA in the programme. Mr. Muhammad Ilyas proceeded to Cardiff University, UK for PhD Studies in Journalism in year 2012.

HEC Reserved Medical and Engineering Seats for Students of Balochistan & FATA

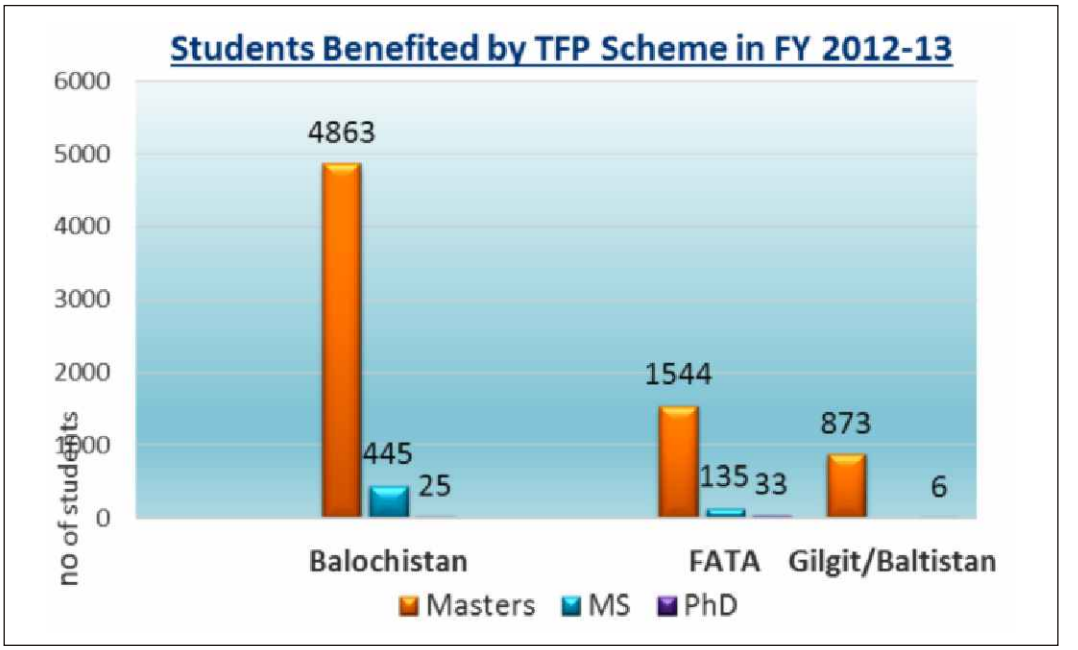
The project reserved seats in KPK medical colleges and public sector engineering universities in year 2012-13. It was decided by the Project Coordination Committee to advertise the reserved seats for Balochistan and FATA students on self-sustained basis only. HEC has placed 17 students from Balochistan and 12 from FATA in MBBS and BDS in the medical colleges of KPK, while 26 students from Balochistan and 21 students from FATA have also been placed in different engineering universities of the country.

Prime Minister's Tuition Fee Payment Scheme for Masters, MS/MPhil and PhD Students of Balochistan, Gilgit/Baltistan and FATA

On special instructions of the Prime Minister, the Government has taken the initiative to provide free education for Masters, MS/ MPhil and PhD Programmes for students of Balochistan, Gilgit/Baltistan and FATA through tuition fee payment scheme. The Scheme was approved by the Cabinet in June 2012 and 500 million rupees were released for the Scheme in 2012-13. As per approved criteria, the students of Balochistan, Gilgit/Baltistan and FATA studying in Masters, MS/MPhil in their respective Province/area of domicile will be provided fee waiver and students of PhD having domiciles of above mentioned areas, studying in any public sector university of Pakistan will benefit from the scheme. The tuition fee scheme was applicable to students enrolled in Fall Semester 2012.

Implementation Status in FY -2012-13

Students Benefited by TFP Scheme in FY 2012 -13					
S. No.	**University**	**Masters**	**MS**	**PhD**	**Total No. of students**
1	BUITEMS Quetta	98	151	9	258
2	University of Balochistan, Quetta	4200	113	10	4323
3	Sardar Bahadur Khan Women University, Quetta	541	180	Nil	721
4	Lasbela University, Lasbela	10	Nil	Nil	10
5	Hazara University , Mansehra	19	12	9	40
6	Kohat University of Science and Technology, Kohat	60	8	1	69
7	Agricultural University, Peshawar	40	2	9	51
8	University of Malakand	29	8	3	40
9	Institute of Management Sciences, Peshawar	28	12	1	41
10	Frontier Women University, Peshawar	7	Nil	Nil	7
11	Khyber Medical University, Peshawar	Nil	11	1	12
12	Islamia College of University, Peshawar	61	Nil	Nil	61
13	Abdul Wali Khan University, Mardan	65	21	Nil	86
14	Shaheed Benazir Bhutto University, Sheringal	7	1	Nil	8
15	Karakoram International University, Gilgit	873	Nil	1	874
16	COMSATS Institute of IT, Abbottabad	Nil	1	Nil	1
17	NUML, Quetta Campus	14	Nil	Nil	14
18	NUML, Peshawar Campus	5	6	Nil	11
19	University of Haripur	2	2	Nil	4
20	University of Peshawar	273	43	4	320
21	Bacha Khan University, Charsadda	34	2	Nil	36
22	University of Science and Technology, Bannu	41	2	1	44
PhD Data					
1	Sindh Agriculture University, Tando Jam			4	4
2	National University of Sciences and Technology , Islamabad			1	1
3	University of the Punjab, Lahore			2	2
4	Arid Agriculture University, Rawalpindi			2	2
5	COMSATS Institute of IT, Islamabad			2	2
6	University of Veterinary and Animal Sciences, Lahore			1	1
7	University of Karachi			1	1
	Grand Total	**6407**	**575**	**62**	**7048**



Expansion of Scheme for Interior Sindh and South Punjab

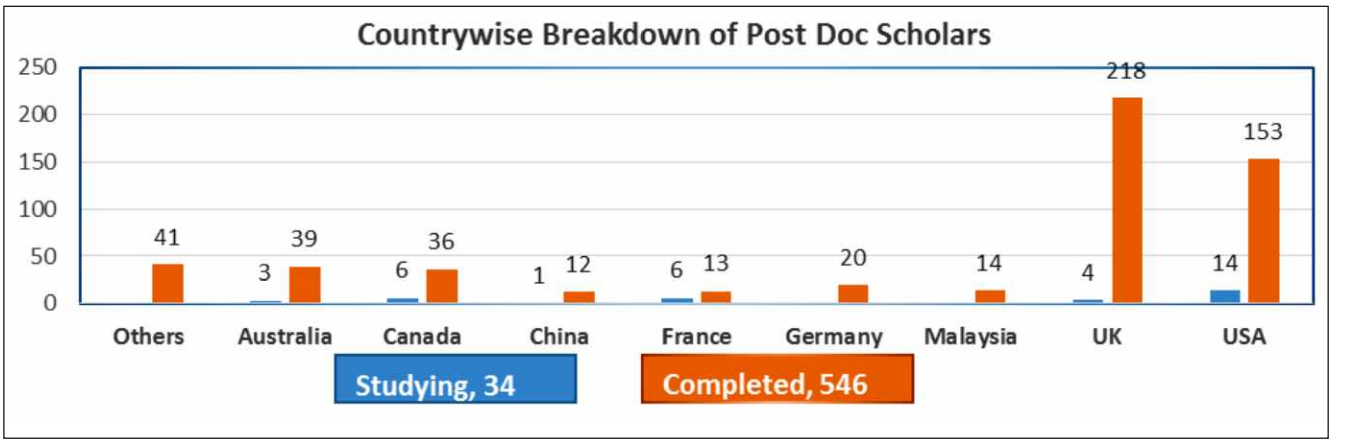
The Finance Minister, during the budget speech, has announced that the current scheme for reimbursement of tuition fee for the students of Balochistan, FATA and Gilgit Baltistan is being expanded to Interior Sindh, Multan, Bahawalpur and DG Khan divisions. The students of these areas will also be considered according to prescribed criteria.

Master Leading to PhD Scholarship Programme (Indigenous and Overseas) for the students of Balochistan (An Initiative of *Aghaz-e-Haqooq-e-Balochistan* package-HEC)

The Project was approved by ECNEC in November 2011 with the capital cost of Rs.3138.692. Its administrative approval was awarded in September 2012. The project is aimed to providing opportunities of higher education to underprivileged candidates of Balochistan who, despite possessing academic merit, are unable to overcome the obstacle of funding. The project is not only restricted to tuition fee cost but also extended to accommodation and living expenses. It provides incentive to the talented students of Balochistan to achieve excellence in their area of interest and ensure availability of trained manpower for research and development in the country in the disciplines including Arts, Languages, Social Sciences, Basic Sciences, Agriculture, Life Sciences and Engineering and Technology.

Post-doctoral Fellowships

Post-doctoral Fellowship Programme provides an excellent opportunity on open merit at national level to the faculty members of the public/private sector universities and researchers of public sector R&D organizations to enhance and upgrade their research skills and knowledge. During the year, 37 scholars proceeded to the host universities and 83 completed their post-doctoral studies and joined their parent organizations, while 34 scholars are pursuing their studies. So far, a total of 580 scholars joined the host universities and 546 scholars have successfully completed their post-doctoral studies and joined their parent organizations. The programme was advertised in November 2012. As many as 226 applications were received, out of which 41 scholars were selected for the fellowship. Provisional award letters have been issued to these scholars.



New Post-doctoral and PhD Research Opportunities in Leading French Laboratories

A joint programme was launched by HEC and the French Embassy in Pakistan for research mobility meant for highly-qualified Pakistani doctoral and post-doctoral scientists. It is an excellent opportunity for Pakistani scholars to do research in France for six to nine months. HEC and French Embassy in Pakistan invited applications for Split PhD scholarships and Post-Doctoral Fellowships in September 2012. Nineteen scholars were selected out of 41 applicants.

Distinctions by Post-doctoral Scholars



Dr. Muhammad Baber had the opportunity to avail post-doctoral research fellowship at Cell and System Biology Department, University of Toronto, Canada funded by HEC on a project "Packaging of satellite RNA is dependent on viral genome". He has published 18 articles in different national and International journals and some are under process. The scholar says that the project will have a big impact on Pakistan's agriculture sector as most of our agricultural crops are affected by different kind of viruses, particularly the most important crop cotton which is affected by cotton leaf curl virus. He is confident to add value by sharing expertise gained from highly prestigious laboratory at the University of Toronto.



Dr. Deeba Noreen Baig was funded by HEC for post-doctoral training in the University of Nebraska, USA in Molecular Biology and Proteomics. The study of the scholar has great relevance to Pakistan, as clinical approximation suggests that over six million children are learning impaired, while close to two million manifests some degree of neurodevelopmental disorders. It was a great breakthrough for her to step in modern technology that broadened her expertise in the emerging fields of neurosciences. The scholar intends to implement her experience and knowledge in Pakistan that will be an uplifting step, not only in education and research but also in the therapeutics and pharmaceuticals.

Foreign Faculty Hiring Programmes

To reduce shortage of PhD faculty and provide supervisors to indigenous PhD scholars in all disciplines, HEC started different programmes for hiring faculty from abroad. The foreign faculty was also expected to serve in different public and private institutions as an agent of change for creation of research environment and leadership in innovative technologies relevant to our country for socio-economic development of Pakistan.

Programmes
Foreign Faculty Hiring Programme (Long Term)
Short-term Foreign Faculty Hiring Programme (SFHP) Phase –III
Visiting Scholars Programme (VSP)

Foreign Faculty Hiring Programme (Long-Term)

Foreign Faculty Hiring Programme was initiated by HEC in November 2003 to recruit highly qualified faculty from abroad for rendering services in graduate research programmes in different public sector universities/institutions in Pakistan. The programme aimed to fill the vast gap of qualified research academics and PhD supervisors in the higher education sector. In the long-term, the goal is to uplift the graduate programmes in Pakistani universities and bring them up to international standards. As of 12th year of FFHP, 594 foreign professors have been hired under this programme where 317 foreign professors joined different HEIs of the country. Sixty foreign professors are serving under the programme in various institutions/universities all over Pakistan while 257 foreign professors have returned to their parent organizations after completing their tenure under FFHP.

The foreign professors hired under FFHP have been engaged in major academic and research activities. Approximately 180 PhD scholars are being supervised by foreign professors. Moreover, during the past 10 years, the foreign professors have published approximately 3000 research papers in reputable international journals where they have also presented approximately 1400 papers at international conferences/seminars. The foreign professors have been actively engaged in research which is evident by over 330 research projects awarded to them. The institutions have benefited from these professors where they have been engaged in bringing international level research environment, quality supervision of graduate students, developing linkages with international educational institutions.

Over the years, Foreign Professors with their innovative approach opened new horizons in the field of research in HEIs across the country. Below are a few examples out of the tremendous efforts made by Foreign Professors in their respective fields:

Institute of Space Technology (IST) has become pioneer in generating shock waves at wind speed of over 1000 miles per hour inside the continuously operated Supersonic Wind Tunnel (SSWT). This Supersonic Wind Tunnel has been made operative by the Foreign Professor **Dr. Asif Mufti** at IST by designing, installing and calibrating it with the help of his team where the integration was fully undertaken at IST. The SSWT has been designed to study the effects of gust of air and shockwaves on aircraft and thus has academic as well as practical implication. As a spinoff of a NRPU project, currently he is at the commercialization stage for following products and services at his incubation centre supported by a national organization:

a. National Emergency Management System
b. National Disaster Management System
c. Networking Small Unit
d. Neighborhood Watch System

In recent years the research work conducted at **National Institute for Biotechnology and Genetic Engineering (NIBGE)** has gained international significance; foreign faculty **Dr. R.W. Briddon** has contributed to the high standards of research at NIBGE. Dr. R.W. Briddon, a British scientist, is one of the first foreign faculty to arrive in country who has been working at NIBGE since April 2004. Since arriving in 2004 Dr. Briddon has supervised more than 20 PhD students who are either working directly with him or in other divisions of NIBGE. He has also published 70 research papers in (impact factor journals) his area of research i.e. Investigation of the diversity, origin and function of the begomovirus DNA satellites and Development of diagnostic techniques for agriculturally important viruses. Earlier, majority of high impact (virology) papers emanating from NIBGE were co-authored by international collaborators indicating that most of the demanding work was conducted outside Pakistan. Recently a number of high impact virology papers are being authored solely by NIBGE staff under the guidance of foreign faculty. Currently Dr. Briddon is conducting research on USDA project of worth US$ 3 Million; Single-stranded DNA viruses of Plants such as cotton leaf curl disease, banana bunchy top disease, chili leaf curl disease, and chickpea stunt disease.

Dr. Rubya Mehdi has been serving at Bahauddin Zakariya University, Multan, from March 2011 to date as Foreign Professor. She did her PhD in Law from University of Copenhagen, Denmark. Before joining BZU, Multan, she has been serving as Associate Senior Researcher at The Institute for Cross-Cultural and Regional Studies, University of Copenhagen. She has written several books on women and law such as "Embedding mahr in the European Legal System". Prepared a report for the Swedish National Board for Youth Affairs on "Muslim family laws and young people in Nordic countries: An example of Denmark". She is also involved in research on "Management of Conflicts: Customary Laws in the South Punjab with special reference to Gender issues" and "Runaway Women and Law". She has been supervising 10 LLM, 8 MPhil and 1 PhD student and also published more than 10 research papers.

Students Supervised by Foreign Professors		
Level	**Students Supervised (2012-2013)**	**Total Students Supervised**
MS	110	571
MPhil	82	315
PhD	96	450
Research Papers Published by Foreign Professors		
	2012-2013	**Total**
Papers Presented in Conferences/ Seminars	100	1480
Research Papers published in International Journals	370	2580

Short Term Foreign Faculty Hiring Programme (SFHP)

The Programme was launched to attract foreign nationals as well as expatriate Pakistani scientists and engineers in academia and professional organizations to come to Pakistan on short-term assignments (at least for one semester) at public/private sector universities and degree awarding institutions (DAIs). The interaction between Pakistani universities and their foreign counterparts will open avenues for future research collaboration and faculty exchanges. Hiring is made in all disciplines under the SFHP. During 2012-13, 32 foreign professors have visited different public sectors universities, including Bahauddin Zakariya University, Sarhad University of Science and Technology, COMSATS Institute of Information Technology, University of Gujrat, University of Karachi, Government College University, National University Sciences and Technology, Quaid i Azam University, and KEMU.

S. No.	Name	Host Institution
1	Dr. Anwar Hossain	COMSATS Institute of Information Technology
2	Dr. Ghalib Shah	Sarhad University of Science and Technology
3	Dr. Gulzar Ahmed	University of Gujrat
4	Dr. Shazia Anjum	Islamia University Bahawalpur
5	Dr. Tahir Abbas Khan	University of Engineering and Technology Lahore
6	Dr. Cristodor	ASSMS, GCU Lahore
7	Dr. Shahid A Shaheen	COMSATS Institute of Information Technology
8	Dr. Vasile Lupulescu	ASSMS, GCU Lahore
9	Dr. Ovais Khan	National University of Sciences and Technology
10	Dr. Marie Aimee	GCU Lahore
11	Dr. Ayesha Saeed	National University of Sciences and Technology
12	Dr. Shahid Nadeem Chohan	COMSATS Institute of In formation Technology
13	Dr. Julie Flowerday	University of Gujrat
14	Dr. Sandra J Hancock	COMSATS Institute of Information Technology
15	Dr. Ghalib Shah	Sarhad University of Science and Technology
16	Dr. Gulzar Ahmed	University of Gujrat
17	Dr. Mehtab Karim	University of Karachi
18	Dr. Zareen Amtul	University of Karachi
19	Dr. Kamran Babar Ali	King Edward Medical University, Lahore
20	Dr. Muhammad Ishtiaq	University of Karachi
21	Dr. David Robert Jones	Quaid-i-Azam University ,Islamabad
22	Dr. Zaigham Mahmood	National University of Sciences and Technology

S. No.	Name	Host Institution
23	Dr. Gulzar Ahmed	University of Gujrat
24	Dr. Cristodor Ionescu	ASSMS, GCU Lahore
25	Dr. Vieru Dumitru	ASSMS, GCU Lahore
26	Dr. Ayesha Saeed	National University of Sciences and Technology
27	Dr. Vasile lupulescu	ASSMS, GCU Lahore
28	Dr. Khalil Ur Rehman	University of Karachi
29	Dr. Mag Irene Bregenzer	Quaid-i-Azam University ,Islamabad
30	Dr. Livia Holden	Karakarum International University
31	Dr. Robert Ried	GCU Lahore
32	Dr. Asjad Saeed	COMSATS Institute of Information Technology

Visiting Scholars Programme (VSP)

This programme intends to provide an opportunity for sharing of expertise and knowledge by the public sector universities and degree awarding institutions with learned expatriates or foreign scholars from reputed universities/research organizations abroad. During 2012-13, under the Programme, 29 foreign professors visited public sectors universities including NUST, CIIT, University of Sargodha, Institute of Space Technology, University of Karachi, and Khyber Medical University.

S. No.	Name	Host Institution
1	Dr. Shabana Mir	Lahore College for Women University
2	Dr. Antonio Aparecido	Quaid-i- Azam University, Islamabad
3	Dr. Umer Shahid	University of Engineering and Technology, Lahore
4	Dr. M A K Lodhi	Institute of Space Technology, Islamabad
5	Dr. Saeed Farooq (S-1)	Khyber Medical University, Peshawar
6	Dr. Saeed Farooq (S-2)	Khyber Medical University, Peshawar
7	Dr. Gohar Wajid	Khyber Medical University, Peshawar
8	Dr. Thomas C Nugent	COMSATS Institute of Information Technology, Islamabad
9	Dr. Girimy	Fatima Jinnah Women University, Rawalpindi
10	Dr. Gohar Wajid	Khyber Medical University, Peshawar
11	Dr. Saeeda Shah	Fatima Jinnah Women University, Rawalpindi
12	Dr. Ishaq Bhatti	University of Agriculture, Faisalabad
13	Dr. Muhammad Akram	University of Agriculture, Faisalabad
14	Dr. Cenap Ozel	COMSATS Institute of Information Technology, Islamabad
15	Dr. Ljubisa Kocinac	COMSATS Institute of Information Technology, Islamabad
16	Dr. Muhammad Ali Imran	University of Engineering and Technology ,Taxila
17	Dr. Samee Ullah Khan	COMSATS Institute of Information Technology, Islamabad
18	Dr. Aftab Iqbal	Quaid-i-Azam University, Islamabad
19	Dr. Tahmina Rashid	University of Agriculture, Faisalabad
20	Dr. Naila Rabbani	Lahore College for Women University
21	Dr. Qamar Shahid	Quaid-i-Azam University, Islamabad
22	Dr. Shabana Mir	Lahore College for Women University
23	Dr. Khurram Jahangir	University of Agriculture, Faisalabad
24	Dr. Osman Mirza	NIBGE
25	Dr. Simon Michael	Khyber Medical University
26	Dr. Mahmood Hussain Shah	University of Azad Jammu Kashmir
27	Dr. Waseem Haider	National University of Sciences and Technology
28	Dr. Judith Burton	Beaconhouse National University, Islamabad
29	Dr. Ansar ul Haque	University of Engineering and Technology, Taxila

Foreign Funded Scholarships

HEC also plays its role as nominating agency for various foreign funded scholarship schemes. A number of foreign scholarship schemes are processed by HEC every year including the world's most prestigious scholarships. These schemes are either fully or partially funded by the foreign donors/governments and HEC has no financial liability in this regard.

Foreign Funded Scholarships Nominations forwarded in 2012-13

S. No.	Scholarship	Nominations Forwarded
1	Commonwealth Scholarships for PhD	10
2	Commonwealth Scholarships for Split PhD	15
3	Commonwealth Scholarships for Post-doctoral Studies	5
4	Swiss Government Scholarships for Masters PhD and Post-doctorate	12
5	Morocco Government Scholarships	26
6	University of Cyprus Scholarships for Postgraduate Program mes	19
7	Lee Kuan Yew, National University of Singapore Fellowships for MPM	8
8	UNESCO/China Great Wall Co-sponsored Fellowship	27
9	Serbian Government Scholarships	50
10	Kuwait Government Scholarships for Arabic Language	6
11	Developing Countries Scholarships by Indonesia	9
12	Austrian Development Agency Scholarships in Tourism and Hospitality Management	5
13	Chulabhorn Graduate Institute Scholarship	5
14	Mexican Government Scholarships	38
15	Swiss Government Excellence Scholarships	15
16	Sri Lankan Government Scholarship for Postgraduate Studies	23
17	Sri Lankan Government Scholarship Undergraduate Studies	17
18	Italian Government Scholarships	21
19	Shenyang Aerospace University (SAU) - China	42
20	Xi'an Jiaotong University (XJTU) Scholarships - China	18
21	Brunei Darussalam Government Scholarships	74
	Total	**267**

HEC Distinguished National Professors Programme

The Higher Education Commission launched the "HEC Distinguished National Professors" programme in year 2003 with an aim to recognize services of eminent professors/scientists who have been working in their specialized fields with dedication. The positions of HEC/Pakistan Distinguished National professors were created to get benefit of their experience. A total of 41 Distinguished National Professors have been selected by HEC since the commencement of the programme. Currently following eight DNPs are on the panel of HEC.

S. No.	Name	Discipline	Institution	Selection Year
1	Dr. M. Asif Khan	Geology	University of Peshawar	05.03.12
2	Dr. Saqib Ali	Chemistry	Quaid-i-Azam University, Islamabad	05.03.12
3	Dr. Saleem Asgher	Mathematics	CIIT, Islamabad	05.03.12
4	Dr. Muhammad Sarwar	Veterinary	Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi	05.03.12
5	Dr. Muhammad Sharif	Mathematics	University of the Punjab, Lahore	04.10.10
6	Dr. Shahida Hasnain	Botany	University of the Punjab, Lahore	04.10.10
7	Dr. G. Murtaza	Physics	GCU Lahore	04.10.10
8	Dr. Atta-ur-Rehman	Chemistry	HEJ Research Institute of Chemistry, Karachi	04.10.10

Scholarship Regulations and Fresh PhD Appointment

National Scholarship Management Committee (NSMC)

The National Scholarship Management Committee (NSMC) was approved by ECNEC in 2003 to deal with policy matters under all scholarship schemes of HEC. The Committee includes members nominated by each province, federal ministries and others academicians. The NSMC including its Sub-Committee met three times and resolved 63 agenda items during the year. Accordingly, policy decisions were accorded for the award of HEC scholarships, overseas and indigenous, to eligible candidates by observing Province wise Federal Government Quota Policy. The cases of defaulters in the light of approved SOPs were also decided.

Interim Placement of Fresh PhDs Programme (IPFP)

The HRD Division of HEC also manages placement of its scholars after completion of their PhD as faculty member in different universities of the country at handsome salary structure provided by the Tenure Track scales. Interim Placement of Fresh PhDs (IPFP) programme of HEC provides all Pakistani fresh PhD graduates an opportunity for one year to start their career as Assistant Professor in a public or private university.

Under the programme, a total of 1403 scholars have been placed while during 2012-13, 505 scholars were placed as faculty member in a local university in various educational institutions. During the IPFP contract period, the scholars can apply for the posts advertised by the universities on TTS or BPS. The faculty requirement of the host institutions and the priority of the scholars are taken into account while placing the scholars by HEC. The scholars of all academic disciplines can avail the opportunity under IPFP to join as

Assistant Professor. The Programme is attracting non HEC scholars too. HEC is in a continuous process to take on board more universities under the programme. In addition to placements, IPFP awardees are also provided with 0.5 million rupees startup research grant to initiate a feasible research project at his/her host university.

Approved PhD Supervisors

HEC has been in a continuous process to approve and register supervisors to guide and supervise PhD scholars at local universities. It is mandatory for HEC scholarship holders to register as approved supervisors after completion of their PhD. Only HEC approved PhD supervisors are eligible to supervise HEC scholarship holders under the Indigenous PhD scholarship programme. A total of 1073 scholars were certified as HEC Approved Supervisors this year.

HEC Registered Supervisor

A large number of the PhD faculty has remained outside HEC Approved Supervisor network though they may be capable to supervise PhD students. To overcome this gap, HEC has initiated 'HEC Registered Supervisor' programme to bring every faculty member holding PhD degree in the network on a mandatory basis. HEC registered supervisors is a pre-step to HEC approved supervisors. HEC Registered Supervisor can supervise university scholars but not the HEC scholarship holders unless they complete the requirement of HEC approved supervisors. By June 2013, 581 supervisors became HEC Registered Supervisors while a total of 375 scholars were certified as HEC Registered Supervisors this year.

Discipline-wise Detail of HEC Approved Supervisors registered during 2012-13

Discipline	Applications Received	Number of Approved Cases	HEC Registered Supervisor
Agriculture	162	147	15
Biology	260	203	57
Engineering and Technology	306	256	50
Physical Sciences	284	258	26
Social Sciences	393	174	219
Social Sciences (Languages)	43	35	8
Total	**1448**	**1073**	**375**

RESEARCH, INNOVATION AND COMMERCIALIZATION

Research and Development is indeed the first and foremost facet of the socio-economic development of a country, and the only way to strengthen it is to promote research culture in the country. The HEC has not only given higher education institutions a focus, it has also encouraged its faculty members to develop their capacity by providing exposure in the form of scholarships, post-doc fellowships, sabbatical leave, travel grants as well as research awards to recognize their services in academics. Due to HEC's initiatives and encouragement, Pakistani universities and researchers are now recognized globally.

HEC has been spearheading the research in universities which has led to the creation and growth of the indigenous knowledge in all academic fields. It is encouraging to realize that the universities in Pakistan have responded passionately to all the initiatives taken by HEC towards research and development and many projects have made their presence felt at national and international forums.

The efforts made by the HEC during the last 10 years have revolutionized the higher education sector of Pakistan. The HEC has adopted a wholesome approach for development through research, ranging from personal development to strengthening of universities. As a result, research activities have increased manifold in both public and private sector universities and research output in international impact factor journals has increased tremendously.

After creating research facilities and inducting qualified researchers in the universities, the next step is to focus on priority research areas and creating solutions to problems of local community. Now is the time to emphasize that the research corresponds with economic and social needs of the country. Researchers and scholars are required to pay attention towards those areas, especially energy sector, water resources and food security which can contribute to the development of the community and region in which university is located. HEC envisages that the existence of a university must be visible by its integration with the local community and universities must have formative role in community services.

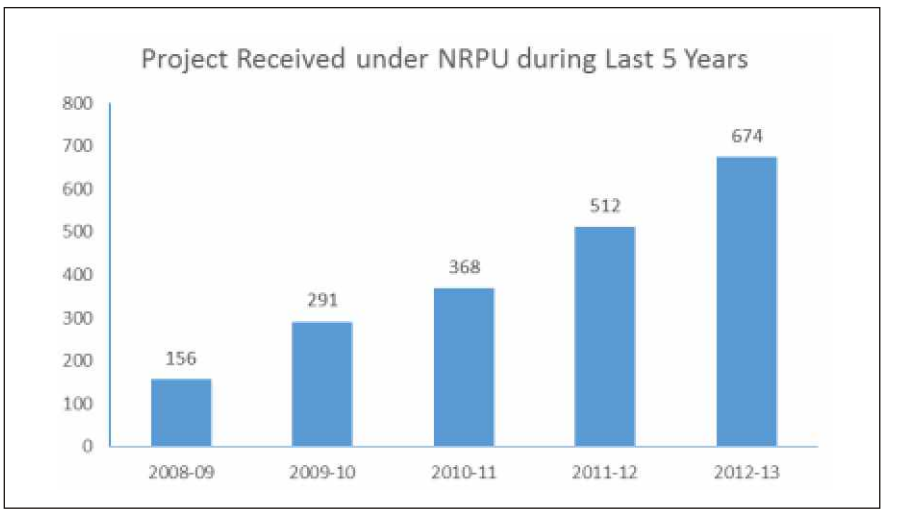
Apart from Science and Technology, research activities in other field of studies like Arts and Humanities are equally important. There is a necessity to find the connection between different fields of studies so that knowledge gaps can be reduced and new inter-disciplinary research can yield better results.

The activities of Research and Development Division can be categorized in four major areas as (a) promotion of research in universities (b) capacity building of researchers and faculty (c) support to universities in promoting research, and (d) commercialization of research. The activities carried out in the year 2012-13 are reported in the above mentioned four heading along with programme details and achievements in the sub-headings.

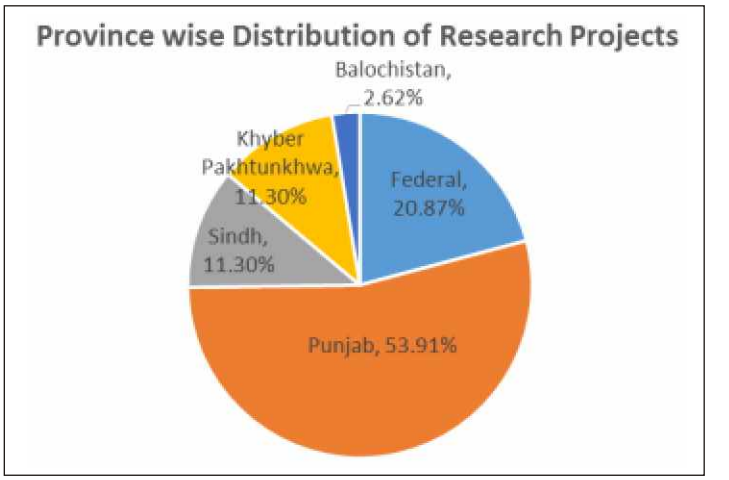
Promotion of Research in Universities

National Research Programme for Universities (NRPU)

National Research Programme for Universities (NRPU) provides research grants for high-level and promising scientific research projects to be carried out in Pakistan by university teachers on competitive basis. This offers an opportunity to the faculty members of the universities and degree awarding institutions to undertake research projects in basic and applied disciplines. The objective of this programme is to provide modest grants to faculty members so as to catalyze research in academic institutions and enhance the capacity of researchers to undertake bigger initiatives, which address the local demands. During 2012-13, a total of 965 research proposals were processed (674 research proposals were received and 291 research proposals were carried forward from previous year 2011-12), 94 research proposals were approved for funding and 141 research project were rejected after evaluation. In addition, there are 566 research proposals in the evaluation phase. A total amount of Rs 401 million were provided to different universities of Pakistan through NPRU research grants during the financial year 2012-2013.



The regional trend to submit research proposals seems much dependent upon the number of universities in the region. The region wise submission of proposals is highest among the universities from Punjab, Federal Area, Sindh and Khyber Pakhtunkhwa respectively. Table below shows the regional distribution of the proposals received during the last three years.



During the current fiscal year, following 26 NRPU projects were completed.

S. No.	Principal Investigator	Project Title	Institution	Total Cost (Rs.)
1	Dr. Mushtaq Ahmad Saleem	Managing the possibilities of Bt resistance in field population of cotton bollworm, Helicoverpa armigera (Hubner) in Pakistan	Bahauddin Zakariya University, Multan	1,231,819
2	Dr. Saifullah	Studies on the Development of oyster and button mushrooms spawn	NWFP Agriculture University, Peshawar	1,669,740
3	Dr. Muhammad Azim Khan	Soil fertility and economic benefits of Maize-legume intercropping and weed suppression by inter-row cultivation	NWFP Agriculture University, Peshawar	913,246
4	Dr. Muhammad Ashfaq	Sequencing DNA barcodes of economically important insect species of Pakistan	Quaid-i-Azam University, Islamabad	1,743,180
5	Dr. Faqir Muhammad Anjum	Selective Deposition of Bio-antioxidant in skeletal muscles of meat animals by dietary supplementation in feed to enhance the quality and shelf life of meat and meat products	University of Agriculture, Faisalabad	4,137,987
6	Dr. Asif Ali Khan	Development and testing of cotton (Gossypium hirsutum L.) tilling population as a resource for the plant genetic improvement	University of Agriculture, Faisalabad	5,017,941
7	Dr. Muhammad Ashraf	Elucidation of Anti-oxidative Defense System and some Potential Physio-biochemical Attributes in Safflower under drought stress	University of Agriculture, Faisalabad	3,210,249
8	Dr. Faqir Muhammad Anjum	Production of Flavours and Food Antioxidant via Maillard Reaction	University of Agriculture, Faisalabad	3,431,589
9	Dr. Farkhanda Manzoor	Repellency and Toxicity of different essential oils against termites	Lahore College for Women University, Lahore	1,931,436
10	Dr. M. Mahmood ul Hassan	The Diversity and Conservation Biology of Bats in Selected Protected areas of Pakistan	University of Agriculture, Faisalabad	3,177,457
11	Dr. Zahid Hussain Chohan	Synthesis of Metal Based Sulfonamide Derived Novel Antibacterial, Antifungal and Antiviral Compounds	Bahauddin Zakariya University, Multan	2,242,000
12	Dr. Hafiz Badar-ud-Din Ahmad	Synthetic and Kinetic Studies of Halogen Substituted Phenylisocoumarins and Dihydroisocoumarins Along with their Biological evaluation	Government College University, Faisalabad	586,842
13	Dr. Bushra Mateen	Development of a Bio-sorption Process for Removing Chromium from Leather Industries Effluent	Lahore College for Women University, Lahore	4,447,590

S. No.	Principal Investigator	Project Title	Institution	Total Cost (Rs.)
14	Dr. Aamer Saeed Bhatti	The First Total Synthesis of the Principal Bioactive Metabolites of Achlys triphylla	Quaid-i-Azam University, Islamabad	1,036,414
15	Dr. Fatima Z. Basha	Towards the total enantioselechive synthesis kaitocephaline via alkylidene carbine insertion	University of Karachi, Karachi	5,516,195
16	Dr. Shamshad Zarina	Automatic Synchronization and Distribution of Biological Databases and Software over Low-Bandwidth Networks among Developing Countries	University of Karachi, Karachi	5,372,000
17	Dr. Tanveer Hussain	Enhancing the cooling and comfort properties of Textile clothing through chemical finishing	National Textile University, Faisalabad	3,647,880
18	Dr. Shahid Naveed	In situ Gasification of Coal	University of Engineering & Technology, Lahore	3,078,699
19	Dr. M. Shahid Khalil	Development of Human Resource and the wind energy expertise at UET Taxila	University of Engineering & Technology, Taxila	4,953,058
20	Dr. Haq Nawaz Bhatti	Removal of dye based industrial effluents using agricultural wastes on pilot scale	University of Agriculture, Faisalabad	3,338,962
21	Dr. Khalid Mahmood	Vitamin D Status in Patients with liver Cirrhosis	Dow University of Health Sciences Karachi	548,419
22	Dr. Ata-ur-Rahman	HCV Infection: Potential Role of Membrane Proteins	University of Karachi, Karachi	6,148,590
23	Dr. Muhammad Tayyab Ansari	Physicochemical characterization of solid dispersions of artemisinin and it derivatives	Bahauddin Zakariya University, Multan	1,084,040
24	Dr. Mahr-un-Nisa	Nutritional Evaluation of Enzose and Corn Steep Liquor for Meat and Milk Animals	University of Agriculture, Faisalabad	2,976,400
25	Dr. Ahrar Khan	Histo-Morphometry and Molecular Pathobiology of Naturally Occurring Mastitis in Buffaloes and cows	University of Agriculture, Faisalabad	2,644,839
26	Dr. Muhammad Ashraf	Bio-Equivalence Studies of Various Products of Amoxicillin in Buffalo Calves	University of Veterinary and Animal Sciences, Lahore	4,599,373

Consultative Meeting on Research Framework for NRPU

Research and Development Division organized a consultative meeting in May 2013 with the researchers and focal persons from local universities in Rawalpindi and Islamabad. The objective of the meeting was to identify the bottlenecks of the existing NRPU policy and to amend these in the light of suggestions from the stakeholders. The researchers proposed that:

a) Priority areas need to be defined keeping in view the national needs to solve the local issues of the community.
b) Consultative groups in the each priority areas need to be constituted comprising of experts in these areas to identify the research needs within a specified area.
c) A balance between applied and basic research needs to be maintained.
d) Priority should be given to those projects having impact on economy and community.
e) Research projects in collaboration with industry may be encouraged so that the research may be commercialized in collaboration with the industrial sector.
f) Instead of receiving research proposals throughout the year, these may be invited in cycles keeping in view the available funds.

Pak-US Science and Technology Cooperation Programme

During the year 2012-13, HEC launched Phase-V of joint research proposals under Pakistan-US Science and Technology Cooperation Programme by inviting Request for Proposals (RFP) from Pakistani researchers in collaboration with the US counterparts in November 2012. A total of 283 research proposals were received for Phase-V. These proposals were reviewed as per given criteria by the independent reviewers both in Pakistan and US. These research proposals were finalized in the light of comments from reviewers in a joint meeting held on June 10-13, 2013 in Istanbul. With the launch of Phase-V, a total of 65 collaborative research projects have been selected out of which 23 projects have been completed. The current status of each phase is given below:

Programme Phase	No. of Projects	HEC Contribution US$	Total US$	Status of the Projects
Phase-I (2005 -08)	8	2.51	5.01	8 research projects have been completed successfully
Phase-II (2006 -09)	9	2.08	4.58	8 research projects have been completed successfully
Phase-III (2007 -10)	14	3.40	7.10	7 research projects have been completed successfully
Phase-IV (2009 -14)	18	4.50	10.00	All 18 projects are in progress
Phase-V (2013 -16)	10	2.00	4.00	10 projects have been selected
Bio-Engagement Program me (BEP)	6	Funds provided by US	1.412	All the 6 projects are in progress

The following is the list of the selected projects under Phase-V:

S. No.	Project Title	Category	US Partner	Pakistani Partner
1	The establishment of fruits and vegetables processing centre in the Institute of Food Science and Nutrition, University of Sargodha, Pakistan	Food Science	Dr. Nadeem Riaz, Texas A&M University	Dr. Sarfraz Hussain, University of Sargodha
2	Collaborative research for genetic conservation and improvement of Pakistani goats	Veterinary Science	Dr. James M. Reecy, Iowa State University	Dr. M. Moaeen-ud-Din, PMAS-Arid Agriculture University
3	Targeted engineering of Brassica Juncea seed biochemistry to produce reduced-viscosity plant oils for direct use as Biofuel	Agriculture	Dr. Timothy P. Durrett, Kansas State University	Dr. Iqbal Munir, Agricultural University Peshawar
4	Capacity building for Pakistan in fire risk management	Engineering	Dr. Venkatesh Kodur, Michigan State University	Dr. M. Masood Rafi, NED University of Engineering and Technology
5	Neotectonic and earthquake-hazard studies of the Chaman Fault, Western Pakistan	Environmental Science	Dr. Shuhab M. Khan, University of Houston	Dr. Khan Abdul Salam, University of Balochistan
6	Study of magnetic materials for hyperthermia treatment of cancer	Biosciences	Dr. Shahid Ahmad Shaheen, Florida State University	Dr. Sadia Manzoor, COMSATS Institute of Information Technolo gy
7	Saving maternal and infant lives with affordable technology	Public Health	Dr. Richard Rothenberg, Georgia State University	Dr. Aisha Malik, King Edward Medical University
8	Development and commercialization of a blood based tuberculosis diagnostic test	Medicine	Dr. Imran H. Khan, University of California, Davis	Dr. Natasha Anwar, Forman Christian College
9	Development of ultrasensitive, robust and affordable nanoparticle-based strips for detecting bacteria	Water	Dr. Vincent M. Rotello, University of Massachusetts	Dr. Irshad Hussain, LUMS
10	New approaches for lower cost, longer ability and higher efficiency of dye-sensitized solar cells	Energy	Dr. Qiquan Qiao, South Dakota State University	Dr. M. Hassan Sayyad, GIK Institute of Engineering, Sciences and Technology

Joint Review Meeting Pakistan-US S&T Cooperation Programme

Joint Meeting on Pak-US Science and Technology Cooperation Programme was held in June 2013 at Istanbul, Turkey. The agenda of the meeting was:

(i) to overview of review process and general discussion regarding available funding from each sponsor for Phase V
(ii) progress on establishment of centres for higher studies in food security, energy and water
(iii) funding commitment of the partners, launch of RFP of Phase VI
(iv) online proposal submission of applications

The meeting was attended by Dr. Mazhar Saeed, Higher Education Commission, Pakistan Abdul Haleem Asghar, Ministry of Science and Technology, Pakistan, Franklin Carrero-Martinez, The National Academies, and US State Department, Syeda Nosheen Fatima, Higher Education Commission, Pakistan, Gul-e-Afshan, US Embassy, Islamabad, Katherine Himes, USAID, Wei Jing, The US National Academies, Joan Mahoney, The US National Academies, Asima Rehman, USAID Mission in Pakistan, and Emerita Torres, US Embassy, Islamabad.

HEC-British Council Strategic Partnerships in Research and Education

In order to facilitate research and development in the higher education learning system, partnerships between the Pakistani universities and British universities were developed through HEC Pakistan and the British Council Pakistan under the development projects of Higher Education Links with British Universities in two phases.

Fifty higher educational linkages between Pakistani and UK universities/education institutions were activated under the project. Later on, HEC and BC inked a five-year programme designed to grow high level strategic relationships between universities in Pakistan and the UK under International Strategic Partnership in Research and Education (INSPIRE) Programme was launched in collaboration with British Council.

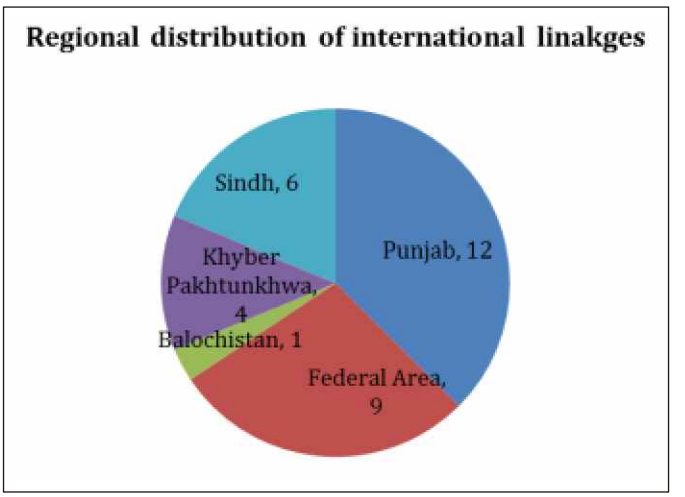
The core objective of INSPIRE Strategic Partnership is to internationalize the activities of the UK and Pakistani partners and to encourage research of an international quality which are strategically relevant to Pakistan and the UK. For this programme, applications were invited from UK and Pakistan universities that ideally meet the criteria. After scrutiny, 120 applications were found eligible for peer review. Based on the results received from subject experts from both Pakistan and UK, 16 collaborative partnerships between Pakistani and British universities were approved for funding by the INSPIRE board which included members from HEC and British Council. Funding for these partnerships is available for a maximum of three years. Currently there are 16 projects being executed under INSPIRE (Phase-II). The projects are in their third year. The installments of 3rd year has been released to four projects, while five projects progress and utilization reports are in review process and rest of the seven projects progress and utilization reports have not received yet.

Following is the list of approved projects under INSPIRE Programme:

S. No.	Title of the Proposal	British Partner	Pakistani Partner
1	Cutaneous leishmaniasis in Khyber Pakhtunkhwa (Pakistan): assessment of antileisshmanial and antimicrotubule properties of synthetic naphthoquinone derivatives in vitro.	London School of Hygiene And Tropical Medicine	University of Peshawar
2	Use of Geo-synthetic Materials Technology for Provision of Clean Well Water	Institute for Materials Research and Innovation (CMRI), University of Bolton	Textile Institut e of Pakistan (TIP), Karachi
3	Developing strategies to monitor Indus River Pollution in Mianwali region of Pakistan by using fish as a potential bio-indicator	University of Newcastle, UK	Govt. College University, Faisalabad
4	Impact of Environmental pollutants on Fish and Fisheries of Punjab, Pakistan.	University of Aberdeen, UK.	University of Vet. and Animal Sciences Lahore
5	Developing Best Practice in Learning and Teaching in Medical Education	University of Liverpool	University of Health Sciences
6	Wastewater Reclamation and Reuse at Bench Scale Using Advanced Biological Treatment Technologies	University of Oxford	National University of Sciences and Technology(NUST)
7	Lancashire to Lahore, exchange to develop cultural understanding	University of Central Lancashire	Beaconhouse National University
8	Women Empowerment and the Crisis of Good Governance in Pakistan (A Study of South Punjab 2001-2009)	Royal Holloway College University of London, UK	Bahauddin Zakariya University, Multan, Pakistan
9	Development of Bioinformatics Research, Teaching and Infrastructure at the University of Sindh.	University of Essex, United Kingdom	University of Sindh, Jamshoro, Pakistan
10	Development of a universal micro-sensor for the measurement of performance of power and energy systems Adoption of Cambridge University's specialist undergraduate and graduate level engineering courses for teaching at Air University, Pakistan	University of Cambridge	Air University
11	Co-Combustion of Pakistani Coal and Biomass in Pilot Scale Combustors	The University of Leeds	Pakistan Institute of Engineering and Applied Sciences
12	The Bradford/Mirpur Connection and the Global Citizenship of its Young People: A Partnership Development Research Project	School of Lifelong Education and Development, University of Bradford	Mirpur University of Science and Technology & University of Azad Jammu and Kashmir
13	To develop a Strategic Partnership for Knowledge Exchange and Research on Sustainable Entrepreneurship and Innovation North West Pakistan	University of Southampton	Institute of Management Sciences, Peshawar
14	Migration, Education and Development'	University of Sussex, UK	Quaid-i-Azam University, Bahauddin Zakariya University, Multan University of Peshawar, Peshawar
15	Anxiety among adolescents in Pakistan: From epidemiology to prevention	Roehampton University	Fatima Jinnah Women University
16	Building of indigenous capabilities for Thar coal development	University of Nottingham UK, Tsinghua University, China	Mehran University of Engineering and Technology, Jamshoro, Pakistan, Hacettepe University, Ankara, Turkey

International Linkages of Pakistani Universities with Foreign Universities

R&D Division has established 32 academic linkages of Pakistani universities with foreign universities in which researchers, faculty members, and PhD scholars in Pakistani public sector universities have been extended opportunities to work in collaboration with the foreign scholars. A total number of 32 academic linkages were established between Pakistani and foreign universities. The total cost of the project is Rs. 308.772 million. The activities envisaged in eight linkage programmes have been completed, while five have yet to be completed. The geographic distribution of linkages established by Pakistani Universities with foreign universities is as under:



Under this project, collaborative research opportunities are explored and materialized by the Pakistani academicians and the faculty from collaborating foreign universities. The project in addition extends opportunities of faculty visits, and joint/split PhD programmes between the collaborating local and foreign universities. This project is a comprehensive multi-faceted model, which has led to establishment of lasting and productive academic association. The details of international linkages are given below:

S. No.	Pakistani University	Foreign University	Status
1	International Islamic University, Islamabad	Kent State University, Ohio USA	On-going
2	Balochistan University of Information Technology & Management Sciences, Quetta	University of Glasgow, UK	On-going
3	University of Punjab, Lahore	University of Sterling, Scotland	Completed
4	Gomal University, D.I. Khan	University of Glasgow, UK	Completed
5	Bahauddin Zakarya University, Multan	La Trobe University, Australia	Closed
6	University of Engineering & Technology, Texila	Queen's University, Belfast Northern Ireland, UK	Completed

S. No.	Pakistani University	Foreign University	Status
7	Liaquat University of Medical & Health Sciences, Jamshoro	1. Karolinska Institute, Huddinge University, Stockholm, Sweden 2. University Hospital, Nottingham	Closed
8	University of Sargodha, Sargodha	Friedrich Schiller University of Jena, Germany	Completed
9	COMSATS Institute of Information Technology, Islamabad	Texas A&M University, College Station, Texas USA	On-going
10	National University of Modern Languages, Islamabad	Utrecht University, Netherlands	On-going
11	NWFP Agriculture University Peshawar	1. University of Illinois Urbana, Champaign 2. University of California, Davis 3. University of Bonn, Germany	On-going
12	University of Engineering & Technology, Lahore	Queen Mary University of London, UK	On-going
13	Mehran University of Engineering & Technology, Jamshoro	1. University of Leeds, UK 2. Colorado State University, USA 3. University of Nottingham, UK 4. Montan Univ of Leoben, Austria 5. University of Illinois, USA 6. Kyushu Institute of Tech, Japan	On-going
14	Sindh Agriculture University, Tandojam	South China Agriculture University	On-going
15	Kohat University of Science & Technology, Kohat	University of Tsukuba, Japan	On-going
16	University of Engineering & Technology, Peshawar	University of Illinois at Urbana Champaign, Urbana, USA	Completed
17	Fatimah Jinnah Women University, Rawalpindi	Indiana University, Bloomington	On-going
18	University of Gujrat	Salzburg University, Austria	On-going
19	Pakistan Institute of Engineering & Applied Sciences, Islamabad	Harvard University, USA	On-going
20	University of Karachi.	University of Tsukuba, Japan	On-going
21	National University of Science & Technology, Rawalpindi	University of Witwatersland Wits, Johanesburg, South Africa	Completed
22	NWFP Agriculture University Peshawar	University of Queensland, Australia	On-going
23	Pakistan Institute of Development Economics, ISB	Harvard University USA	On-going

University-Industry-Technology Support Programme

Higher Education Commission "University Industry Technology Support Programme" is an important step towards fostering high level of tangible cooperation between academia and industry for capitalizing on emerging international demands for products and processes in discrete and continuous manufacturing that shall contribute to national economy. The grants under "University Industry Technology Support Programme (UITSP)" are awarded on competitive merit for high-level and promising industrial research projects geared towards innovating/inventing a product or a process which is of direct relevance to current needs of the industry. The contribution is to be made principally by the faculty members and by creative scientists of public-sector universities and degree-awarding institutions in collaboration with professionals from local industry. Following are lists of on-going and completed projects for FY 2012-13:

On-going UITSP Projects during 2012-13

S. No.	Title of the Project	Executing Institution	Collaborating Industry	Cost (m. Rs.)	Status
1	Development of Tissue Culture Protocols & Methodology for Micro Propagation of Tea Plant	COMSATS Institute of Information Technology Chak Shahzad Campus, Islamabad	Khawaja Foods (pvt) Ltd- Muzaffarabad-AJK	10.071	Final report received
2	Pilot Scale Production of Microbial Enzymes and their Commercial Viability as Poultry Feed Supplement	Quaid-i-Azam University, Islamabad	Indus Pak Corporation, Suit #11, 7th Floor. Central Plaza Barkat Market, New Garden Town Lahor e	5.607	2nd installment released
3	Hyper Expression and Production of Thermostable Pyhtase for Poultry Feed	University of Veterinary and Animal Sciences Lahore	HI-Tech Feeds (Pvt) Ltd H-Office: 1-A, Shadman Chowk, Jail Road, Lahore	9.317	1st annual report being reviewed
4	Screening, and Characterization Anticancer Compounds from Some local Plants"	University of Agriculture, Faisalabad	Saffron Pharmaceuticals (Pvt) Ltd 19 km, Sheikhupura Road, Faisalabad,	6.872	1st annual report being reviewed
5	Development of Electronic Lab Note Book (ELN) for Biological and Chemical Experimentation"	University of Engineering & Technology, Lahore	Northbay Solutions, Software Development Company	6.000	Being Revised

UITSP Projects Completed during 2012-13

1	An Innovative Approach to Recycle Egg Laying Breeder Stock And Their Performance Comparison in the Subsequent Production Cycle"	University of Agriculture, Faisalabad	Bilal Poultry Enterprises, Arifwala-Pakpattan	2.002	Completed

Dissemination and Showcasing of Research Outcomes

Symposium on Economic Growth through Technology Transfer

The First Pakistan-U.S. Science and Technology Cooperation Programme Symposium on "Economic Growth through Technology Transfer" was held at National University of Sciences and Technology (NUST) Islamabad in February 2013. The two-day symposium was organized jointly by Higher Education Commission (HEC), Ministry of Science and Technology, US Department of State, US Agency for International Development and US National Academy of Sciences. The main objective of the activity was to introduce concepts of technology transfer and foster new interactions between research projects and the private sector, enhancing translation of research across these domains. The symposium brought together American and Pakistani researchers, universities, research institutions, government officials, and entrepreneurs to help build partnerships between researchers and private sector. The sessions include hands-on workshops on establishing private sector partnerships, intellectual property, and how to "sell" a business idea to potential investors. The symposium was attended by more than 100 participants.



National Seminar on Future of Research in Pakistan

A Seminar on "Future of Research in Pakistan" was jointly organized by Higher Education Commission, Ministry of Education and Training, and Ministry of Science and Technology in May 2013 at HEC Islamabad. The key objective of this seminar was to raise awareness about the significance of innovation and research towards economic development among key stakeholders and discuss the future research direction in Pakistan. The seminar was attended by 500 experts from academia, industry and business community. Dr. Sania Nishtar, Federal Minister for Education, Government of Pakistan was the chief guest. The topics and speakers of the Seminar are given below:

i. HEC's Research Efforts by Prof. Dr. Mukhtar Ahmed, Executive Director HEC
ii. Promoting Research in Colleges and Technical Institutions by Mr. Qamar Zaman Ch., Secretary, Ministry of Education & Training
iii. Research Relevant to Pakistan: A New Focus by Dr. S. M. Junaid Zaidi, Rector COMSATS Institute of information technology, Islamabad
iv. Research and Innovation: Expectation from Industry by Mr. Imtiaz Rastgar, Rastgar Group of Industries, Islamabad

v. Materializing academia–industry linkage; Road map and institutional arrangements by Mr. Siddiq-ur-Rehman Rana, Chief Executive, SME Development Centre, Lahore
vi. Outreach Research Initiatives by Prof. Dr. Mudassir Asrar, Chairperson, Pakistan Council of Science & Technology, Islamabad

Following are recommendations from the experts:

a. Number of qualified faculty in the universities be enhanced to have a good pile of researchers. Minimum of 1000 PhD's need to be produced every year.
b. Good Pay package at market rates should be offered to attract academics.
c. The importance of Impact Factor research should remain in the focus because it gives rise to creation of new knowledge which is the main role of the universities. Innovation and commercialization should follow as second step.
d. Future research direction should be shifted to cutting edge technologies instead of traditional research. Research should be focused on world market and not for Pakistan only.
e. R&D organizations should come up in applied research to solve the domestic issues and new R&D organizations should be set-up to give growth to research activities in the country.
f. Universities need to develop their own research eco-system and must look around their local communities to solve their problems. The business school in every university should be the driver, providing market research, gap analysis, opportunity areas, skill mapping and other commercial considerations.
g. Universities must have research advisory boards with high involvement of volunteer business people.








Capacity Building of Researchers and Faculty

Travel Grants for Pakistani Researchers

Higher Education Commission's Travel Grant Programme aims at providing the opportunity to the academic and scientific communities to boost their research activities in the public and private sector universities and degree awarding institutes of Pakistan. Under this programme, faculty and Ph.D. scholars are extended financial assistance for presentation of their research papers at national or international forums, which facilitates the interaction with skilled academia and researchers in the relevant field. This grant will also facilitate scholars proceeding abroad for the purpose of pursuance of PhD studies in foreign universities, post-doctoral studies, and for the visits performed under cultural exchange programme.

During the FY 2012-13, HEC considered a total of 1882 travel grant requests, while 959 cases were approved, out of which 125 cases were withdrawn by the applicants. The 834 researchers proceeded to attend seminar, conferences and symposia. The total expenditure incurred in the year 2012-13 was Rs. 87.544 million as partial payment to approved cases. A comparison of last three years shows increasing interest of the faculty members in the travel grant programme. Anyhow, the success rate remained low due to strict evaluation of the applications.

Number of Applications	FY 2010-11	FY 2011-12	FY 2012-13
Received	1635	1849	1882
Approved	986	843	834
Success Rate (%)	70.67	45.35	44.31
Approved Cost (m. Rs.)	194.438	143.590	142.050

Graph below shows the regional distribution of the beneficiaries of the travel grant. The analysis shows that researchers and faculty members from federally chartered institutions located got 21% travel grants while Punjab, Sindh and Khyber Pakhtunkhwa received 39%, 17% and 15% respectively. While five per cent travel grants was awarded to Pakistani scholars studying abroad under various HEC and GoP scholarship schemes.

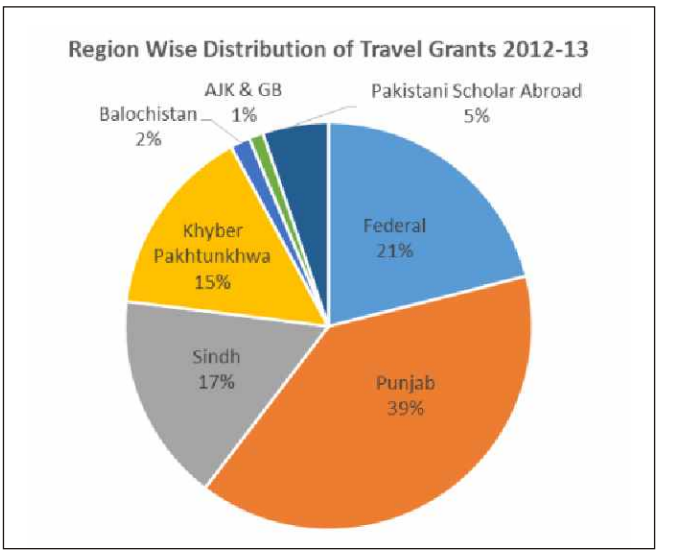
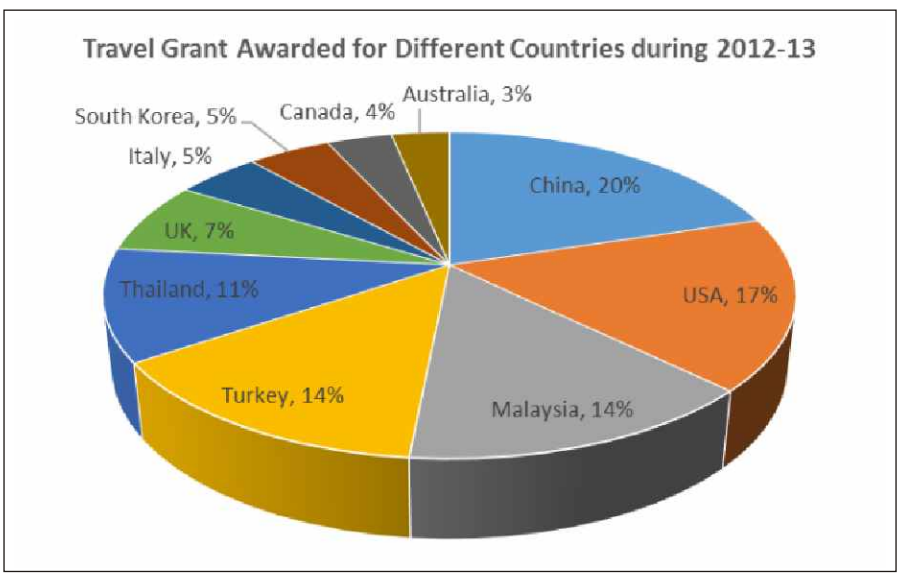


Table below shows the top ten institutions getting highest number of travel grants during 2012-13.

S. No.	Institution	Applications Received	Applications Approved	Amount Approved (Rs. In Million)
1	COMSATS Institute of Information Technology, Islamabad	131	62	12.287
2	University of the Punjab, Lahore	115	40	7.791
3	International Islamic University, Islamabad	93	39	7.409
4	The Islamia University, Bahawalpur	55	33	4.082
5	National University of Science & Technology, Islamabad	54	27	5.667
6	Quaid-i-Azam University, Islamabad	52	21	3.532
7	University of Peshawar, Peshawar	52	27	5.279
8	University of Agriculture, Faisalabad	51	34	6.074
9	University of Veterinary and Animal Sciences, Lahore	50	24	4.659
10	University of Sindh, Jamshoro	45	19	2.460



Meetings of the Travel Grant Management Committee

HEC's Travel Grant is highly competitive and the success rate is between 45-40 per cent. There are chances that a researcher may not get Travel Grant even though his/her paper has been accepted in a conference. All the applications received for travel grants are considered by a Committee comprising of experts from different disciplines. The Committee usually meets twice a month to consider the cases of travel grants. While evaluating an application for award of travel grant, the Committee considers:

a) Scope of the conference
b) Reputation of the organizers
c) Professional standing of invited resource persons and keynote speakers
d) Relevance of the conference with the applicant's professional career
e) Relevance of the paper with current job description of the applicant
f) Previous participation of the applicants in foreign conferences/seminars
g) Research publication track of the applicant in peered review journals
h) Relevance of research to Pakistan scenarios

During 2012-13, the Travel Grant Management Committee met 18 times to approve the travel grants. The details of individual meetings are given below.

S. No.	Meeting No.	No. of Applications Considered	No. of Applications Approved	Amount of Approved Cases (m. Rs.)
1	164	115	43	6.324
2	165	151	82	13.580
3	166	94	49	5.399
4	167	116	73	14.332
5	168	106	59	11.814
6	169	98	62	10.943
7	170	108	64	9.080
8	171	94	53	9.633
9	172	82	41	5.070
10	173	121	70	11.146
11	174	92	50	6.868
12	175	67	28	5.650
13	176	86	22	4.242
14	177	110	37	6.945
15	178	182	81	12.812
16	179	120	64	12.558
17	180	68	43	9.265
18	181	72	38	7.554

Re-constitution of Travel Grant Management Committee

During the reporting year, Research and Development Division reconstituted Travel Grant Management Committee on expiry of the tenure of the previous committee. The following are the members of the Committee.

S. No.	Field	Name and Designation	Organization	Position in Committee
1	Physics	Prof. Dr. Altaf Ali G. Sheikh, Pro -Rector	Isra University, Islamabad Campus	Chairperson
2	Agricultural Sciences	Prof. Dr. Safdar Ali, Dean, Faculty of Crops and Food Sciences	PIMAS Arid Agriculture University, Rawalpindi	Member
3	Electrical, Telecomm. & Computer Engg.	Dr. Shahzada Alamgir Khan, Associate Professor	PTCL Academy, H-9/4, Islamabad	Member
4	Chemical and Material Engineering	Dr. Muhammad Mujahid, Programme Coordinator	School of Chemical and Material Engineering, NUST, Islamabad	Member
5	CS & Information Technology	Prof. Dr. Nayyer Masood, Chairperson, Dept. of Computer Sciences	Muhammad Ali Jinnah University, Islamabad	Member
6	Biosciences	Prof. Dr. Bushra Mirza, Chairperson, Dept. of Biochemistry	Quaid-i-Azam University, Islamabad	Member
7	Veterinary and Animal Sciences	Prof. Dr. M. Shahab, Chairperson, Dept. of Animal Sciences	Quaid-i-Azam University, Islamabad	Member
8	Management Science & Economics	Dr Sadia Nadeem, Chairperson, Dept. of Management Sciences	National University of Computer and Emerging Sciences, Islamabad	Member
9		Adviser (R&D)/ Director General (R&D)	Higher education Commission, Islamabad	Member/ Secretary

The Committee members are nominated for a period of two years and they are not entitled to any remuneration. The Terms of Reference (TOR) of the Committee are:

a) Approve/disapprove the travel grants based on the predefined criteria.
b) Recommend the budget of the approved grants for the sanction of the Executive Director, HEC,
c) Recommend the maximum budgetary limits of various heads such as registration fee, accommodation and travel cost etc.
d) Reassess the review petitions submitted by the applicants on any matter.
e) Seek further clarification/information from the applicant (if required).

Monograph and Textbook Writing Scheme

Although a good number of academicians and researchers exists in Pakistani universities, but the authorship is very meager, especially in textbooks and monographs for undergraduate and postgraduate levels. Private sector publishers are involved in pre-university textbooks preparation but unfortunately they are reluctant to publish textbooks for university students mainly due to financial constraints. This has resulted in near absence of quality reading material at university level.

The university curricula are mainly drawn from a large number of books. Apart from core areas which are commonly used in almost all universities, special areas and topics are included by different universities to give greater depth and variety to a subject area. Although, imported books are being used for university education, but these are expensive and beyond the purchasing power of teachers and students. Higher Education Commission has been involved in production of quality textbooks and monographs since 1974. Initially, 65 monographs were prepared and distributed amongst the relevant universities and postgraduate colleges.

In 2003, a project entitled Textbook & Monograph Writing Scheme was launched to produce monographs and curricula based textbooks at capital cost of Rs. 35.312 million. This programme aimed at providing an opportunity to the faculty, researchers and scholars from public and private sector universities, degree awarding institutes, and research organizations to increase their writing skills. Under this programme, faculty and researchers were extended financial assistance for writing of their research in the shape of monograph in specialized areas and curriculum based textbook for Bachelor and Master level students. Under the scheme 50 monographs and 32 textbooks have been published. The year wise details of the production of monographs and books are given below:

S. No.	Year	No. of Monograph	No. of Textbooks	Total No. of Books
1	2004	2	1	3
2	2005	1	0	1
3	2007	9	3	12
4	2008	13	7	20
5	2009	7	2	9
6	2010	2	7	9
7	2011	8	5	13
8	2012	8	7	15
	Total	50	32	82

After completion of the project in June 2013, the scheme has now been transferred to recurring programme for the year 2013-14.

Pakistan Programme for Collaborative Research

Pakistan Programme for Collaborative Research (PPCR) provides one-window facility through which the academia can collaborate with researchers in Pakistan. It is meant to strengthen the indigenous capacity in all the disciplines of academics research and also raise the overall standard of the teaching & research. Innovative support and encouragement of collaborative research between faculty at Pakistani Universities/ Institutions and those abroad, through PPCR research programme, also supports the faculty and students at Pakistani universities. Such foreign exchanges are handy for Pakistani researchers in carrying out short-term research work which would otherwise be difficult to perform in isolation at local institutions. Under PPCR initiative, so far 16 foreign experts from renowned universities have been invited at Pakistani universities for curriculum revision, development of research proposals, workshops/seminars, teaching courses etc. while 72 faculty members of Pakistani universities have been awarded grants to visit the foreign universities for the purpose of developing academic and research collaborations, and for development of research proposals which are to be submitted to foreign/international funding agencies for consideration. During 2012-13, 18 faculty members were awarded grants to visit the foreign universities; whereas one Foreign Expert visited Pakistani Universities.

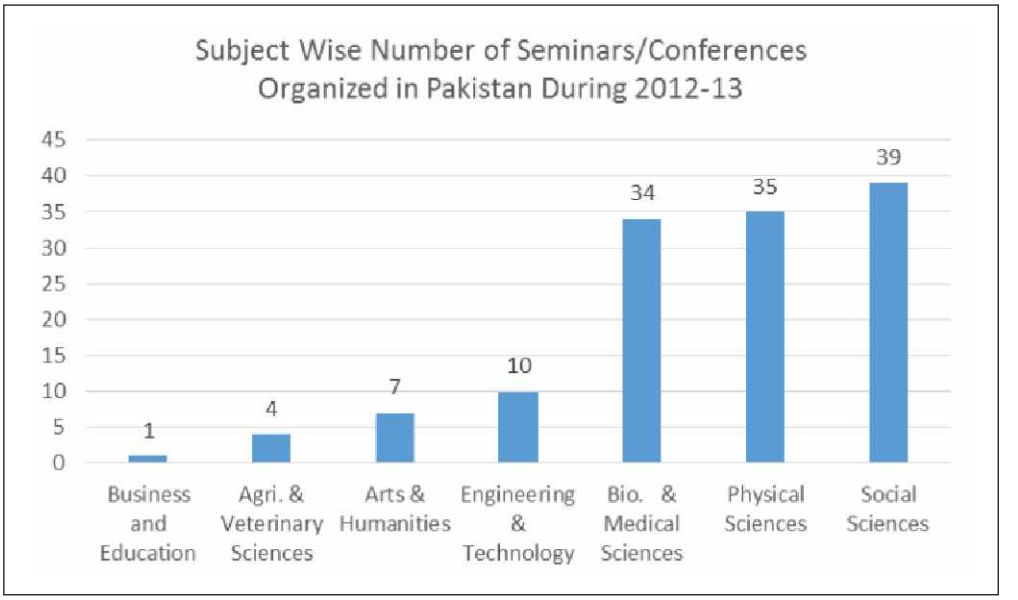
Support to Universities for Promoting Research

Grants to Organize Seminars, Conferences and Workshops

Organizing seminars, conferences, symposia and training workshops provide tremendous opportunities to academic and scientific community to share the scientific knowledge and research outcomes with other peers in the area. This also helps promote research culture in higher education institutions. HEC encourages Pakistani universities to display their academic achievements at national/international forums. To this end, the HEC gives financial support to public sector universities and private universities approved for public funding for organizing seminars/conferences/workshops, etc. The universities are encouraged to host national/international level events to this effect so as to afford learning opportunities for the indigenous Pakistani researcher community. This endeavour serves to fill the gap between the learning opportunities for the researchers who are geographically distributed, helping them keep abreast of the contemporary research. Such seminars and conferences provide a forum for university-industry interaction as well. During the FY 2012-13, the HEC approved 130 seminars/conferences/workshops and sanctioned a total of Rs. 52.117 millions. The statistical analysis of the seminars/conferences supported, based upon the geographical distribution is as under:

Region	FY 2010-11	FY 2011-12	FY 2012-13
Punjab	49	41	40
Federal Area	20	34	46
Sindh	20	32	18
Khyber Pakhtunkhwa	13	20	23
Balochistan	0	1	1
AJK-GB	2	2	2
Total	105	131	130

The discipline-wise number of conferences, seminars and workshops organized during FY 2012-13 are given below. Maximum events were organized in Biological and Medical Sciences.



The top 10 institutions that organized seminars and conferences during year 2012-13 are given below:

S. No.	Institution	No. of Events Organized	Amount Approved (Rs. in Million)
1	Quaid-e-Azam University	12	7.042
2	University of Peshawar	10	5.363
3	COMSATS Institute of Information Technology	9	3.717
4	GC University Lahore	6	3.169
5	National University of Science s and Technology	6	2.633
6	University of Karachi	6	2.419
7	University of Gujrat	5	1.990
8	University of Veterinary and Animal Sciences	5	1.431
9	Islamia University, Bahawalpur	4	3.102
10	International Islamic University	4	3.033

Meetings to Award Grants for Organizing Seminars/Conferences

HEC's grant for seminars, conferences, symposia and training workshops is highly competitive. All the applications received for award of grants are considered by a committee comprising experts from different disciplines. While evaluating an application for award of grant, following are the major considerations:

i. Scope of seminar, conference, symposium and training workshop – HEC supports those events having national/international participation of resource persons and researchers. Universities are expected to finance their local events from their own resources.
ii. Relevance of Seminar, Conference and Training Workshop with the research paradigm of the department/ institution, i.e. organizing department/institution must have a cluster of researchers in the relevant area and must have contributed significantly in research area in which event is being organized.
iii. The events organized by the universities in collaboration with other academic and research institutions and relevant provincial and federal government departments are given preference.
iv. Professional standing of resource persons and invited speakers – They must have good academic and research standing in the area of the conference, seminar and workshop.
v. Outcomes and follow up of the previous Seminar, Conference and Training Workshop (if any) held by the department/institution.
vi. Contribution from other funding sources.

During the year 2012-13, the Committee met 18 times to approve the seminar/conference grants. The details of individual meetings are given below.

S. No.	Meeting No.	No. of Applications Considered	No. of Applications Approved	Amount of Approved Cases (m. Rs.)
1	164	5	5	2.121
2	165	8	6	2.182
3	166	0	0	0.00
4	167	14	11	5.158
5	168	16	14	7.694
6	169	3	3	1.286
7	170	18	15	10.852
8	171	9	9	8.361
9	172	10	9	6.228
10	173	12	8	3.780
11	174	3	2	1.238
12	175	6	3	1.457
13	176	17	11	5.048
14	177	10	8	3.415
15	178	6	5	2.850
16	179	11	8	4.654
17	180	6	3	1.433
18	181	8	7	4.506

Access to Scientific Instrumentation

The non-availability of hi-tech research equipment in the universities acts a major impediment to the development of scientific research in Pakistani universities. HEC has initiated a unique programme of sharing the scientific instrumentation facilities which would enable scientific community to have access to sophisticated equipment while providing a source of funding to those institutions which make their instruments available. This facility had been initiated under the programme 'Access to Scientific Instrumentation' in 2004 as short term arrangement to provide analytical facilities to the researchers from public sector universities and degree awarding institutions to overcome the shortage of equipment. After this, since 2004 HEC has provided scientific equipment worth billions of rupees to universities under their development and research projects. Anyhow, this programme continued without any change in policy. Universities were sending samples to service provider institutions directly. They submit bills to HEC and also a certificate that the equipment/testing facility is not available in the university. During the fiscal year 2012-13, a liability of Rs. 100 million was created under this programme against the allocation of Rs. 40 million. R&D Division reviewed and revised the policy to provide funding under Access to Scientific Instrumentation Programme to control the financial liabilities. In this regard, a consultative meeting with the researchers, stakeholders and service providers was held in April 2013 in which existing policy was discussed. The researchers suggested amendments in the policy and procedures. In compliance of the recommendation of consultative meeting, a management committee called Access to Scientific Instrumentation Management Committee was constituted comprising faculty members from local universities in Islamabad/Rawalpindi. The list of the Committee members are given below:

S. No.	Field	Name and Designation	Organization	Position in Committee
1	Physics	Prof. Dr. M. Aslam Baig, Distinguished National Professor	National Centre for Physics, Quaid-e-Azam University Islamabad	Chairperson
2	Biosciences	Prof. Dr. Mazhar Qayyum Head, Department of Zoology	PIMAS Arid Agriculture University, Rawalpindi	Member
3	Chemical Sciences	Prof. Dr. Shahid Hameed Professor	Quaid-e-Azam University Islamabad	Member
4	Biotechnology	Dr. Asifa Ahmed, Assistant Professor	COMSATS Institute of Information Technology, Islamabad	Member
5		Dr. M. Mazhar Saeed DG (R&D)	HEC	Member/Secretary

In the 1st Meeting of the ASI Management Committee the Standard Operating Procedure (SOP) for the programme including the documentary requirements and application form were reviewed and modified. The Committee suggested changes in the mechanism of approving the funds under ASI Programme. In the light of consultative meeting and first meeting of ASI Management Committee, a policy document has been prepared and launched at HEC website. The same will be presented in the forthcoming meeting of the Commission for approval. The following is the new standard operating procedure:

a) Applicant needs to fill-in the Application Form for Access to Scientific Instrumentation Programme with appropriate information prior to sending the sample to the service provider.
b) The applicant must attach one page summary/description of research proposal with the application form.

c) Upon approval of the application, HEC will issue a letter giving its consent to fund the cost of sample analysis.
d) Upon receipt of award letter, the applicant may send samples to the service providers for analysis. The service provider will analyze the sample and bill to the concerned applicant.
e) The applicant will send the bills to HEC along with Result Acceptance Voucher through ORIC office or through Head of Department where ORIC does not exist.
f) HEC will reimburse the sample analysis cost to the service provider upon completion of analysis and upon the satisfactory report from the applicant.

Detailed information regarding the new procedures and forms are placed at HEC website: under Research Support – Access to Scientific Instrumentation. Through this programme, 743research scholars from more than 51 public sector institutes of Pakistan have been facilitated in FY 2012-13. The details of last three years are given below:

S. No.	Year	Number of Beneficiaries	Expenditures (Rs. in Million)
1	2010-11	416	39.596
2	2011-12	556	56.354
3	2012-13	743	78.690

Grant for Repair and Maintenance of Laboratory Equipment

The significance of keeping the scientific equipment in labs operational can be assessed from a simple example that a small under-bench laboratory refrigerator may contain thousands of pounds worth of chemicals and reagents that are temperature sensitive and will deteriorate if storage conditions are compromised. In an average life science research laboratory there are dozens of pieces of laboratory instrumentation that are critical to everyday tasks and techniques, such as centrifuges, PCR machines, incubators, micro-plate instruments, spectrophotometers, balances and water baths. The laboratory or laboratories will always be affected by occasional operational hitches caused by equipment failures however the seriousness of such events can be reduced by timely repair and ongoing preventative maintenance. HEC has launched a programme to provide funds to public sector universities/degree awarding institutions for repair, maintenance, purchase of spare parts and up-gradation of expensive scientific laboratory equipment lying inoperative for want of repair/spare parts. The objective of this programme is to facilitate the Public Sector Universities/degree awarding institutions for repair, maintenance and up-gradation of laboratory equipment. Under the programme, Rs. 8.425 million was provided for repair and maintenance of over 22 scientific equipment in public sector universities as mentioned below:

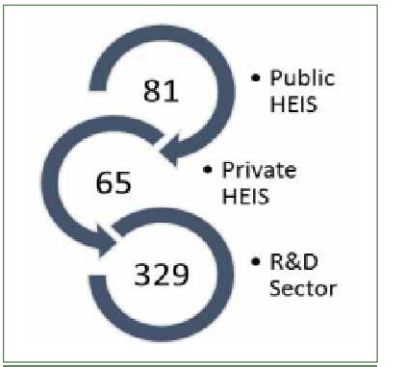
S. No.	Name and Designation	Department and University/Institute	Equipment	Cost (Rs.)
1	Dr. M. Hassan Agheem, Assistant Professor	Centre for Pure & Applied Geology, University of Sindh, Jamshoro	WD-X-Ray Fluorescence Spectrophotometer	300,813/-
2	Dr. Moin-ud-din Ahmed, Foreign Professor	Botany, Federal Urdu University of Arts, Science & Technology, Karachi	Atomic Absorption Spectrophotometer	950,000/-
3	Prof. Dr. M. Aslam Mirza, Director	Institute of Animal Nutrition and Feed Technology, University of Agriculture, Faisalabad	Amino Acid Analyzer	987,892/-

S. No.	Name and Designation	Department and University/Institute	Equipment	Cost (Rs.)
4	Prof. Dr. Bashir Ahmad, Director	Centre of Biotechnology & Microbiology (COBAM), University of Peshawar	Laminar Flow Hood (LFH)	87,000/-
5	Prof. Dr. Bashir Ahmad, Director	Centre of Biotechnology & Microbiology (COBAM), University of Peshawar	HPLC Based Amino Acid Analyses System	1,000,000/-
6	Prof. Dr. Bashir Ahmad, Director	Centre of Biotechnology & Microbiology (COBAM), University of Peshawar	Incubator CO_2	62,580/-
7	Dr. Muhammad Ehtisham Siddiqui, Assistant Professor	Mechanical Engineering, Ghulam Ishaq Khan Institute of Engineering & Technology, Topi, KPK	Open Subsonic Wind Tunnel	971,849/-
8	Zaib-un-Nisa Burhan, Lecturer	Centre of Excellence in Marine Biology, University of Karachi	Inverted Microscope	914,401/-
9	Khurram Shahzad, Assistant Professor	Centre for Coal Technology, University of the Punjab, (Quaid-i-Azam Campus), Lahore	Oxygen Bomb Auto Calorimeter	145,528/-
10	Dr. Sadia Galinai, Assistant Professor	Agriculture Biotechnology, Dr. A. Q. Khan Institute of Biotechnology & Genetic Engineering (KIBGE), University of Karachi	Master Cycler Epgradients	358,150/-
11	Dr. Ghulam Murtaza, Associate Professor	Botany, City Campus, University of Azad Jammu & Kashmir, Muzaffarabad	Irmeco Spectrophotometer	95,000/-
12	Dr. M. Awais, Assistant Professor	Interdisciplinary Research Centre in Biomedical Sciences, COMSATS Institute of Information Technology, Lahore	Carbolite Box Furnace RHF 16/15	80,000/-
13	Dr. Irfan Zia Qureshi, Associate Professor & Chairman	Department. of Animal Sciences, Quaid-i-Azam University, Islamabad	CO_2 Incubator	114,840/-
14	Dr. Shaukat Saeed, Principal Scientist	Department of Metallurgy and Materials, Pakistan Institute of Engineering & Applied Sciences PIEAS, Islamabad	Thermo gravimetric Analyzer	336,629/-
15.	Dr. Nazar Abbas Shah, Associate Professor	Department of Physics, COMSATS Institute of Information Technology, Islamabad	a). Hall Measurement System b). Accessories c). Vacuum Tube Furnace	1,000,000/-
16.	Dr. Shamshad Zarina, Professor & Director	National Centre for Proteomics, University of Karachi	Freeze Dryer	146,000/-
17.	Prof. Dr. Shahana Urooj Kazmi, Dean	Centralized Science Laboratories, University of Karachi	Flow-cytometer	260,000/-
18.	Dr. Jamshed Iqbal, Associate Professor	Department of Pharmaceutical Sciences, COMSATS, Institute of Information Technology, Abbottabad	P/ACE MDQ Capillary Electrophoresis	746,446/-
19.	Dr. Iqrar Ahmad Rana, Assistant Professor	Centre of Agricultural Biogeochemistry and Biotechnology (CABB), University of Agriculture, Faisalabad	Thermal Cycler Gradient 96 well	232,000/-
20.	Dr. M. Iqbal, Assistant Professor	Institute of Soil & Environmental Sciences, University of Agriculture, Faisalabad	Spectrophotometer	72,500/-
21.	Prof. Dr. S. M. Saqlan Naqvi, Dean /Professor	Department of Biochemistry, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi	Gel Documentation System	150,000/-
22.	Dr. Munir Ahmad, Assistant Professor	Department of Entomology, Pir Mehr Ali Shah , Arid Agriculture University, Rawalpindi	HPLC	413,372/-

National Digital Library Programme

National Digital Library Programme is one of HEC's initiatives to boost research activities. For almost nine years now the National Digital Library Programme is contributing in the country's research output and accessibility to the latest research content. Since its inception, it has had widespread impact on the research productivity of the country and that recognized by the article contributions in the highly acknowledged research journals. It is also linked with the provision of information resources delivered to each and every Higher Education Institute (HEI) in the country through the spectacular support by this programme. Presently, more than 75,000 e-contents to 478 institutions are available. HEC is spending more than Rs. 900 million per annum on subscription of e-resources. Digital library is providing following services to the partner institutions:

- Technical Support
- Content platforms training support
- User training for awareness building



The total number of institutes has increased from 478 this year, which shows the upsurge in research productivity through the proliferation in information knowledge and with the rise in Digital library users.

Centre of activities in the Digital Library Programme is partnerships with the international content providers and organizations. Work with the publishers involves strenuous internal planning exercises. This includes assessing collections to drive higher circulation and turnover, negotiations for the best quotes from around the world, budget planning and preparing the information for seamless access of the institutes. The e-contents acquired during the year 2012-13 are given below.

Country-wide Access Resources

1. ASABE Technical Information Library
2. British Library Direct
3. Cambridge University Press - Cambridge Journals Online
4. Canadian Science Publishing (operating as NRC Research Press)
5. De Gruyter Journals
6. De Gruyter LIS Journals
7. Duke University Press Journals
8. Emerald Management 120 eJournal Collection
9. IET Digital Library
10. Institute for Operations Research and Management Sciences (INFORMS)
11. International Forestry Review -
12. Project MUSE books
13. Project MUSE journals
14. Royal College of Physicians
15. Springer eBooks
16. Springer eJournals
17. Taylor & Francis Journals
18. University of Chicago Journals

Institution Specific Resources

1. American Association of Physics Teachers (AAPT)
2. American Chemical Society (ACS)
3. American Institute of Physics (AIP)
4. American Mathematical Society (AMS)
5. American Physical Society (APS)
7. American Society of Civil Engineers (ASCE)
6. American Society of Agricultural and Biological Engineers (ASBBE)
8. American Society of Mechanical Engineering (ASME)
9. Association of Computing Machinery (ACM)

10. Institute of Electrical and Electronics Engineers (IEEE)
11. Institute of Physics
12. Journal of the Acoustical Society of America (JASA)
13. Nature Publishing
14. Optical Society of America (OSA)
15. Cambridge University Press
16. Elsevier (Science Direct)
17. JSTOR
18. Science Online
19. Emerald
20. ISI Web of Knowledge

Research Publications by Universities/DAIs from Pakistan

Over the recent years, the role of higher education has been transformed from imparting education to the quality research. To change this image of universities, HEC has developed a policy that used to reflect promotions and earning tenures on the activities of high quality scientific research by the faculties. The high quality scientific productions are mostly indicated by the papers, theses and reports respectively. To impose this element, HEC went further to produce a Pakistani HEIs ranking to judge their standing for the research productivity component. The table below shows the top 10 higher education institutions having highest number of research publications in 2012.

S. No.	Universities	Publications
1	Quaid-i-Azam University, Islamabad	697
2	University of Agriculture, Faisalabad	577
3	COMSATS Institute of Information Technology, Islamabad	512
4	University of the Punjab, Lahore	504
5	Aga Khan University, Karachi	504
6	University of Karachi, Karachi	436
7	National University of Sciences & Technology, Rawalpindi (NUST)	427
8	Government College University, Lahore	253
9	Bahauddin Zakariya University, Multan	221
10	Pir Mehr Ali Shah Arid Agriculture, University Rawalpindi	205

**Publications were extracted using three databases SCI-E, SSCI, A&HCI from Thomson-Reuters Web of Science. Criterion used Country & Institution name mentioned in the publication record and published during 2012*

A comparison of research publications in impact factor journals has been appended below for various disciplines for the last three years.

Discipline	2010	2011	2012
Arts and Humanities	9	28	17
Engineering. & Technology	311	668	895
Social and Management Sciences	150	370	208
Life Sciences & Medicine	1305	1853	1931
Natural Sciences	3522	3606	4237

Constitution of Digital Library Advisory Committee

R&D Division has constituted an Advisory Committee comprising of researchers, library professional and academicians from universities/DAIs and representative Pakistan Scientific and Technological Information Centre (PASTIC) in May 2013. The objective of constituting the Advisory Committee is to involve the stakeholders in the decision making process and to get feedback from the users so as to use the available resources judiciously.

The Committee consists of the following representatives:

S. No.	Name and Designation	Institution	Position in Committee
1	Prof. Dr. Zahid Saleem Campus Director	Federal Urdu University of Arts, Science and Technology, Islamabad	Chairperson
2	Dr. Riaz Ahmed Director (Research)	National University of Science and Technology (NUST), Islamabad	Member
3	Dr. M. Ali Saeed Head of Department	Dept. of Management Sciences Bahria University, Islamabad	Member
4	Dr. Riaz ul Amin Assistant Professor	Faculty of Information and Communication Technology, BUITEMS, Quetta	Member
5	Prof. Dr. Altaf Ali Siyal	Dept. of Land and Water Management, Sindh Agriculture University, Tandojam	Member
6	Raja Muhammad Ibrahim Chief Librarian	COMSATS Institute of Information Technology, Islamabad	Member
7	Dr. M. Akram Sheikh Director General	Pakistan Scientific and Technological Information Centre, Islamabad	Member
8	Prof. Dr. Bushra Khan Head of Department	Department of Chemistry Lahore College for Women University, Lahore	Member
9	Director General (R&D)	Research & Development Division, HEC Islamabad	Member
10	Programme Coordinator/ Digital Library Officer	Research & Development Division, HEC Islamabad	Member/Secretary

TORs of Advisory Committee

i. Evaluate the services and access of knowledge resources acquired by NDLP.
ii. Form a policy on acquisition of content and its dissemination among its registered institutes.
iii. Recommend effective utilization of budget in terms of economic and legal issues and explore possibilities for revenue generation through these knowledge resources
iv. Look for improvements in leadership role of NDLP for dissemination and generation of knowledge.

The 1st meeting of the Advisory Committee was held on June 20, 2013 in which the following major agenda items were considered:

a) Review of existing policy to distribute the e-resources to member institutions
b) Procedure to evaluate existing usage of resources to the member institutions
c) Procedure to identify the need assessment of the institutions regarding the new resources

Research Commercialization

Establishment of Business Incubation Centres

The need for instruments such as Business Incubation Centre (BIC) has been recognized the world over for initiating technology led and knowledge driven enterprises. Studies also show that such mechanisms help not only in the growth of technology based new enterprises but also in improving their survival rate substantially.

BIC also facilitate speedy commercialization of research outputs. HEC is emphasizing on establishment of BICs in public sector universities to support researchers and young entrepreneur who intend to develop promising early-stage business ventures. Presently the following eight Business Incubation Centres have been established in the public sector universities:

1. National University of Science and Technology, Islamabad (own resources)
2. University of Agriculture, Faisalabad (CSF support)
3. COMSATS Institute of Information Technology, Islamabad (PSDP project)
4. University of Veterinary and Animal Sciences, Lahore (HEC Support)
5. University of Engg. & Technology, Peshawar (HEC Support)
6. Institute of Business Administration, Sukkur (HEC Support)
7. Quaid-e-Azam University, Islamabad (HEC Support)
8. BUITEMS Quetta (HEC Support)

The BICs provide following types of services:-

- Market survey/ marketing assistance,
- Business planning and training,
- Organizing management/ technical assistance,
- Assistance in obtaining statutory approvals,
- Information dissemination on product ideas/technologies,
- Syndicating finances,
- Arranging legal and IPR services,
- Using facilities of the Host Institute (HI) at nominal charges,
- Work space for a limited period
- Common facilities of TBI such as communication, conference, computers. So far 68 companies have been incubated out of which nine have graduated. The details of companies incubated are given below:

S. No.	Name of the Company	Institution
Already Graduated Companies		National University of Science and Technology, Islamabad
1	Turnotech Pvt Ltd	
2	Maalik Creative Engineer (MCE) Pvt Ltd	
3	Askoli Pvt Ltd	
4	Dual Matrix Corporation	
5	WISSEN	
6	SOMDATA	
7	Kreative Arts	
8	ID Technologies	
9	Wood Bury Communications	
Companies in Incubation		
1	Tuna Code	
2	Gilani Inc	
3	Aviation MRO	
4	NEMS	
5	Health Care level7 (HL7)	
6	Geo Spat Tech	
7	Sky Computing Solutions	
8	Salesforce.com Consulting Company	
9	Magma Systems	
10	Nai Dunia Twanai	
11	M/S TS Technologies	COMSATS Institute of Information Technology, Islamabad
12	Agilitron (Pvt.) Ltd	
13	M/S ASM Solutions(Pvt.)Ltd	
14	AAMSON Technologies (Pvt.) Ltd	
15	M/S XDASS	
16	Mobi Care (UK Based)	
17	Wood Bury Communications	
18	M/s Ranic Automation	
19	M/s INTESOL	
20	M/s Sanna Laboratories, Faisalabad	University of Agriculture, Faisalabad
21	Roshan Enterprises, Bhalwal	
22	Agrow Pvt. Ltd. Lahore	
23	Agri. Tech. Pvt. Ltd. Multan	
24	Amjad Brother Agri. Industries, Faisalabad	
25	Abdul Samad & Co. Faisalabad	
26	Ali Engineering Associates, Faisalabad	
27	Seth Tufail & Co. Pvt. Ltd. Faisalabad	
28	Adeel Sarfraz & Co. Faisalabad	
29	Gemmo Pharma	
30	Ali Akbar Group, Lahore	
31	Pak-China Enterprises, Lahore (Meer S. Bashir & Co.)	
32	Cure MD Pak. Pvt. Ltd.	
33	UM-Enterprises Karachi	
34	UAF-Tech. Co.	

S. No.	Name of the Company	Institution
35	Bird Incubation	University of Veterinary and Animal Sciences, Lahore
36	Fizan Communication	
37	Dairy Solution (Pvt.) Ltd	
38	Pure Foundation	
39	IRIS Communications	
40	UM Enterprises	
41	Pakistan Livestock Foundation	
42	M/s VIVENCY	
43	SAMAR Enterprises	
44	Lok Sanjh Foundation	
45	M/s CABROB	
46	Faraz Foundation	
47	AAS Foundation	
48	Naymat Trust	
49	App Factors	University of Engineering & Technology, Peshawar
50	Hartoon Den	
51	Catalyst	
52	Tabeer	
53	Halul	
54	Future Technologies	
55	CAMSES Pakistan	
56	Zarai Ootaque	SUKKUR Institute of Business Administration
57	Silk Huts	
58	Al-Fatima Commodity Exchange Company	
59	Agile Minds	

Office of Research, Innovation and Commercialization

Research commercialization allows technology created during research activities to be further developed into marketable products for the benefit of the public. This is achieved through technology transfer, which is the process by which technology, skills, or knowledge developed during research activities at the research and educational institution are applied and used in another place. HEC encourages universities to enter into a dynamic and internationally competitive research sector that makes a major contribution to economic prosperity, national well-being and the expansion and dissemination of knowledge. HEC has started facilitating universities to organize all research activities under a single umbrella of Offices of Research, Innovation & Commercialization (ORIC). Due to collective and concerted effort of HEC in coordination with the major stakeholders, ORICs have been established in 27 universities.

Year	Public	Private	Total
2010-11	9	1	10
2011-12	5	2	7
2012-13	8	2	10
Total	22	5	27

The list of Institutions having ORICs is given below.

S. No.	Institution	Sector	Province	Establishment Date
1	Aga Khan University, Karachi	Private	Sindh	01.01.2011
2	DOW University of Health Sciences, Karachi	Public	Sindh	01.01.2011
3	University of Agriculture, Faisalabad	Public	Punjab	01.01.2011
4	PMAS Arid Agriculture University, Rawalpindi	Public	Punjab	01.01.2011
5	University of the Punjab, Lahore	Public	Punjab	01.01.2011
6	University of Veterinary & Animal Sciences, Lahore	Public	Punjab	01.01.2011
7	Sukkur Institute of Business Administration, Sukkur	Public	Sindh	02.11.2011
8	Bahria University, Islamabad	Public	Capital	07.10.2011
9	National University of Sciences & Technology, Islamabad	Public	Capital	10.01.2011
10	Quaid-e-Azam University, Islamabad	Public	Capital	10.01.2011
11	Institute of Space Technology, Islamabad	Public	Capital	14.07.2011
12	Institute of Management Science, Peshawar	Public	KPK	20.05.2011
13	COMSATS Institute of Information Technology, Islamabad	Public	Capital	23.12.2011
14	Lahore University of Management Sciences, Lahore	Private	Punjab	28.12.2011
15	Foundation University, Islamabad	Private	Capital	16.02.2012
16	University of Gujrat, Gujrat	Public	Punjab	02.04.2012
17	University of Sargodha, Sargodha	Public	Punjab	02.04.2012
18	Fatima Jinnah Women University, Rawalpindi	Public	Punjab	28.08.2012
19	Government College University, Faisalabad	Public	Punjab	10.10.2012
20	NWFP University of Engineering. & Technology, Peshawar	Public	KPK	03.09.2012
21	University of Malakand, Chakdara, Dir, Malakand	Public	KPK	27.07.2012
22	Al-Khair University, Bhimber, AJ&K	Private	AJK	25.09.2012
23	Institute of Business Administration, Karachi	Public	Sindh	28.11.2012
24	Khyber Medical University, Peshawar	Public	KPK	19.12.2012
25	International Islamic University, Islamabad	Public	Capital	18.01.2013
26	CECOS University of Information Tech. and Emerging Sci., Peshawar	Private	KPK	27.02.2013
27	Mirpur University of Science and Technology, Mirpur	Public	AJK	24.05.2013

Performance Evaluation of ORICs

During the reporting year, Research and Development Division has developed a performance evaluation mechanism to monitor the performance of the ORICs on annual basis. For this purpose, self-assessment forms have been developed for first year and subsequent years separately in consultation with World Bank under Tertiary education Support Programme (TESP). The major parameters considered in evaluation and their weightage are:

S. No.	Key Performance Indicator	Weightage	
		1st Year of ORIC	Subsequent Years
1	Work Environment and Human Factor	15	10*
2	Research Support	40	35
3	Capacity Building	35	25
4	Commercialization of Research	10	30**
	Total	100	100

* Minimum mandatory score is six (out of 10) in Work Environment & HR Section
**Minimum mandatory score is 15 (out of 30) in Research Commercialization Section

Category	Score	Performance Scale
W	75 and above	Top Performer
X	60 – 74	Satisfactory Performer
Y	40-59	Below Average Performer
Z	1 - 39	Poor Performer

Capacity Building on Research Commercialization

Training Programme for ORIC Managers

Research and Development Division (R&D) in collaboration with Cambridge Advisory Network (CAN), organized a four-day training workshop entitled 'Changing the Mindset – Building the Entrepreneurial Culture in Universities and How to Run Business Plans Competitions' in November 2012. The objective of this workshop was to disseminate awareness and information among all the stakeholders about the importance of entrepreneurial culture in the country and particularly how to do that in universities. This training workshop also provided expertise to ORICs' personnel to manage research activities and to promote culture of entrepreneurship in the universities across country. The focus of this training workshop was on the following:

- Creating the Entrepreneurial Culture
- Introduction to Business Planning
- How to Run Business Plan Competitions (BPC)
- Materializing Academia–Industry Linkage; a 4 prong strategy
- Partnering with other academic institutions
- Connecting with the Industry
- Business Plan competitions



Participants of Training 'Changing the Mindset: Building the Entrepreneurial Culture in Universities and How to hold Business Plan Competition' held at HEC Centre, Lahore

Study Visit to USA under Commercial Law Development Programme

Higher Education Commission in collaboration with Commercial Law Development Programme, USA States Department of Commerce has successfully conducted training programme from 2-12 October 2012 to train the BIC teams on different legal aspects of research commercialization for promotion of entrepreneurship. Programme was funded By U.S. Department of State and USAID. Nominees of four universities (NED Karachi, LUMS Lahore, UET Peshawar and COMSATS) and HEC representatives visited and studied technology transfer mechanism of three US Universities (Princeton University, Oklahoma State University and Carnegie Mellon University) playing major role in entrepreneurship promotion.




Participants of Study Visit to USA under Commercial Law Development Programme

A debriefing session with the participants was held in May 2013 inviting all the participants of the visit to USA to share their experience and learnings with the professionals from ORIC and BIC those could not participate in the visit to due to limited number of invitations.







Participants of debriefing session arranged to apprise the ORIC and BIC staff

Patent Filing

HEC has developed a programme which allows for submission of research ideas, published papers, thesis synopsis and such other material which describes the potential invention for evaluation for patentability. HEC facilitate the evaluation of patent before filing the case for registration. The purpose of this evaluation is simply to determine patentability of the invention. In case an invention is determined to be patentable, the inventor will be encouraged to file for an international patent. To make sure that this process is completely confidential, the inventor is required to create an account to which only he/she has access. The inventor will also be able to track the progress on the evaluation of his/her ideas as well as the recommendations to proceed with the filing of international patents on his/her account page. So far 48 patents have been filed in USPTO, while 12 out of 48 have been granted. During fiscal year 2012-13, 15 patents have been filed and US$ 75000 have been paid as patent filing fee. The list of patents filed during 2012-13 is given below:

S. No.	Patent	Author	Institution
1	Nano Catalytic Dewaxing of Heavy Petrolium Wastes(>C-33 Alkanes)	Syed Tajammul Hussain	Quaid-i-Azam University, Islamabad
2	Zinc Oxide Nanoflakes for Treatment of Pollutants	Dr. Muhammad Akhtar Farrukh	Department of Chemistry, GC University, Lahore
3	Network Management System for Frequency Hopped Te chtical Radios	Dr. Shoa ib A. Khan	Centre of Advanced Research in Engineering (CARE), Islamabad
4	Artonin 1 to Treat Resistant Infectious Staphylococcus Aureus	Prof. Dr. M. Iqbal Choudhary	HEJ Research Institute of Chemistry, University of Karachi
5	Nano-Lucite For Slow Release Nitrogen Fertilizer and Green Environment	Dr. Muhammad Akhtar Farrukh	Deptt. of Chemistry, GC University, Lahore
6	Bio-Active Antioxidants From Plant Foods for Nutraceutical Product Development	Prof. Dr. M. Iqbal Choudhary	International Centre for Chemical and Biological Sciences, University of Karachi
7	Cognitive Hub for Self-Healing and Self-Forming Network with Hybrid Communication Technologies	Mr. Shoa ib A. Khan	Centre of Advanced Research in Engineering (CARE), Islamabad
8	Synthesis and Biological Studies of an Isomeric Mixture of (E/Z) Isoxylitones and its Analogues	Prof. Dr. Atta ur Rahman	International Centre for Chemical and Biological Sciences, University of Karachi
9	Quinazolines as β-Glucuronidase Novel Inhibitors	Prof. Dr. M. Iqbal Choudhary	International Centre for Chemical and Biological Sciences, (H.E.J Research Institute of Chemistry), University of Karachi
10	Radar Deception Jamming Prevention Using Bi-Static and Mono-Static Radars	Mr. Faran Awais Butt	University of Management & Technology, Lahore
11	Software Controlled Instruction Prefetch Buffering	Dr. Muhammad Yasir Qadri Dr. Nadia N. Qadri	Department of Electrical Engineering, COMSATS Institute of Information Technology, Wah Campus.
12	Software Controlled Data Prefetch Buffering	Dr. Muhammad Yasir Qadri Dr. Nadia N. Qadri	Department of Electrical Engineering, COMSATS Institute of Information Technology, Wah Campus.
13	Abbasi Strain of Rice	Dr. Fida M. Abbasi	Hazara University, Mansehra
14	Immunosuppressive Compounds	Dr. Khalid M. Khan	International Centre for Chemical and Biological Sciences, (H.E.J Research Institute of Chemistry), University of Karachi
15	Small Molecule Activators of HSLV Protease for Development of Novel Antimicrobials	Dr. M. Kamran Azim	International Centre for Chemical and Biological Sciences, (H.E.J Research Institute of Chemistry), University of Karachi

Evaluation of Commercialization Potential in Research Projects

HEC spends more than two billion rupees every year for promotion of research and related activities. The major portion of this funding is utilized to support research proposals of the faculty to execute the research activities in basic and applied disciplines through National Research Programme for Universities (NRPU). Through this investment, HEC aims at developing sustainable, dynamic and internationally competitive research sector in Pakistan that makes a major contribution to economic prosperity, national well-being and the expansion and dissemination of knowledge. HEC evaluated 200 research projects those have been completed in the previous years. The principal investigators of these projects were contacted to identify if any of the research outcome could be commercialized in collaboration with local industry and community. During this process, the following 27 projects have been identified having potential for commercialization. HEC intends to arrange a symposium in December 2013 to showcase these projects by inviting the relevant industry and stakeholders. This will help to bring the academia and industry close to each other and researchers may have feedback from the industrial sector on their research outcome to further improve the product.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio -economic development
1	Dr. Tanveer Hussain, National Textile University, Faisalabad	Enhancing the cooling and comfort properties of Textile clothing through chemical finishing	2,862,429	The research concluded that through suitable selection of fabric structure and chemical finishes, the cooling and comfort properties of textile clothing can be enhanced. On basis of the results obtained through this research project a new uniform fabric for Pakistan Armed Forces has been developed which has better comfort and performance properties. The developed uniform fabric is now under commercial production in a textile mill.
2	Dr. Shaukat Farooq, National University of Sciences & Technology , Rawalpindi	Monitoring of Microbial Contaminants and Residual Chlorine in Water Distribution Network of Rawalpindi and Islamabad	3,305,959	Most of the studies on water monitoring in Pakistan only indicate contamination by fecal source through detecting the presence of fecal coliform in drinking water without any information on level of chlorine in water distribution network. This project was designed to monitor residual chlorine and microbial contaminants in drinking water supplies and water distribution network in the project areas. A symbiotic relationship is established between various government agencies such as RDA, WASA, CDA. Personnel of government authorities were trained and funds for buy updating research laboratories were provided. This will help in reducing the incidence/burden of water borne diseases and preventing environmental/wildlife damage loss. The research outcomes were transferred to NGOS, GOs, private companies, and ORICs..
3	Dr. Akhtar Nawaz Malik, National University of Sciences & Technology , Rawalpindi	Myo-electric prosthetic upper Limb	1,494,473	Many people in Pakistan are victims of amputation. Currently, rehabilitation of such people is mostly done using dummy limbs made of wood, plastic or other light materials. These parts are just cosmetic and not functional replacements. These have a definite impact on the lives of disabled people one of which is the enhancement of patient function. This will give boost too robotics in Pakistan in particular the field of human robot interaction. The college is in the process of development of a biomedical lab. Rs. 2.0 million are required for the commercialization of the project.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio -economic development
4	Dr. Muhammad Ajmal Khan, University of Karachi, Karachi	Screening and eco-physiological studies of halophytic grasses for utilization as forage	6,213,252	Halophytes have multifarious usages and an important one is their utilization as animal forage/fodder. This project has demonstrated that economic feasibility of producing suitable animal feed using saline resources of land and water. This could further be extended to integrate fodder production with raising cattle for milk/meat. The research was done in collaboration with a private company, M/s Zia-Ul-Haq & Sons, at their field station at Hub, Balochistan.
6	Dr. Zarrien Ayub, University of Karachi, Karachi	Concentrations of Proteins, vitellogenous vitellin and lipdis in the Hepatopanereas Hempolymph adipes tissue and ovaries during ovarion development in Paneied shrimps (Fenneropenaus Pencillasus & F. Mergnicnsis	1,837,421	The outcome of this project will assist in the controlled maturation and reproduction of wild females of indigenous shrimp species found in Pakistan and help in the development of captive broodstock populations for the promotion of viral free culture of shrimps and their commercialization through shrimp farming in the country. An attempt in this regard has been made to involve NGOs and SMEDA operating along the coastal belt for the development of shrimp farming in the country. The coast communities and fishermen will be the direct beneficiaries of development of fish farmi ng. The shrimp culture industry when developed in Pakistan will not only earn valuable foreign exchange but will also generate job opportunities in the aquaculture and fisheries sector. The PI has done a pre-feasibility study for shrimp farming which is a first step towards commercialization.
7	Dr. M. Iqbal Choudhary, University of Karachi, Karachi	Studies on Antiglycation Agents from Natural sources–A new approach towards Molecular Treatment of Diabetes	4,045,932	Diabetes is a modern day epidemic effecting individuals, families and nations alike. This project has identified several novel classes of anti-glycation agents that have the potential to be developed as new anti-diabetic agents which can reverse the molecular pathologies of late diabetic complications. The project has also contributed in producing and disseminating a new scientifically-based review on the prevention and complication of diabetes. Currently, the PI is in the process of patenting some of the findings of the project, which is the first step towards commercialization.
8	Dr. Makhdoom Abdul Jabbar, University of Veterinary and Animal Sciences, Lahore	Development of Total Mixed Baled Ration (TMBR) for dairy and beef animals	1,435,501	The study proposes Total Mixed Baled Ration (TMBR) based on wheat straw, which is a balanced feed and easy to store and transport. Research concluded that when compared on cost of feed on unit milk or meat production TMBR was more economical than conventional systems. The product was developed at University of Veterinary and Animal Sciences, Lahore on commercial basis. Farmers in Lahore, Rawalpindi and other areas purchased this product both for dairy and fattening purposes. After establishing the infrastructure it was found out that with covering all the expenses of raw material, electricity and cost of labour, the saving is about 20%. Huge quantities were supplied to NGOs and governmen t institutions to meet feed requirements in flood affected areas (DG Khan, Layya, and Sindh). A commercial company in the name of "Big Feed" took this idea and started producing TMR in the form of pellets which has gained popularity and the product is also being exported to other countries including Bangladesh and Sri Lanka.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio-economic development
9	Dr. Khushi Muhammad, University of Veterinary and Animal Sciences, Lahore	Monitoring of Chemicals Adulterants and Hygienic Standards in Market Milk	540,059	In this project a MAT-KIT was developed that is being sold in WTO-Quality Operations Laboratory, University of Veterinary and Animal Sciences, Lahore. The PI has worked out the cost of production and commercialization of the MAT-KIT. Moreover, the results of the research, if shared with the public, can contribute in creating awareness amongst the milk consumers about the adulteration of market milk with water to increase volume and chemicals to minimize bacterial growth during transportation or increase milk density.
10	Dr. Shazia Iram, Fatima Jinnah Women University, Rawalpindi	Diversity, Metal Tolerance and Biochemical Analysis of Fungal Population in Peri-Urban Agriculture Soils with Possibility of Heavy Metal Contamination	4,460,909	Research concluded that in Pakistan industrial and sewage effluents should be treated before discharge. The isolated strains were tolerant to heavy metals and contaminants. The mutation was created in tolerant fungal strains by UV light and wild or mutant strains were used for bioremediation of chromium metal. So dead biomass fungal strains can be prepared on a larger scale and many job opportunities can be created for skilled workers. According to the PI, not a lot of finances are required for the commercialization of research. Dead fungal biomass can be used for bioremediation. The combination of plants and dead fungal biomass can save the environment.
11	Dr. Ikram-ul-Haq, Government College University, Lahore	Process Development for the manufacture of thermophilic alpha amylase for desizing operation in textile industry	3,126,947	This project holds a potential economic benefit. Pakistan spends a considerable amount of foreign exchange (about Rs. 150 million annually) for the import of enzymes of amylase family that are extensively used in food, textile, paper and bread industries. The production of alpha amylase production technology, as proposed by this research project, would be valuable for the textile industry as it could be exploited as a potential desizing agent. If such a process is developed and commercialized in Pakistan it would be more economical than importing this expensive technology from abroad.
12	Dr. Ikram u l Haq, Government College University, Lahore	Process development for the production of enzyme invertase by Saccharomyces cerevisiae.	1,411,000	This research project proposes the development of a low-cost production process for the production of invertase. Currently, invertase is either imported or produced through hydrolysis (not recommended). If the proposed development process is commercialized, there will be a substantial cost reduction in the production of invertase enzyme, which is an important enzyme whose demand is increasing with growing markets of processed food, especially confectionary industry. This cost-reducing method of production needs to be shared with food processing industries all across Pakistan for full benefit. Invertase imports will be reduced.
13	Dr. Musharaf Ahmad, KPK Agriculture University, Peshawar	Integrated Management of the Important Bacterial Diseases of Potato in KPK	1,632,464	This research project has formulated an IDM package to manage bacterial soft rot/ black leg in potato crops in KPK and attain higher yields. Considering the significance of potato as a major vegetable crop in KPK, the outcomes o f this project can be used by seed health testing organizations and potato growers in KPK to enhance potato crop production and yield. There are prospects of commercializing the IDM package and making it available to potato growers all over KPK. Moreover, seed health organizations can adopt the project's standard

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio -economic development
				PCR protocol to detect the presence of bacterial soft rot pathogens in potato seeds before sale/sowing. The outcomes of the research have the potential of benefitting those involved in potato crop production economically, through higher and better quality yields, if the IDM package is commercialized or shared on a wider scale.
14	Dr. Sohail Ahmad, KPK Agriculture University, Peshawar	Determining Gestation Length and its phenotypic, Genetic and Environmental Markers in Kari sheep at Chitral	2,587,927	The outcomes of this research project can be commercialized for economic benefit. The Kari sheep breed is suitable for commercial farming possessing characteristics like round the year breeding behaviours, short gestation, increase litter size, high survival and adaptability rate and fast growth rate. Unique genes/heplotypes if searched and patented will prove useful for the pastoral communities of Chitral. It will provide chances for increased meat production that will be beneficial for the poor and will also enhance the economic worth of these animals.
15	Dr. Khalid Parvez, National University of Sciences & Technology , Rawalpindi	External flow analysis of trucks (heavy vehicles) being used in Pakistan for Re-designing externally for drag reduction with the aim of achieving substantial fuel savings	265,637	Fuel consumption is directly related to the aerodynamic drag of any vehicle. In Pakistan, Bedford truck is mostly used for the transportation of goods. However, the trucks body is not aerodynamically designed and it's fuel consumption is higher than the standard trucks used in Europe and America. Main goal of this project is reducing the fuel consumption of heavy trucks that are being used for the transportation of food and raw materials by suggesting modifications their in aerodynamic structure and geometry. The project is still in it's initial stages but studies show that implementation of the suggested modifications will lead to 17% reduction in fuel consumption.
16	Dr. Arshad Ali, National University of Sciences & Technology, Rawalpindi	Grid Enabled Applications for Handheld Devices	1,073,290	Handheld devices offer great potential because they provide ubiquitous access to data and round the clock connectivity over wireless links. They have shown tremendous growth in recent years and it is expected that the number of mobile users will soon exceed the number of users within the fixed netwroks. However, handheld devices are inherently constrained due to various factors, which include unreliable network connections, small storage resources and less processing capabilities. Thus this research aims to develop a grid-enabled environment for interactive analysis on handheld devices. PI has not shared this research with any organization/institution/ industry nor has he taken any step towards commercialization.
17	Dr. Hafiz Farooq Ahmad, National University of Sciences & Technology , Rawalpindi	Multi Agent System for Ad-hoc Applications (Distributing and Computing)	425,304	The contemporary expansion of software platform for handheld devices has broadened application perspective in this area. In this project, the PI designed and implemented light weight and fault tolerant architecture for multi -agent systems. The proposed system was named SAGE -Lite. The project helped in spreading practical knowledge of the semantic based system to the universities and software companies. The PI's research group is continuing efforts to promote R&D and application of semantics. The project can be commercialized to benefit the local software industry to flourish it's business on new and emerging technologies. However, no steps have been taken to commercialize SAGE -Lite beyond sharing it with different companies.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio -economic development
18	Dr. Khalid Parvez, National University of Sciences & Technology , Rawalpindi	Indigenous development of 1 KW wind turbine, with the aim of developing cheapest source of electric energy	1,014,314	This project is based on the design of a small scale wind turbine which can fulfil the requirements of one small household i.e. 1 kW. Numerous off the shelf available imported designs in the same output range are designed for higher wind speeds of 9 m/s to 15 m/s whereas maximum rated speed available in Pakistan is 6 m/s. As a result o f this research effort, two aerodynamically optimized blades have been designed for maximum wind power extraction at speeds of 6m/s, that will be suited to Pakistan. The design has been validated by actual fabrication and testing of blades. The fabrication techniques utilized for fabrication of molds, pattern and blades can be further minimized to production costs. In the current situation, when Pakistan is facing an acute shortage of electric power, the designed product has tremendous market potential. Th e overall initial setup cost of indigenous design can be reduced to 30% to 40% of similar imported designs in addition to better output with little effort.
19	Dr. Shahzad Maqsood Ahmad Basra, University of Agriculture, Faisalabad	Enhancement of performance of direct seeded rice by seed priming	1,532,901	Direct seeded rice offers great opportunity to reduce water inputs and is a promising alternative technology. This study proposes the use of seed priming that improves and enhances the performance of direct seeded rice. Employing seed priming in direct seeded rice results in improved quality yield which is cost effective and relatively economical. In the light of declining water resources, water saving by direct seed rice reduces pumping costs hence offerin g a great opportunity to reduce cost of production as compared to transplanting rice method. This information should be shared with growers of rice crop directly and through government organizations.
20	Dr. Mumtaz Akhtar Cheema, University of Agriculture, Faisalabad	Induction of salt tolerance in wheat (Triticum aestivum L.) by seed invigoration techniques	922,682	The research project provides fundamental knowledge to scientific community about alleviation of toxic effects of salinity in wheat crop by seed priming. Salinity is a major threat to the irrigated land by drastically the yield and growth of the crop. Development of salt tolerant varieties is very slow whereas huge finances are required for reclamation of salt affected areas. Seed priming, as proposed by this study, is cheap, risk free and easily afforded by common farmers. This technology will help in utilizing saline soi ls for wheat production that previously would have remained uncultivated. Seed priming offers a low cost and farmer friendly method of tackling the problem of salinity. However, these benefits can not be achieved until and unless this technique is spread t o farmers and agriculture related organizations.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio-economic development
21	Dr. Muhammad Sajjad Khan, University of Agriculture, Faisalabad	Development of a new breed of Chicken for backyard poultry rearing (Phase-I)	4,378,560	This research project proposes the development of a new breed of chicken, called UniGold. UniGold holds immense potential for commercialization. The improved poultry birds like UniGold can potentially benefit small scale poultry farmers, backyard poultry raising families and common man through the availability of eggs and chicken meat. This would especially be beneficial for people living in rural areas and for women where empowerment can be supported through small scale chicken raising. The breed development can be a part of poultry production within existing farming systems and this could help to deliver a sustainable contribution to stable food security. The smallholder resource poor farmers could therefore benefit from the integration of chicken breed nutritionally, socially and economically.
22	Dr. Muhammad Asgher, University of Agriculture, Faisalabad	Hyperproduction of Citric Acid by Aspergillus niger through mutagenesis and Metabolic Engineering in Solid State Fermentation of Molasses Medium	1,365,310	Development of hyper-producing strain of Aspergillus niger and high yielding solid state fermentation process is a potential breakthrough that would result in large production and recovery cost reductions. Development of indigenous biotechnology for conversion of molasses into low cost citric acid will provide a route to simultaneously create new employment opportunities for skilled and unskilled labour, and decrease dependence on imported citric acid. The local industry can take advantage of this work to produce citric acid on a commercial scale. The PI has shared this information with Chambers of Commerce and Industry, Faisalabad so that this technology can be utilized for commercial scale production of citric acid.
23	Dr. Muhammad Asgher, University of Agriculture, Faisalabad	To Develop an Indigenous Technology for Bioremediation of Textile Dyestuffs and Dye Based Industrial Effluents	1,159,510	Textile dyestuffs released into the industrial effluents are potential pollutants due to their toxicity and carcinogenicity. White Rot Fungi (WRF) Lignin Degrading Enzyme (LDE) systems have great potential for achieving total colour removal and in some cases with only hours of exposure. The outcomes of this study will form the basis of developing an effective 'on-site' treatment system for textile industry effluents for degradation of residual dyes. This will provide a route to decreased dependence on high cost imported chemicals and hence will be a step towards self-reliance in the field of industrial and environment biotechnology. Moreover, chemical treatment methods are highly costly and can give rise to more toxic intermediaries, whereas biodegradation is economically friendly and cost effective. This technique can be especially used by Paper and Pulp industry. No effort has been made yet to communicate this information to the relevant industries/environmental organizations nor has been any step taken towards the commercialization of the technique.

S. No.	Principal Investigator	Project Title	Project Cost (Rs.)	Prospects for commercialization and socio -economic development
24	Dr. Habib -ur-Rehman, University of Azad Jammu & Kashmir, Muzaffaraba d, Azad Kashmir	Extraction of essential oils from high altitude aromatic plants of Azad Kashmir	1,697,176	This study was aimed at extracting and evaluating the essential oils of aromatic plants in Azad Kashmir to identify their potential as antioxidant and antimicrobial agents. The plants demonstrated significant antimicrobial, antioxidant and phytotoxic activity against different pathogens and thus have the potential to develop immune system against different diseases. The production of such essential oils and bioactive compounds from indigenous resources and their utilization as potential natural food preservatives would be of economic value. These research outcomes should be conveyed to the industries so that this emerging idea can be commercialized.
25	Dr. M. Shahid Khalil, University of Engineering & Technology, Taxila	Development of Human Resource and the wind energy expertise at UET Taxila	4,475,063	This study focuses on the development of Wind Energy Resources in Pakistan. Before this project, no Anemonetry System complying with International Wind Energy Standards had been installed at any location in Punjab province that may have catered to the needs of Wind Power Project. Under this project, an IEC standard wind mast is installed in the area of Kalar Khar region in Punjab, which provides a r eliable and bankable wind data of the area. This project has contributed in the awareness of people in local community who are interested in installing micro level wind turbines to generate electricity for their home needs. This project holds capacity for commercialization and these facilities can be used by different energy related organizations to figure out potential wind sites.
26	Dr. Bilquees Gul, University of Karachi, Karachi	Exploiting the potential of Halophytes as source of edible oil	3,273,330	This research project has the potential of commercialization resulting in socio-economic benefit. Pakistan is facing a severe shortage of good quality water for human consumption and agriculture. Moreover, irrigated land is also increasingly becoming saline. This study investigates the role of Halophytes that can be used as oil -seed crop on highly saline soils or where water is of poor quality. This will also help in bridging the gap between the demand and domestic production of edible oil without encroach ing upon good quality land and water which will be available for other purposes. The huge foreign exchange expenditure on the import of edible oil from abroad will be saved.
27	Dr. Nasreen Memon, University of Sindh, Jamshoro	Eco-biological complex of Cotton bollworms in cotton growing areas of Hyderabad Division and some effect of pesticides groups on boll worms	938,380	In this project efforts have been made to carry out and analyze the eco-biological studies of about four important bollworm pests of Pakistan. The PIs used sex pheromones and light traps for management of cotton crop. Textile industry is the largest industry in Paki stan which is highly dependent on the quality and quantity of cotton yield. The outcomes of this research will aid farmers/scientists/cotton growers in pest management of cotton bollworms. This would lead to less usage of pesticides which not only reduces the cost of inputs but also conserves/saves environment as sex pheromones and light traps are environmental friendly. The PI was linked to the Cotton Research Institute of Sakrand as they were in a position to pass on the findings of this research to local cotton growers.

PLANNING AND DEVELOPMENT

Government of Pakistan is making significant investments towards developing institutional facilities, introducing new disciplines in cutting-edge and market based technologies, developing human resource including faculty, improving research facilities and student services, creating linkages with local and foreign universities and promoting university-industry interaction, amongst many others. As a result of these, six Pakistani universities are now ranked among the top 300 Asian universities while two Pakistani universities are now ranked among the top 300 science and technology institutions of the world. The higher education is now accessible to all regions of the country with an increase in number of universities campuses in Pakistan from 168 to 258 including the establishment of 41 new universities. The increase in student enrolment at universities from 330,000 to over a million, increase of percentage women enrolled in universities from 36% to 46%, award of more than 10,000 local and foreign scholarships through a well-defined and transparent mechanism that has made no compromise on merit and award of 2,000 scholarships for the talented youth of Balochistan and Fata are the other accomplishments.

The Planning and Development Division of HEC translates the vision of the Government of Pakistan into projects and programmes and makes these possible through the development, funding and implementation of projects in these key areas. The major role of the Planning and Development Division of HEC is to provide guidance in integrating the national priorities and expectations into development projects so as to achieve the objectives and targets set by the Government of Pakistan in higher education sector. Project inception and preliminary planning require thoughtful definition of goals and needs, planning to accommodate anticipated future needs, evaluation of project alternatives, and identification of site requirements, funding requirements, budget authorization cycles and/or financial impacts and project phasing. The P&D Division (HEC) facilitates the higher education institutions in this regard.

The Division is responsible for identifying, researching, studying, and evaluating policies, procedures, priorities, and proposals in planning or in the development of innovative educational programmes and projects. Work includes coordinating activities with other ministries; planning, designing, developing, and writing special projects and studies for national-wide application; coordinating and participating in the review and recommendation of planning and development projects for funds to the state educational institutions; developing new and innovative projects and programmes; and evaluating data for possible use in planning and development.

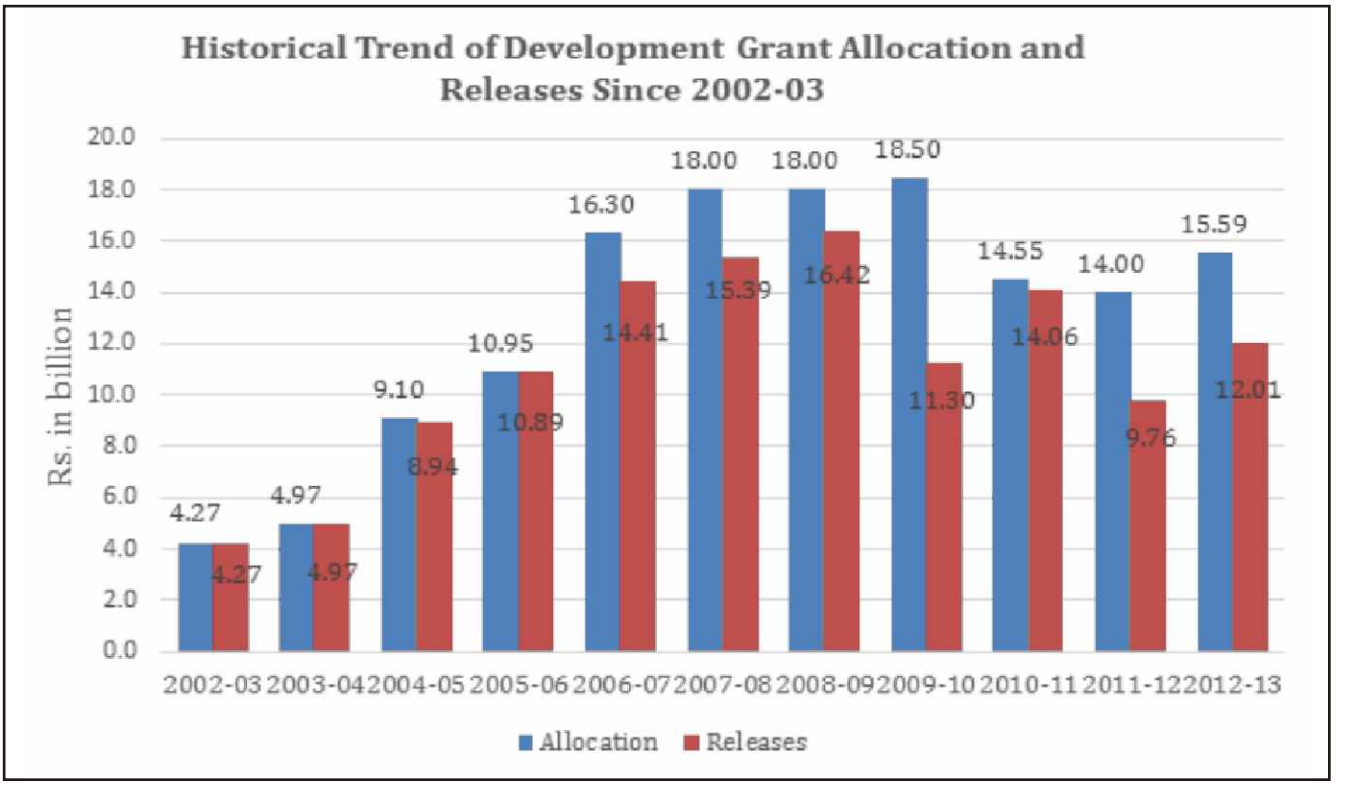
Development Grant 2012-13

During the fiscal year 2012-13, Rs. 15.800 billion were initially allocated under the Public Sector Development Programme (PSDP) for the development of higher education sector against the commitment of Rs. 21.600 billion by the Government of Pakistan to the World Bank under Tertiary Education Support Porgramme (TESP). The development grant was later revised to Rs. 15.590 billion. The Planning Commission of Pakistan authorized release of Rs. 15.017 billion to the HEC during FY 2012-13 while the Finance Division, Government of Pakistan could release only Rs. 12.014 billion. Thus, HEC faced a deficit of Rs. 3.003 billion for its development grant. Due to non-release of development funds, HEC has to shift the liabilities of the on-going projects to the next year. Table 1 presents the comparison of last three years' development grant for the higher education sector.

Table 1 Comparison of last three years' PSDP Allocation and Releases

Fiscal Year	Original Allocation (Rs. in billion)	Revised Allocation (Rs. in billion)	Releases (Rs. in billion)	Per cent release (ref. Original Allocation)
2010-11	15.763	14.584	14.064	89%
2011-12	14.000	14.000	9.763	70%
2012-13	15.800	15.590	12.014	76%

A historical trend of development grant allocation and releases since 2002-03 is given below.



The university wise distribution of Rs. 12.014 billion during FY 2012-13 is given below:

S. No.	University/DAIs Name	Releases (Rs. in million)
1	University of Azad Jammu & Kashmir, Muzaffarabad	50.000
2	Mirpur University of Science and Technology, Mirpur	85.000
3	Women University of Azad Jammu & Kashmir, Muzaffarabad	12.220
	Total for AJK	**147.220**
4	University of Balochistan	157.000
5	Balochistan University of Information Technology and Manage ment Sciences, Quetta	29.848
6	Lasbela University of Agriculture, Water and Marine Sciences, Uthal	250.000
7	Sardar Bahadur Khan Women University, Quetta.	20.000
8	University of Turbat	10.000
9	University of Loralai	25.000
	Total for Balochistan	**491.848**

S. No.	University/DAIs Name	Releases (Rs. in million)
10	Khyber PakhtunKhwa Agricultural University Peshawar	98.232
11	Gomal University, D.I.Khan	40.000
12	Hazara University, Mansehra	71.039
13	Kohat University of Science & Technology, Kohat	113.420
14	University of Peshawar	70.925
15	Centre of Excellence in Geology, University of Peshawar.	54.000
16	Khyber PakhtunKhwa University of Engineering & Technology, Peshawar	897.129
17	Shaheed Banazir Bhutto University at Sharingal	115.000
18	University of Malakand	166.112
19	Khyber Medical University, Peshawar	104.000
20	Islamia College Peshawar	52.000
21	Institute of Management Sciences, Peshawar.	82.533
22	Frontier Women University	105.000
23	University of Science & Technology, Bannu	150.000
24	Abdul Wali Khan University Mardan	140.000
25	University of Fata	0.000
	Total for Khyber PakhtunKhwa	**2259.390**
26	Pir Mehr Ali Shah, University of Arid Agriculture, Rawalpindi.	106.574
27	Bahauddin Zakariya University, Multan.	266.465
28	University of Agriculture, Faisalabad.	179.000
29	Fatima Jinnah Women University, Rawalpindi.	70.000
30	Islamia University, Bahawalpur	150.000
31	Lahore College for Women University, Lahore.	85.830
32	University of the Punjab, Lahore	86.000
33	Centre of Excellence in Molecular Biology, University of the Punjab	23.709
34	Centre of Excellence in Solid State Physics, University of the Punjab, Lahore.	17.533
35	University of Engineering and Technology, Lahore.	175.000
36	University of Engineering & Technology, Taxila.	0.000
37	University of Veterinary and Animal Scie nces, Lahore	20.000
38	University of Education, Lahore	60.000
39	University of Sargodha	60.000
40	Govt. College University, Lahore.	14.867
41	Govt. College University, Faisalabad.	55.000
42	University of Health Sciences, Lahore	35.000
43	National College of Arts, Lahore.	37.928
44	Women University in Multan City.	120.000
45	King Edward Medical University	119.500
46	Lahore University of Management Sciences (LUMS), Lahore	50.000
47	University of Gujrat	0.000
	Total for Punjab	**1732.406**
48	University of Karachi	89.000
49	Liaquat University of Health Sciences (LUMHS), Jamshoro.	104.960
50	Mehran University of Engineering & Technology, Jamshoro.	496.248
51	NED University of Engineering and Technology, Karachi	240.000
52	Quaid-e-Awam University, of Engineering & Technology, (QUEST) Nawabshah	164.369
53	Shah Abdul Latif University, Khairpur	152.540
54	University of Sindh, Jamshoro	88.000

S. No.	University/DAIs Name	Releases (Rs. in million)
55	Sindh Agriculture University, Tandojam	76.124
56	Dow University of Health Sciences	438.802
57	Sukkur Institute of Business Administration, Sukkur.	80.000
58	Institute of Buisness Administration (IBA) Karachi	95.000
59	Shaheed Benazir Bhutto University, Benazirabad, Sindh	85.000
60	Shaheed Mohtarma Benazir Bhutto Medical University Larkana	90.500
	Total for Sindh	**2200.543**
61	Air University, Islamabad	112.000
62	Allama Iqbal Open University, Islamabad	48.244
63	International Islamic University, Islamabad	174.266
64	COMSATS Institute of Information Technology	700.257
65	National University of Science & Technology, Rawalpindi.	330.044
66	Pakistan Institute of Engineering and Applied Sciences, Islamabad.	57.147
67	Quaid-e-Azam University, Islamabad.	170.000
68	Federal Urdu University of Arts Science & Technology	20.000
69	Institute of Space Technolog y, Islamabad.	10.000
70	National University of Modern Languages (NUML), Islamabad	20.000
71	Virtual University	27.237
	Total for Federal	**1669.195**
72	Karakuram International University, Gilgit.	20.000
	Total Gilgit-Baltistan	**20.000**
73	Higher Education Commission	3492.998
	Total for HEC	**3492.998**
	Grand Total	**12013.600**

Status of Development Projects during 2012-13

During the fiscal year 212-13, funding to 42 development projects worth Rs. 15,560.686 million were completed. The details of these projects are given below:

S. No.	Title of the Project	Completion Cost (Rs. in million)
1	Feasibility Studies for the Establishment of Women University of Azad Jammu & Kashmir, Muzaffarabad (PM Directive)	12.220
2	Development and Capacity Building at Balochi stan University of Information Technology and Management Sciences, Quetta	468.313
3	Strengthening & Development of Khyber Pakhtun Khwa Agricultural University Peshawar	410.593
4	Hazara University's Post-Quake Development Plan, Hazara University Dodhial, Mansehra	340.337
5	Establishment of Archaeological Conservation & Research Laboratory Hazara University, Mansehra	39.172
6	Development of Infrastructure for Improved Educational Facilities at Kohat University of Science & Technology, Kohat	459.714
7	Strengthening and Enhancement of Academic Provision in the University of Peshawar.	458.961
8	Strengthening & Upgradation of Peshawar Campus of NWFP University of Engineering & Technology, Peshawar (Revised)	650.218
9	Construction of Multipurpose Gymnasium at University of Malakand, Chakdara	39.112
10	Development of Institute of Management Sciences (IMS), Peshawar	446.533
11	Scheme for the establishment/ Strengthening of Bahauddin Zakariya University College of Textile Engineering.	248.965

S. No.	Title of the Project	Completion Cost (Rs. in million)
12	Strengthening of 4 Year Degree Programme through Expansion of Existing Facilities of Lahore College for Women University, Lahore (To be Revised).	424.578
13	Rehabilitation / Upgradation of Existing Auditorium and provision of labs and Library facilities at Lahore College for Women University, Lahore (Prime Minister's Directive)	49.800
14	Establishment of sub-campus of Lahore College for Women University, Lahore at Jhang.	57.530
15	Strengthening of Centre of Excellence in Molecular Biology, University of Punjab, Lahore.	471.134
16	Establishment of Experimental Facilities for Fabrication and Characterization of Functional Nanoceramics at Centre of Excellence in Solid State Physics, University of the Punjab, Lahore.	38.533
17	Feasibility Study and Master Planning of New Campus of GC University, Kala Shah Kaku Lahore	23.944
18	Strengthening of Film & TV Department at National College of Arts (NCA), Lahore	33.928
19	Establishment of Bio-equivalence Centre at Dr. Panjwani Centre, University of Karachi	249.130
20	Strengthening and Rehabilitation Program me of Liaquat University of Health Sciences (LUMHS), Jamshor	459.960
21	Strengthening and Development of Mehran University of Engineering &Technology (Revised)	677.061
22	Strengthening & Development of Department of Civil, Software and Institute of Science & Technology, I/C Allied Facilities & Services, Mehran University of Engineering & Technology Jamshoro (Revised).	676.545
23	Strengthening of Environmental Engineering Department, NED University of Engineering & Technology, Karachi	35.000
24	Construction of Indoor Sports Facilities at Shah Abdul Latif University, Khairpur	37.540
25	Date Palm Research Institute Building and Glass House at SALU Khairpur	38.500
26	Development scheme of University of Sindh, Jamshoro (Faculty of Pharmacy, Faculty of Natural Sciences, Faculty of Social Sciences and Administration)	498.426
27	Provision of Sports Allied Facilities at Sindh Agriculture University Tandojam.	37.124
28	Construction of Data Centre an d providing Fiber Optic for Networking at Ojha Campus, DOW University of Health Sciences, Karachi	44.802
29	Establishment of National Centre of Curriculum Studies and Educational Assessment at AIOU, Islamabad	24.244
30	Construction of Boundary wall at International Islamic University, H -10 Campus *(Total Cost: Rs. 49.889 million, HEC Share: Rs. 33.266 million + Uni Share Rs. 16.633 million)*	33.266
31	Establishment of Permanent Campus of COMSATS Institute of Information Technology at Sahiwal	407.989
32	Establishment of Business Incubation Cent re at COMSATS Institute of Information Technology Islamabad	37.868
33	Establishment of Information Technology & Management Sciences, and Telecommunication Institutes at NUST, Islamabad (Revised)	3722.089
34	Establishment of Headquarters National University of Science and Technology (NUST) and Hi - Tech Postgraduate Science and Technology Institutes at Islamabad (Revised)	2270.872
35	Establishment of Department of Robotics and Artificial Intelligence at National Un iversity of Science and Technology (NUST)	324.397
36	Up-gradation of infrastructure, Pakistan Instt. of Engg. and Applied Sciences(PIEAS), Islamabad.	495.690
37	Establishment of Virtual University Campus Badin, Sindh	28.237
38	MS/MPhil Leading to PhD Scholarships in Engineering, Natural and Basic Sciences/ Humanities/Social Sciences for the Teachers of Weaker Universities	612.979
39	Sabbatical/Duty Leave Fellowship Program me HEC	37.886
40	Extension and improvement of facilities at HEC Regional Centre, Karachi.	38.660
41	Development / Strengthening of Selected Departments of Social Sciences & Humanities in General Universities in Pakistan (HEC).	37.862
42	National Academy of Higher Education - Phase-II, HEC	36.538
43	HEC's Outstanding Research Award Series.	24.436

Status of Development Projects during 2012-13

Higher education in Pakistan has been passing through a phase of expansion in the volume of students and in the higher learning institutions. Focus of the development activities was to meet the basic needs of existing and newly established higher learning institutions across the country. During FY-2012-13, following three new development projects were approved at a total cost of Rs. 1.73 Billion.

S. No.	Title of the Project	Approved Cost (Rs. in million)
1	Developing Academic Facilities, Library and IT Infrastructure, New Beaconhouse National University Campus, Lahore (Phase-II)	687.000
2	Construction of Hostel for Undergraduate Students at Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro	259.835
3	Strengthening and Up Gradation of University of Engineering & Technology (UET), Taxila and Its Sub Campuses	785.307
	Total	**1732.142**

During 2012-13, the following 16 projects have been included in the PSDP. Most of these projects were approved in previously years but could not be funded due to funding constraints. The funding of these projects commenced during FY 2013-14.

S. No.	Title of the Project	Approved Cost (Rs. in million)
1	Feasibility Studies for the Establishment of Women University of Azad Jammu & Kashmir, Muzaffarabad (PM Directive)	12.220
2	Establishment of FM Radio Station and a Television Production House in the Department of Mass Communication, University of Balochistan, Quetta.	48.722
3	Strengthening and Development of Library at Agricultural University Peshawar.	38.762
4	Strengthening of Department of Psychology University of Peshawar	42.169
5	Development of Fatima Jinnah Women University, Campus -II, (Phase-2)	920.000
6	Strengthening and Upgradation of UET, Taxila and its Sub Campuses	965.000
7	Strengthening of IT Facilities at City and Ravi Campuses of University of Veterinary and Animal Sciences, Lahore.	54.805
8	Strengthening of Environmental Engineering Department, NED University of Engin eering & Technology, Karachi	35.000
9	Construction of Data Centre and providing Fiber Optic for Networking at Ojha Campus, DOW University of Health Sciences, Karachi Total Cost: Rs. 49.994 million (Rs. 44.802 million HEC Share & Rs. 5.192 million University Share)	44.802
10	Establishment of Shaheed Mohtarma Benazir Bhutto Medical University Larkana ((Prime Minister's Directive)	949.747
11	Construction of Boundary wall at International Islamic University, H -10 Campus *(Total Cost: Rs. 49.889 million, HEC Share: Rs. 33.266 million + Uni Share Rs. 16.633 million)*	33.266
12	Establishment of Business Incubation Centre at COMSATS Institute of Information Technology Islamabad *(Total Cost: Rs. 56.803 million, HEC Share: Rs. 37.868 million + Uni Share Rs. 18.935 million)*	37.868
13	Construction and Setting up Office of the National Testing Service (NTS), COMSATS Institute of Information Technology (CIIT), Islamabad	58.741
14	Establishment of Grid Station at Sector H-12, Islamabad for National University of Science and Technology (NUST), Islamabad	408.970
15	Establishment of NUST Teaching Cum Research Hospital and School of Health Sciences at Sector H -12, Islamabad *Total Cost: Rs. 6703.712 million* *(ADB: Rs. 5203.712 million* *NUST Share: Rs. 1000 million GOP Share: Rs. 500 million)*	500.000
16	Indigenous PhD fellowship for 5000 Scholars, HEC (Phase -II)	9972.593

The funding of the following 43 projects were completed during the FY 2012-13.

S. No.	Title of the Project	Approved Cost (Rs. in million)
1	Feasibility Studies for the Establishment of Women University of Azad Jammu & Kashmir, Muzaffarabad (PM Directive)	12.220
2	Development and Capacity Building at Balochistan University of Information Technology and Management Sciences, Quetta	468.313
3	Strengthening & Development of Khyber Pakhtun Khwa Agricultural University Peshawar	410.593
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5	Establishment of Archaeological Conservation & Research Laboratory Hazara Un iversity, Mansehra	39.172
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7	Strengthening and Enhancement of Academic Provision in the University of Peshawar.	458.961
8	Strengthening & Upgradation of Peshawar Campus of NWFP University of Engineering & Technology, Peshawar (Revised)	650.218
9	Construction of Multipurpose Gymnasium at University of Malakand, Chakdara	39.112
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12	Strengthening of 4 Year Degree Programme through Expansion of Existing Facilities of Lahore College for Women University, Lahore (To be Revised).	424.578
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23	Strengthening of Environmental Engineering Department, NED University of Engineering & Technology, Karachi	35.000
24	Construction of Indoor Sports Facilities at Shah Abdul Latif University, Khairpur	37.540
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31	Establishment of Permanent Campus of COMSATS Institute of Information Technology at Sahiwal	407.989

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32	Establishment of Business Incubation Centre at COMSATS Institute of Information Technology Islamabad	37.868
33	Establishment of Information Technology & Management Sciences, and Telecommunication Institutes at NUST, Islamabad (Revised)	3722.089
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35	Establishment of Department of Robotics and Artificial Intelligence at National University of Science and Technology (NUST)	324.397
36	Up-gradation of infrastructure, Pakistan Instt. of Engg. and Applied Sciences(PIEAS), Islamabad	495.690
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42	National Academy of Higher Education - Phase-II, HEC	36.538
43	HEC's Outstanding Research Award Series.	24.436

Future Programme 2013-14

Keeping in view the financial constraints with the GoP and after a series of meetings with the stakeholders 95 new development projects were proposed by HEC for inclusion in PSDP 2013-14, however, 33 have been included by the Government in PSDP (HEC) 2013-14. Provision of qualified faculty is the top most priority of Mid Term Development Framework (HEC). For attracting and retaining qualified faculty, provision of R&D facilities is the second top most priority. 46 % investment made so far is in this direction. With support of the GoP, 7741 foreign and 6000 indigenous merit base country wide scholarships provided across the country. However, due to expansion drive in higher education during last decade, requirements of qualified faculty multiplied across the country. For this very purpose following 03 development proposals for Faculty Development and financial support to the needy talented youth have been added for funding through foreign grants and PSDP:

S. No.	Title of the Project	Estimated Cost (Rs. in Million)
1	US Need based Merit Scholarships for Pakistani University Students enrolled in Agriculture & Business Administration study Program mes Phase-II (Foreign Grant-in-Aid)	2308.50
2	Fulbright Scholarship Support Program me HEC-USAID(Phase-II) (Foreign Grant-in-Aid)	7000.000
3	Overseas Scholarships for MS/ MPhil Leading to PhD in selected fields (Phase III)	3900.000

To support the talented youth of the country, nationwide scheme for all public sector universities of 04 provinces, AJK, GB, FATA and ICT, a project entitled "Prime Minister's (National) Programme for Provision of Laptops to Talented Students (HEC) " at a tentative cost of Rs.30.0 billion is being launched under special initiative of the Prime Minister of Pakistan during 2013-14.

INFORMATION TECHNOLOGY

The Higher Education Commission is devoted to meeting the growth difficulties and possibilities that the recent fast evolution in information and communication technological innovation have introduced so that these can be successfully utilized to address essential growth challenges of poverty and maintainable economic growth. The HEC aims to ensure a comprehensive information and communication technology strategy for implementation so as to develop a knowledge-society in Pakistan while providing means and resources to increase productivity, workability and innovation.

There have been significant developments and enhancements in various services offered by HEC to the higher education institutes across Pakistan. Pakistan Education and Research Network (PERN) being at the forefront expanded its footprints across the country and grown bigger by 22% as to provide higher speed connectivity to higher education institutes. The bandwidth growth has been over 70% whereas core network service availability surpassed the barrier of 99.9%. The research and collaborative activities in the field of higher energy physics, telemedicine, and network technologies brought true value as per the spirit of PERN. Video conferencing being one of the tremendous applications of PERN has been a true enabler to the students and researcher of higher education institutes. During the year, over 300 interactive lectures were organized under the virtual education project in which lectures from 18 countries across the world were delivered to students.

Helping higher education institutes with the technology upgrades have been at its peak, whereby more than 33,500 desktop computers and 90 servers were upgraded. Other technological advancements witnessed the introduction of virtual desktop interface as a cloud application and SaaS based unified communication services to additional 12 HEIs. There has been extensive support to the IT infrastructure and services offered at HEC Secretariat and at the Regional Centres in four provinces. The online services of degree attestation & equivalency services, online scholarship services and HEIs ranking offered by HEC underwent major developments to provide feature-rich experience to the public seeking various services from HEC.

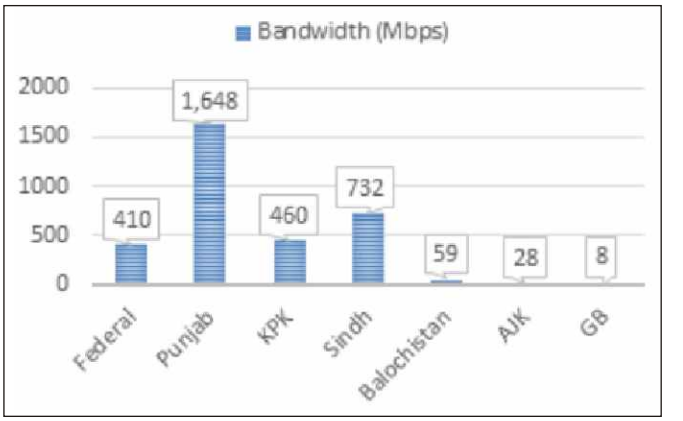
IT Division maintains its forte of providing consultancy services, and extended technical assistance and support to a number of higher education institutes across Pakistan. The Division is prepared and consistently building new requirements for presenting innovative technology features and assisting in impressive the overall standard of country's education sector. It also helps HEIs for growth and execution of IT-based services to offer excellent experience to learners, academicians, technologists and researchers to be at par with their peers in the developed world.

Pakistan Education & Research Network

The higher education sector witnessed remarkable growth and expansion in Pakistan Education & Research Network (PERN) during this year. PERN being one of the major projects of Higher Education Commission which interconnects higher education and research institutes across the country, has enhanced its footprints to additional five cities across Pakistan. Moreover, there has been growth in brining 32 more universities/institutes and their campuses onboard.

PERN design is based on advanced technologies available in the ICT domain. i.e. IP over DWDM (IPoDWDM), Metro Gigabit Ethernet and Cloud technology. The DWDM based core network deployment was completed during the year, especially the longest connectivity of BUITEMS POP, Quetta to BZU POP, Multan is now accomplished. The islands of metro-networks in 15 cities are now interconnected to form a 10Gbps core network using dark fiber of more than 6100 Km; whereas distant universities are also connected through dark fiber providing a capacity of 1Gbps and having dual-homing for high availability.

This year, an additional 3.34 Gbps bandwidth has been distributed amongst the PERN connected higher education institutes with the provincial distribution as depicted in the graph. Moreover, two new Agregation PoPs (A-PoPs) in Larkana and Nawabshah were established during this year in order to provide PERN services to higher education institutes in the region. As part of PERN O&M, all the 15 Core routers of PERN are powered up with UPSs as secondary backup to ensure high availability. Moreover, the SU PoP Jamshoro, KU PoP and CPSP PoP in Karachi were supported with new AC control system as well as installation of Automatic Voltage Regulators (AVRs). Network Operation Centre (NOC) achieved 99.9% PERN services availability as part of its committed SLA. Moreover, during the year NOC dealt with 800 complaints relating to transmission system, 379 complaints relating to routers configuration, and 25,325 complaints in context of power failures at the universities/ institutes end. In addition, over 28 various pieces of equipment were replaced both at core and access networks during this year. Electrical design of power distribution at PERN 15 PoP sites was prepared and posted at respective locations. The activity also included maintenance of earthing at all these PoPs as to keep the resistivity within the acceptable limits. Overhauling of the diesel generators and maintenance of HVAC systems at selected PERN PoPs are among the activities performed during the year.



Collaborative Research Activities on PERN

PERN since its inception has been offering true packet switched network for research and collaboration in areas like VoIP, grid computing, high energy physics, telemedicine, research related video and images exchange, enterprise level video conferencing, etc. These network based services are not only available within the country, but also the research and education connectivity to other National Research and Education Network NREN(s) of the world and their consortia, like APAN (Asia-Pacific), GEANT2 (Europe),

Internet2 (USA), etc. are provided to serve the academic and research community globally. The education and research activities over PERN have been very diversified ranging from network technologies to physical sciences, and to medical and health sciences. These activities include;

High Energy Physics

The participation of National Centre for Physics (NCP), Quaid-e-Azam University in the global collaboration was only made possible with the PERN connectivity to NCP which provides an STM-1 international link (155 Mbps) via the Trans Eurasia Information Network (TEIN). NCP collaboration with CERN Geneva would have been frutile without access to LHC data, and the amount of data LHC can generate is roughly 1.5 PB per year per experiment. PERN being member of TEIN community have helped experimental high-energy physicists of Pakistan to access this data by providing good R&E connectivity with affordable prices. Most important of all using this data several graduate students (~ 30) completed their research work as well as theses.

Telemedicine

Telemedicine activities have been amongst the specialities of PERN and in the recent past, PERN has actively supported telemedicine activities in collaboration with Society of Surgeons of Pakistan while connecting "Holy Family Rawalpindi" – first teaching hospital on PERN. PERN being a member of Asia-Pacific Advanced Network (APAN) and TransEurasia TEIN), has been able to bridge higher education institutes in Pakistan with Seoul National University, Korea and Kyushu University, Japan for live surgeries and telemedicine workshops.



Eduroam

PERN has successfully deployed test bed of eduroam project and positively tested eduroam services at selected HEIs, e.g. NUST & AIOU. However, the same has been tested and made operational at foreign universities as well, that are, Korea Institute of Science and Technology Information (KISTI) South Korea, AARNET Australia and TERENA Netherlands.



Eduroam (education roaming) is the secure, world-wide roaming access service developed for the international research and education community. PERN users can access the wi-fi at all eduraom enabled sites nationally and internationally.

College Network of Pakistan (CNP)

The degree and post-graduate colleges operating under Higher Education Department of Provincial Governments have been provided high speed network connectivity as to form the College Network of Pakistan. CNP has been initiated with the concept to provide primitive communication links and internet services to selected 26 colleges across the province of Punjab as a pilot phase of the project. The network connectivity is to be extended to other colleges across the province in near future. The Higher Education Commission enduring its support to overall tertiary education in the country is providing services on highly subsidized rates especially designed for colleges.

During the year connectivity was provided to 26 colleges spanning over 12 cities across Punjab. This included deployment of active equipment (i.e. routers, wireless access points, and IP phones) at these selected colleges in order to provide advanced networking services to uplift the quality of education.

Morever, the connectivity required establishing five new Aggregation Point of Presence (A-POP) established at Bahawalpur, Dera Ghazi Khan, Sargodha, Gujranwala and Sahiwal. In addition, Unified Communication (i.e. Lync2010 and IP phones) solution have also been provided to all these colleges in order to provide them collaborative video conferencing services to faculty and IP phones to the Principals. The solution also include a mini-PABX telephone exchange as built-in feature of router which provides inter and intra voice communication needs of these colleges over the network.

National Video Conferencing Network

HEC while supporting the mandate to develop e-Academia established the national video conference network for higher education sector and provided world class purpose built video conference facility at all the public sector university across Pakistan.Video Conferencing footprints in the higher education sector expanded further this year and three more public sector universities were provided with the facility. This interactive teaching and learning facility is now spread over 30 cities covering more than 80 public sector HEIs.

Video conferencing has proven to be a cost-effective solution to higher education in Pakistan. It has emerged an effective tool to enhance student-teacher interactions; bridge the gap of good faculty; and meeting the shortage of faculty members at the universities located in far-flung areas and ultimately to uplift the standard of education in Pakistan.

During the year, five units of video conferencing equipment were replaced. Moreover, the video conferencing equipment at the core network which include Streaming server, Management server and two Multipoint Conferencing Unit were also replaced as part of SLA. In addition, professional level trainings were provided to three universities who are new entrants to the video conferencing network. The video conferencing events statistics are automated and maintained on Sharepoint server as to provide quick visibility of the facilities usage. A number of special events were organized during this year of which the details as below;

International Surgical Week 2013

Society of Surgeons of Pakistan in collaboration with PERN co-hosted International Surgical Conference 2013 this year as well. During this week long event, live surgeries from Pakistan and a surgery from Seoul National University, Seoul – South Korea telecast interactively for the medical students and surgeons of Pakistan. The event was hosted at CIPS auditorium National University of Science and Technology (NUST) Islamabad.



1st Cyber Security Awareness Seminar

HEC being one of the major partners in the National Cyber Security Task Force established under the ambit of Senate Standing Committee on Defence hosted 1st Cyber Security Awareness seminar. The event was telecast throughout Pakistan over the national video conferencing network for participation of students, faculty and researchers associated with information security domain.



Chairperson, HEC and the Vice Chancellors in "Aik Din Geo Ke Saath"

In one of the episodes of "Aik Din Geo Ke Saath" with the Chairperson, HEC, the Vice Chancellors from Kohat University – Kohat, Baluchistan University – Quetta, University of Agriculture – Faisalabad, University of Gujrat - Gujrat, Islamia University – Bahawalpur, Karakurum University – Gilgit, and Sukkur Institute of Business Administration participated over video link.



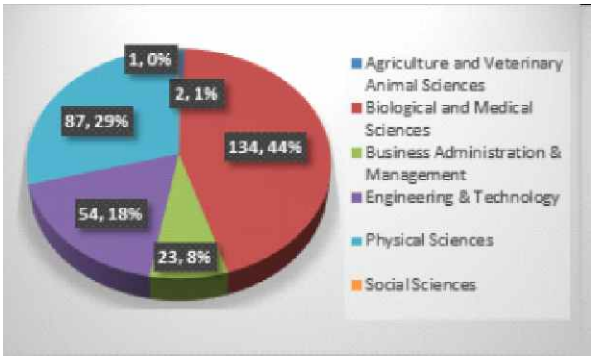
Operational Meeting of National Highways & Motorway Police

HEC as per its tradition of extending all possible support to other organizations and public entities assisted National Highways & Motorway Police in conducting their operational meeting(s) through video conference. The meeting chaired by DG, NH&MP was attended by officers from Quetta, Lahore, Multan, Bahawalpur and HEC RC Karachi.



Virtual Education Programme

The distance learning programme is the key factor in educational globalization. Virtual Education Programme of Pakistan (VEPP) meets the standards in distance learning programme. Through this programme eminent professors/scholars both foreign and local are invited to deliver domain specific series of lectures. These lectures' credit hours as defined by the professor and assessed by VEPP are considered against course work requirements of MS and PhD programmes.



The Higher Education Commission has sought assistance from L.E.J. International Centre of Chemistry & Biological Sciences, L.E.J. Institute, University of Karachi to execute the Virtual Education Project, Pakistan. The project focuses on delivery of special lectures as well as complete courses by eminent scholars/ researchers and Nobel laureates in the selected disciplines. It is aimed at building concepts, enhancing critical thinking, and developing understanding of the subject at undergraduate, graduate, and post-graduate levels. The project also includes skill development courses/ modules and lectures on the cutting-edge technologies /research in various advanced fields.

Universities' Professors delivering lectures from around the world

S. No.	University Name	No. of Lectures
1	Albert Ludwigs University of Freiburg, Germany	1
2	Ayurvedic College, Assam, India	4
3	University of Dhaka, Bangladesh	61
4	HEJ, University of Karachi, Karachi, Pakistan	43
5	Indiana University, USA	24
6	Mekelle University, Ethiopia	1
7	National Institute of Applied Sciences (INSA), Toulouse, France	1
8	Pakistan Academy of Sciences (PAS) , Islamabad, Pakistan	2
9	The University of Jordan, Amman, Jordan	16
10	University of Geneva, Switzerland	24
11	University of Mainz, Germany	18
12	University of Nebraska, USA	34
13	University of St. Andrews, UK	3
14	University of Sydney, Australia	1
15	University of Texas , Health Science Center at Houston , Texas , USA	3
16	University Putra, Malaysia	8
17	UOB VEPP	2+4
18	University of Winnipeg, Manitoba, Canada	52

HEC – Microsoft Education Alliance

HEC has made special efforts for the establishment and empowerment of higher education sector. Major emphasis and reasonable investments have been towards infrastructural development, whereas software and application are also the critical components for campus computerization. However, there have been lack of concrete plans or activities to continuously upgrade operating system and software packages keeping abreast with pace of ever changing technological advancements and trends. HEC signed a Strategic Education Alliance Agreement with Microsoft Corporation which gives higher education institutes in Pakistan full access to the latest licensed software from Microsoft, not only for all servers operating in the universities but also for the desktops and laptops of faculty and staff. The impressive HEC – Microsoft Education Alliance is constantly encouraging instructors to improve the overall performance of education and research at the higher education institutes.

During the year around 33,500 more computers upgraded to latest desktop software, whereas more than 17,200 computers are upgraded from Windows7 to Windows 8 operating system at 74 public sector universities. In addition, as part of infrastructure activities, more than 90 servers were upgraded to latest version at 25 universities. There has been more than 100,000 downloads by the students of public sector higher education institutes for which free software access is available to more than a million students. Moreover, six new universities with 2,500+ users (faculty and staff) facilitated with unified communication (email and voice/video conferencing. As part of technical training activities, more than 100 faculty members trained on the latest Microsoft technologies and ELMS training sessions were conducted for focal person of universities in South region. Morever, there has been six curriculum based trainings held at the Microsoft IT Academy operational at HEC Regional Centre, Lahore.

Hosted Data Centres & Private Cloud Facilities for HEIs

The Higher Education Commission as part of its overall strategy of strengthening existing National ICT infrastructure has established National Data Centres in Islamabad and Regional Data Centres in Karachi, Lahore and Peshawar, for providing hosted and managed services to Higher Education Institutions of Pakistan. In addition, the HEIs are being offered Cloud Computing facility from these data centres and plans have been put in place to offer Internet Data Centre (IDC) and Virtual Desktop Interface (VDI) to all HEIs. HEC has realized that the Internet Data Centres provide the most cost effective solution for hosting services while retaining autonomy and individuality in a managed environment. For this, the current practices in IT of Cloud Computing are also being encouraged and offered to HEIs which will further optimize the usage of scarce hardware resources on-demand and on applications' need basis, resulting a substantial savings of public funds. The first public sector private cloud was setup by HEC in 2010 for providing domain controller/active directory for Unified Communication solution through Infrastructure-as-a-Service (IaaS) and exchange facilities as Software-as-a-Service (SaaS). This Cloud computing facility is based on distributed architecture and spread over two Regional Data Centres in Karachi and Lahore.

The growth in usage of cloud services has been promisingly good and 12 more universities were served. For the expansion in existing setup, four additional chassis containing over 30 hex core dual processor blade servers and over 700 GB of RAM have been introduced to facilitate remaining universities. The total storage capacity has been enhanced from 120 TBytes to 328 TBytes by introducing two SANs in the cloud setup. In order to meet the power backup requirements as to ignite the newly installed hardware, a total capacity of 40 KVA UPSs in the system at the two data centres.

In addition, the emerging technology of Virtual Desktop Interface (VDI) has been setup at HEC Regional Centre Karachi which provides 30 desktop interfaces over the PERN network. The VDI setup has been installed as a pilot project as to extend high performance desktop systems with the latest Windows 8 OS to the universities as virtual computer laboratory. The success of this pilot project will shift the paradigm and ensure a huge savings in context of existing desktop computers at public HEIs which would not require replacement for next 5–7 years, instead the same desktop computers could be used as terminals to access the cloud based VDIs offered by HEC over the high speed network of PERN.

Unified Communication

The Unified Communications (UC) solution as introduced by HEC for the higher education institute is a research and knowledge centric service that takes advantage of PERN. The solution which includes email services, office communicator (i.e. Lync2013 as being the latest Microsoft technology), desktop video conferencing, SIP soft telephony, and SharePoint Portal services is based on the private cloud technology. The services are offered to the faculty and staff of all HEIs and selected colleges across the country while enabling HEIs to benefit from Software-as-a-Service (SaaS) model of cloud computing. So far, more than 40 HEIs have been provided with personalized email facility accessible from anywhere using Outlook Web Access feature of Microsoft Exchange. In addition, it provides voicemail, calendar, desktop sharing, and audio/ video enabled collaboration. This year the unified communication solution was extended to 12 new universities across the country.

Microsoft Lync2013 meets the needs of voice and video communication needs of users not only for intra-lync communication but tightly integrated with users' email account in order to maintain missed conversation history and voice mail messages in emails. Moreover, integration of Lync2013 server with Multipoint Conferencing Unit (MCU) of National Video Conferencing Network for HEIs provides users to participate in any ongoing video conferencing session from their desktop/ laptop systems. In addition, the IP Telephone Exchange is being integrated for PERN users for their external voice communication needs.

Number of HEIs facilitated with UC during 2012-13				
Sindh	**Balochistan**	**Punjab**	**Federal**	**KPK**
3	1	-	2	6

ICT Services @ HEC's Offices

HEC has established technically advanced and outstanding ICT infrastructure at its head office in Islamabad as well as at its regional offices in Peshawar, Lahore, Quetta, and Karachi. A horde of ICT services are offered to the employees, visitors, delegates, and general public. The ICT infrastructure and services have gone through rigorous evolution process over past one decade. The ICT facilities as being offered at HEC offices both at HEC main office in Islamabad and its Regional Centres in the four provincial capitals are the outcome of development projects. Since then ICT services at HEC head office and its Regional Centres are being managed and enhanced time-to-time by HEC's own recurring budget. During the year, over 100 senior officers at HEC offices are facilitated with a replacement of laptops. These were in fact as replacement of auctioned more than 150 laptops and desktops which had been used beyond its usable life of four years or more. In addition, 20 Network Access Switches of Aruba brand installed as replacement or backup of the old network switches as well as for the extension of ICT services to newly setup buildings and offices. The local area network at HEC has now been transformed into a heterogeneous network in

which Cisco, Aruba, Alcatel, Dlink, and other switches coexist and work efficiently. The wireless access network at the HRD Building has been upgraded with installation of new WiFi APs at all floors, having Power-over-Ethernet (PoE) features enabled for ensuring network availability at all times. Moreover, in order to facilitate HEC users, 10 flatbed scanners and 10 photocopier machines issued to various divisions/ sections as to ensure smooth ICT services for official business of HEC. HEC has been using Solarwind software as Network Management System for monitoring as well as management of network. Due to enormous expansion in network as well as network enabled ancillary systems at HEC and in PERN, the Solarwind software has been upgraded with the latest version having capacity to support 5,000 nodes. In addition, 50 UPSs of 650VA capacity installed across HEC office as to provide uninterrupted power supply to the desktop computers being used mostly by clerical staff, and to the intermediary network switches to ensure 24/7 network service availability.

During the year 2012-13, a total of 1568 Service Requests (SRs) were received from the users to IT Helpdesk, out of which more than 95% of the SRs were resolved by IT Support Team. As part of IT service support, the cost of designing and printing of barcode stickers for LTO cartridges reduced by 90%. Moreover, a child domain at HEC RC Peshawar was configured as psh.hec.gov.pk similar to the ones being maintained at HEC RC Lahore and Karachi. Further, in order to protect the desktop systems installed at the computer laboratory for degree attestation, glass doors along with protection locks were introduced in the desks.

ICT Developments @ HEC's Regional Centres

The local area networks at HEC Regional Centres in Lahore and Karachi have gone through an upgrade phase with the deployment of Layer-3 Core switches. The installation of layer-2 switches and creation of VLANs/ inter-VLAN routing have enabled the traffic segregation to avoid congestions in network. In addition, UPSs were added in the power backup system of HEC RC Lahore. Moreover, the ICT setup at Regional Centre, Peshawar was upgraded with the installation of access switches and deployment of Active Directory, DHCP, and DNS servers during this year.

Online Reservation Systems for Degree Attestation

The Higher Education Commission has been mandated by the government for the attestation and verification of degrees, transcripts and diplomas awarded by the chartered universities/ degree awarding institutions of Pakistan both in public and private sector. In addition, HEC also recognizes and determine the equivalency of the degrees, diplomas and certificates awarded by the institutions abroad and within the country. In order to facilitate the applicants of degree attestation, online systems for submitting application and reserving the time to get degrees/ transcripts/ certificates attested, HEC introduced Reservation System for Degree Attestation in March 2009 which is available at http://das.hec.gov.pk/. This is an online system to facilitate the process of degree attestation and to avoid the big queues and automate the process of the degree attestation. It has been running successfully ever since and has helped in making the Attestation process for the users much easier and swifter.

During 2012-13, the online reservation system for degree attestation has been extended to HEC Regional Centers in Peshawar and Lahore, and resulted in HEC offering the degree attestation services regionally for the benefit of public seeking degree attestation. The extension of degree attestation services at

regional basis has facilitated attestation seekers to get their degrees attested from their nearest HEC office, instead of visiting head office in Islamabad and waiting in long queues for their turn. For the provision of attestation services regionally available, dedicated computer laboratories have been setup for applicants at HEC Regional Centres in Peshawar and Lahore.

HEC Offices	Distribution	
	Applications submitted	Documents attested
Head Office	292,801	243,704
RC Lahore	11,956	7,177
RC Peshawar	4,800	3,543

Online access to the system for easy tracking of attested documents has been extended to universities abroad and to the embassies as well, so that they can cross-verify if the document submitted to them are genuinely attested by HEC or otherwise. Prior to this facility, the cross-verification used to be done through emails or facsimile, followed by phone calls. Support services have been acquired for the operational needs of online reservation system for degree attestation. During the year, new features and functionalities, like password encryption, processing date, management reports, and redundancy in system have been introduced in the system. The integrity and security of the data relating to attested degrees and respective applicants has been enhanced through the change in design and deployment of system. The system was seamlessly shifted to enhanced architecture and design without any service interruption or outages.

Online Reservation Systems for Degree Equivalence

Realizing the success of online reservation system for degree attestation which was launched in 2009, a similar system was required for the applicants seeking Equivalence of degrees, diplomas and certificates awarded by the recognized foreign institutions across the world. The equivalency solutions are also needed for some of the degree applications as provided by local higher education institutions and *Madaris* as well. For this, HEC has introduced in 2012, a new system named as Reservation System for Degree Equivalence which provides similar level of functionality and ease of use for smooth services to the applicants.

Online application has been developed for applicants seeking degree equivalence which is available at http://des.hec.gov.pk. Reserved seats for applicants applying for degree equivalence has been introduced at the computer lab in degree attestation area. In addition, application submission and collection windows have also been established for serving applicants seeking degree equivalence at the same area and next to degree attestation windows. Till now 5,051 application received for equivalence in which 2,900 applications entertained and equivalency is issued as per defined procedures.

Higher Education Management Information System (HEMIS)

The execution of Campus Management Solution in the HEIs was not only needed to improve the educational procedures but also for the efficient, high-quality data accessibility. Furthermore, CMS is an integrated solution which effectively deals with the various activities of an educational institution, like faculty management, student management, administrative functions, etc. As a pilot project, CMS was introduced at selected eight HEIs covering different categories including medical, engineering and general from all the regions of country and varying in enrolment size, which has come out as a successful

venture for improved governance at HEIs. During this year, the Phase-I of Higher Education Management Information System which includes Campus Management Solution (CMS) and Enterprise Resource Planning (ERP) (i.e. financial management system, human capital management, asset management, grant management, master data management) has been launched. For this purpose, funds have been allocated in HEC recurring budget of PERN for the implementation of HEMIS at selected 30 HEIs with a plan to implement HEMIS at 10 HEIs each year. Subsequently, a public procurement tender was advertised in November 2012 for the acquisition of HEMIS solution through open competitive bidding.

Prior to the execution of a formal tender, assessment on HEIs' approach towards automation/ automated solution was conducted covering 12 HEIs across Pakistan. In addition, an independent review committee was constituted comprising of Vice Chancellors, Project Directors, CMS Team members, and few experts/ professionals/ academicians to evaluate the success, acheivements, usage and performance of already implemented CMS at selected eight HEIs was conducted. Moreover, a 2-day seminar was arranged with the support of both SAP and Oracle in which relevant stakeholders from more than 50 public sector higher education institutes participated. Another activity as to measure the usage of hardware already provided to the HEIs having implemented PeopleSoft CMS was conducted by IBM followed by a report. The plans have also been put in place to establish at least three HEMIS Academies through the principal at selected HEIs, along with programme execution for at least one year with a target of generating over 350 certified professionals each year. In addition, establishing an Innovation Centre duly recognized by the principal as to help HEIs in research and contributing towards application development fully endorsed by the principal has also been planned.

Business Intelligence – Dynamic Reporting System

Recently, demand for Business Intelligence system has considerably increased amongst an increasing desire by business to receive all required information on regular basis without the risk of losing value. Information is vital which can temporarily represent where we are today and how we can improve and flourish better. The need of a extensive reporting solution to accomplish management and stakeholders both at HEC and HEIs in making decisions, and representing of information at several boards, the Business Intelligence solution demonstrates the educational scenery with highlighted signs and dashboards.

During this year, HEC has launched the higher education statistical information system based on Oracle Business Intelligence solution which is available at http://hesis.hec.gov.pk/. Moreover, for the first time the announcement of HEIs' ranking (both QS and Subject area rankings) were performed using BI system. In addition, the master data management of HEIs relating to campus information, academic departments, programmes and subjects offered, etc. are now maintained using Oracle Forms and reused throughout the BI system. Campus Solution Warehouse (CSWH) development and intergration with PeopleSoft Campus Solution deployed at Institute of Business Administration, Karachi was achieved this year, whereas integration of BI system with other universities' CMS is in progress. Two workshops on HEC Business Intelligence – Dynamic Reporting System and Statistical Information System were organized at HEC Islamabad and Mehran University of Engineering Technology, Jamshoro. Further, the integration of BI system with SAP's copy of production server was updated to generate up-to-date financial reports relating to development projects, recurring budget/ funds utilization, and reports relating to various scholarships awarded by HEC so far.

HEC Scholarship Portal

The creation of HEC by the Government of Pakistan holds statement to the fact that there is attention and concern on quality education and research for socio-economic development at the highest national level. In order to develop and apply methods of creating recruiting, continuous attempts are being performed at various areas in the nation today. HEC has started a series of programmes to develop the human resource of the country.

Scholarship Schemes	No. of Applicants
Overseas Scholarships for Balochistan Province – An initiative under Aghaz-e-Haqooq-e-Baluchistan	694
Indigenous Scholarships for Balochistan Province – An initiative under Aghaz-e Haqooq-e Balochistan	516
Indigenous 5000 PhD fellowship programme Phase II. Batch II	9148
90 Percent Overseas Scholarships Phase II Batch 5	6294
Indigenous PhD fellowship for 5000 scholars Phase-II	16295

With an objective of reinforcing universally accepted principle of excellence in academia, HEC has designed a number of scholarship and fellowship schemes, addressing all disciplines as to meet effectively the national needs. Realizing the general interest in scholarship schemes from the people all across the country and enormous number of applications HEC deals with, HEC had introduced online application submission against the scholarship in early times. However, online submission of applications only without having the internal processes and automated workflow did not turn out as effective or productive as needed while dealing with thousands of applications against a single scheme. The Scholarship Portal is available at http://scholarships.hec.gov.pk/ which has the global visibility and accessibility.

Scholarship Schemes	No. of Applicants
Overseas Scholarships for Balochistan Province – An initiative under Aghaz-e-Haqooq-e-Baluchistan	694
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Indigenous 5000 PhD fellowship programme Phase II. Batch II	9148
90 Percent Overseas Scholarships Phase II Batch 5	6294
Indigenous PhD fellowship for 5000 scholars Phase-II	16295

During the year, five new schemes in various fields and disciplines were lauched through the scholarship portal. The scholarship schemes announced for both indigenous and foreign programmes for MPhil/ MS leading to PhD, and PhD. In addition, the portal also provides current status of the application submitted for the scholarships and sends email to the applicant for the updates. The front-end servers for the scholarships' online application were increased from four servers to nine servers as to accommodate large number of applicants simultaneously.

Eradicating Plagiarism through Turnitin

HEC aims to combat plagiarism effectively in an academic environment in all institutions of Pakistan while ensuring that the students, academicians and researchers understand that stealing someone's intellectual property is unethical and can lead to serious consequences. HEC is committed to eradicate plagiarism from higher education institutes. For this, a software tool, i.e. iThenticate was acquired from iParadigm in 2007 which is one of the leading software used globally for such purposes. Later in 2009, academic version of the software tool, i.e. Turnitin was acquired for all the public sector universities of Pakistan. HEC has now provided this plagiarism detection software to more than 100 HEIs both from public and private sector as part of the PERN services. HEC encourages universities and institutions to use Turnitin to check assignments, papers and reports to ensure the quality of research.

This online service is available at http://www.turnitin.com/ and 700 licenses for each of the universities/ institutes have been provided to teaching faculty, post graduate students and researchers in order to address the issue at the grass root level. For continuing support to HEIs, HEC has signed a 3-year agreement with iParadigm as to provide Turnitin services to the higher education institutes across Pakistan. Turnitin services has now been introduced as supplementary service of PERN along with others and named as Packaged Digital Resources, resultantly the Turnitin services are now available to all the HEIs, whether public or private, having acquired PERN services. Moreover, latest version of the solution as Turnitin2 has been introduced to all HEIs which offers new features like ETS e-Rater (Essay Rater), PeerMark and GradeMark as to provide integrated solution of WriteCycle Collaborative Writing and Smarter Grading. This helps instructors in saving time spent on assessing written work and marking it accordingly because through GradeMark all common comments are already available in button format and can dragged and dropped on the text.

Consultancy & Support Service

Information Technology division of HEC has attained excellence in quality and achieved to a stage where other companies search for technological and professional support for their ICT plans and projects' design. Technical support to the universities and colleges for the planning of PC-1 and conceptualizing/ getting public sector development projects/ tasks. . The ICT infrastructure assessment surveys of the higher education institutes were also conducted in order to provide necessary guidance as deem appropriate for further expansion plans. For support and consultative services, mostly the universities are visited, surveyed, issues are identified, action plan(s) are suggested, and subsequently a detailed report is shared with the authorities of the universities.

ICT Survey of HEIs

The network team visited different universities, for the assessment of the existing Campus Network gap, analysis and gave them suggestions to HEIs to overcome the problems according to standard practice & provide them Consultancy . HEC's team Survey at:

- Karakorum International University, Gilgit
- University of Haripur, Haripur
- National University of Modern Languages, Islamabad
- Isra Univesity, Karachi Campus
- Lasbella Univeristy of Water, Agriculture and Marine Sciences, Uthal

Technical Assistance to HEIs

- Provided technical assistance to ISRA University for the development of ICT infrastructure including data centre, internal/ external connectivity, and configuration for creating VLANs, routing, IP planning, TMG & Firewall installation at their Karachi campus.
- Technical assistance extended to LUWAMS for the establishment of a Data Centre.
- Support to Karakorum International University for designing and configuring VLANs as well as inter-VLANs routing to segregate inter and intra department traffic on core switch as well as on twenty (20) access switches.
- Provided redundant OFC Links of PERN to the Dow University of Health Sciences, Karachi and Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology, Karachi.

Consultancy Services to other Organizations

- Holy Family Hospital, Rawalpindi – PERN connectivity and integration of video conferencing setup with the HEC's Video Conferencing Network for activities relating to Telemedicine.
- COMSTECH, Islamabad – ICT infrastructure assessment for provisioning of PERN connectivity

Capacity Building

IT Division has provided splendid ways of enhancing the professional grooming and capacity building of IT professionals at HEIs. Following are few of the highlights of such efforts and contributions;

- Arranged multiple programing development sessions with Microsoft regarding Windows Phone application development and SharePoint.
- Organized two sessions for the staff of 26 selected colleges of Punjab at Resource centre Murree in order to give them a better understanding of PERN and allied services.
- The Accreditation and Attestation Division, Higher Education Commission, in collaboration with IT Division, organized a two-day training workshop on the newly launched online Degree Equivalence System (DES).
- Foreign trainings on various technologies for 24 participants from HEC IT division.
- Network Administrators of 12 Universities have been given technical training on Unified Communication prior to handing over the system to them.
- More then 200 IT administrators provided with Microsoft certified training .
- Arranged 10 days of BI coaching for HEC resources under the guidance of Techlogix at Lahore

Looking Ahead

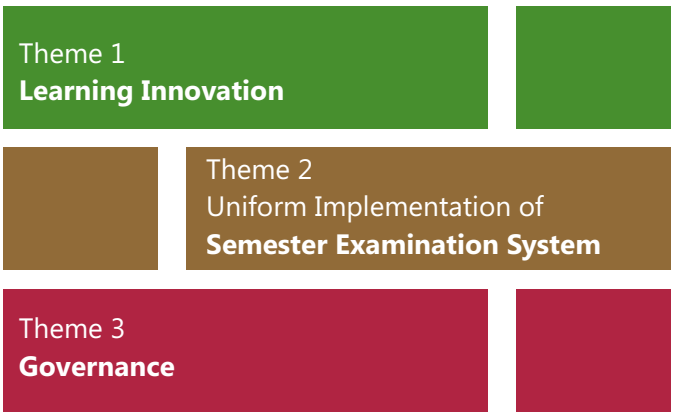
Proliferation of e-Academia in the country is the ICT strategy of HEC, which is an integration of computing services with digital resources and processes automation while capitalizing on the information highway infrastructure. The ICT facilities at the universities were established during the first MTDF 2005-2010 and now the infrastructure has become obsolete. The proposed developments will revive the facilities at universities at par with the international standards. If this upward momentum continues for the years to come, Pakistan is certain to become a global player through a flourishing knowledge economy and a highly litrate population. The contribution from IT division in such efforts will continue for a brighter future of Pakistan.

LEARNING INNOVATION

Learning Innovation Division (LID) of the Higher Education Commission has been functioning as a national hub for the continuous professional development of faculty members and management of the higher education institutions. With a two-pronged objective it is spearheading initiatives for the in-service professional quality enhancement of academia and their management. Quality of Education is highly dependent on the quality of teachers. Therefore HEC places special emphasis on the continuous professional development of the higher education teaching faculty for achieving excellence in learning and research. Only professionally trained and qualified teaching faculty in higher education institutions can first create a learner oriented; knowledge transferring culture in the class room with a definite mechanism based on learning outcomes and then trickle down quality learning and research to the students. Similarly it is equally critical to ensure capacity building of the management cadre ranging from Vice Chancellors to Hostel Wardens of HEI's across Pakistan being the backbone of the system for effective management and governance of all the academic processes and systems. Therefore the HEC's Modern University Governance programme for the management of the HEIs has developed strategic customized programmes on good governance related to HE systems which provide holistic governance tools and mechanisms, designed and conducted for the university management for becoming a qualitative source of support to the academia complying with global standards and quality norms. Trainings for their professional empowerment serve to bridge gap between academia and management for effective and sustainable governance.

Learning Innovation initiatives for HEIs Academia and Management revolve around three main themes:

1. Learning Innovation
2. Implementation of Uniform Semester Examination System
3. Governance



The three themes are further divided into two categories for effective implementation of continuous professional development of the two cadres.

1. Professional Training Programmes for HEIs Teachers

Beneficiaries: Permanent Teaching Faculty of Public Sector HEI and HEC W4 Category Private Sector HEIs. Lecturers, Assistant/Associate Professors, HEC approved PhD Supervisors and Resource Persons.

Learning Innovation (Theme 1)

1. Master Trainers-Faculty Professional Development Programme (LI)
   a. Ensuring Training Effectiveness programme with AIT Thailand for MT-FPDP best cascading Alumni
   b. ETE cascading workshops by AIT/ETE Alumni
2. Indigenous ELT Scholarships (ELTR)
3. ELT Continuous Professional Development Courses (ELTR)
4. International Resource Person's Trainings for Local ELT Faculty (ELTR)
5. Professional Competency Enhancement Programme for Teachers (NAHE)
6. Incorporating Technology in Education (NAHE)
7. Continuous Professional Development Seminars/Workshops (LI)

Implementation of Uniform Semester Examination System (Theme 2)

1. Orientation Seminars/Workshops on Semester Examination Policy Guidelines (LI)
2. Master Trainers Workshops on Testing and Assessment (LI)

2. Professional Training Programme for HEIs Management

Beneficiaries: Permanent Management officers of Public Sector HEI and HEC W4 Category Private Sector HEIs Vice Chancellors, Rectors, Presidents, Directors, Principals, Pro-VCs, Pro-Rectors, Vice Presidents/Principals, Deans, Registrars, Controllers, Treasurers, HoDs, IT Managers, Hostel Wardens and their associates.

The In-service certified programmes by Learning Innovation Division and its two development projects, National Academy of Higher Education (NAHE) and English Language Teaching Reforms (ELTR) are providing ample opportunity to the higher education community to gain professional skills.

Modern University Governance (Theme 3)

1. Leadership and Management Programme in collaboration with International Partners

a) HEC Orientation Workshop for the newly inducted Vice Chancellors of HEIs

b) International leadership Training Programme for the Newly Inducted Institutional Heads of HEIs
   - Cascading and Follow up Seminars and Workshops by the Alumni

c) International Leadership Training Programme for the Senior Management of HEIs
   - Cascading and Follow up Seminars and Workshops by the Alumni.

2. Strategic Management Workshops for the Senior Management of the HEIs
3. Open and Customized Workshops / Seminars based on Governance Issues

A Snapshot of Learning Innovation Division achievements during FY 2012-13

- Overall 1406 Faculty Members and Management staff benefitted from different activities of LID.
- 56 Faculty Members certified as Master Trainers in two batches i.e. 19th and 20th batch of the Master Trainers Faculty Professional Development Programme.
- 22 best cascading performers of MT-FPDP attended Ensuring Training Effectiveness Programme for MT-FPDP Alumni at Asian Institute of Technology Thailand; 591 Faculty Members attended 18 workshops and seminars under LI Continuous Professional Development (CPD) Workshops/Courses/Seminars Programme.
- During this fiscal year a thorough review process was initiated to revamp the Policy Guidelines on Semester Examination System to ensure the uniform implementation of the Semester Examination System in HEIs across Pakistan.
- 15 Registrars attended Leadership Training Programme in Bradford, UK in collaboration with British Council Pakistan from November 10-18, 2012.
- 15 newly inducted Vice Chancellors/Institutional Heads were given orientation about HEC initiatives at HEC Head Office on February 20-21, 2013.
- Ten of those 15 VCs who attended the 2nd orientation workshop in HEC attended the Leadership Training Programme in Leicester, UK in collaboration with BC Pakistan in March 2013.
- A Follow up Workshop for the Development of Governance & Strategic Planning Framework for HEI's of Pakistan was conducted at HEC Secretariat on May 28-29, 2013 for those newly inducted VCs/Institutional Heads who went to Leicester UK earlier this year for Leadership Training.
- NAHE Phase-II PCEPT training was organized in five universities in which 159 faculty members were trained at their doorsteps.
- NAHE Phase-II ITE programme achieved its PC-I target of 400 teachers when its last course was conducted at IBMS, University of Agriculture Peshawar in July 2012 by providing training to 22 faculty members.
- 86 candidates were shortlisted for Indigenous Scholarships of ELTR; 160 applications were received.
- Nine one month/one week CPD courses were organized under ELTR which benefitted 254 English teachers across the country.
- ELTR phase-II in collaboration with US Embassy and British Council organized International resource person (IRP) trainings for local ELT faculty. 143 English teachers were certified and got international level exposure by sitting in Pakistan. ELTR organized these courses in partnership with donor agencies.
- A Self Access Centre (SAC) was awarded to University of Poonch, Rawlakot under ELTR project. The project will provide 1.5 million for the establishment of SAC.
- ELTR project selected two universities; Fatima Jinnah Women University (FJWU) Rawalpindi and Forman Christian College (FCC) Lahore for funding of Rs. 0.2 million to start new English research journals..
- FCC Lahore published its first English journal "JELLS" with ELTR's funding while process for FJWU is in progress.
- The Project selected five research projects for the award of funding of Rs. 0.1 million to each research project.
- Two national level seminars at Gomal University, D. I. Khan and Shaheed BB Women University, Peshawar were funded completely and one International Conference at Lahore College for Women University (LCWU), Lahore was partially funded by ELTR Project.

Faculty Members and University Management Trained by LID in 2012-13

Categories	Programmes	Total
Professional Trainings for HEIs Teachers	Master Trainers-Faculty Professional Development Programme (LI)	56
	Ensuring Training Effectiveness Programme with AIT Thailand for MT-FPDP best cascading Alumni	*24
	ETE cascading workshops by AIT/ETE Alumni	120
	Indigenous ELT Scholarships (ELTR)	31
	ELT Continuous Professional Development Courses (ELTR)	254
	International Resource Person's Trainings for Local ELT Faculty (ELTR)	143
	Professional Competency Enhancement Programme for Teachers (NAHE)	159
	Incorporating Technology in Education (NAHE)	22
	Continuous Professional Development Seminars/Workshops (LI)	591
Professional Trainings for HEIs Management	Leadership and Management Programmes in collaboration with International Partners	30
TOTAL		**1406**

***Not included in total**

Master Trainers-Faculty Professional Development Programme

This is an intensive eight-week in-service orientation and professional certification programme for the relatively new and freshly inducted higher education teaching faculty to equip them with the latest pedagogical and research skills required for effective teaching and research. In 2012-13, 19th and 20th Batches of MT-FPDP were organized in which 56 Faculty Members were certified as Master Trainers taking the overall total to 580 Master Trainers since 2003. Following modules were covered in two batches:

- Teaching as a Profession
- Academic Planning and Management
- Curriculum Development, Assessment and Evaluation
- Learners' Psychology
- Androgogical Skills - Microteaching (3 Phases)
- Communication Skills
- Research Methods and Skills
- Competent (English) Language Usage Essentials (CLUE)
- Information and Communication Technology (ICT) & E-Learning
- Professional and Personal Grooming
- Designing Learning Interventions that Last
- Civic Education in Pakistan
- Entrepreneurship

In 2012-13, two new modules on "Islamic Ideology and the study of Comparative Religions" and "Emotional Literacy and Stress Management" were incorporated in the programme in addition to the modules being taught in previous batches.

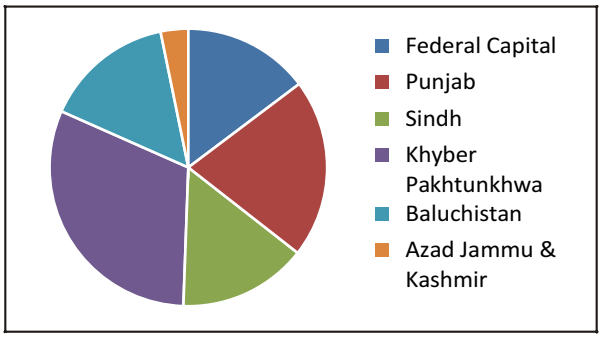
MT-FPDP Summary for the FY 2011-12

S. No.	Programme	Duration	Venue	Number of Participants
1.	19th Master Trainers-Faculty Professional Development Programme	September 6, 2012 to October 24, 2012	HEC Islamabad	27
2.	20th Master Trainers-Faculty Professional Development Programme	January 7, 2013 to March 1, 2013	HEC Islamabad	29
	Total			56

Province wise MT-FPDP Summary for the FY 2012-13

S. No.	Province	Total
1.	Federal Capital	**3**
2.	Punjab	**18**
3.	Sindh	**17**
4.	KPK	**12**
5.	Baluchistan	**5**
6.	Azad Jammu and Kashmir	**1**
	Total:	**56**

Province-wise Distribution of Faculty Trained in FY 2012-13



Views of MT-FPDP Alumni



"A productive contribution of HEC for Pakistan, full of motivation and skill development", says Ahsan Shafiq, Lecturer, Department of Textile Design, Pakistan Fashion Intitute , Lahore



"It was a great learning experience, covers almost all aspects of higher education," says Muhammad Najamul Islam Farooqui, Assistant Professor, Department of Computer Engineering, Sir Syed University, Karachi



"This forum is a progessive platform to build a remarkable generation of change managers and leaders in higher education," says Dr. Humaira Jawaid, Lecturer , Institute of Business Management, Karachi

Ensuring Training Effectiveness Programme with AIT Thailand for MT-FPDP Best Cascading Alumni
An MoU was signed between HEC and AIT Extension to impart training to HEC selected participants from the MT-FPDP alumni who cascade their training in their concerned universities and as a reward get the advanced training in AIT Thailand titled Ensuring Training Effectiveness.

As per MoU every year up to three batches consisting of 25 participants (23 university faculty members and two LID coordinators) will be sent to AIT Extension for this training.

- In this financial year the fourth batch completed its training from November 26, 2012 to December 14, 2012 certifying 22 MT FPDP Alumni and two LID Coordinators.
- It is to be noted, that the four returning participants of 4th batch very promptly completed their Cascading workshops and trained 120 HEIs Faculty and Administrative officers in their universities/institutes based on their learning of the AIT workshop.
- The overall aim of the programme was to train these MTs in further advanced areas / modules like: HRD and Organization, Needs Analysis/Assessment (NA), Training Design & Methods, Leadership and Teambuilding, Training Evaluation and Monitoring, Quality Assurance and Result-based Management (RBM) etc. so that they can successfully arrange, plan and conduct training & continuous professional development activities for their HEI's faculty & management.
- The participants of this training programme were alumni of Master Trainers-Faculty Professional Development Programme (MT-FPDP) who are already HEC Certified Trainers. This specific training will help them to become effective training managers and they will serve as liaison to coordinate training activities between HEC and their respective HEIs.
- During the course the trainees got the opportunity to get in-depth skill enhancement orientation from world renowned experts which in return added value for each of the Master Trainer.
- The 22 HEI's faculty members will now be required to cascade three-week training in three-day module and will replicate the same in their respective HEI's within next three months with the help and support of HEC and their respective HEI.

Province-wise Summary of Ensuring Training Effectiveness Programme for FY 2012-13

Province	Male	Female	Total Participants
Federal	2	1	3
Punjab	8	1	9
Sindh	1	1	2
KPK	4	0	4
Balochistan	3	2	5
AJK	1	0	1
Total	19	5	24

Comments of the Participants



Mr. Abdul Ghaffar Bhatti: Assistant Professor, Department of English, University of Education Lahore "I have learnt many new things. A lot of knowledge was gained, particularly I have learnt new teaching methodologies, which I would not only like to share with my fellow faculty member but would also implement in classroom."



Dr. Syed Sohail Ahmed: Assistant Professor, Department of Computer Engineering University of Engineering and Technology Taxila "All modules are excellent , and research oriented. Well done HEC."



Dr. Usman Waheed: Assistant Professor, Department of Microbiology University of Veterinary & Animal Sciences, Lahore "Thanks to LID team for their confidence and realizing the training of ETE, at AIT Thailand .This training has brought many positive changes that will be helpful in execution of my professional duties."



Dr. Ijaz Ali: Assistant Professor, Department of Clinical Medicine and Surgery, University of Veterinary and Animal Sciences, Lahore "The credit goes to HEC for providing this opprtunity to enhance and groom my teaching abilties."

Continuous Professional Development Seminars/Workshops

Continuous Professional Development has undergone tremendous change since 2004. Learning Innovation Division conducts various refresher Courses up to two-week duration round the year for the teaching faculty of Higher Education Institutions across Pakistan based on their need based proposals. These refresher courses aim to provide the background and skills necessary for faculty members to participate positively in the academic activities of the universities. Hence adequate opportunities should be provided for their professional growth and career development. It is also essential to increase their motivation through systematic orientation in specified subject and methodologies, tools and techniques of teaching. During the reporting FY 2012-13, 18 courses were sponsored in which 591 faculty members benefitted from the CPD workshops and seminars conducted and organized in HEIs across Pakistan.

Province wise Summary of CPD courses (2012-13)

S. No.	Number of Workshops conducted	Number of Participants
Federal	06	174
Punjab	06	236
Sindh	3	93
KPK	3	88
Total	**18**	**591**

CPD Courses held during 2012-13

S. No.	Activity	Duration	Dates	Venue	Number of Teachers trained
1	Workshop on "Faculty Professional Development	6 Days	May 20 - 25, 2013	Dawood University of Engineering and Tech., Karachi	28
2	Workshop on "Advance Techniques in Data Analysis"	3 Days	June 11- 13, 2013	Khyber Medical University, Peshawar	30
3	Workshop on "Research Methods for Social Science	5 Days	April 29- May 6, 2013	BZU, Multan	30
4	Workshop on "Faculty Development	5 Days	January 28 - February 1, 2013	Bahria University, Karachi	37
5	Workshop on "Anti-Plagiarism Measures	1 Day	December 26, 2013	Air University, Islamabad	37
6	2nd In-Service Faculty Training Programme	5 days	February 4-8, 2013	University of the Punjab Lahore	31
7	Workshop on Laboratory Methods in Biology	5 days	February 18-22, 2013	QAU, Islamabad	32
8	Workshop on Evidence-based Manual Therapy of Spine	2 Days	December 22-23,2012	Riphah International University Islamabad	30
9	Two-day Workshop on Latex Software for Preparing High Quality Research Documents	2 Days	July 16-17, 2012	Air University, Islamabad	26
10	Workshop on Teaching Methodologies and Presentation Skills	3 Days	December 17-19, 2012	PIEAS, Islamabad	24
11	Workshop on Communication skills, Research and Test items Development in Accordance with Bloom's taxonomy	4 Days	November 12-15,2012	Virtual University, Lahore	30
12	Workshop on “Emerging Trends in Computational Science	2 Days	January 09-10, 2013	GIKI, Topi Swabi	28
13	Workshop on “How to Change the Mind-set of Researchers in Higher Learning Environment	2 Days	September 25-26,2012	University of Sargodha	30
14	Seminar on "Quality Assurance Leads to Quality Teaching	1 Days	September 19,2012	GCU Faisalabad	90
15	Workshop on "SPSS"	2 Days	November 12-13, 2012	Hamdard University Karachi	28
16	Workshop on “Teaching Translation and Interpretation Theory, Practice and Challenges”	5 Days	September 10-14,2012	International Islamic University, Islamabad	25
17	Workshop on “Course Design, Assessment and Micro Teaching”	5 Days	Sep 03-07,2012	UVAS, Lahore	25
18	Workshop on “Industrial Automation and Control”	3 Days	July 23-25,2012	COMASATS, Abbottabad	30
	Total				**591**

- Another highlight of CPD Programme in this Financial Year is the cascading of Ensuring Training Effectiveness Programme for MT-FPDP Alumni.
  a. The trainees had the opportunity to get in-depth skill enhancement orientation from world renowned experts. These 89 AIT trained Master Trainers are now cascading three-week training in three-day module and replicating the same in their respective HEIs.
  b. Four cascading workshops were conducted in 2012-13 and trained 120 faculty members.

Province-wise Summary of Cascading Workshops

Province	No. of Workshops conducted	No. of Participants
KPK	03	90
Balochistan	01	30
Total	**04**	**120**

Implementation of Uniform Semester Examination System

In 2003, a National Committee of renowned educationists and examination experts was constituted as "National Committee on Examination System" to review existing examination policies, analyze the weaknesses and propose improvements for the smooth implementation of Examination System. The HEC disseminated Policy Guidelines for the Implementation of Semester and Examination System in all HEI's of Pakistan in 2008. The objective of policy guidelines is to encourage HEI's to gradually shift from term and annual system to semester examination system which is worldwide approved system for education based on the base line standards elucidated in the policy document. At the same time, the LI Division was given the mandate to disseminate the awareness about the policy regarding semester and examination guidelines to all the related stakeholders across Pakistan through its national awareness programme and 837 faculty members/examination officials were trained through the following two main activities:

1. Orientation Seminars/Workshops on Semester Examination Policy Guidelines
2. Master Trainers Workshops on Testing and Assessment

During the fiscal year 2012-13 a comprehensive review process remained active in which the following parameters of the policy were deliberated upon towards developing the final draft of the policy guidelines for the implementation of a uniform Semester Examination System:

- To create a standardized mechanism for the implementation of semester examination system at all over the Public and Private Sector HEI's of Pakistan in the light of HEC Policy Guidelines on Semester Examination System which are going to be finalized in a couple of days.
- Develop a Unified System of Credit Transfer, GPA, CGPA and Percentage for HEIs of Pakistan on Indigenous as well as overseas level.
- Effective Implementation of already developed Master Trainers Training Module on examination system across all Public/ Private sector HEI's of Pakistan by implementing cascading model.
- Establishing a comprehensive continuous training model in the area of Examination System for HEIs faculty and examination staff through already established Continuous Professional Development Centres of HEI's with the involvement of renowned overseas experts of examination system on it.
- Orientation Seminars and Workshops on Policy Guidelines and Master Trainers Workshops on Testing and Assessment will resume after the policy is duly vetted and approved by the HEC Commission.

English Language Teaching Reforms (ELTR) Project Phase II

"Enhancing Learning and Research Capacity of English Teachers' in Higher Education Institutions"

English Language Teaching Reforms (ELTR) Project Phase II is working dynamically towards its vision to transfigure and update teaching standards and to bring about a significant improvement in the learning and teaching of English language and research in HEIs across Pakistan to create ripples of transformation as per international standards in the areas related to ELT. The project caters to the English Language Teaching faculty of public sector graduate/ post graduate colleges along with the universities in their respective HEIs across Pakistan. ELTR encompasses prolific components like Indigenous Scholarships and Continuous Professional Development (CPD) courses and additionally establishment of Self Access Centre (SAC) to strengthen HEIs, funding for the new Research Journals, Funding for ELT based Research Projects to enhance research culture and National/International Conferences and Seminars are the striking features of the project. Since it's a development Project till 2015 therefore its PC-1 targets and achievements are as follows:

ELTR activities in Phase-II

PC-I Activities	Offerings	PC-I Target	Achievements
Indigenous Scholarships/ Degree Programmes	a. Indigenous Scholarships		
	1. MS in Applied Linguistics and related disciplines. 2. Masters in Applied Linguistics, TEFL, TESL, ELT. 3. PGD, ADP in TEFL, TESL, ELT	150	64
	b. CPD Courses/ Fellowships		
Continuous Professional Development (CPD)	1. CPD Fellowships (up to 4 week)	240	186
	2. CPD Courses (up to one week) • Computer Assisted Language Learning (CALL) • Testing & Evaluation • Research Methodology & Skills • Androgogical/Pedagogical Skills • Open and Customized Programmes in ELT related areas	1010	727
Conferences/Seminars	Funding for National/International Conferences and Seminars on the theme of English Language Teaching and related issues	10	08
Funding for Research Journals	Funding to start a new English Research Journal	05	02
Funding of Research Projects	Provide ELT Scholars with research grants for small scale research projects	05	05
International Resource Persons' Trainings	To hold/organize IRP trainings to provide international level exposure to English faculty	12	10
Self-Access Centre (SAC)	Establishment of SAC in four public sector universities	04	04

ELTR Project's achievement during the reporting year as per above table is as follows:

PC-I Activities	Achievements July 01 2012-June 30-2013
Indigenous Scholarships/Degree Programmes	31
Continuous Professional Development (CPD)	30
1. CPD Fellowships (up to 4 week) 2. CPD Courses (up to one week)	254
Conferences/ Seminars	03
Funding for Research Journals	02
Funding of Research Projects	05
International Resource Persons' Trainings	06
Self-Access Centre (SAC)	01

- In the year 2012-13, 3rd and 4th meeting of National Committee on English (NCE) were convened.
- Prof. Dr. Saeeda Asad Ullah chaired both the meetings. The agenda was to take policy related decisions and to ponder upon the issues faced in the implementation procedure.
- The 3rd NCE meeting was held on September 6, 2012. This meeting remained tremendously important as the issues related to recruitment process of English faculty at universities and MA, ELT equivalence simultaneously at three levels that is HEC equivalence committee, PPSC, FPSC were discussed at length. The committee shortlisted the candidates indigenous ELT scholarship.
- The fourth NCE meeting was organized on April 26, 2013. University of Poonch was recommended to be awarded fourth Self Access Centre (SAC) of Phase-II after the scrutiny of proposal.
- The Committee shortlisted the candidates for the award of research projects indigenous ELT scholarship. NCE members after a detailed deliberation recorded their reservations for few universities where candidates who applied for scholarships were enrolled and recommended to check the status of universities and English departments from Attestation and Accreditation and Quality Assurance Division of HEC.
- ELTR and the US Embassy joint upcoming International Resource Persons' training was also pondered upon at length.

Performance of ELTR Project during 2012-13

To bring about a substantial transformation in English teaching culture; ELTR Phase-II is working more meritoriously towards bridging the critical gap between the faculty of English language and literature and both will be very strategically grouped together in the courses of professional development with the initial target of professional training of 1400 ELT Teachers through its Indigenous Scholarships and Continuous Professional Development Programmes.

Indigenous Scholarships for ELT faculty

- During year 2012-13 the project awarded 31 Indigenous Scholarships to the English Language Teaching faculty across Pakistan. Currently, these and the 24 previously enrolled fellows are pursuing their Masters, MPhil Degrees in TESL and other ELT related areas and nine have completed their degrees. The project awarded 64 scholarships till the date.
- The project advertised 86 Scholarships for the Public Sector College and University teaching faculty in the year 2012-13.
- After shortlisting process the final award letters have been issued to 40 candidates to avail the scholarship.

Continuous Professional Development (CPD) Programme for ELT Faculty

ELTR conducts CPD courses for professional grooming of ELT faculty across Pakistan. In this context one-month course and nine week long courses were organized in different areas across Pakistan. 254 English teachers of HEIs benefitted from these ELTR CPD trainings.

- One month workshop on "English Language Teaching; An Integrated Part of Applied Linguistics" was organized at Shaheed BB University, Chitral Campus, KPK from September 3-22, 2012. Thirty participants benefitted from this training and all the participants were from colleges and different campuses of the Shaheed BB University.

During the year 2012-13 a good number of the ELT faculty from different universities and colleges benefitted through one day workshops on different areas related to ELT etc.

- One-week workshop on "Research Methodology & Skills" was organized at Shaheed Benazir Bhutto University, Sharingal, Dir. from July 09-14, 2012. The Vice Chancellor Dr. Jahandar Shah was the Chief Guest of the ceremony, 30 participants attended the workshop.
- A workshop on "English for Specific Purpose" was organized in collaboration with University of Swat, from July 12-19, 2012. The Vice Chancellor Prof. Dr. Muhammad Rasool Jan, University of Malakand was the Chief Guest at the inaugural ceremony. He appreciated the hallmark efforts of ELTR project which was attended by 25 participants.
- In collaboration with Allama Iqbal Open University, D.G Khan Campus the project organized one week workshop on "Testing & Evaluation" from November 05-10, 2012; 27 ELT faculty members from the local colleges and universities were benefitted through this course.
- The advanced level workshop on Computer Assisted Language Learning (CALL) was held at University of Malakand from March 4-9, 2013. The multi variant group of 17 participants from different public sector colleges, universities participated in this course and upgraded their knowledge of IT.
- Another week long workshop on "Androgogical and Pedagogical Skills" was organized at Islamabad Model College for Girls (Postgraduate) F-7/2 from June 3-7, 2013; 24 English teachers were benefitted in this workshop.
- In collaboration with Beaconhouse National University, Lahore the project organized workshop on "Androgogical and Pedagogical Skills" from June 3-10, 2013. Eighteen participants were trained in this workshop. Dr. Sabiha Mansoor Vice Chancellor LCWU, Lahore and Member NCE was chief guest in the closing ceremony.
- Another workshop on "Androgogical and Pedagogical Skills" was organized at Zia-uddin Medical University, Karachi from June 17-22, 2013. 21 participants attended the workshop.
- One-week workshop on "Research Methodology and Skills" was organized in collaboration with University of Sindh, Jamshoro from June 17-22, 2013. 30 participants benefitted from this workshop. Ms. Noor Amna Malik, Director General-LI was the chief guest at the event.
- Six day workshop on "Research Methodology & Skills" was organized at Govt. Postgraduate College Samanabad, Faisalabad from June 24-29, 2013. 32 participants attended this workshop.

International Resource Person (IRP) Trainings

The English Language Teaching Reforms (ELTR) in Phase II joined hands with US Embassy and British Council to organize International Resource Person Trainings on different specified areas. The IRPs holding distinguished higher degree in TEFL / Applied Linguistics, TESOL, having international standing and vast experience conduct the trainings. This actually aims to provide international exposure to the English Faculty of public sector Universities & Colleges. The participants are jointly certified by these international agencies and HEC. This year remained vibrant in organizing IRP courses for indigenous ELT faculty.

- **Research Methods: A Three Tier IRP Series by Dr. Simon Borg**
  HEC & BC organized joint venture of a series of International Certification Course on "Research Methods". Dr. Simon Borg, Professor, School of Education, University of Leeds was the International Resource Person of this three tier series of workshops.
  a. The participants besides attending these three workshops completed on-line tasks also. The course comprised of (i) three five-day workshops in the country over a period of a year (ii) a baseline study and follow-up programme and (iii) between-workshop online mentoring, Programme Concept Note, Expected Outcomes of the project; 18 ELT faculty members from colleges and universities across Pakistan attended the workshop.
  b. The workshops of this series were organized at LID, Islamabad. The first workshop was held from May 21-26, 2012.
  c. In the current fiscal year the 2nd workshop was organized from Oct 14-19, 2012 with the same cohort
  d. Last and final 3rd workshop was held in Islamabad during March 17-22, 2013. Prof. Dr. Mukhtar, Executive Director, Higher Education Commission, was the Chief Guest at the Closing Ceremony. Dr. Nils Tommes (Director Education Wider South Asia) represented British Council Islamabad.
  e. The participants were jointly certified by HEC and BC. The exclusive feature of this workshop which is truly speaking a great success are the ELT based research projects by all participants. Four project were shortlisted by NCE as well for the funding from ELTR project.

- International Resource Person workshop was organized in collaboration with US Embassy on "Assessment in ELT" at Learning Innovation Division from July 2-6, 2012. Ms. Annie Polatsek and Ms. Susan H. Strand were the Resource Persons. Eighteen participants from different colleges and universities were certified in this workshop.
- A five-day IRP workshop on "Testing and Evaluation" from October 8-11, 2012 was organized at University of Education, Multan Campus in collaboration with British Council, Islamabad. Mr. Ray Brown was the Resource Person and 21 participants attended this workshop. Dr. Saeeda Asadullah (NCE Chairperson) was the Chief Guest at the certificate distribution ceremony.

- **Series of four workshops on English Language Teaching /Pedagogical Skills**
  A series of four workshops on Open Customized in English Language Teaching / Pedagogical Skills was organized in collaboration with US Embassy at different cities like: Lahore, Islamabad, Jamshoro and Bahawalpur from November 26, December 14, 2012. 104 English Language teachers of public sector Universities and Colleges across Pakistan were trained in these workshops and received the international certification. Mr. David Bohlke and Mr. Dieter Bruhn were resource persons of this series.

a. First workshop was organized at Lahore College for Women University, Lahore from November 26-30, 2012.
b. Second and third trainings were organized parallel at LID/HEC and Mehran University of Engineering & Technology (MUET) Jamshoro from December 03-07, 2012.
c. The last workshop of this series was organized at Islamia University of Bahawalpur, Bahawalpur from December 10-14, 2012.

Self-Access Centre

In Phase II, the ELTR Project envisioned to strengthen the English departments and research centres of the universities by providing funding to establish Self Access Centres. The objective is to upgrade and elevate the English language proficiency of faculty of English and other disciplines in Humanities and Social Sciences as well. SACs serve as "HUBs" of IT learning. It facilitates to integrate technology in regular teaching and learning process.

- ELTR in Phase I awarded two Self Access Centres (SAC) to Allama Iqbal Open University (AIOU) Islamabad and Bahauddin Zakriaya University (BZU) Multan and four SACs in Phase-II to the following universities across Pakistan.
  a. University of Malakand, Malakand, KPK
  b. Sardar Bahadur Khan Women University(SBKWU),Quetta, Balochistan
  c. Mehran University of Engineering and Technology(MUET),Jamshoro
  d. In 2012-13, 4th SAC was awarded to the University of Poonch, Rawalakot. With this award of SAC the project meets its target also

National/ International Seminars

The Project provided funding for three national/international seminars based on the theme of ELT. The purpose of the funding for the seminars is to provide a resilient platform to English Language Teachers to upgrade their teaching skills and techniques as per global standards the enhancement and improvement of research culture in Pakistan.

a. A two-day seminar on "Language of Literature for Peace and Tolerance" organized on February 07-08, 2013 at Gomal University, D.I.Khan was funded by ELTR. Prof. Dr. Mansoor Akbar Kundi, the Vice Chancellor of Gomal University, D.I.Khan attended the opening ceremony.
b. International Conference on "Language Sciences & the Developing World" from Jan 11-13, 2013 was held at Lahore College for Women University (LCWU) Lahore was funded partially by the project. Makhdoom Syed Ahmed Mahmud, Governor Punjab Government was the Chief Guest of the opening of this international conference.
c. One day national seminar was organized with the funding of ELTR project on "English Language Teaching" on Jan 3, 2013 at Shaheed BB Women University, Peshawar.

Funding of Research Journals

In Phase II ELTR offers funding to the universities to start new English Research Journals in English Language/Literature/ELT related areas. This funding is obtained through a competitive process, in which potential research journals are evaluated and only the most promising receives funding. Forman Christian College Lahore and Fatima Jinnah Women University were shortlisted after following thoroughly a competitive process. The process started back in 2011 with the initial step of proposal invitation from the public/private universities across Pakistan.

a. The English Department of Forman Christian College (FCC) (A Chartered University), Lahore has published its first ever research journal entitled Journal of English Literary and Linguistic Studies (Volume 1, Number 1, 2012) with its official acronym JELLS with ELTR's support. The project supported in terms of seed money for publication and all other aspects which involve in the publication of new journal as per HEC criteria. JELLS is genuinely a long way effort of ELTR, HEC and is a valued addition in the research dynasty of Pakistan. JELLS includes a wide spectrum of topics and accommodates the multiplicity of issues related to linguistics, language, literature and pedagogy. Its themes range from ethnographic insights into literature to the politics of music as genre of literature; from restructuring of national narratives to the comparative linguistic realities about classroom teaching.



A great initiative by ELTR, HEC to support universities to start new English research journals. Forman Christian College published its first ever English Research Journal with indefatigable support and funding of ELTR Project. Journal of English Literary and Linguistic Studies (JELLS) is a commendable effort in carrying forward the goals of ELTR and enhancing the culture of research and innovation in the domain of English language, says Dr. Saeeda Asad Ullah, Former Vice Chancellor, FJWU, Rawalpindi and Chairperson, National Committee on English



Higher studies, research and publication in any discipline is very much a collaborative privilege; one is lucky to have it well on time. Our Journal of English Literary and Linguistic Studies (JELLS) at F C College, Lahore could never materialize if the ELTR, HEC had not come forward to help us. JELLS has been modelled as a quality journal at international level with the objective to promote local and global talent in the field of English Studies in Pakistan. History definitely will record the ELTR of HEC and FCC as friends in common support for higher studies and research publication at a time Pakistan needs it the most, says Dr. Waseem Anwar - Dean of Humanities, Professor and Former Chair, Department of English, Forman Christian College Lahore

Funding for ELT Research Projects

ELTR in Phase II offered research grants for small scale research projects in English Language Teaching and related areas. The objective is to enrich ELT research culture in the country for effective upgrading in English Language Teaching as per international standards. ELTR provided a robust stand to ELT researchers to exhibit their efforts in the arena of English Language & Literature.

a. In 2012-13 the project awarded five research funding for ELT based research projects and achieved its target of awarding five research grants. The candidates were selected from the alumni of ELTR One Month CPD and IRP Research Methodology & Skills Courses after following a thorough competitive process.

ELTR Dynamic Endeavours

The project provided a great opportunity of international exposure to Ms. Sabeen Shahid Project Manager English Language Teaching Reforms (ELTR). She attended 2013 EFL Educators Workshop & Teaching English to the Speakers of Other Language Convention (TESOL) from March 10-25, 2013. The visit included a week long professional development workshop at Georgetown University, Centre for Intercultural Education and Development (CIED) and annual Teacher of English to Speakers of Other Languages (TESOL) Convention in Dallas, Texas. The workshop was an exchange component of the English Language (EL) Fellow Programme, funded by the U.S. Department of State.

The English Language Teachers and administrators from 22 countries around the world participated in this workshop. This visit provided an opportunity to observe US educational system in depth. Visits to various schools and George Town University were exclusively arranged for the workshop participants. Class observations, informal discussion sessions with faculty, lectures by educational experts and predominantly discussions on different learning models were the striking features of this workshop.

HEC/BC joint venture of "Transforming English Language Skills (TELS)

Transforming English Language Skills (TELS) is the joint venture of British Council & HEC to enhance employability skills of the graduate students and communication skills of the teachers. The aim of this programme is to support HEC and Pakistani higher education sector to improve English language skills of students and teachers for the coming five years in Pakistan. Based on the analysis, interactive training modules were developed with relevant and culturally sensitive material to enhance interactivity through the medium of English in university classrooms.

These were developed by experts from higher education institutions in Pakistan supported by English language specialists from the Open University, UK. The modules were revised by British Council in July 2012 after receiving feedback from stakeholder universities. A pilot roll-out of these modules involving 11 universities across the country reached 20,000 students and provided professional development for 300 lecturers. The TELS roll out programme was inaugurated in July 2012 by Dr. S. Sohail H. Naqvi (the then Executive Director, HEC) Ms. Noor Amna Malik (Director General LID, HEC) and Nils Tommes (Head of Higher Education, British Council Pakistan). Later on 48 Master Trainers were recruited from the participating universities and attended a 5 day Master Trainer (MT) workshop in Islamabad, facilitated by The Open University, UK in September 2012. Around 8000 copies of the English for Academic Purposes, English for Employment and Professional Development modules were distributed among 11 universities in July-September 2012. Open University UK academics visited Pakistan in February, 2013 and conducted one day Monitoring & Review workshop with all Master Trainers (MTs) to review the roll-out process. The purpose was to provide further training to Mts.

ELTeach "An exclusive online project in collaboration with US Embassy"

ELTR Phase-II in the year 2012-13 introduced an exclusive online English Language Teaching programme "ELTeach" in collaboration with US Embassy for indigenous English faculty. The programme is the joint initiative of National Geographic Learning and Educational Testing Service (ETS) and offered in Pakistan by the US Embassy.

To benefit English teachers of Pakistan US Embassy proposed ELTR, HEC to run this pilot Online Professional Development programme for 100 Pakistani English teachers who teach English in Public sector colleges at intermediate level. The US Embassy will bear the cost for all 100 participants (i.e. US 500$ per participant) for this online Professional Development opportunity. This pilot programme will end with an evaluation session where all selected candidates will have to appear for an online assessment. ELTeach pilot programme has 100 slots as per following breakup:

S. No.	Name of Course	Slots
1	English for Teaching	40
2	Professional Knowledge for ELT	60

This online programme is meant for the professional development of the teachers teaching English at intermediate level. The programme has two modules:

1. English for Teaching: To promote the use of English in the everyday classroom.
2. Professional Knowledge for ELT: A methodology course that support English language teachers to think professionally about what they do in the classroom.

HEC will provide administrative support to run this programme without any financial liability.

Achievements Phase-II

Faculty Benefitted in Phase II

Region	Faculty benefitted			TOTAL
	2010-11	2011-12	2012-13	
Federal Area	9	32	31	**72**
AJK	30	1		**31**
Balochistan	48	47	6	**101**
Gilgit-Baltistan		1	1	**2**
Khyber Pakhtunkhwa	42	72	120	**234**
Punjab	87	133	182	**402**
Sindh	23	24	88	**135**
Others Institutions				**0**
TOTAL	**239**	**310**	**428**	**977**

Faculty Benefitted in FY July 2012 - June 2013

Region	Indigenous Scholarships	CPD Courses		IRP Trainings	Total
		01 Week	01 Month		
AJK	0	0	0	0	0
Balochistan	3	0	0	3	6
Federal Area		24		7	31
Gilgit- Baltistan				1	1
Khyber Pakhtunkhwa	7	72	30	6	115
Punjab	19	77		93	189
Sindh	2	51		33	86
TOTAL	**31**	**224**	**30**	**143**	**428**

Gender Wise Distribution of Faculty Benefitted in FY July 2012 - June 2013

Programme	Gender Wise		Total
	Male	Female	
ELTR Scholarships	20	11	31
CPD	153	101	254
IRP	68	75	143
TOTAL	**267**	**214**	**428**

ELTR Alumni Gallery



Shumaila Khaliq, Lecturer
M.Phil. Student, Govt. Degree College for Women Tibba Sultan Pur, Punjab
No doubt ELTR scholarship is a promoting step for in service teachers, providing them ease to opt for higher education. It motivated the teachers to continue their studies without facing financial



Dr. Ahsan Bashir , Assistant Professor, COMSATS Lahore Campus
IRP course on Research Methodology ,Research project candidate
One cannot help applauding the initiatives of HEC in supporting the cause of higher education in Pakistan. One such brilliant effort is the funding support HEC extends to researchers for projects which have the potential to bring positive change in any sphere of life. This encouragement has allowed many researchers, like me, to pursue their research work and build on the knowledge and experience.



Beenish AsmatUllah,Lecturer,Shaheed Benazir Bhutto Women University
Peshawar IRP course on Research Methodology ,Research project candidate
I am really indebted to ELTR, HEC for providing me the funding of Rs 0.1 million for my ELT based research project. My project would not have been possible without support of the whole ELTR team.



Prof Dr. Aalia Sohail Khan, Principal Govt. Postgraduate College Satellite Town, Rawalpindi, IRP course on Research Methodology
ELTR is an ambitious project designed to meet the futuristic challenges of English Language Teaching in Pakistan. The project recently organized IRP course on Research Methods. The most innovative characteristic of the course was teachers' research in their own context for the purpose of professional



Mr. Shahid Mehmood, Lecturer, Govt. Postgraduate College, Mansehra
IRP course on Research Methodology
IRP Workshop was good rather excellent and working environment was wonderful. Mr. Simon played a great role to make this possible with constant guidance, support, learning material and on-line



Muhammad Asghar Malik, Assistant Professor,Govt. T. I. College Chenabnagar, Chiniot , CPD course participant
Attending ELTR CPD workshop was an excellent experience where I found an opportunity to enrich my insight of research methodology. Everyone felt motivated and departed from the workshop with the revival of the spirit of arrangements and facilities were appreciable. Thank you ELTR, HEC.

National Academy of Higher Education (NAHE Phase-II)

National Academy of Higher Education (NAHE) conducts one month modular based professional development and generic skill enhancement programme for the university faculty at the doorsteps of HEIs across Pakistan. NAHE Phase-II aims to enhance androgogical skills of the Higher Education Faculty through conducting professional development based on seven modules comprising principles of professional teaching at HE level. As per PC-I of the NAHE Phase-II 2500 University faculty members are targeted to get benefit through two major components of NAHE II:

1. Professional Competency Enhancement Programme for teachers (PCEPT)
2. Incorporating Technology in Education ITE.

So far the project is progressing smoothly towards achieving its bench mark targets. In the current fiscal year the component i.e. Incorporating Technology in Education (ITE) achieved its milestone by providing training to 411 faculty members at different HEIs of Pakistan beyond the benchmark target.
During the Financial Year 2012 – 13, 181 faculty members benefited from NAHE Phase – II out of which PCEPT trained 159 and ITE programme trained 22.

Components of the Project

1. Professional Competency Enhancement Programme for University Teachers (PCEPT)

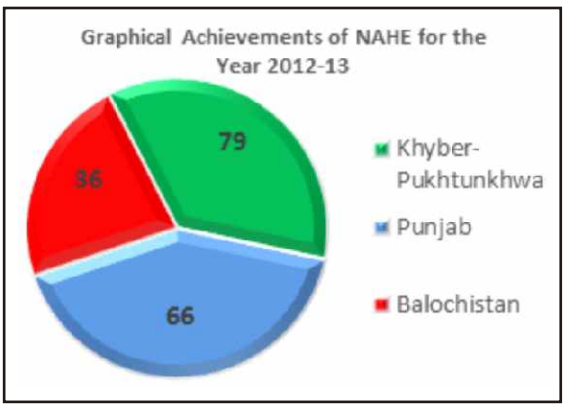
Through PCEPT, one month intensive training is provided on campus by eminent educationists/resource persons of Pakistan. Under this component following seven modules are delivered to participants. The modules are designed by committee of renowned Educationists of Pakistan keeping in consideration the core requirement for teaching as per International Standards. These modules are then vetted by Michigan State University, USA. The training programme is focused on professional exposure with the nation's leading communication specialists. Following seven modules are included in the PCEPT Programme:

1) Teaching as a Profession
2) Academic Planning and Management
3) Curriculum Development, Assessment and Evaluation
4) Learner's Psychology
5) Androgogical Skills
6) Communication Skills
7) Research Methods and Skills

Province	PCEPT	ITE	YEAR 2012-13
	Total Number of Participants 2008-13	Total Number of Participants 2008-13	
Federal	313	70	-
Khyber-Pukhtunkhawa	405	92	79
Sindh	408	73	-
Punjab	627	101	66
Balochistan	178	48	36
Azad Jammu Kashmir	34	27	-
Grand Total	**1965**	**411**	**181**

ii. Incorporating Technology in Education (ITE)

Incorporating Technology in Education (ITE) is the second major component of NAHE Phase II. ITE is a two week training programme focused on equipping higher education faculty with the state of the art ICT tools and techniques that can be effective in the process of learning and teaching. It has following three academic modules for achieving the goal to increase the effective and innovative use of ICT in education, improve the process of teaching and learning, with a specific focus on student centered learning, where teachers are facilitators for learning process. Help teachers to prepare their students for certain skills like, problem solving, critical thinking, communication and presentation skills etc.



Academic Modules:

Module 1: Computing Fundamentals
Module 2: Productivity Tools
Module 3: Hyper Media

PCEPT and ITE during 2012-13

A total of 181 faculty members were trained through PCEPT and ITE Trainings i.e. 159 under PCEPT and 22 faculty members through ITE programme across Pakistan. The detail is given in tabular form below:

S. No.	Institution	Programme	Month/Year	Faculty Members Trained
1	Islamia College University, Peshawar	PCEPT	August, September 2012	22
2	King Edward Medical University, Lahore.	PCEPT	November-December 2012	30
3	Pakistan Institute of Fashion and Design, Lahore	PCEPT	April-May 2013	36
4	Shaheed Benazir Bhutto University, Sheringal, Upper Dir.	PCEPT	May 2013	35
5	University of Balochistan, Quetta	PCEPT	June-July 2013	36
6	Institute of Business and Management Sciences, Peshawar	ITE	July 2012	22
			Total	**181**

Participants' Comments



Agha Hasnain Khan, Lecturer, Pakistan Institute of Fashion and Design, Lahore
"PCEPT training for me was a complete package. The comprehensive training programme not only helped me to understand the anatomy of teaching as a profession but also emphasized upon the role of a teacher in the society."



Iqra Raghib, Lecturer, Pakistan Institute of Fashion and Design, Lahore
"I appreciate the efforts of HEC for organizing this fruitful training programme (PCEPT) at Pakistan Institute of Fashion and Design. The experience of going back and forth from a learner to an instructor, polishing my skills helped me identify and explore effective teaching methods which will definitely be helpful in the classrooms."



Muhammad Wajid Raza, Lecturer at Shaheed Benazir Bhutto University Sheringal, Dir Upper
"The PCEPT programme, has indeed, burnt their midnight oil to improve the quality of teaching skills around the country. Moreover, the training session was full of knowledge and provide the basic expertise to almost all levels of faculty."



Abeer Tahir, Lecturer, Pakistan Institute of Fashion and Design, Islamabad.
"This rigorous training programme on teaching has been productive in terms of personal growth and polishing of professional skills. This training has been rewarding for us, as we are trying to carry out the legacy of our prestigious institution to our constituent provinces."



Sadaf Khalid Rana, Lecturer, Pakistan Institute of Fashion and Design Lahore
"The HEC PCEPT training begins by developing a positive mind set to cogitate quality time in documenting effective strategies to meet challenges of social change by making a blend of academic concepts with class room applications both implicitly and explicitly."

Modern University Governance (MUG) Programme for University Management

Higher Education Commission's strong drive towards empowering universities in governance and strategic management was geared up during the current year 2012-13, through its Modern university Governance programme for university management (MUG). In this regard the university management ranging from vice chancellor to hostel warden is targeted with the broad mandate of qualitative HR development and capacity building of the existing university management which are considered the backbone of the system.

HEC's initiative through MUG programme will fill the gap that in spite of many efforts the management staff of HEIs still does not have a streamlined system of regular professional retreats or capacity building trainings to enhance their skills in the various areas they are serving and supporting the academia as well as administering their duties towards the smooth functioning of university offices. Therefore MUG aims to equip them with latest governance tools as well as bridge the gap between management and academia.

Highlights of MUG Program during the fiscal year July 01, 2012- June 30, 2013 are as follows:

- LID under its MUG Programme trained 30 university management officers in four activities in 2012-13.
- 15 Registrars attended Leadership Training Programme in Bradford, in collaboration with British Council Pakistan from November 10 - 18, 2012.
- 15 newly inducted Vice Chancellors/Institutional Heads were given orientation about HEC initiatives at HEC secretariat on February 20-21, 2013.
- 10 of those 15 VCs, who attended the 2nd orientation workshop in HEC then attended Leadership Training Programme in Leicester, UK for Public Sector HEI's Vice Chancellors/Institutional Heads in collaboration with BC Pakistan from March 9-16, 2013.
- A Follow up Workshop for the Development of Governance and Strategic Planning Framework for HEIs of Pakistan was conducted at HEC Secretariat on May 28-29, 2013 for those newly inducted VCs/Institutional Heads who went to Leicester UK earlier this year for Leadership Training Programme.

Leadership Training Programme in Bradford, UK for Public Sector HEIs Registrars in collaboration with British Council Pakistan (November 10-18, 2012)

- The first event held during the current year was the Leadership Training Programme in UK for Public sector HEI's Registrar by Higher Education Commission Pakistan.
- 15 HEIs Registrars returned successfully from United Kingdom after attending Leadership and HR in Challenging Times Programme held from November 10-18, 2012.
- This was first International training programme for Pakistani HEIs Registrars, exclusively designed by HEC under its Modern University Governance Programme for University Management in collaboration with British Council Pakistan.
- It was aimed to provide customized training in Leadership, HR and management skills to the Registrars of HEI's across Pakistan so that they can successfully run their HEIs, manage their Faculty and Management officers more professionally with latest management techniques.
- During the week long training, besides covering following areas by reputable UK Professors in University of Bradford, i.e. Administration, Leadership, HRM & HRD concepts and Case studies the participants were taken to visit Universities of Glasgow, Banger, Middlesex for first hand exposure of state of the art management.
- The trainees got the opportunity to get in-depth skill enhancement orientation from world renowned experts which in return added value for each of the participant. The 15 HEI's Registrar will now be required to cascade this training in their respective HEI's.

List of Pakistani Registrars of Pakistani HEIs who attended Leadership Training Programme at Bradford, UK in collaboration with British Council Pakistan (November 10-18, 2013)

S. No.	Name	University/HEI
1	Mr. Ishaat Saboor Khan	Institute of Space Technology, Islamabad
2	Ms. Shaista Vine	Pakistan Institute of Fashion and Design, Lahore
3	Mr. Nadeem Hasan Khan	National College of Arts, Lahore
4	Brig (R) Rao Jamil Asghar	University of Sargodha, Sargodha
5	Dr. Muhammad Javed Khan	Bahria University
6	Prof. Dr. Izhar Hussain	COMSATS Institute of Information and Technolog y, Islamabad
7	Syed Wajeeh-ul-Husnain	Institute of Management Sciences, Peshawar
8	Mr. Badshah Hussain	Shaheed Benazir Bhutto University
9	Mr. Zahid Hussain Khand	Institute of Business Administration, Sukkur

S. No.	Name	University/HEI
10	Mr. Gulshan Ali Memon	People's University of Medical & Health Sciences, Nawabshah
11	Mr. Shahid Ali	Karakoram International University, Gilgit Baltistan
12	Dr. Shafiq -ur-Rehman	Quaid-e-Azam
13	Mr. Ahmed Sher	Balochistan University of Engineering and Technology, Khuzdar
14	Mr. Rustam Khan	University of Azad Jammu and Kashmir
15	Mr. Hafeez Ullah Memon	Sindh Agricultural University

Comments of the Participants



Dr. Shafiq ur Rehman, Registrar, Quaid-i-Azam University, Islamabad
It was a challenging and practical exposure. It helped to gain in-depth knowledge of leadership roles and built foundation skills to integrate these functions across the organization. It provided an opportunity to examine new techniques and technologies for driving results throughout the organization, formulate a holistic approach to identifying problems, formulating solutions, and adapting to change, built strategic skills for effective decision making, strategy development and implementation, expanded capacity to lead cross-functional initiatives and corporate projects and challenging global markets and developed a personal leadership philosophy that reflects greater knowledge, capabilities and insight.



Brig. (R) Rao Jamil Asghar, Registrar, University of Sargodha, Sargodha
It was very useful and thought provoking training. Although time dedicated was comparatively less but even then I learnt a lot and now I feel more confidence and educated on leadership and managing of HR challenges.



Prof. Dr. Izhar Hussain, Registrar, COMSATS Institute of Information and Technology, Islamabad
This was an excellent opportunity for me as well as for my institution. Knowledge and understanding gained during the present training about HR Management and Leadership assumptions and theories will help me to manage the issues of my institute in a better and scientific manner.

Second HEC Orientation Workshop for Newly Inducted VCs/Institutional Heads of the HEIs of Pakistan

Higher Education Commission organized second two-day Orientation Programme for newly inducted Vice Chancellors/Institutional Heads under Modern University Governance Programme for University Management on February 20-21, 2013. The main purpose of this programme was to share HEC initiatives with the participants and sensitizing the university management to implement higher education reforms in the universities. Fifteen Vice Chancellors/Institutional Heads who recently joined their offices attended the programme. Main activities of the program are as follows:

- Dr. Javaid R. Laghari, Chairman HEC, delivered a keynote address on Leadership and Management Skills. • The Vice-Chancellor University of Bedfordshire UK Prof. Dr. Bill Rammel and Prof. Dr. David Fletcher Senior Advisor to VCs in UK were linked through Video Conferencing to discuss leadership and good governance in higher education institutions with VCs of Pakistani universities.
- The VCs discussed their role and relationship with Higher Education Commission and their respective provincial governments.
- All Head of Departments of HEC briefed the participants regarding HEC Programmes and Initiatives.
- Engr. Dr. Muhammad Akram Sheikh former Deputy Chairman Planning Commission and Dr. Riaz Hussain Qureshi, Former Advisor (HRD) HEC were also invited to talk about Public Sector Planning and Development and Networking with Government Organizations.

List of Newly Inducted VCs/Institutional Heads of the HEIs of Pakistan who attended the Second HEC Orientation Workshop Held at HEC, Islamabad (February 20-21, 2013)

S. No.	Name	Designation	University
1	Vice Admiral (R) Shahid Iqbal	Vice Chancellor	Bahria University, Islamabad
2	Prof. Dr. Zafar Iqbal	Vice Chancellor	Federal Urdu University, Islamabad
3	Lt. Gen. Naseer Khan Janjua	President	National Defense University, Islamabad
4	Maj. Gen. Prof.Dr. Muhammad Aslam	Vice Chancellor	University of Health Sciences, Lahore
5	Prof. Dr. Rai Niaz Ahmad	Vice Chancellor	Arid Agriculture University, Rawalpindi
6	Mr. Arshad Saleem	Vice Chancellor	Shaheed Benazir Bhutto University, Shaheed Benazirabad
7	Prof. Dr. Rasool Bakhsh Raisani	Vice Chancellor	University of Baluchistan, Quetta
8	Prof. Dr. Syed Dil Nawaz Ahmad Gardezi	Vice Chancellor	University of Azad Jammu & Kashmir, Muzaffarabad
9	Prf. Dr. Manzoor Hussain Khan	Vice Chancellor	University of Poonch, Rawalakot
10	Dr. Muhammad Sarwar Ahmad	Vice Chancellor	Mirpur University of Science & Technology, Mirpur
11	Prof. Dr. Noor Jehan	Vice Chancellor	University of Swabi, Swabi
12	Prof. Dr. Muhammad Ibrahim Khattak	Vice Chancellor	Khushhaal Khan Khattak University, Karak
13	Prof. Dr. Abdur Rahim	Vice Chancellor	University of Science & Technology , Bannu
14	Mr. Tajdar Alam	Rector	Virtual University, Lahore
15	Prof. Dr. Muhammad Mohsin Khan	Director	Institute of Management Sciences, Peshawar

Leadership Training Programme in Leicester, UK for the Newly Inducted Vice Chancellors/ Institutional Heads of the HEIs of Pakistan from March 10-15, 2013

A group of 10 newly inducted public sector Institutional Heads of Pakistan attended a week long programme on Leadership, Strategic Planning, Commercialization of Universities, Research & Development, Quality Assurance, Action Learning and Knowledge Exchange at Leicester United Kingdom from 10-15 March, 2013. This training programme was exclusively designed by the Leadership Foundation for Higher Education, UK based on the need assessment given by the Higher Education Commission (HEC) in collaboration with the British Council Pakistan.

The purpose was to provide customized in-depth and holistic orientation to the emerging leaders so that they can successfully run their institutions, manage Faculty & Administrative officials with the help of latest management techniques more professionally. The participating HEI Heads were given a choice to select any one of the following themes and work further on it during their stay at Leicester and prepare their action plans accordingly:

- **Theme 1:** Strategic and business planning, including financial and resource planning and the relationship with academy policy.
- **Theme 2:** Commercialization of the university including diversified income sources; Research and Development, intellectual property; technology transfer; knowledge transfer; lifelong learning; and facilitation exploitation.
- **Theme 3:** Institutional leadership, including the effectiveness of the VC and senior management
- **Theme 4:** Communications, networking and decision-making, including internal communications strategies; stakeholder relationships and institutional partnerships.

In addition to the conceptual framework of aforementioned areas, the participants visited the Universities of Leicester and Coventry for first hand exposure and first-hand knowledge. Separate theme based meetings were held where the participants were briefed about the structure and working style of the universities.

Leicester Follow-up Workshop for the Development of Governance & Strategic Planning Framework for the HEIs of Pakistan (May 28-29, 2013)

- On May 28-29, 2013 HEC organized the follow-up workshop for the development of Governance & Strategic Planning Framework for the respective HEIs of Pakistan.
- The participants of the follow-up workshop were newly Inducted Heads of Higher Education Institutions of Pakistan who earlier got Leadership Training at UK in March, 2013 with the collaboration of Higher Education Commission Pakistan and British Council Pakistan.
- After attending the foreign training they were required to brainstorm on strategic planning of their respective university and future plan of action.
- This workshop also provided them an opportunity to discuss the strategic and action plans with three Senior Vice Chancellors of Pakistan universities, two senior resource persons from UK through video conference and last but not the least they interacted with each other.
- Chairperson HEC, Dr. Javed R. Laghari in his address stressed that the universities must develop the effective Strategic Plans so by following the same the Higher Education Institutions may come at par with world renowned universities.
- Executive Director HEC, Prof. Dr. Mukthar Ahmed, delivered a lecture on the importance and imperative of preparing a strategic plan, vision and mission of universities as well. While addressing he emphasized the students should be the priority of VCs as they are future leaders therefore their grooming in education and character building must be the prime responsibility of academicians.
- Director General, Learning Innovation Division, HEC, Ms. Noor Amna Malik, also reiterated through her presentation of having a standardized strategic planning framework that is able to directly impact towards the socio-economic development of the country.

HEC - Pink Ribbon Campaign Pakistan Collaboration

Since 2011 after signing MoU with Pink Ribbon Campaign (PRC) for Breast Cancer Awareness, HEC LID agreed to become the 'Strategic Partner' of the Pink Ribbon Pakistan and to extend Research & Development, Academic and Technical support for the breast cancer awareness through provision of its Outreach, Human Resource and Facilities.

Highlights of year 2012-13

- Pink Ribbon Campaign (PRC) conducted awareness seminars to highlight different aspects of breast cancer in collaboration with Learning Innovation Division of HEC.
- HEC disseminated Pink Ribbon breast cancer awareness through its newsletters and HEC website.
- To mark October as Pinktober the Breast Cancer Awareness Month, Pink Ribbon has launched nationwide drive with a target to reach-out to 100,000 young girls. A curtain raiser media activity was arranged along with Higher Education Commission at HEC Head Office on 1st of October, 2012. Prof. Dr. Sohail H Naqvi chaired this media activity. Ms. Rebekah Wigemark Co-Chair Pink Ribbon also addressed at the occasion.

- In 2012 program reached to 252,200 girls through 87 colleges and universities in Islamabad, Rawalpindi, Karachi, Lahore, Peshawar and Quetta by the support of HEC.
- Youth Activation day in collaboration with HEC – Achievement so far is as follows:

City	Dates	No. of Institutes	Outreach
Islamabad	10th January	13	25,000
Lahore	21st March	19	60,000
Peshawar	16th May	11	35,000
Quetta	17th July	4	12,000
Karachi	October	40	120,200
Total		**87**	**252,000**

- On February 07, 2013, Ministry of Science and Technology in collaboration with PRC Pakistan organized "National Consultation on Breast Cancer". Ms. Noor Amna Malik, DG LID represented HEC on the occasion.
- As enough funds area available for Research as promised by Ms. Rebekah Wigemark, HEC & PRC will soon initiate the Research process in this field with the help of Doctors and Researchers of Oncology. HEC R&D Division will also be engaged in this process.

ACADEMICS

The Academics Division of HEC establishes and supports programmes aimed at encouraging a learning culture in higher education institutions of Pakistan. It assists researchers and academicians in bridging the gap in academia and R&D sector of the country through

- Promotion of research
- Faculty development
- International collaboration
- Extracurricular activities

1) Promotion of Research

- Development of Social Sciences in Pakistan
- Thematic Research Grant Programme
- Institutional Strengthening and Upgradation of Laboratories and Libraries

2) Faculty Development

- Civil Awards
- Best University Teachers Award
- DLI-4

3) International Collaboration

- MoUs/Agreements
- JECs/JMCs
- Foreign Delegation
- SAARC Activities

4) Extra-curricular activities

- Allama Iqbal Debate contest

1) Promotion of Research

. Development of Social Sciences in Pakistan:

Social Sciences and Humanities Research Council of Pakistan (SSHRCP) has been established with the responsibilities of identifying realities of diverse social and human issues faced by Pakistan. It initiates plans for social transformation besides building knowledge and expertise on key social and cultural issues. It also encourages and assists Social Scientists and Researchers in carrying out meaningful research for national benefit. These objectives are achieved through different initiatives which are as under:

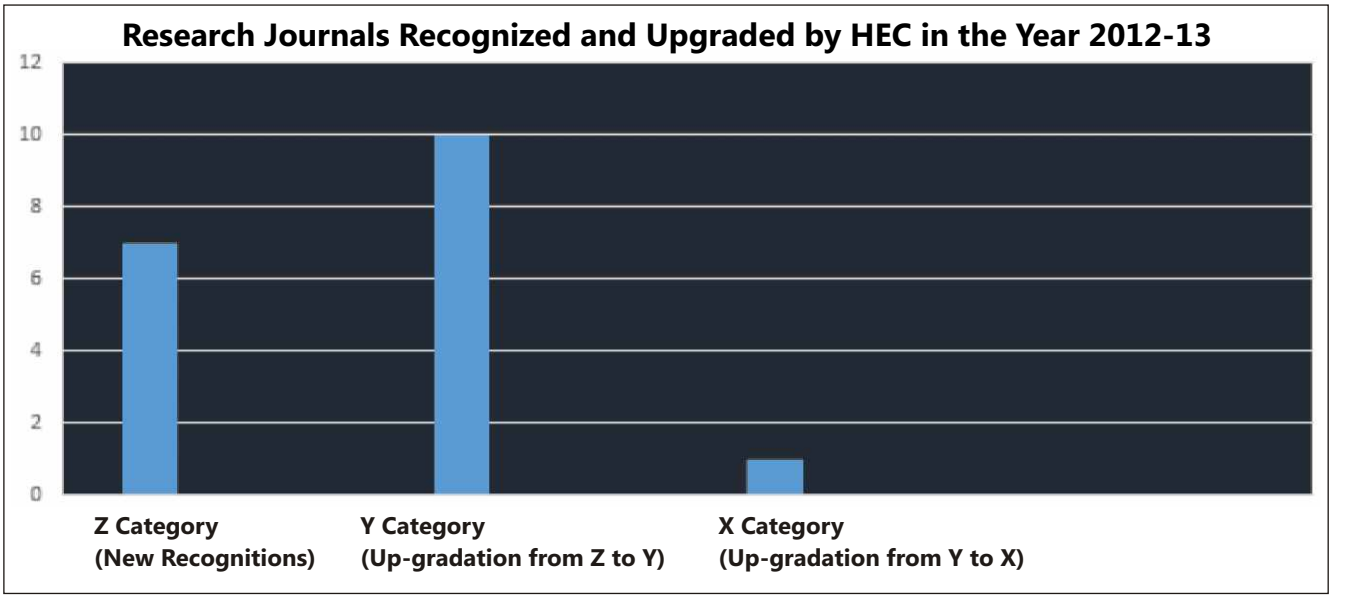
a) Social Sciences Research Journals

i) Research Journals Recognized by HEC in the Year 2012-13

S. No.	Journal Title	University	Category
1.	Pakistan Journal of Social Sciences	Quaid-i-Azam University, Islamabad	Z
2.	Bahria Journal of Professional Psychology	Bahria University, Karachi	Z
3.	*Keenjhar*	University of Sindh, Jamshoro	Z
4.	*Ma'arif -i- Islami*	Allama Iqbal Open University, Islamabad	Z
5.	Peshawar Islamicus	University of Peshawar, Peshawar	Z
6.	*Ulum -e- Islamia*	The Islamia University, Bahawalpur	Z
7.	Al- Tafseer	*Tahqeeq-o-Tafseer* Welfare Association, Karachi	Z

ii. Research Journals upgraded by HEC in the Year 2012-13

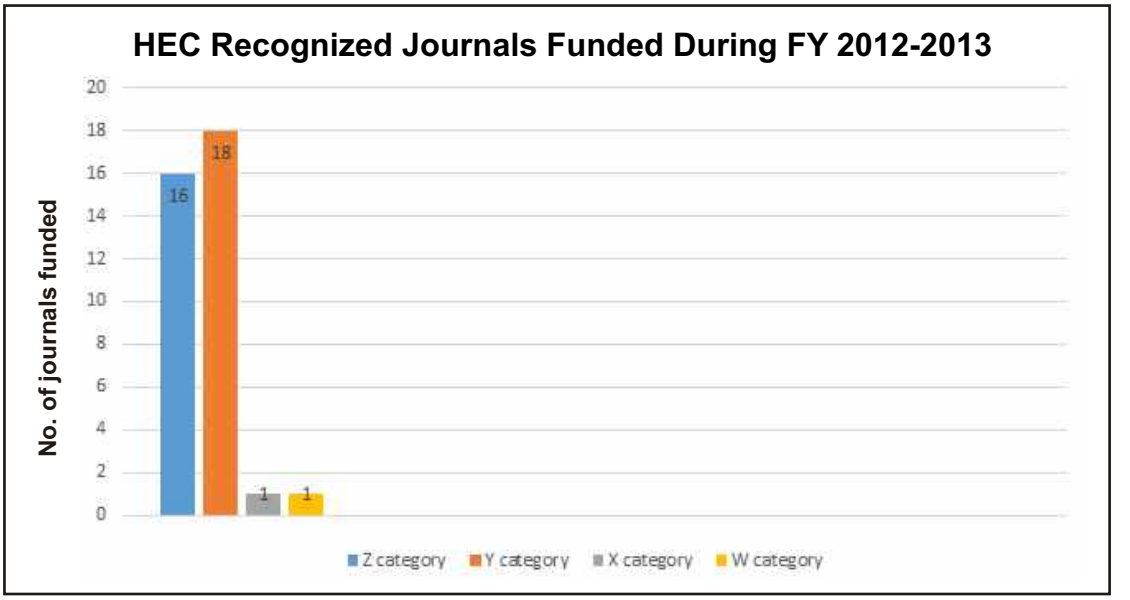
S. No.	Journal Title	University	Category
1.	Pakistan Journal of Statistics and Operation Research	University of the Punjab, Lahore.	Z to Y
2.	Journal of Political Studies	University of the Punjab, Lahore.	Y to X
3.	Forman Journal of Economic Studies	Forman Christian College, Lahore.	Z to Y
4.	Journal of Research and Reflections in Education	University of Education, Lahore.	Z to Y
5.	The Shield	University of Sindh, Jamshoro.	Z to Y
6.	Journal of European Studies	University of Karachi, Karachi.	Z to Y
7.	Pakistan Journal of Gender Studies	University of Karachi, Karachi.	Z to Y
8.	Pakistan Journal of Clinical Psychology	University of Karachi, Karachi.	Z to Y
9.	NICE Research Journal	Newports Institute of Communications and Economics, Karachi.	Z to Y
10.	NDU Journal	National Defence University, Islamabad.	Z to Y
11.	Margalla Papers	National Defence University, Islamabad	Z to Y



iii) HEC Recognized Journals Funded in 2012-2013

An amount of Rs 12,67 Million was released on account of funding 35 research journals of different categories.

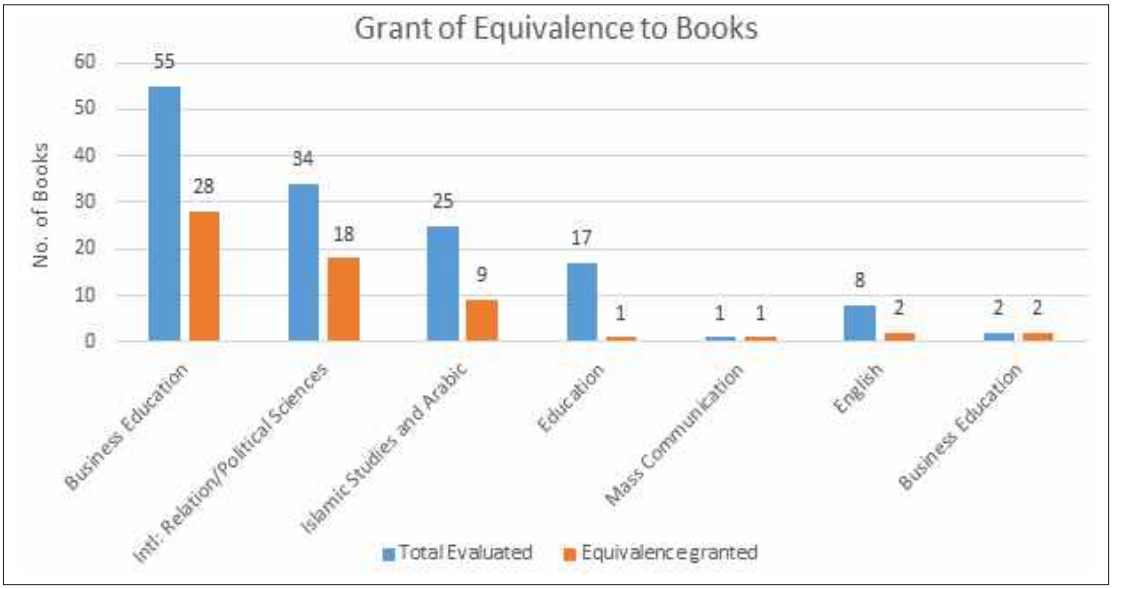
	Journal Name	University / Organization Name
Journals Funded in W Category		
1	Pakistan Journal of Statistics	Islamic Countries Society of Statistical Sciences, Lahore
Journals Funded in X Category		
2	Journal of Behavioral Sciences	University of the Punjab, Lahore
Journals Funded in Y Category		
3	Pakistan Journal of Psychology	University of Karachi, Karachi
4	Pakistan Journal of Islamic Research	Bahauddin Zakariya University, Multan
5	The Shield	University of Sindh, Jamshoro
6	South Asia Studies	University of the Punjab, Lahore
7	Pakistan Journal of Commerce and Social Sciences	Johar Education Society, Lahore
8	Pakistan Perspective	University of Karachi, Karachi
9	Pakistan Journal of Gender Studies	University of Karachi, Karachi
10	Pakistan Vision	University of the Punjab, Lahore
11	Journal of Research Society of Pakistan	University of the Punjab, Lahore
12	Journal of Statistics and Operation Research	University of the Punjab, Lahore
13	Business and Economics	Air University, Islamabad
14	Journal of Asian Civilization	Quaid-i-Azam University, Islamabad
15	NDU Journal	National Defence University, Islamabad
16	Margalla Papers	National Defence University, Islamabad
17	Al-Idah	University of Peshawar, Peshawar
18	NICE Research Journal	Newports Institute of Communications and Economics, Karachi
19	Pakistan Journal of Women Studies: Alam-e-Niswan	
20	Pakistan Horizon	Pakistan Institute of International Affairs, Karachi
Journals Funded in Z Category		
21	Journal of Social Sciences and Humanities	Quaid-i-Azam University, Islamabad
22	Tahqiq	University of Sindh, Jamshoro
23	Takatoo	University of Balochistan, Quetta
24	Pakistan Journal of Clinical Psychology	University of Karachi, Karachi
25	Kalachi	University of Karachi, Karachi
26	Irjah	University of University, Jamshoro
27	Grassroots	University of Sindh, Jamshoro
28	The Women	University of Sindh, Jamshoro
29	ELF Annual Research Journal	Shah Abdul Latif University, Khairpur
30	Almas Journal	Shah Abdul Latif University, Khairpur
31	Bazyaft	University of the Punjab, Lahore
32	Khoj	University of the Punjab, Lahore
33	Fikr-o-Nazar	International Islamic University, Islamabad
34	Peshawar Islamicus	University of Peshawar, Peshawar
35	Ulum-e-Islamia	Islamia University, Bahawalpur
36	Kashmir Journal of Language Research	University of Azad Jammu and Kashmir, Muzaffarabad Azad Kashmi



b) Books Equivalence to Research Publications:

Research-based Books authored by the renowned academicians are evaluated and categorized for the grant of equivalence to research publications. Following subject wise equivalency-to-research-publications was granted during the year 2012-13.

S. No.	Subject Wise books	Evaluated	Approved
1.	Pakistani Languages	**55**	**28**
2.	International Relations/Political Sciences	**34**	**18**
3.	Islamic Studies and Arabic	**25**	**9**
4.	Education	**17**	**1**
5.	Mass Communication	**1**	**1**
6.	English	**8**	**2**
7.	Business Education	**2**	**2**



- **Thematic Research Grant Programme**

  Research proposals were invited on the following themes under Phase-II of the programme:

  a. Sustainable Human Development, poverty and Inequality
  b. Costs and opportunities of Pakistan's changing age structure: Demographic dividend, aging and urbanization
  c. The State in Pakistan : Internal and External Challenges
  d. Ensuring human rights and cultural diversity : The role of media and civil society

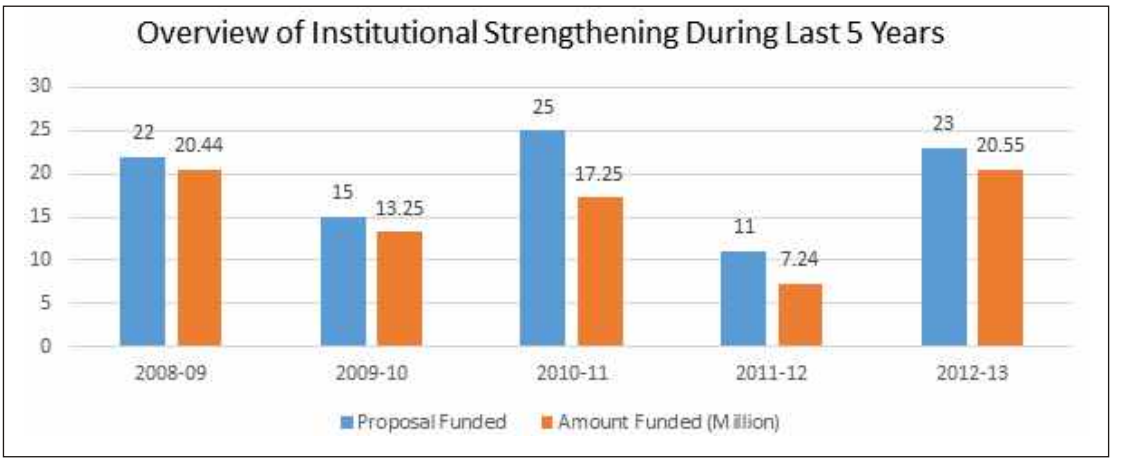
  Funding was released to the following approved projects:

S. No.	Title	University
1.	Role of Civil Society Institutions in Promoting Cultural Diversity and Pluralism in Chitral District of Khyber-Pakhtunkhwa	Aga Khan University, Chitral
2.	Science Classroom Research for Inquiry Process in Teaching (SCRIPT)	Aga Khan University, Karachi
3.	Strengthening Research and Teaching in G overnance	Beacon house National University, Lahore
4.	Psychological and Neurological Functioning of Elderly in Pakistan: A Comparison of Punjab and Gilgit-Baltistan	Karakarom International University, Gilgit
5.	Pakistan's Disputed Destiny: Modernism, State a nd challenge of Radical Islam	Lahore University of Management Sciences, Lahore
6.	Pakistan's National Security: Internal and External Challenges; and Policy options/Recommendations	National Defence University, Islamabad
7.	The Role of Pakistani Media in Prot ecting and Promoting Human Trafficking	National University of Sciences and Technology, Islamabad
8.	Media and Cultural diversity: the Role of Television, Radio and Print Media in the Projection of Religious/Ethnic Minorities in Pakistan	Quaid-i-Azam University, Islamabad
9.	Threat to the Cultural Heritage of Pakistan	Quaid-i-Azam University, Islamabad
10.	Antecedents and consequences of work family conflict: A challenge for Pakistani Organizations	Quaid-i-Azam University, Islamabad
11.	Ethnic, Tribal and Religio us Militancy in Pakistan (2001-2011): Domestic and International Factor	Quaid-i-Azam University, Islamabad
12.	Post Traumatic Growth among youth exposed to a Natural Disaster : Identifying mediating and moderating factors between traumatic events and posttraumatic growth	Quaid-i-Azam University, Islamabad
13.	The Role of Values, Social Capital and Spiritual Capital in Normal and Post-disaster Economic Behaviours : An Empirical Extension of Divine Economics Framework in Sustainability Perspective	University of Azad Jammu and Kashmir, Muzaffarabad
14.	Cultural Diversity in Balochistan: Its Important and role in the strengthening of National Integration	University of Balochistan, Quetta
15.	Ageing women: A Study of issues, challenges, and threats faced by ageing home-based working-women in Karachi	University of Karachi, Karachi

- **Institutional Strengthening and Upgradation of laboratories and libraries**

The objective of this programme is to support and strengthen higher education institutions by giving grants up to one Million (maximum) for upgradation of their laboratories and libraries through purchase of small to medium sized scientific equipment, library material, consumables and glassware etc. A total of 23 proposals were funded in different universities of country during 2013. An overview of the proposals funded during a course of last five years is as follow:

Year	Proposal Approved	Funds Released (Million)
2008-09	22	20.44
2009-10	15	13.25
2010-11	25	17.25
2011-12	11	7.24
2012-13	23	20.55



2) Faculty Development

- Civil Awards
- Best University Teachers Award
- DLI-4

- **Civil Awards:**

The nominations for the Civil Awards were invited on the prescribed proforma from all public and private sector Universities/DAIs. Nominations received from the different Universities/Degree Awarding Institutions were consolidated and placed under following categories.

a. Social Sciences, Humanities and Business Education.
b. Arts, Design and Architecture
c. Natural, Basic and Applied Sciences including Engineering, Medicines, Agriculture etc.
d. University Managerial and Administrative Personnel
(including Vice Chancellors, Registrars, Controller of Examinations, Directors etc.)

Three subcommittees constituted for category a, b and c developed a scorecard, scrutinized the nominations as per criteria devised and made recommendations for different awards. The Main Awards Committee reviewed the recommendations made by the subcommittee and examined the documents of each nominee received from various Universities/departments under the category "d". After details consideration and keeping in view their excellent contribution and outstanding position in the relevant field, the Committee recommended 30 academicians for various Civil Awards to Cabinet Division under the categories:

Civil Awards 2013	
Category	**No. of awards**
Hilal-i-Imtiaz	4
Sitara-i-Imtiaz	12
Pride of Performance	3
Tamgha -i-Imtiaz	10
Sitara-i-Quaid-i-Azam	1
Total	**30**

- **Best University Teachers Award**

  Outstanding university teachers are conferred upon an award comprising of cash prize of Rs. one lac each and a certificate for their outstanding contribution under the HEC project "Best University Teachers Award". Data in respect of 153 nominations received from different Universities/DAIs was consolidated and examined. The HEC Awards Committee in its meeting held on Jan 11, 2013 under the Chairmanship of the then Executive Director HEC, Engr. Syed Imtiaz Husain Gilani after thorough scrutiny and detailed evaluation, recommended 66 teachers for conferment of the Best University Teacher Awards 2011.

- **Disbursement Link Indicator-4 (DLI-4): Affiliated Colleges**

  As per agreement signed between the World Bank and the Government of Pakistan, the World Bank will support HEC's Medium Term Development Framework-II (MTFD-II) for the year 2011-2015 through its Tertiary Education Support Programme (TESP). Under the agreement the success of execution will be measured through 22 Key Performance Indicators (KPIs) including 10 Disbursement Linked Indicators (DLIs).

  The main objective of this DLI-4 project is to improve the quality of affiliated colleges and align their undergraduate programmes with those of the affiliating universities. This programme is also to provide the baseline knowledge and skills necessary for the Principals/Administrators of the affiliated Colleges to involve effectively in academic, good governance and administrative functioning of the affiliated Colleges of the Public sector Universities.

  The DLI-4 aims to enhance the standard of education in affiliated colleges and to identify the colleges which meet the minimum quality standard (MQS) as devised by the HEC. The task of first year (2012) i.e. evaluation of 100 colleges has been completed and for the second year (2013), it is under process from TA fund of TESP. Based upon the results of the MQS assessment of 100 affiliated Colleges, the capacity building programme of their principals/administrators for attaining 'X' rank and above would remain continued by December 2014.

Report of First Year (2012) Target

HEC, in collaboration with the higher education departments of provincial ministries of education, has evaluated 101 affiliated colleges throughout Pakistan in accordance with the MQS prepared by HEC. The province-wise categorization is as under:

S. No.	Province	Total Colleges	Category W	Category X	Category Y	Category Z
1.	Punjab	45	03	18	20	04
2.	KPK	21	-	08	07	06
3.	Sindh	27	-	04	23	-
4.	Balochistan	08	02	06	-	-
	Total	101	05	36	50	10

3) International Collaboration

- Foreign Students Admission
- MoUs/Agreements
- JECs/JMCs
- Foreign Delegation
- Activities pertaining to SAARC

- **Admission of Foreign Students**

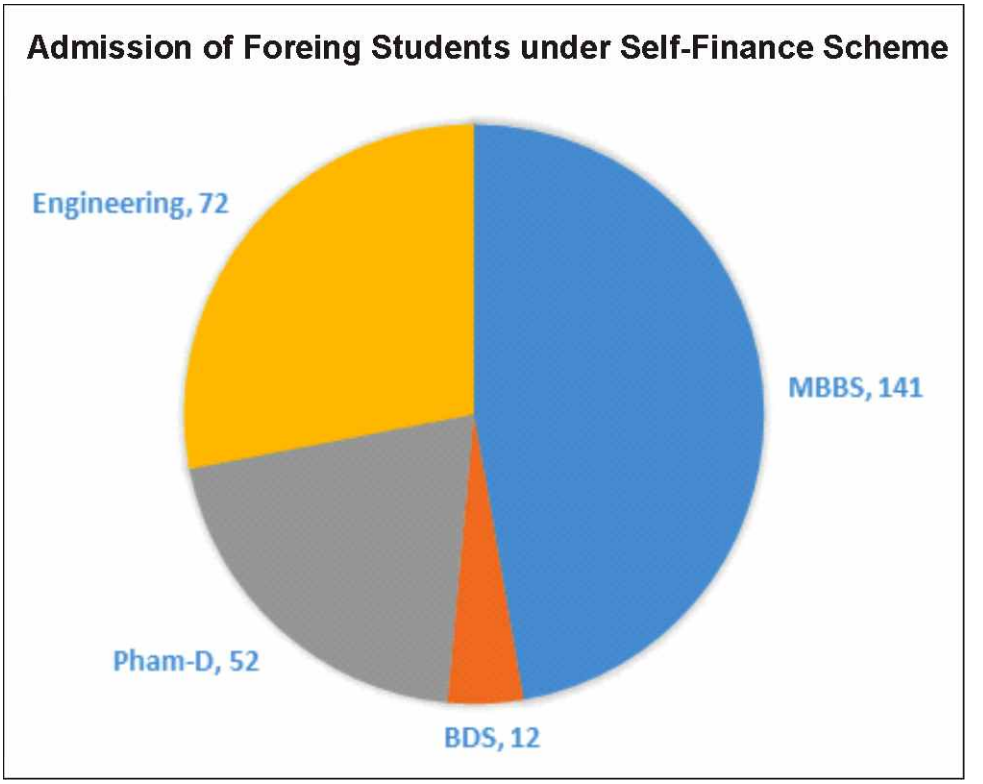
Academics Division encourages and facilitates admissions of foreign students as well as Pakistan origin dual nationality holders settled abroad in universities/DAIs of Pakistan. It also aims at creating goodwill of our country with foreign world and to earn foreign exchange for country.

a) Admission of Foreign Students in the discipline of MBBS, BDS Pharm-D and Engineering under Self Finance Scheme (Professional Stream)

The Higher Education Commission is processing the admission of foreign students under Self Finance Scheme against reserved seats in the disciplines of MBBS, BDS, Pharm-D and Engineering in different Universities of Pakistan.

Status of foreign admission under professional stream in the year 2012-13 is as:

S. No.	Discipline	Seats Available	Applications received	Students Recommended	Students Admitted
1.	MBBS	141	193	141	113
2.	BDS	15	18	12	10
3.	Pharm-D	95	71	52	49
4.	BSc Engineering	105	94	72	67
	Total:	**356**	**376**	**277**	**239**



b) Admission of Foreign Students (General Stream)

Introduction: Under the General Stream, Foreign Students apply for admission directly to the desired Universities/Institutions. The HEC issues NOC/endorses the admission in order to confirm the authenticity of University/ Institution and to facilitate the foreign students in getting study visa.

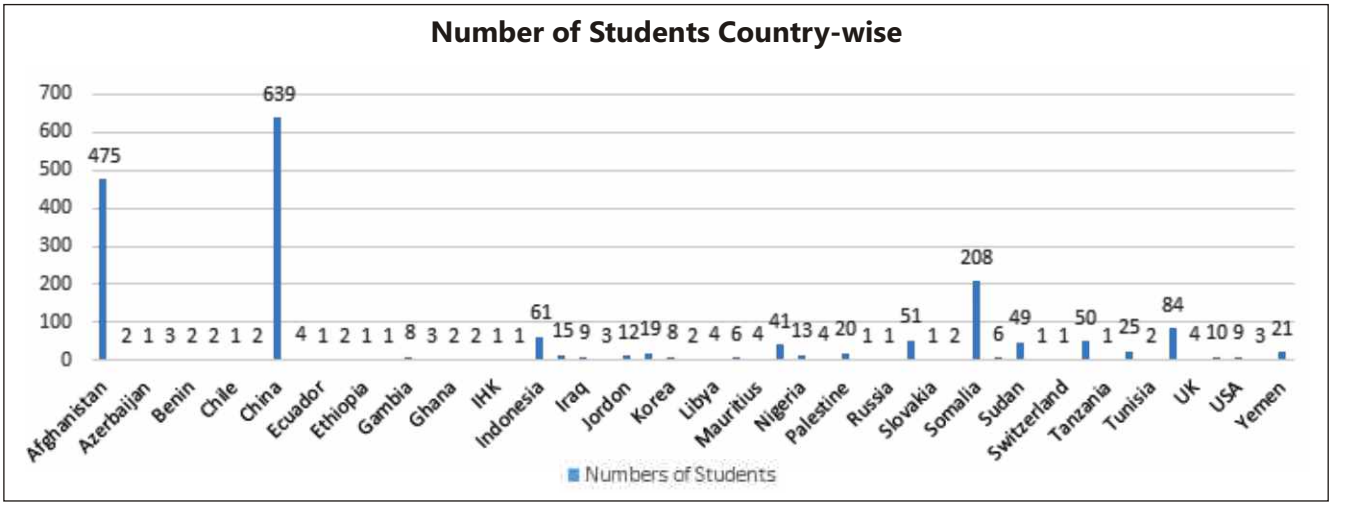
NOCs Issued to Foreign National under General Stream during 2012-13

S. No.	Name of Country	Numbers of Foreign Students 2012-13
1.	Afghanistan	475
2.	Australia	02
3.	Azerbaijan	01
4.	Bangladesh	03
5.	Benin	02
6.	Bolivia	02
7.	Chile	01
8.	Canada	02
9.	China	639
10.	Camaro	04
11.	Ecuador	01
12.	Egypt	02
13.	Ethiopia	01
14.	France	01
15.	Gambia	08

S. No.	Name of Country	Numbers of Foreign Students 2012-13
16.	Germany	03
17.	Ghana	02
18.	Guinea	02
19.	IHK	01
20.	India	01
21.	Indonesia	61
22.	Iran	15
23.	Iraq	09
24.	Japan	03
25.	Jordon	12
26.	Kenya	19
27.	Korea	08
28.	Libnan	02
29.	Libya	04
30.	Maldives	06

S. No.	Name of Country	Numbers of Foreign Students 2012-13
31.	Mauritius	04
32.	Nepal	41
33.	Nigeria	13
34.	Oman	04
35.	Palestine	20
36.	Peru	01
37.	Russia	01
38.	Saudi Arab	51
39.	Slovakia	01
40.	South Korea	02
41.	Somalia	208
42.	Sri Lanka	06
43.	Sudan	49

S. No.	Name of Country	Numbers of Foreign Students 2012-13
44.	Sweden	01
45.	Switzerland	01
46.	Syria	50
47.	Tanzania	01
48.	Thailand	25
49.	Tunisia	02
50.	Turkey	84
51.	UK	04
52.	UAE	10
53.	USA	09
54.	Uganda	03
55.	Yemen	21
	Total:	**1427**



3) International Cooperation (IC)

Pakistan has signed Pacts and Protocols Agreements, MoUs etc. with different countries of the world. Besides this, Pakistan established various linkages with foreign universities/research institutes in order to promote higher education in the country. The HEC reviews the existing pacts and protocols, MoUs etc. and furnish proposals relating to higher education on such occasions when VVIPs like the President, Prime Minister, and Ministers and as well as other Government functionaries pay visit to foreign countries or any foreign delegation(s) visit Pakistan. The HEC also provides fresh proposals, talking points and prepare briefs etc. The Section includes variety of important tasks and needs special attention. The tasks includes the following major heads.

1. Submission of proposals to EAD for the visit of President and Prime Minister to foreign countries and visit of foreign VVIPS to Pakistan
2. Drafting and implementation of MoUs with different organizations
3. HEC views/Comments on Draft agreements/minutes with different countries.
4. Implementation of decisions of JMCs/JECs

5. Inter-Ministerial Meetings held frequently in follow up of decision taken during the visits and JMCs/JECs
6. Correspondence with the Embassies regarding provision of information, recommendations made by the High Commission/Embassies etc.
7. Processing of cases of Chairs like establishment of Chairs in Pakistani Universities, appointments against Chairs abroad.
8. Follow of the visits of President, Prime Minister and Ministers.

The report for the year 2012-2013 is as under:

S. No.	Particulars	No. of Cases Processed
1.	Processing of MoUs/Agreements	60
2.	Submission of proposals and follow up of JMCs/JECs	25
3.	Inter-Ministerial Meetings attended at EAD/MoFA	6
4.	Chairs Abroad	22
5.	Miscellaneous Cases	30

- **Foreign Delegation**

  During the year 2013-13, a group of 33 junior diplomats from 25 friendly countries visited HEC and an orientation workshop of Education Attaché's from OIC Member States was held at HEC Islamabad. Besides, delegations from following countries visited various Pakistani Universities.

  i. Bangladesh ii. Bosnia iii. Jordan iv. Kyrgyz Republic
  v. Malaysia vi. Nepal vii. Tajikistan

- **SAARC Activities**

  SAARC countries have been cooperating in the development of various dimensions of human resource since 1982 but decided to include education in the agreed areas of cooperation in 1988 and formed a Technical Committee on HRD at various levels; which finally reconstituted at the 12th SAARC Summit held in Islamabad in January 2004 to deal with matters pertaining to education, skill development, arts, culture and sports. The SAARC leaders have noted the achievements of the Member States during recent years in the area of primary education and stressed that to meet the challenges of the twenty-first century Member States must make important strides in the areas of science, technology and higher education. Academics Division upholds liaison and provides coordination in the implementation of the initiatives, resolutions and decisions taken at various SAARC forums relating to the Higher Education of Pakistan. To achieve the targets, Academics Division collaborates with the SAARC Secretariats through Ministry of Foreign Affairs, Government of Pakistan. The major SAARC Activities coordinated by the Division, during 2011-2012, are as under:

4) Extra Curricular Activities

- **All Pakistan Inter-University Debate Contest For Award of Allama Iqbal Shield**

  Every year, the Higher Education Commission launches All Pakistan Inter-University Debate Contest for the award of Allama Iqbal Shield with the objective to promote critical/analytical thinking and divert the energies of youth towards positive activities. HEC organized the national event on April 14, 2013 and awarded Allama Iqbal Shield and cash award of Rs. 60,000/- Rs.50,000/- and Rs.40,000/- to first, second and third position holders respectively.

QUALITY ASSURANCE

Quality is recognized as the means through which an institution can guarantee with confidence and certainty that the standards of its education are being maintained and enhanced. In recent years, quality has gained a critical importance. The increased role of universities in building societies and economies is urging Pakistani universities as well to assume the higher responsibilities of playing a key role in future development. Quality is a continuous process to be led with continued improvements reflected through achieving excellence across board.

Tireless realized at the beginning of its establishment that without improving quality of the higher education being imparted in the HEIs of the country it would be difficult to achieve the desired results of higher education development and to get global recognition. Therefore, tireless efforts were made with concrete steps towards improving the standards of higher education encompassed with improved quality of faculty, graduates, curriculum, infrastructure and ICT facilities. The Quality Assurance Programme of the HEC is focusing on three broader areas; starting from sensitizing the academia for quality and standards, developing these standards, building the capacity of HEIs to implement these standards for quality improvements and ending at evaluating the implementation of these standards with reflections of a Quality Culture. Few of the globally competitive higher education standards and quality criteria such as Minimum criteria for MPhil & PhD, Faculty Appointment Criteria, Plagiarism Policy, Tenure Track Statutes, Standards for Institutional Performance Evaluation, Criteria for Selection of the Vice Chancellors, and QA Criteria for recognition of Journals, are developed and implemented successfully at the HEIs of the country. The compliance of these quality criteria and standards is underway to continue with consistent needs of quality improvements in the higher education. The Quality Assurance Agency (QAA) was established with mandate of Internal QA based on Self-Assessment Process and External QA of the Higher Education Institutions (HEIs) includes functionality of the respective Accreditation Councils and Institutional Performance Evaluation process to be carried out by the HEC itself as per its mandate.

Faculty is considered the heart of whole academic activity therefore, HEC emphasized on improving the quality of teaching by defining the minimum Faculty Appointment Criteria through which the objective of hiring qualified and experience faculty is being pursued. The QA criteria for Meritorious Professor and Professor Emeritus are also reflecting further efforts to distinguish quality teachers. The Tenure Track System of Faculty Appointment is introduced successfully as one of the policy instrument to attract the best minds towards adopting Teaching as a profession by choice as it offers market driven salary packages with full recognition of the performance of the TTS faculty members with assurance of professional grooming and development at a faster pace. The TTS teaching cadre has to remain focused on increasing research, teaching and community service participation to proceed further on the Tenure Track as it is a performance based system offering much to those only who contributes significantly and fulfill their commitment to a quality teaching profession.

Distinct steps are taken to increase the research productivity of Pakistani HEIs and increased publication records are also focused to promote a Research Culture in the HEIs. A parallel effort is made on improving the quality of research Journals through compliance of QA criteria for recognition of the Journals and required financial assistance is also offered to HEC recognized journals. Subsequently, the research output of Pakistani HEIs increased many folds during the last decade and overall research publication records of Pakistan are noticed globally and quality of national research journals is also improved to greater extent. Moreover, in order to eradicate the menace of Plagiarism from research publication the Plagiarism Policy

is also under strict implementation and reported plagiarism cases are being dealt as per Time-bound SOPs with Zero Tolerance to plagiarism. The capacity of faculty, staff and students about plagiarism is continuously being enhanced with provision of anti-plagiarism service (Turn-it-in) and monitoring of its usage at the HEIs. The QA efforts will continue till observing a Quality Culture in the Pakistani HEIs reflecting those as World Class Institutions of higher learning producing the Best Graduates equpied to compete in the international market.

Key Components of Quality Assurance Programme

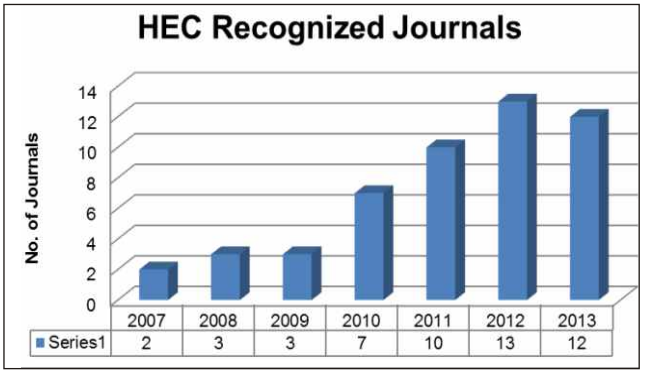
Higher Education Commission (HEC) has developed and implemented various quality parameters to fill the gaps in quality provision between National and International Systems of higher learning through bold initiatives which are mentioned as below:

- National Quality Assurance Committee (NQAC) HEC.
- Eligibility Criteria for Faculty Appointment (Lecturer to Professor for all Disciplines)
- Model Tenure Track Process Statutes-
- Support to Research & Research Journals for quality Publications
- Criteria for award of M.Phil/MS/PhD degree programmes
- Pakistan Qualification Framework (PQF)
- Pakistan Qualification Register (PQR)
- Plagiarism Policy notified & circulated among all the HEIs for implementation and the plagiarism cases are investigated as per policy.
- Turnitin Software (Provided to all Public Sector HEIs) and regular follow-up utilization report by the HEIs is maintained.
- Institutional Performance Evaluation Standards for all HEIs
- Guidelines for Award of Honorary Degrees (Provided to all Public Sector HEIs for implementation)
- Degree Supplement Form (DSF) implemented in HEIs.
- Establishment of Directorate of Distance Education in Six Universities (To improve the quality education of private students)
- Guidelines for selection of Vice Chancellors
- Criteria for evaluation of the sitting Vice Chancellors

HEC Recognized Research Journals

In order to increase the research productivity and publications records up to desired level HEC has recognized 210 research journals through quality criteria, including 106 in Social Sciences, 104 in Sciences. The Journal are categorized as W, X, Y, Z:

- W: Category: all impact factor Journal
- X: Internationally indexed & reviewed Journals
- Y: Locally reviewed Journals
- Z: Regularly published Journals



Improvement of quality of Pakistani journals and achieving global visibility for these journals is also being pursued with continued steps.

Impact of Promotion of Research Journals:



The number of research productivity of the Pakistani HEIs has been increased many folds along with more international visibility of Pakistani journals earning impact factor and increased citations. All the Editors of HEC recognized journals are directed to develop the webpage so that international researchers could be attracted and the research published in Pakistan is also accessible to them. With these steps now Thirteen Pakistani Journals have earned Impact Factor as enlisted below:

1. Pakistan Journal of Botany
2. Pakistan Journal of Pharmaceutical Sciences
3. Pakistan Journal of Medical Sciences
4. Pakistan Journal of Zoology
5. Pakistan Journal of Statistics
6. Pakistan Veterinary Journal
7. Journal of Animal & Plant Sciences
8. Journal of Animal & Veterinary Advances
9. Journal of Pakistan College of Physician and Surgeon
10. International Journal of Agriculture and Biology
11. International Journal of Pharmacology
12. Pakistan Journal of Agriculture Sciences

Financial Release to HEC Recognized Journals

Aiming at improving the quality of research journals published within the country the HEC recognized journals are provided with financial assistance. During the year 2012-13 an amount of Rupees 10 million was a released to HEC recognized journals as per approved Standard Operating Procedures (SOPs).

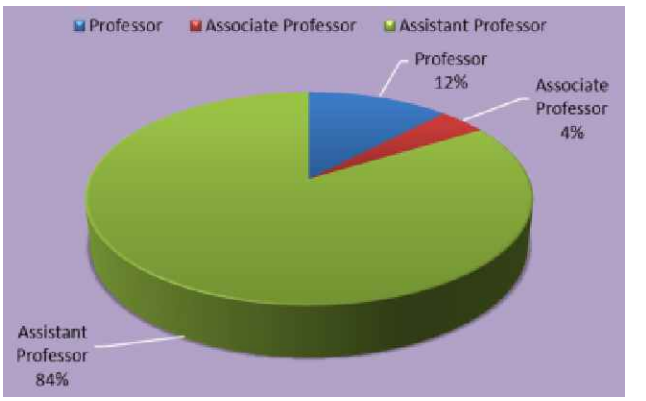
Tenure Track System

One of the major initiatives under QAD is the Tenure Track System (TTS) of appointments which basically aims at enhancing performance and efficiency of the faculty members by creating a competitive and performance based system for faculty members. It allows freedom of research and teaching, as well as the financial independence to pursue these key academic objectives.



Tenure Track System offers certain performance based benefits to the faculty like financial benefit accompanying autonomy and freedom of research, further, junior faculty is driven to establish themselves by the high stakes of the tenure positions, helping

to create a culture of excellence within the university. Finally, tenured faculty may be more likely to invest time in improving the universities where they expect to continue with enhanced scope of research and greater economic security; they may also be more willing to mentor and promote talented junior colleagues.



Although the Universities/Institutions, being a custodian of Quality of Higher Education and the appointing authority, are responsible to make all the appointment process, however, Quality Assurance Division of HEC ensures the quality of appointment in term of adherence to the minimum eligibility conditions through endorsement of initial appointments of Assistant Professors, Associate Professors and Professors. The selection process is carried out at the respective universities but endorsement of the finally recommended faculty appointments on TTS are done by HEC as per information provided by the university on the prescribed Proformae and Certificate/checklist designed for the purpose.

In order to facilitate the universities with the ongoing process, a Tenure Track Review Committee of senior faculty members has been constituted by the competent authority at Higher Education Commission to review this program, assess its impact and to resolve time to time TTS issues at policy level. Several issues pertaining to TTS grant of annual increment, grant of advance increment on initial pay, pension rules for existing faculty members, Leave rules, sabbatical leave & study leave rules and other rules have been resolved under TTS.

Impact of TTS Policy:

Since more than seventy five (75) Public Sector Universities/DAI have adopted this System for academic appointments with appreciation for HEC on this initiative. A total of 2273 faculty members have been appointed on Tenure Track System by different Universities/DAI up till Nov 2013 out of which 400 appointments on TTS were made in the Financial Year 2010-2011, 500 in the year 2012 and the number is continued to be increased. The level wise distribution of faculty working on Tenure Track System is graphically illustrated above. A paradigm shift from teaching to research is observed in HEIs which will contribute towards knowledge creation, improved teaching and community services at large.

Plagiarism Policy

The Plagiarism policy introduced in the year 2007 is addressing the plagiarism issues in all academic and research publications and it is under strict compliance at the HEIs of the country. The continuous efforts of the HEC are helping to improve the quality of research in the Higher Education Institutions. The faculty as well as students is using proper documenting style for writing papers and other scholarly works. Awareness level about plagiarism is increased due to annual workshops conducted for focal persons and university nominated faculty members. Universities are now taking up all plagiarism cases seriously and cases forwarded to them are investigated in the light of Plagiarism Policy. A total of 148 cases of plagiarism have been reported to HEC out of which one hundred (132) cases have been resolved after investigations whereas 16 cases are under process.

Anti-Plagiarism Service "Turnitin

Turnitin (Plagiarism Prevention Service) is provided to all public sector Universities and to those private sector universities which have agreed to pay annual subscription fee are also given access to the service. The government R&D organizations as well as institutions of Public Policy are also given access to this facility on request.

Impact of Plagiarism Policy:

- A culture of quality research is being promoted.
- Turnitin service for the year 2013-14 was renewed in July 2013 and total 100 institutions are given access on annual subscription basis.
- On site demonstration was given at Islamic International University, Islamabad, Federal Urdu University, Islamabad and Allama Iqbal Open University, Islamabad. Faculty members and scholars participated in these events and their queries were responded.
- Online demonstration through video conference was held for Sukkur IBA, Sukkur, QEC Network and for individuals joining weekly demonstration through Skype were given orientation.

Quality Assurance and Enhancement for External Students (Private Students) through Establishment of DDEs

An initative is taken to address the quality issues of External Students or Private students appeared in the examinations of the universities through a project of establishing Directorate of Distance Education (DDEs). Initially, six universities were selected to establish the directorates of Distance Education i.e. University of Peshawar, University of Karachi, Karachi, University Of Sindh Jamshoro, Gomal University D.I. Khan, Bahauddin Zakriya University, Multan, University of the Punjab, Lahore. Now the number of public sector universities on board for this initiative of HEC.

The objective of these Directorates is to facilitate private candidates at Graduate and Master Level and to improve the quality of learning as well as to enhance the success ratio in examinations of the private students. For the capacity building of directorates, trainings have been arranged on need basis.



Impact Quality of Education being provided to the private students/external students is being improved through registering them earlier to examination, providing them opportunities of learning through distance education techniques and on campus exposure. The improved quality of these Private Students now named as External students, is providing them better opportunities of employment and further education. The issue of equity is also addressed by facilitating those students who don't get higher education through conventional mode due to certain reasons.

Pakistan Qualification Framework (PQF)

Quality is one of the core task of HEC thus it remains focused on improving the quality of higher education across the country and to bring the HEIs at par with international standards. In pursuance of the task, HEC has also developed Pakistan Qualification Framework (PQF) that will provide a systemic mapping of all the qualification, academic levels and learning outcome within national education system. The Pakistan Qualification Framework is considered as mechanism for classification of the qualifications on the basis of the learning outcomes i.e. skill, competence, knowledge. It is level based and outcomes focused. It sets out the levels on which a qualification can be recognized in Pakistan.

Pakistan Qualification Framework (PQF) encompasses a comprehensive list of all quality assured qualifications in Pakistan. Each accredited qualification offered in Pakistan has been assigned a level. The PQF consist of Entry level to level 8, describing the difficulty of qualifications at each level.

	Years	Levels	Award Type	Award Example
Higher Education Levels	21	8	Doctoral	PhD
	20			
	19			
	18	7	Masters	M.Phil./MS/MBA, M.Sc. (Eng.), M.E,
	17			MArch etc
	16	6	Bachelor	BS, B.E, B.Arch., BSc (Eng.), BSc (Agri), MA/MSc (16 year),
	15			LLB, B.Com (Hons, MBBS, DVM, PharmD, etc.
	14	5	Associate Ordinary Bachelor	BA/BSc (Pass), ADE, Associate Degrees etc.
	13			
Intermediate Level	12	4	Higher Secondary School Certificate (HSSC)	F.A, F.Sc, ICS, I.Com, DBA, D.Com etc.
	11			
Matriculation Level	10	3	Secondary School Certificate (SSC)	Matric
	9			
		2		Middle (3 Years)
		1		Primary (1-5 Years)
				Pre-Primary (1-2 Years)

Pakistan Qualification Register (PQR):
Pakistan Qualification Register (PQR) is a comprehensive list of all quality assured higher qualifications in Pakistan. The Pakistan Qualification Register is a list containing every Qualification and the providers/ Higher Education Institutions recognized/accredited to deliver and issue those qualifications. The register encompasses only Quality Assured Qualifications and Higher Education Institutions recognized by Higher Education Commission Pakistan.

Subject Classification List:
Representation of academic data collected and maintained by the HEC requires that a standard subject classification system be defined so that all areas of human learning can be properly classified. Such a task has been undertaken by the Higher Education Statistics Agency of UK who has developed the Joint Academic Classification of Subjects (JACS). The JACS list has been amended as per qualifications offered by Pakistan HEIs with the specific codes to match with the national scenario in the context of the development of Pakistan Qualification Framework. The amended JACS is available at: http://www.hec.gov.pk/InsideHEC/Divisions/QALI/QADivision/Documents/JACS%20Amended%20list.pdf

Monitoring of Compliance of QA Criteria
QAD is continuously monitoring the advertisements published in the national newspapers by the respective universities for faculty appointment and MPhil/PhD criteria. In case of any violation of the criteria or discrepancy in the advertisement it is identified and conveyed to the respective University for issuing corrigendum. This exercise is helping in sensitizing stakeholders about seriousness of observing the quality standards and criteria of HEC. The status of this monitoring is given below for the year 2012-2013:

- 158 advertisements published by different universities for faculty appointment have been monitored
- 32 universities did not follow the HEC criteria and their cases were processed
- Out of 32 universities, 8 universities have issued corrigendum and cases of 15 universities were closed on the basis of evidences provided.

Patent Equivalence to Impact Factor Publication
In order to promote the applied research & encourage scientists who are involved in research and inventions, the QAD has developed the policy of equating Patents with Impact Factor (IF) publications. In this regard, international patents are given equivalence with up to 5 publications and national patents are given equivalence up to 2 publications. The initial recommendations are made by the University Committees constituted for the purpose and final endorsement is done by the QAD through experts of the respective areas. A total of 10 cases of patent equivalence were considered as applied by the faculty up till now to motivate applied research at HEIs.

Quality Assurance Division (QAD) Webpages:
QAD pages are updated regularly and policy changes are immediately uploaded on the website as QAD webpages are visited by the stakeholders at large. The revision in the faculty appointment criteria and research journals are immediately uploaded. The FAQs are also on continuous increase to respond to daily queries of the stakeholders regarding QA criteria and policies.

International Liaison:

In order to incorporate international best practices in the context of quality assurance in HE Sector of Pakistan, a Liaison has been developed with international Networks on Quality Assurance.

- Membership of the Asia Pacific Quality Network (APQN) and International Network of Quality Assurance in Higher Education (INQAAHE) has been earned.
- The DG-QAD (Ms Zia Batool) was elected as Board Member for the APQN by Asia Pacific countries for the second term in 2012 for the second tenure as Board Member.
- The Ranking Model of HEC developed internally was shared by the DG-QAD (Ms Zia Batool) on invitation by The Association of Commonwealth Universities conference of Executive Heads, Kingston Jamaica, and it was appreciated by all Commonwealth countries.
- The QA system of HEC was shared with all OIC countries by DG-QAD (Ms Zia Batool) and received appreciation in Extraordinary Session of the Islamic Conferences of Ministers of Higher Education and Scientific Research (ICMHESR) in Saudi Arabia.

Impact:

- Representation of Higher education sector of the country at international level through APQN Board member mandate.
- Institutional visibility through direct QECs membership for APQN/ INQAHEE
- Global visibility of QA policies and practices and linked recognition is increased significantly.

ACCREDITATION AND ATTESTATION DIVISION

As per section 10 (1) of HEC Ordinance 2002, the main functions of HEC's Accreditation and Attestation Division are:

Accreditation Cell

1. Proposals for recommending grant of NOC for establishment of universities/DAIs/campuses in public and private sectors
2. Recommendation for grant of charters
3. Provide guidelines for foreign collaborations
4. Dealing with cases of off-shore campuses of private universities/DAIs
5. Categorization of private sector universities (W1-W4)
6. Assess facilities available in various universities/DAIs for accreditation of their programmes
7. Deals with affiliation cases of public sector universities/DAIs
8. Vetting of draft bills of newly established universities/DAIs
9. Coordination and arrangements for inspection visits of universities/DAIs
10. Convoy Charter Inspection and Evaluation Committee (CIEC), Sindh meetings for evaluation of Charters
11. Drafting policies for emerging initiatives like
    i. Public private partnership
    ii. Dual degree programme
    iii. Associate degree programme

Attestation Cell

Attestation of Degrees/Diplomas/Certificates awarded by Pakistani Universities/DAIs via:

i. Walk-in Mode
ii. Courier Services
iii. Regional Centres

Equivalence Cell

Equivalence of Foreign Degrees via:

i. Walk-in Mode
ii. Courier Services

Equivalence of Pakistani Degrees/Deeni Asnad via

i. Walk-in Mode
ii. Courier Services

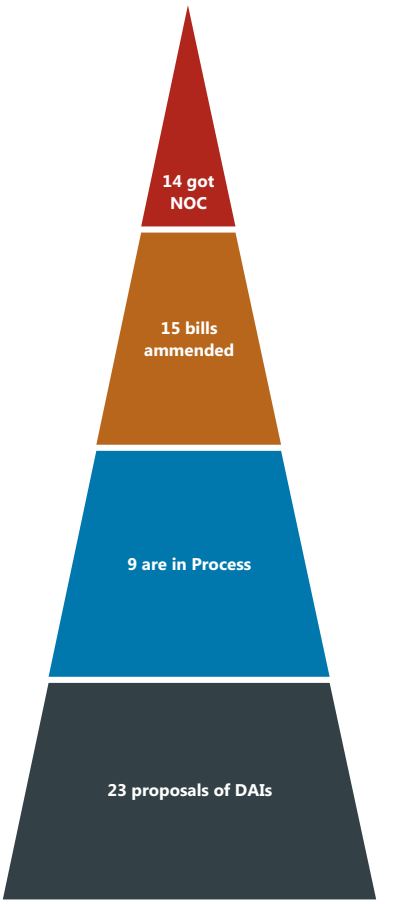
- Dealing with law cases pertaining to all three (3) sub-sections mentioned above
- Coordination and supervision of Attestation/Equivalence matters of Regional Centres
- Collaboration with the Accreditation Councils

Accreditation Cell

Establishment of Universities/Degree Awarding Institutions

As many as 23 proposals for establishment of new universities/institutes were received during the period out of which nine are under process at different stages, while 14 have been established and granted NOC by HEC. The cases received in previous years were also processed and are at different stages. Following 14 universities obtained NOC during this period:

- Shifa Tameer-i-Millat University, Islamabad
- Indus University Karachi
- Bacha Khan University, Charsadda
- Sindh Madresatul Islam University, Karachi
- Karachi School for Business and Leadership
- The Qarshi University, Muridke.
- University of Haripur, Haripur
- Ali Institute of Education Lahore
- Benazir Bhutto Shaheed University Lyari, Karachi
- Benazir Bhutto University, Shaheed Benazirabad
- University of Poonch, Rawalakot
- Government College for Women University, Faisalabad
- Women University of Azad Jammu and Kashmir, Bagh
- Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad



along with the following campuses

- NCBA&E Campus, Multan
- Abasyn University Campus, Islamabad

During the year, draft Bills/Ordinances of 15 universities were vetted in the light of provisions of Federal Universities Ordinance (FUO) 2002 and comparative statement of variations in the draft 'Bill/Ordinance' accordingly been communicated to the concerned quarters.

Steering Committee of Provincial Education Secretaries

The 11th meeting of Steering Committee of Provincial Education Secretaries was convened under chairmanship of Executive Director HEC and subsequently by Chairman HEC.

Franchising of Foreign Institutions:

The cases for recognition of collaborative arrangement of following institutions have been approved:

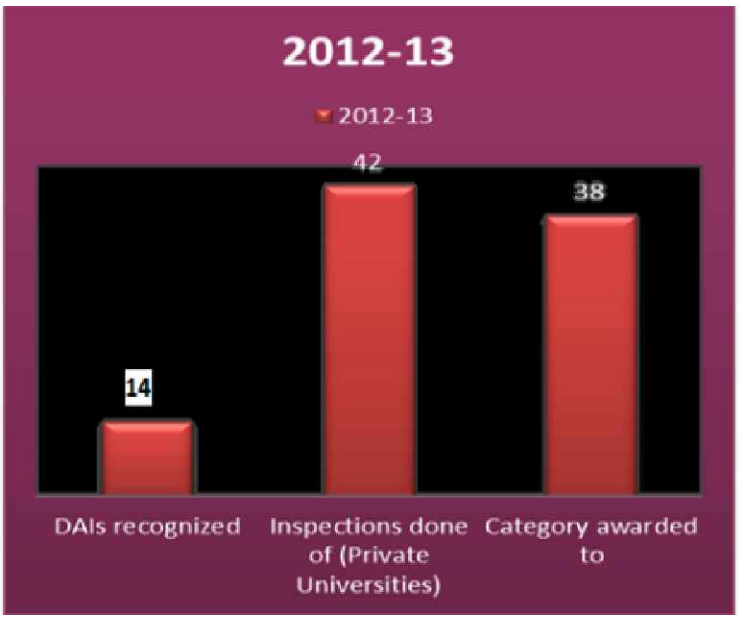
1. **Association of Business Executives (ABE),** UK has been allowed to offer Graduate Diploma (Level 6) in Pakistan and will be equated with the bachelor degree of four years of Pakistan w.e.f. 26.03.2013.
2. **Management Development Institute (MDI) Pakistan** is an Education Partner of the University of Southern Queensland, Australia and has been allowed by the HEC to operate their BBA and MBA degree programmes w.e.f. 11-09-2012
3. **NICON Institute of Pakistan** is allowed to offer HND programme of Edexcel International UK at NICON College, Dubai Plaza, Rawalpindi only

Categorization

Following is the summary of the private universities, which have been granted category (W1-W4) so far:

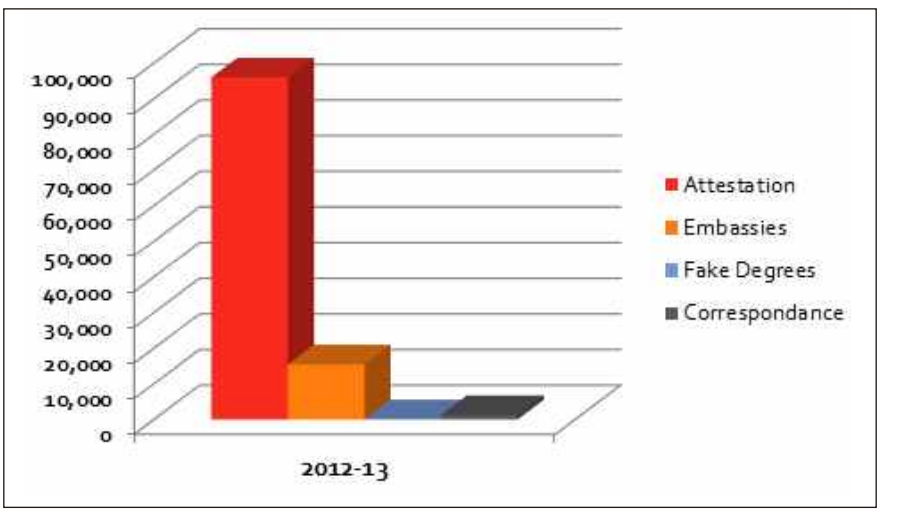
Category	Present Position (2013)
Category 'W4'	13
Category 'W3'	14
Category 'W2'	7
Category 'W1'	4
Total	**38**

Graph below represents overall achievement of Accreditation section for the year 2012-2013



Attestation Cell

The attestation of degrees/ transcripts and diplomas awarded by the chartered universities/ degree awarding institutions of Pakistan, both in public and private sector, was transferred to the Higher Education Commission by the Government of Pakistan in 2002. As per approved procedure, the HEC demands original documents from Matric onwards and copy of CNIC for verification and attestation of degrees/ transcripts.



Annual Report of Attestation Cell		
S. No.	**Key Responsibilities/Tasks**	**July 1, 2012-June 30, 2013**
1	**Attestation of Degrees/Transcripts:**	
	Documents Attested (Walk in + Courier)	96,000
	Amount Charged and Deposited in Finance Division	Rs. 89,880,400/-
2	**Embassies/High Commissions Cases verified:**	
	British High Commission	40
	US Embassy	36
	Australian High Commission	35
	Total	111
3	**Verifications through Fax:**	
	Saudi Culture Office	14,746
	Oman Embassy	620
	Total	15,366
4	**Number of Fake Degrees Confiscated**	70
5	**Miscellaneous correspondence:**	1270

Achievements

The Attestation Cell has made a number of changes in the following aspects:

1. Attestation laboratory has been upgraded with seating arrangement of 50 applicants from previous facility for 20.
2. The outlook appearance of the Attestation cell, especially the visitor's areas for males and females has been significantly improved. The capacity of entertaining more visitors at a time is doubled.
3. The token system has been improved to cater 40 people in one time slot.
4. Banners for general public information for attestation and equivalence have been fixed for information of candidates
5. Brochures for Attestation and Equivalence were prepared and distributed in different education expos in Lahore, Karachi and Islamabad, besides preparation of a handbook entitled "Procedure of Accreditation and Attestation"

Equivalence Cell

Equivalence of Foreign Degrees/Diplomas/Certificates

The term "Equivalence" implies that degree/diploma obtained from foreign chartered universities/ institutions is determined as equivalent to corresponding degree/diploma obtained from Pakistani educational institutions. The main objective of the equivalence of the foreign qualification is to determine level of education in Pakistani education system and enable the degree holder to pursue higher education and enjoy equal rights and privileges as admissible to Pakistani degree holders.

Equivalence of Pakistani Degrees/Diplomas/Certificates

The equivalence is also granted to the degrees and diplomas awarded by the chartered universities/DAIs of Pakistan to enable degree holders to get higher education and to compete for different positions.

Equivalence of Deeni Asnad

As per decision of the Equivalence Committee of erstwhile UGC, the equivalence letters to final sanad "Shahadatul Almiya Fil Uloomal Arabia wal Islamia" awarded by five approved Wafaq, Tanzeem, Rabit-ul-Madaris and five individual Madaris with MA Arabic/Islamic Studies is being granted to teach Arabic and Islamic Studies in Colleges and Universities as well as for pursuing higher studies

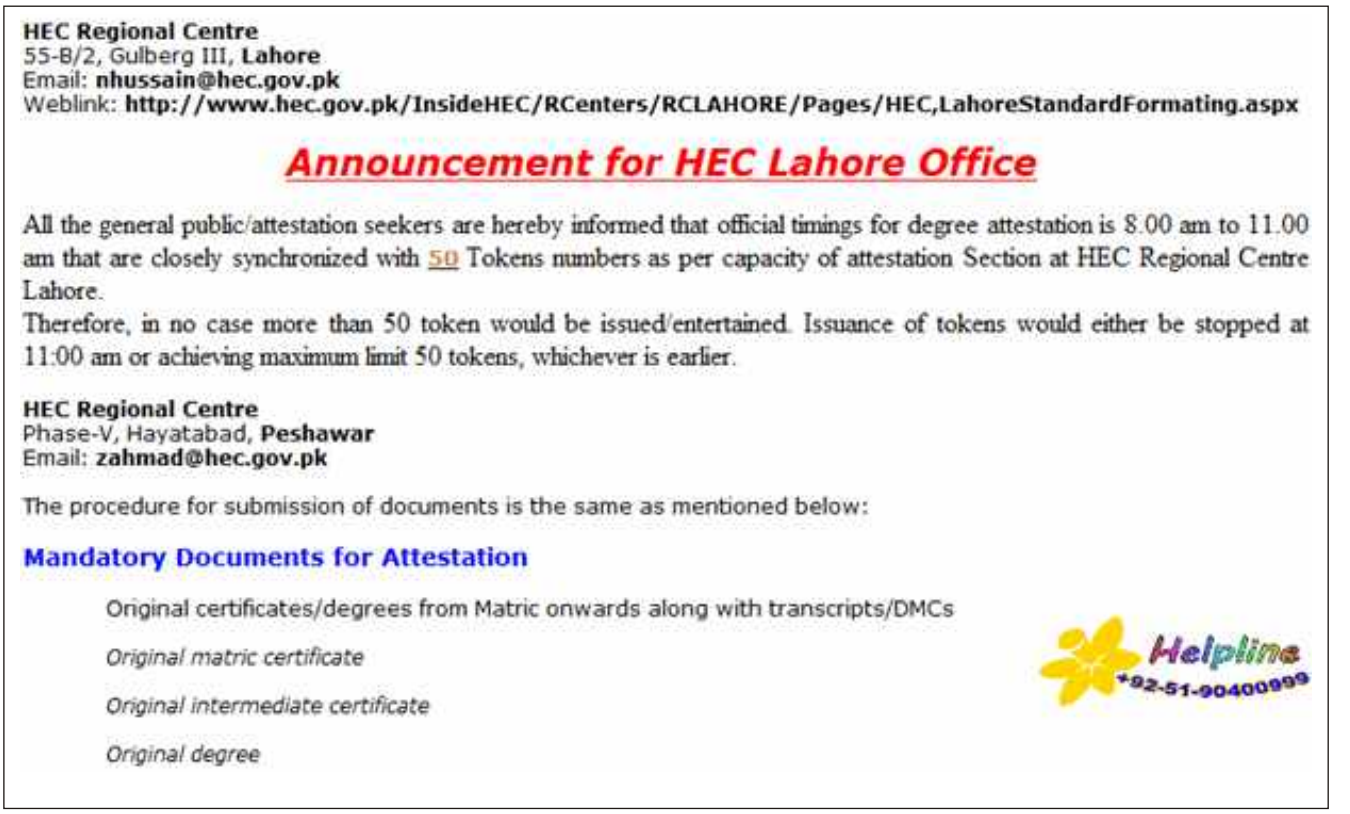
Achievements

The A&A Division has launched online Degree Equivalence System (DES) for granting equivalence/recognition to foreign degree holders. The newly launched system has been running successfully and equivalence letter is being granted in a very short time as compared to manual system. On second stage, HEC is planning online equivalence of Deeni Asand.

Summary of Equivalence Cases Processed

- Around 14500 cases for equivalence of foreign as well as Pakistani degrees and Deeni Asnad were received, processed and finalized.
- More than 15800 queries responded through emails.
- 45 cases of Supreme Court/Wafaqi Mohtasib/High Courts and Election Commission were attended.
- Over 6000 queries regarding status of universities/institutions within country and abroad were responded.
- An amount of Rs. 14,228,900 were charged and deposited in the Finance Division.

A&A Webpage Upgraded



HEC Regional Centre
55-B/2, Gulberg III, **Lahore**
Email: **nhussain@hec.gov.pk**
Weblink: **http://www.hec.gov.pk/InsideHEC/RCenters/RCLAHORE/Pages/HEC,LahoreStandardFormating.aspx**

Announcement for HEC Lahore Office

All the general public/attestation seekers are hereby informed that official timings for degree attestation is 8.00 am to 11.00 am that are closely synchronized with 50 Tokens numbers as per capacity of attestation Section at HEC Regional Centre Lahore.
Therefore, in no case more than 50 token would be issued/entertained. Issuance of tokens would either be stopped at 11:00 am or achieving maximum limit 50 tokens, whichever is earlier.

HEC Regional Centre
Phase-V, Hayatabad, **Peshawar**
Email: **zahmad@hec.gov.pk**

The procedure for submission of documents is the same as mentioned below:

Mandatory Documents for Attestation

Original certificates/degrees from Matric onwards along with transcripts/DMCs

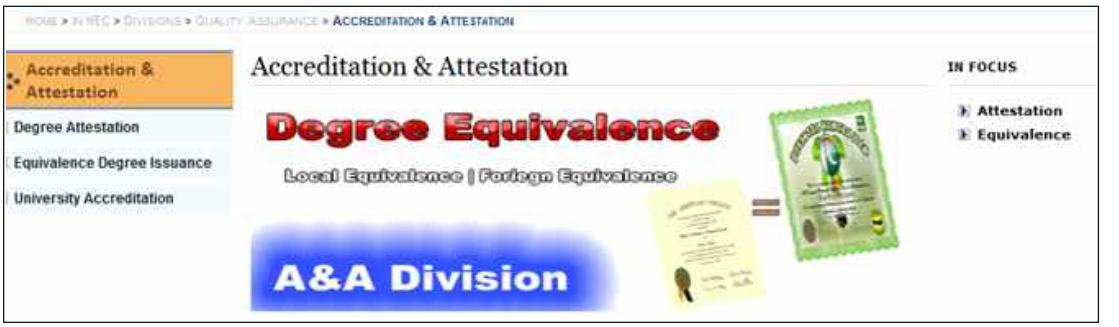
Original matric certificate

Original intermediate certificate

Original degree

Helpline +92-51-90400999







Attestation Helpline was launched and published on HEC website:



STATISTICS

Planning for future and evaluation of the current status plays a critical role in success of systems including higher education. The effectiveness of the efforts of universities in realizing the mission and achieving the academic, and research goals and the success of developing countries aiming at building knowledge economies depends on the availability and access to relevant and validated statistics. The emerging needs of planning and performance evaluation of the universities call for accuracy and adequacy of relevant statistical data. Such up-to-date and validated data also adds value to global competitiveness through quantitative presentation of the performance status of HEIs in the country.

Therefore, Statistical Information Unit (SIU) has been assigned the task to collect, scrutinize, analyze, finalize and continuously update the statistics of Higher Education in Pakistan. The SIU has faced two major challenges in this context those are availability of required validated data and user friendly presentation of the data in an integrated manner. For Statistical Information Unit (SIU), year 2012-13 was marked with significant developments and evolution in the context of new initiatives like data collection at institutional and academic programme level, data collection and verification to rank the HEIs of the country for promotion of national and global competitiveness, HE-BCI survey to map the economic impact of HEIs on the communities etc. These new dimensions of statistical reforms and significant changes led a process of efficient and accurate data collection from all HEIs of the country.

Statistical Reflections

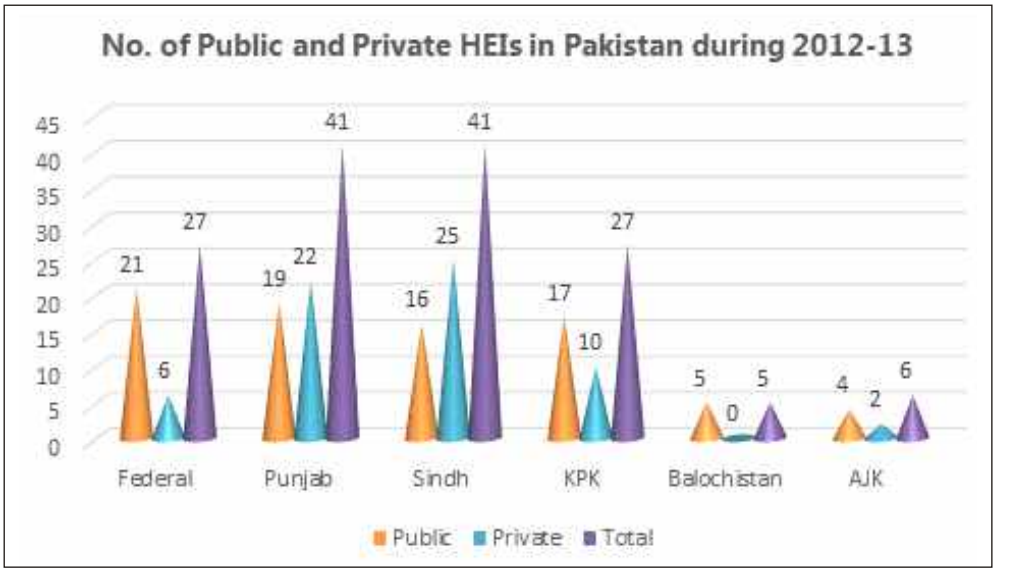
Statistical reflections of the compiled and verified data sets regarding HE sector of Pakistan are presented below:-

Universities/ Degree Awarding Institutions in Pakistan

There are total 147 universities/DAIs (including 10 new) in the county, out of which 82 are in public and 65 in private sector. The new Universities/DAIs which have been established and recognized during the year 2012-13 are given below:

S. No.	**Name of University/ DAI Established during 2012-2013**	**Sector**
1	Benazir Bhutto Shaheed University Lyari, Karachi.	Public
2	Sindh Madresatul Islam University, Karachi.	Public
3	Shaheed Benazir Bhutto University, Shaheed Benazirabad.	Public
4	Bacha Khan University, Charsadda.	Public
5	University of Haripur, Haripur.	Public
6	Women University of Azad Jammu and Kashmir, Bagh.	Public
7	Ali Institute of Education, Lahore.	Private
8	Karachi School for Business and Leadership, Karachi.	Private
9	Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad	Public
10	Government College Women University, Faisalabad.	Public

The trend of increase in number of public and private sector universities/DAIs is given below.



Quality and Research-based Ranking of Pakistani HEIs

Quality of higher education has become a primary agenda of the countries worldwide. For expansion of higher education and globalization of economic and social activities, university education has become a national concern in developing countries with international dimension. A well developed and equitable system of higher education that promotes quality learning as a consequence of both teaching and research is central for success in the emerging knowledge economy. In recent years importance of rankings seems to have grown exponentially. Rankings are considered effective to provide institutions a tool for development and improvement, therefore HEC desired to build the capacity of HEIs of the country to get more international recognition.

During 2012-13, ranking Performa was sent to all public and private HEIs. SIU has ranked all public and private sector HEIs using amended QS criteria as initially QS criteria cannot be fully applicable in Pakistani HEIs. All the HEIs were ranked in their area of specialization by choice in five different categories such as General, Engineering & Technology, Agriculture and Veterinary, Business Education and Medical Sciences. The Quality and Research based ranking 2013 was announced in the premises of HEC on Friday, July 5, 2013.

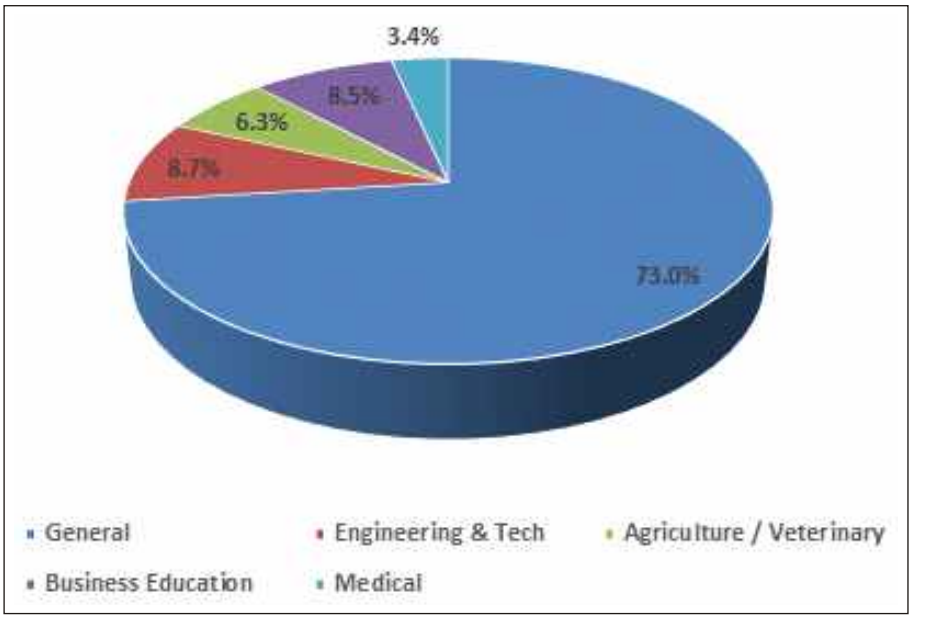
IMPACT

- Seven Pakistani universities have won its place in the list of top 250 Asian Universities and three Pakistani universities are now among the Top 200 World universities in agriculture and forestry.
- According to QS World Universities Rankings 2013, Quaid-i-Azam University Islamabad (QAU) 119, National University of Science and Technology Islamabad (NUST) 120, Agha Khan University Karachi (AKU) 152, Lahore University of Management Sciences Lahore (LUMS) 191, University of Engineering & Technology Lahore (UET), University of Karachi and University of the Punjab, Lahore 201 are now in top 250 Asian Universities.

- Three (03) Pakistani universities including University of Agriculture, Faisalabad (UAF) 142, Arid Agriculture University, Rawalpindi (UAAR) 152 and Quaid-i-Azam University, Islamabad (QAU) 172, are now among the Top 200 World universities in the disciplines of agriculture and forestry.
- An overall competitive culture of academic and research is being observed by HEIs of the country.

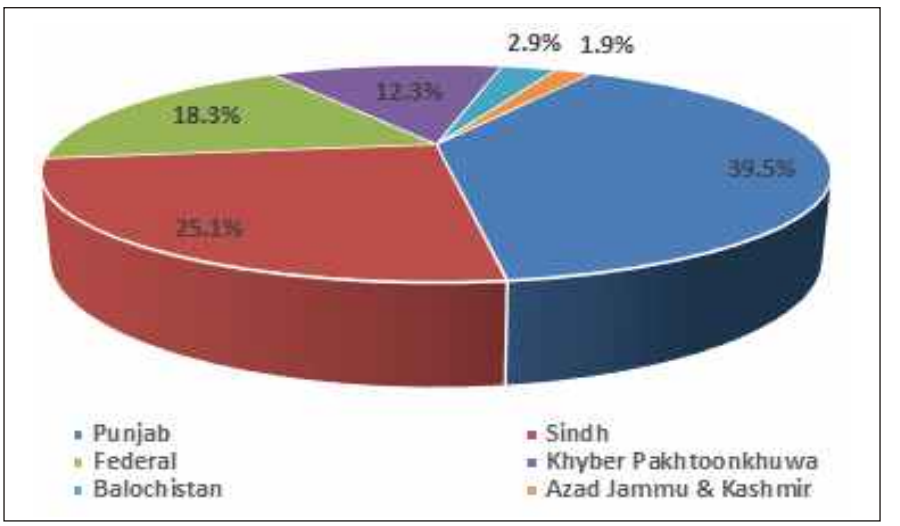
Enrolment in Pakistani HEIs

Enrolment at Universities/DAIs (main campuses, sub campuses and constituent colleges) has been increasing over the years. Student enrolment at universities/DAIs during 2011-12 by discipline and province is given in the following figures.

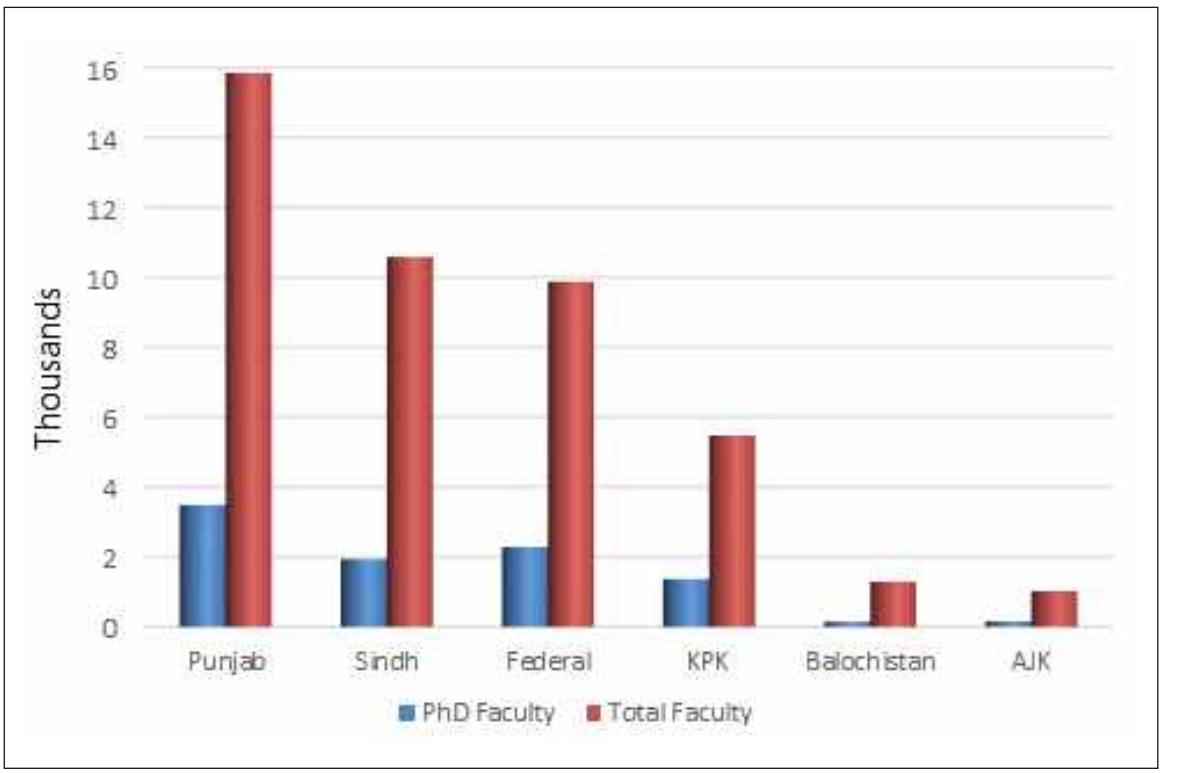


Discipline	No. of Students
General	436,510
Engineering and Tech nology	52,260
Agriculture/Veterinary	37,734
Business Education	51,077
Medical	20,165
Total	597,746

Enrolment by Province



Province	No. of Students
Punjab	235987
Sindh	149751
Federal	109531
KPK	73392
Balochistan	17484
AJK	11601



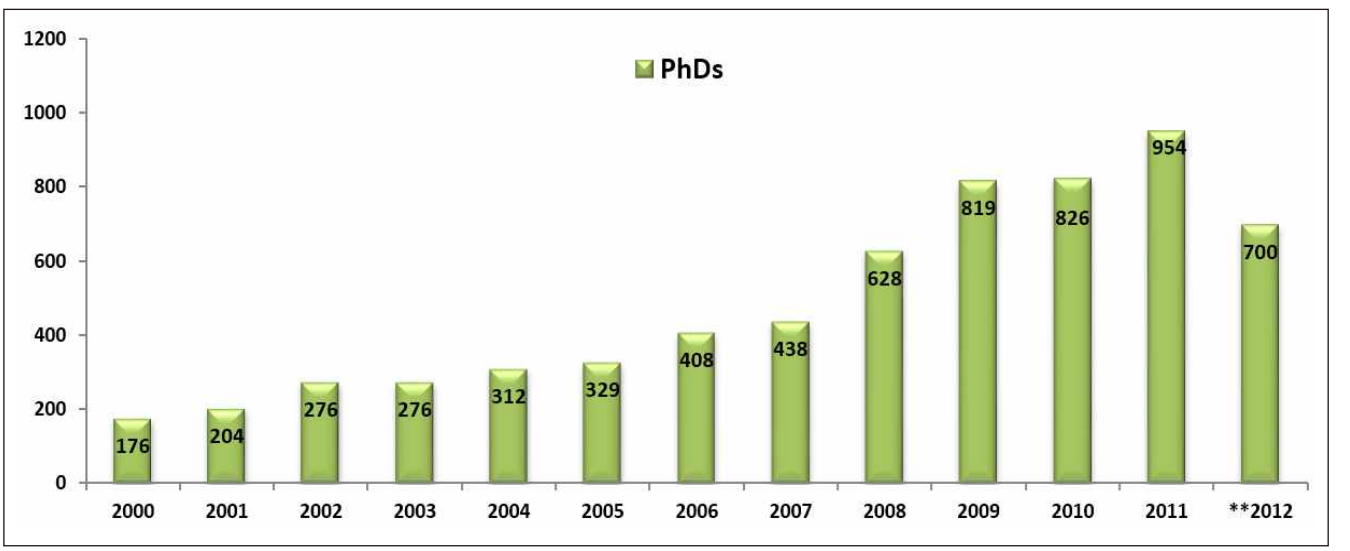
Province	PhD Faculty	Total Faculty
Punjab	3482	15846
Sindh	1931	10579
Federal	2284	9874
KPK	1365	5469
Balochistan	149	1295
AJK	152	1020

Subject Level Information

One of the main functions of Statistical Information Unit is to collect educational Statistics from each department from public and private sector universities and degree awarding institution on regular basis. Two Performa have been devised and sent to 131 public and private Institutes. Proformae-I is university wise, in which SIU seeking information about academic programmes, facilities and quality assurance while Proformae-II is subject wise, in which information needed about enrolment of students, output of students and complete information about faculty members. Overall 89% of total information for year 2011-12 has been received so far. The purpose of this task is to collect authentic and reliable data to further use for policy making and effective planning.

PhDs Produced by Pakistani Universities

Number of PhD graduates has been increasing over the years. During 2011, 954 PhDs were produced by Pakistani universities as compared to 826 during 2010. Yearly detail since 1947 to date is given below. The Higher Education Commission is maintaining a comprehensive database of PhD graduates including the name of scholar, subject, and title of dissertation, year of award of degree, name of supervisor and name of the institution. Detailed information of all the PhDs produced by Pakistani universities from 1947 till date is available in 'PhD Country Directory of Pakistan' which can be accessed on HEC website at http://www.hec.gov.pk/statistics.



** received till 30 June 2013.

Year-wise PhDs Produced by Pakistani Universities

Year	PhD Produced	Cumulative Total	Year	PhD Produced	Cumulative Total	Year	PhD Produced	Cumulative Total	Year	PhD Produced	Cumulative Total
1947	4	29*	1963	7	99	1979	39	504	1995	178	1877
1948	1	30	1964	6	105	1980	28	532	1996	191	2068
1949	2	32	1965	11	116	1981	43	575	1997	171	2239
1950	2	34	1966	19	135	1982	48	623	1998	212	2451
1951	1	35	1967	23	158	1983	60	683	1999	201	2652
1952	1	36	1968	20	178	1984	53	736	2000	176	2828
1953	4	40	1969	7	185	1985	44	780	2001	204	3032
1954	8	48	1970	19	204	1986	72	852	2002	276	3308
1955	9	57	1971	40	244	1987	93	945	2003	276	3584
1956	7	64	1972	29	273	1988	100	1045	2004	312	3896
1957	5	69	1973	17	290	1989	71	1116	2005	329	4225
1958	5	74	1974	41	331	1990	89	1205	2006	408	4633
1959	5	79	1975	20	351	1991	99	1304	2007	438	5071
1960	2	81	1976	48	399	1992	139	1443	2008	628	5699
1961	4	85	1977	30	429	1993	131	1574	2009	819	6518
1962	7	92	1978	36	465	1994	125	1699	2010	826	7344
									2011	954	8298
									**2012	700	8998

*25 PhDs were produced by University of the Punjab before independence of Pakistan (i.e. during 1930 to 1946).
* received till 30 June 2013.

More than 100 per cent of PhDs increase in disciplines of Business Education and Engineering and Technology during years 2003-2012 as compared to years 1947-2002. To harness human capital towards Science and Technology, HEC took certain initiatives including Indigenous Scholarship Programme and from the above analysis of data, one can observe the shifting focus from Social Sciences and Arts to Science disciplines, in post-HEC scenario.

Pakistan Research Repository

The Pakistan Research Repository (PRR) was launched to promote the international visibility of research originating out of institutes of higher education in Pakistan and to be in line with global initiatives to promote open free access to scientific literature. The aim of this service is to maintain a digital archive of the intellectual output of Pakistani institutions, to provide a single-entry access point to view research free of cost, and to distribute this information as widely as possible. It is a permanent digital record of all the theses and its contents are indexed by the leading online search tools including Google and Google Scholar.

Knowledge Exchange, Higher Education Business Community Interaction

Knowledge Exchange

Knowledge exchange refers to the role that universities can play in stimulating and contributing to innovation and social and economic growth. In this regards HEC and British Council agreed to have a strong cooperation and guide the universities to enhance knowledge exchange activities in their respective universities. The university's partners might be from the business, public (government, departments, regional agencies) or third sector (third sector includes charities, not-for-profit organizations, development agencies, communities and others).

Higher Education Business Community Survey

Statistical Information Unit conducted HE- BCI Survey during 2012-1013 in collaboration with the British Council Nepal, Pakistan and Higher Education Statistical Agency UK. The Proformae were sent to universities for collection of data. Two Proformae (Proforma A and Proforma B) designed as per local system. Data collected and analyzed. Reports prepared and submitted to competent authority for further course of action. The purpose of this survey is to gauge/measure how HEI's contribute in the Economic development of the country or how to contribute in GDP. This was the pilot study and recommendations were made as analysis of the data.

HEC has planned to conduct full fledge HE-BCI survey. Again the task of conduction of HE-BCI survey assigned to Statistical Information Unit. SIU has planned to conduct trainings sessions in universities in collaboration with BC. The schedule has been finalized. In this regard an International Resource Persons would also be involved.

HEC is planning to attach funding to HEI's on the basis of their performance in term of statistical financial returns. This funding would be called Higher Education Innovation Fund (HEIF). Higher Education Council of English provides free consultancy to HEC through British Council. HEC will follow UK model to implement this in Pakistani universities.

UNIVERSITY SPORTS

Pakistan University Sports Board (PUSB) came into existence in April 1974 through the act of Parliament. The Chairperson HEC is the Chairman of the Board, while Executive Director HEC, Vice Chancellors/Rectors of universities/degree awarding institutions and Director General, Pakistan Sports Board are its Members. The Director General/In charge, HEC Sports Division serves as Secretary/Member. The Secretary PUSB is responsible for arranging annual meeting of the Board. A standing sub-committee under the Chairmanship of Director General/In charge, HEC Sports Division has been constituted with Directors of Sports Divisions of all the Universities as its Members. Furthermore, to address technical issues, a technical committee has been constituted. The members of technical committee are elected during standing sub-committee annual meeting for a period of one year.

PUSB deals with the Sports matters for tertiary level students (male and female) of the universities and institutions of higher learning of the country. It organizes sports activities for students of universities and their affiliated colleges in the shape of Intervarsity Championships in close collaboration with the Universities of Pakistan. The basic role of HEC Sports division is to provide opportunities to student players for development of human abilities, both physical and mental, through participation in Sports activities by maintaining transparency and standard in university sports.

PUSB Sports Activities

1. To organize intervarsity championships
2. Participation in national championships
3. Participation in sports activities at international level
4. To provide financial support to outstanding sports persons
5. Development of infrastructure at universities
6. To arrange meetings and training courses
7. To provide sports facilities to HEC employees

Organization of HEC Intervarsity Sports Championships 2012-13

Keeping in mind the target of top three positions in the 32nd National Games, held in December 2012, intervarsity schedule was made on war footing. Intervarsity championships started from November 5, 2012 and all the events in which HEC was participating in the 32nd National Games, Intervarsity championships of those games were held prior to the games. Final round 38 (22 male and 16 women) Intervarsity Championships were held in two months i.e November and December, which helped in selection of best HEC teams on merit. A total of 60 final round (35 men and 25 women) Intervarsity Championships were held in this year. Overall 89 Universities participated in the Intervarsity Championships this year, 85 in men events and 45 in women events. Comparison of participation as compared to last year is as follows:

Participation	2011-12	2012-13
Number of Universities	90	89
Number of Universities in Men Events	86	85
Number of Universities in Women Events	33	45
Number of Teams	813	849
Number of Men Teams	623	659
Participation	**2011-12**	**2012-13**
Number of Women Teams	190	190

Intervarsity championships were held under the supervision and support of the respective Federations. Ski Federation provided their full facilities, equipment and coaches for training and holding intervarsity championships. Pakistan Sports Board extended full cooperation in making HEC intervarsity championships a success by providing its facilities mostly on gratis basis. Guns and Country club also provided its shooting facilities on gratis basis.

University Positions in Intervarsity Championships (Men Events)

S. No.	Event	Organizing University	Date	Winner	Runner Up	3rd Position
1.	9th Judo	University of Lahore	10.11.12	UCP Lahore	IUB Bahawalpur	University of Lahore
2.	30th Wrestling	University of Agriculture, Faisalabad	14.11.12	UCP Lahore	University of Lahore	University of the Punjab
3.	2nd Netball	University of Lahore	14.11.12	UCP Lahore	University of Lahore	University of the Punjab
4.	36th Football	University of the Punjab	15.11.12	University of the Punjab	UCP Lahore	COMSATS, Islamabad
5.	4th Rugby	University of Agriculture Faisalabad	15.11.12	University of Lahore	University of the Punjab	UMT, Lahore
6.	33rd Tennis	UET Peshawar	16.11.12	UCP Lahore	University of Peshawar	University of the Punjab
7.	2nd Wushu	Gift University Gujranwala	17.11.12	University of the Punjab	UCP Lahore	Gift University Gujranwala
8.	Tug of War	GCU Faisalabad	20.11.12	University of the Punjab	UCP Lahore	Superior College, Lahore
9.	24th Handball	UET Taxila	20.11.12	UCP Lahore	University of Lahore	GCU, Lahore
10.	1st Ju-Jitsu	UCP Lahore	23.11.12	UCP Lahore	University of Lahore	University of the Punjab
11.	2nd Cycling	Superior College, Lahore	30.11.12	Superior College, Lahore	UCP Lahore	University of the Punjab
12.	3rd Taekwondo	University of Karachi	01.12.12	UCP Lahore	University of Karachi	University of the Punjab
13.	34th Table Tennis	NED UET Karachi	02.12.12	GCU Lahore	University of Karachi	UCP Lahore
14.	36th Hockey	University of Peshawar	04.12.12	IUB Bahawalpur	UCP Lahore	University of Peshawar
15.	36th Squash	NED UET Karachi	05.12.12	UCP Lahore	University of the Punjab	GCU Lahore
16.	36th Athletics	Sarhad University Peshawar	06.12.12	UCP Lahore	University of the Punjab	GCU Lahore
17.	17th Shooting	University of Karachi	09.12.12	University of Lahore	UCP Lahore	Superior College, Lahore
18.	28th Weightlifting	UCP Lahore	12.12.12	UCP Lahore	University of the Punjab	Superior College, Lahore
19.	11th Rowing	University of Karachi	14.12.12	UCP Lahore	University of the Punjab	University of Lahore

S. No.	Event	Organizing University	Date	Winner	Runner Up	3rd Position
20.	16th Boxing	Sindh Agriculture. University Tandojam	14.12.12	University of Sindh Jamshoro	Sindh Agriculture University Tandojam	UCP Lahore
21.	11th Gymnastics	GCU Lahore	15.12.12	University of the Punjab	UCP Lahore	GCU Lahore
22.	7th Karate	UCP Lahore	16.12.12	UCP Lahore	Superior College, Lahore	University of Lahore
23.	34th Swimming	GCU Lahore	19.12.12	UCP Lahore	University of the Punjab	University of Karachi
24.	29th Bodybuilding	UVAS Lahore	20.12.12	UCP Lahore	University of the Punjab	University of Lahore
25.	2nd Ski	IIU Islamabad	07.01.13	University of the Punjab	KIU, Gilgit-Baltistan	UCP Lahore
26.	2nd Baseball	BZU Multan	01.02.13	UCP Lahore	Superior College, Lahore	IUB Bahawalpur
27.	36th Volleyball	NUST Islamabad	11.02.13	GCU Faisalabad	University of Agriculture Peshawar	UST Bannu
28.	36th Badminton	University of the Punjab	01.03.13	UCP Lahore	University of the Punjab	GCU Lahore
29.	36th Cricket	UET Lahore	05.03.13	UCP Lahore	University of the Punjab	Gomal University D. I. Khan
30.	12th Kabaddi	Superior College, Lahore	21.03.13	UCP Lahore	Superior College, Lahore	University of Lahore
31.	1st Archery	University of Lahore	25.03.13			
32.	8th Chess	University of Faisalabad	27.02.13	University of Karachi	University of the Punjab	UMT Lahore
33.	36th Basketball	Bahria University Islamabad	28.03.13	UCP Lahore	University of Lahore	DUHS Karachi
34.	8th Mountaineering	IIU Islamabad	09.04.13	University of Lahore	IIUI Islamabad	NUST Islamabad
35.	15th Water Polo	University of the Punjab	12.06.13	University of the Punjab	UCP Lahore	Iqra University Kararchi

University Positions in Intervarsity (Women Events) 2012-13

S. No.	Event	Organizing University	Date	Winner	Runner Up	3rd Position
1	35th Lahore	University of Peshawar	10.11.12	University of Volleyball	GCU Faisalabad	University of the Punjab
2	2nd Squash	Preston Islamabad	13.11.12	University of the Punjab	IBA Karachi	FC Lahore
3	2nd Teakwondo	UET Lahore	19.11.12	University of Karachi	University of the Punjab	GCU Faisalabad
4	4th Football	University of Sargodha	20.11.12	University of Sargodha	The University of Lahore	University of the Punjab
5	2nd Karate	UET Lahore	21.11.12	University of the Punjab	GCU Faisalabad	Islamia University Bahawalpur

S. No.	Event	Organizing University	Date	Winner	Runner Up	3rd Position
6	2nd Wushu	UET Lahore	22.11.12	University of the Punjab	Islamia University Bahawalpur	Gift University
7	4th Netball	The University of Lahore	01.12.12	The University of Lahore	LCWU	University of the Punjab
8	1st Ju-Jitsu	University of the Punjab	02.12.12	University of the Punjab	GCU Faisalabad	The University of Lahore
9	30th T.Tennis	DUHS Karachi	02.12.12	Kinnaird Lahore	The University of Lahore	University of Karachi
10	2nd Shooting	NUST Islamabad	05.12.12	University of Lahore	University of the Punjab	GCU Lahore
11	24th Handball	University of Agriculture, Faisalabad	05.12.12	The University of Lahore	LCWU	GCU Faisalabad
12	36th Athletics	CIIT	09.12.12	University of the Punjab	University of Lahore	Sargodha University
13	31st Hockey	GCU Faisalabad	13.12.12	University of the Punjab	Sargodha University	Kinnaird Lahore
14	3rd Swimming	QAU Islamabad	17.12.12	University of the Punjab	IIU Islamabad	The University of Lahore
15	28th Tennis	University of Karachi	17.12.12			
16	2nd Cycling	UET Taxila	17.12.12	University of Lahore	University of the Punjab	LCWU
17	2nd Skiing	IIU Islamabad	01 .01.13	University of the Punjab	University of Lahore	IIU Islamabad
18	8th Cricket	Islamia University Bahawalpur	01.02.13	University of Lahore	Sargodha University	Kinnaird College Lahore
19	1st Chess	UMT, Lahore.	05.03.13	University of the Punjab	KEMU., Lahore	UMT., Lahore
20	2nd Baseball	Islamia University Bahawalpur	06.03.13	The University of Lahore	University of the Punjab	University of Sargodha
21	2nd Judo	QAU Islamabad	13.03.13	University of the Punjab	FJWU Rawalpindi	AWKU Mardan
22	36th Badminton	Sarhad University	05.04.13	The University of Lahore	BZU Multan	Sargodha University
23	1st Archery	The University of Lahore	25.04.13			
24	2nd Rowing	UET Taxila	29.04.13	University of the Punjab	The University of Lahore	University of Sargodha
25	30th Basketball	Islamia University Bahawalpur	29.05.13	University of the Punjab	University of Lahore	Sargodha University

Activities at National Level

Affiliations with National Sports Federations

PUSB got affiliation with three National Sports Federations; Alpine Club of Pakistan, Pakistan Cycling Federation and Pakistan Taekwondo Federation during 2012-13. Thus total number of Federations with whom PUSB/HEC has affiliation reaches 25.

Performance at National Level Competitions

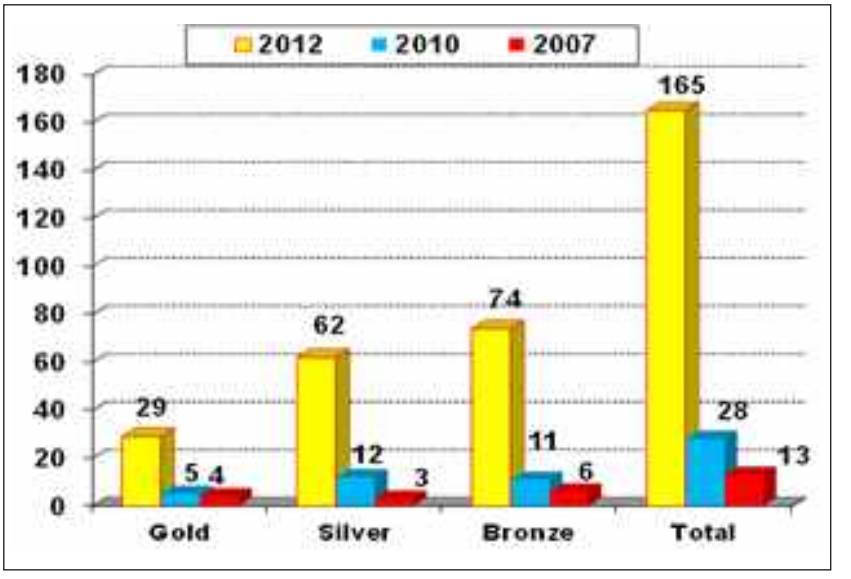
Pakistan University Sports Board/HEC provides opportunity to student players to prove their skills at national level. Revival of sports in the country depends on the University Sports being the largest sports setup in the country. Schedule of sports activities during the year under report was extremely busy as in addition to national championships, 32 National Games were held in December 2012.

32nd National Games 2012 Lahore

The opening ceremony was held on December 22, 2012 at Railway Stadium Ghari Shahu Lahore. A total of 10 units participated in National Games including WAPDA, HEC, Railway, Police, Punjab, KPK, Balochistan, Sindh, FATA, and independent athletes from Islamabad.

During 32nd National Games 25 sports events were held. HEC participated in 22 sports. HEC went in full strength with the target of 3rd position in the National Games. HEC contingent comprised of 390 participants consisting of 323 players and 67 officials. HEC contingent was led by Mr. Ahmad Yahya Khan, Director General Sports.

HEC got overall 2nd position by winning 165 medals which includes 29 Gold, 62 Silver and 74 Bronze Medals and secured 2957 points. In the history of Pakistan University Sports Board this was first time that PUSB/HEC team secured overall 2nd position. WAPDA got 1st position by winning 319 medals and securing 6260 points. 3rd position went to Punjab by winning 111 medals and securing 2746 points. It is pertinent to mention here that HEC got 9th position during the 31st National Games held in Peshawar.



HEC Achievements during National Games 32nd (2012), 31st (2010) and 30th (2007)

HEC Participation in National Championships/Competitions, 2012-13

Men Events

S. No.	Event	Month	Manager HEC Team	Gold	Silver	Bronze	Remarks
1	KPK Governor Cup Swimming Championship, Peshawar.	July 2012	University of the Punjab	3	-	2	
2	National Chess Championship, Karachi.	July 2012	UET, Taxila.	-	-	-	
3	NBP Tennis Championship, Karachi.	October 2012	University of Karachi	1	-	1	
4	National Track Cycling Championship, Lhr.	October 2012	Superior University	-	-	-	Team 3rd position
5	9th Pakistan Football Federation League Lahore	Nov-Dec 2012	University of the Punjab	-	-	-	
6	Pakistan Tennis Federation Trophy, Islamabad	January 2013	University of the Punjab	-	-	-	4th Position
7	4TH National Tray Hockey Championships, Peshawar.	January- 2013	University of Peshawar	-	-	1	3rd Position
8	32nd JUniversity or (U-21) National Hockey Championship, Faisalabad.	January – February 2013	University of Peshawar	-	-	-	
9	National Youth & JUniversity or Athletics Men Championship, Islamabad	January 2013	Sarhad University Peshawar	4	1	1	
10	National Ski Men Championship, Naltar, Gilgit	January - February, 2013	IIU Islamabad	-	-	-	
11	7th National JUniversity or Wrestling Championship, Lahore.	February 2013	University of Agriculture, Faisalabad	1	-	6	
12	60th National Men Cycling Championship, Lahore	February 2013	Superior University	-	4	3	
13	11th National Men's Netball Championship, Islamabad	February 2013	The University of Lahore	-	-	-	4th Position
14	National Inter Departmental Baseball Championship	March 2013	UCP Lahore	-	1	-	2nd Position
15	22nd National Judo (M) Championship, Peshawar.	March 2013	Superior University	-	-	7	
16	Patrons Trophy Grade -II Cricket, Lahore	April-May 2013	UET Lahore	-	-	-	
17	National Men Football Challenge Cup, Bahawalpur.	May 2013	University of the Punjab	-	-	-	
18	9th Korean Ambassador National Taekwondo Champ., Islamabad.	May 2013	University of Karachi	-	2	3	
19	53rd National (M) Basketball Championship, Peshawar.	May 2013	Bahria University, Islamabad	-	-	-	4th Position
20	45th National Athletics (Men) Championship, Islamabad.	May 2013	Sarhad University, Peshawar	-	-	1	
21	47th National (Men) Gymnastic Championship, Lahore.	May 2013	GCU Lahore	-	-	-	
22	35th (Velo Cup) National Boxing Championship –Sialkot.	May-June, 2013	Sindh Agriculture University, Tandojam	-	1	3	
23	Quaid-e-Azam Rowing Championship Islamabad.	June 2013	University of the Punjab	13	1	1	
	Total			**22**	**10**	**29**	**61**

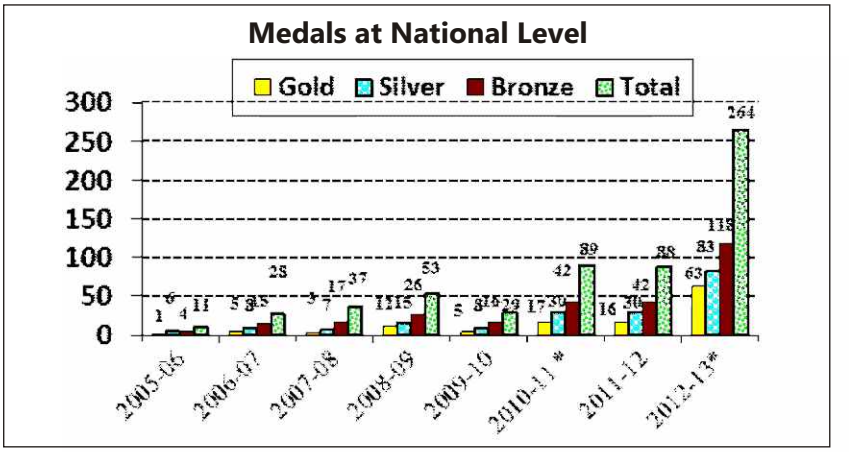
Women Events

S. No.	Event	Month	HEC Manager	Gold	Silver	Bronze	Remarks
1	8th National Women Football Championship	September - October, 2012	FWU, Peshawar	-	-	-	
2	National Track Cycling Championship Lahore	October 2012	UET Taxila	-	-	-	3rd position
3	Athletics Women Championship, Islamabad	January, 2013	CIIT Islamabad	-	2	1	
4	Saadia Khan Ski Women Championship, Naltar, Gilgit.	January 2013	IIU Islamabad	-	-	-	
5	11th Women National Cycling Championship, Lahore.	April 2013	UET Taxila	2	5	1	
6	National Women Baseball Championship Lahore.	April 2013	Islamia University Bahawalpur	1	-	-	1st Position
7	8th National Women Cricket Championship, Lahore	April 2013	LCWU	-	1	-	2nd Position
8	9th Korean Ambassador National Taekwondo Championship, Islamabad	May 2013	University of Karachi	1	1	4	
9	45th National Athletics (Women) Championship, Islamabad.	May 2013	CIIT Islamabad	-	2	9	
10	Quaid-e-Azam Rowing Championship, Islamabad	June 2013	UET Taxila	8	-	-	
	Total			12	11	15	38

Medal Summary of National Championships/Competitions, 2012 – 2013

Events	Participation	Gold	Silver	Bronze	Total Medals
Men Events	23 events	22	10	29	61
Women Events	10 events	12	11	15	38
National Games		**29**	**62**	**74**	**165**
Total Medals		**63**	**83**	**118**	**264**

Number of Medals won by HEC during National Championships /Games



Note: * Includes Medals of National Games held every 2nd year.

Organization of National Championships

HEC has emerged as one of the major competitors in sports in the country during the last couple of years. National Federations were insisting that HEC should organize National Championships as it is one of the major University t in the world of sports in the country. HEC organized 11th National Men's Netball Championship 2013 in collaboration with the Pakistan Netball Federation. The event was held at PSB Sports Complex, Islamabad in February 2013. Eleven universities participated in the Championship, including Army, Police, Air Force, HEC, Punjab, Sindh, Balochistan, KPK, FATA, AJK and Islamabad. HEC team won fourth position in the championship.

International Participation

In the history of PUSB, it was the 1st time PUSB players participated in two international events i.e 1st ECO games held in Turkish Republic of Northern Cyprus and 27th World University Games. A record number of players and officials got the opportunity of International experience, which will definitely help in increasing the standards of sports in the country. As many as 61-member contingent participated in the 1st ECO games, all the cost including Airfare was paid by the host. 38 members PUSB contingent participated in the 27th World University Games held in Kazan, Russia. Membership of Asian University Sports Association (AUSF) was restored during the AUSF General Assembly meeting held in Bangkok, Thailand.

1st Economic Cooperation Organization (ECO)
University Sports Games 2013 Northern Cyprus (TRNC)

1st Economic Cooperation Organization (ECO) University Sports Games were held in April 2013 at Turkish Republic of Northern Cyprus (TRNC). Turkey, Afghanistan, Pakistan, Kirghizstan, Kazakhstan, AzerbaiJanuary and Northern Cyprus participated in ECO Games. Pakistan contingent was consisted of 61 members, which included 46 players and 15 officials. Pakistan squad was led by Ahmad Yahya Khan Director General Sports as Chef de mission. Detail of contingent and performance of players are given below.

S. No.	Category	Name of Players/Officials	University/Institute	Performance
1	Chef De Mission	Mr. Ahmed Yahya Khan	HEC, Islamabad	
2	Official	Mr. Muhammad Irfan Sheeraz	HEC, Islamabad	
3	Official	Mr. Shahid Rasool	HEC, Islamabad	
4	Official	Mr. Muhammad Rafiq	QAU Islamabad	
5	Official	Mr. Abdul Qayyum	UET Khuzdar	
6	5000m	Ms. Farhat Batool	University of Sargodha	Bronze 6th Position
7	10000m	Mr. Asif Rehman	Superior College, Lahore	
8	10000m	Mr. Siddique Akbar	University of the Punjab	
9	10000m	Mr. Muhsin Raza	UCP, Lahore	
10	Coach	Mr. Gohar Habib	University of Sargodha	
11	Futsal	Mr. Umair Ali	University of the Punjab	
12	Futsal	Mr. Qayyum Furqan	University of the Punjab	
13	Futsal	Mr. Usman Iqbal	UCP, Lahore	
14	Futsal	Mr. Rashid Masih	University of the Punjab	
15	Futsal	Mr. Waheed Raza	UCP, Lahore	
16	Futsal	Mr. M. Asif	UCP, Lahore	
17	Futsal	Mr. Mubashar Hussain	UCP, Lahore	

S. No.	Category	Name of Players/Officials	University/Institute	Performance
18	Futsal	Mr. Amjad Hussain	University of the Punjab	
19	Futsal	Mr. Umair Arshad	University of Sargodha,	
20	Futsal	Mr. Waseem Ahmad	IIU Islamabad	
21	Futsal	Mr. Waqas Rasheed	University of the Punjab	
22	Futsal	Mr. Usman Afzal	University of the Punjab	
23	Coach	Mr. Irfan Ullah Kamran	Islamia College Peshawar	
24	Coach	Mr. Mahmood Khalid	University of the Punjab	
25	Swimming	Mr. Sikandar Khan	UCP, Lahore	
26	Swimming	Mr. Rohail Waqar	UCP, Lahore	
27	Coach	Mr. Rashid Sattar	UCP, Lahore	
28	Table Tennis	Mr. Kamran Sarang	University of Karachi	
29	Table Tennis	Mr. Faheem Raza	UCP, Lahore	
30	Table Tennis	Ms. Sana Muzaffar	Kinnaird Lahore	
31	Table Tennis	Ms. Farwa Babar	Kinnaird Lahore	
32	Coach	Ms. Farkhanda Fasih	NED UET Karachi	
33	Tennis	Mr. Saad Mubarak Ali	University of the Punjab	Team Bronze
34	Tennis	Mr. Hassan Riaz	University of the Punjab	Team Bronze
35	Tennis	Mr. Usman Ejaz	UCP, Lahore	Team Bronze
36	Tennis	Ms. Khunsha Babar	University of the Punjab	
37	Tennis	Ms. Natasha Shahid	University of the Punjab	
38	Tennis	Ms. Sara	University of Karachi	
39	Coach	M Aslam	UCP, Lahore	
40	60 Kg(Greco)	Mr. M. Ramzan	UOL	Bronze
41	60 Kg(Free style)	Mr. Saeed Anwar	UCP, Lahore	Bronze
42	74 Kg(Free style)	Mr. Aamar Javed	UCP, Lahore	Bronze
43	74 Kg(Greco)	Mr. Farhan Anjum	IUB Bahawalpur	Bronze
44	84 Kg(Greco)	Mr. Usman Butt	UCP, Lahore	Bronze
45	84 Kg(Free style)	Mr. Ali Aqdas	UCP, Lahore	Bronze
46	96 Kg(Greco)	Mr. Tayyab Raza	UCP, Lahore	Bronze
47	66 Kg(Greco)	Mr. M. Mustafa	UCP, Lahore	Bronze
48	66 Kg(Free style)	Mr. Siddique Akbar	UCP, Lahore	Bronze
49	96 Kg(Free style)	Mr. Ihtasham Asif	UOL	Bronze
50	Coach(Free style)	Mr. Shafaqat Ali	UCP, Lahore	
51	Coach(Greco)	Mr. M Riaz	UCP, Lahore	
52	Badminton	Mr.Muhamamd Irfan Saeed	UCP, Lahore	Team Bronze
53	Badminton	Mr. Azeem Sarwar	GCU Lahore	Team Bronze
54	Badminton	Ms. Ghazala Siddique	UOL	Team Bronze
55	Badminton	Ms. Naima Talat	BZU Multan	Team Bronze
56	Coach	Abdul Waheed Mughal	Sarhad University Peshawar	
57	Chess	Ms. Maryam Asif Butt	University of the Punjab	
58	Chess	Ms. Maryam Nasir	KEMU Lahore	

S. No.	Category	Name of Players/Officials	University/Institute	Performance
59	Chess	Mr. Awwad Mirza	University of Karachi	
60	Chess	Mr. Ehtesham ul Haq	UMT, Lahore	
61	Coach	Mr.Muhammad Akber	University of Karachi	

Kazakhstan won 6 gold and 4 silver medals and got 1st position. Turkey got 2nd Position, whereas Pakistan and the TRNC got 3rd position. Pakistani team won 10 Bronze Medals in Wrestling and got team 3rd position, 1 Bronze in Team Tennis Men and 1 Bronze Medal in Badminton Team event. Only cross country race was held in Athletics in which HEC female Athlete got 6th position, Bronze Medal. HEC first time participated in Futsal event at International level.

27th World University Games, 2013, Kazan, Russia

World University Games are held after every two years under the auspices of International University versity Sports Federation (FISU). The 27th World University Games were held in Russia from July 6-17, 2013 in the city of Kazan, Russia. As many as 10,400 athletes from 162 countries participated in these Games. Pakistan flag hoisting ceremoney was held in the University versiade village on July 5, 2013. Mr. Ahmad Yahya Khan Chief- de- Mission Pakistan exchanged Souveniers with the Mayor of Kazan city. Opening ceremony of the Games was held on July 6, 2013. The ceremony took place in the new Kazan Arena stadium with a seating capacity of 45,000. For the first time in the history of the University Games, 27 sports were included in Kazan 2013. Arrangements at the Village and the venue of opening ceremony were well organized. HEC participated in six events, Athletics, Rowing, Weightlifting, Boxing, Shooting and Swimming. Players were selected on the basis of their performance during the National Games 2012/National Championships. Training camp were arranged at the best possible facilities in Pakistan under the supervision of available best coaches of the respective event.

Particulars of Officials and players along with their performance during Kazan Games

S. No.	Officials	Designation	Organization
1	Mr. Ahmad Yahya Khan	Chief- de- Mission	DG Sports HEC
2	Mr. M Irfan Sheeraz	Secretary	Deputy Director Sports HEC
3	Mr. Arshad Sattar	Manager Weightlifting	Director Sports, University of Central Punjab.
4	Mr. Usman Ahmed	Manager Shooting	Director Sports University of Lahore
5	Mrs. Anjum Aziz	Lady Escort (Athletics)	Director Sports, Karachi University
6	Mr. Zubair Ahmed Butt	Manager Rowing	Dy. Director Sports, University of the Punjab
7	Mr. Abdul-Sattar Rahi	Coach Weight Lifting	DPE Govt. Islamia College Railway Road, Lahore.
8	Mr. Khadim Ali Khan	Manager Swimming	Director Sports , GC University, Lahore
9	Mr. Anwar Hussain	Manager Boxing	Director Sports, Sindh Agriculture Culture University Tandojam
10	Mr. Syed Ali Ahmed	Coach Boxing	University of Sindh, Jamshoro
11	Mr. Muhammad Mushtaq	Manager Athletics	Sports Officer, COMSATS Institute of Information Technology, Islamabad

S. No.	Player/ University	Event/ Category	Achievement 32nd National Games/ Championship	Performance 27th World University Games	Remarks
1	S.M. Hussain University of Sindh	Boxing 60 Kg	Gold	13th position out of 18	27 : 30 points
2	Ghulam Haider Superior University	Boxing 64 Kg	Silver	17th position out of 20	Knock down in 2nd round
3	Zulqarnain UCP Lahore	Boxing 75 Kg	Silver	13th position out of 19	26 : 30 points
4	Abi Jozi Khan Uni. of Karachi	Boxing 81 Kg	Silver	17th position out of 18	Knock down 1st round
5	Ahmed M. Akhter UCP Lahore	Weightlifting 56kg	Bronze, lifted 212kg HEC Std: 197 Kg	Lifted 185kg 13position out of 13	Lifted 27 kg less weight Range:185-264 Kg
6	Imran Ismail UCP Lahore	Weightlifting 69kg	Gold, lifted 255 Kg HEC Std: 217 Kg	Lifted 223kg 17th position out of 18	Lifted 32kg less weight Range: 170-323 Kg
7	Jamil Akhter University of Punjab	Weightlifting 94kg	Gold, 305 Kg HEC Std: 275 Kg	290kg 12th position out of 12	lifted 15kg less weight Range: 290-395 Kg
8	Ali Shan UCP , Lahore	Weightlifting 77kg	Bronze, 252 Kg HEC Std: 243 Kg	230kg 22nd position out of 23	lifted 22kg less weight Range: 167-355 Kg
9	Haroon Shaukat UCP, Lahore	Weightlifting 105kg	Gold, 307 Kg HEC Std: 280 Kg	279kg 17th position out of 17	lifted 28kg less weight Range: 279-412 Kg
10	Mustaqeem Butt UCP, Lahore	Weightlifting +105kg	Silver, 309 Kg HEC Std: 302 Kg	305kg 14th Position out of 15	Lifted 4kg less weight Range: 265-459 Kg
11 12	M. Aqeel Umar Sajid Ghafoor UOL	Rowing LW Double skull (team) 2000 meter	Gold	08:06.8 12th Position out of 12	Other Range 6:40:37 to 7:30:42
13 14 15	M. Aqeel Umar Sajid Ghafoor M Hamza Haq Tanveer Arif UOL	Rowing LW 4 skull (team)	Gold	07:44.8 10th position out of 10	Others Range 6:46:41 to 6:51:79
15	Imran Khan UCP	Rowing Single skull open	Silver	09:31.2 17th position out of 17	Others Range 7:18:32 to 7:52:57
16	Sikandar Khan UCP, Lahore	Swimming 50m free	Gold, 26.07 HEC Std: 27.7	26.22 35/70	21.67 to 31.32 Sec
	Sikandar Khan UCP, Lahore	Swimming 50 m butter	28.79 HEC Std: Nil	27.49 48/81	23.28 to 34.32 Sec
	Sikandar Khan UCP, Lahore	Swimming 100m free	59.59 HEC Std: 58.3	57.74 34/61	47.62 to 1:11.74
	Sikandar Khan UCP	Swimming 100 m butter	01:01.7 HEC Std: 01:07.0	01:01.7 59/81	51.75 to 1: 07.79
17	Bilal Ahmad Bahria Uni	Shooting 10 m Air Pistol	Ind. Gold	558 27th out of 39	Individual Range 587 to 532, Participation in shooting 43 countries.
18	M. Uzair Khan UCP, Lahore	Shooting	Team Gold	553 30th out of 39	10 m Air pistol 23 Countries

S. No.	Player/ University	Event/ Category	Achievement 32nd National Games/ Championship	Performance 27th World University Games	Remarks
19	Ahmad J. Khan COMSATS	Shooting 10 m Air Pistol	Team Gold Team Total Score 1611	546 36th out of 39 Team Total 1657 -27x	7th Position
20	M. Uzair Khan UCP, Lahore	Shooting 25 m Std Pistol		507 29th out of 33	Individual Range 573 to 435. 19 Countries participated in the event.
21	Ahmad J. Khan COMSATS	Shooting 25 m Std Pistol		472 31st out of 33	
22	Farhan Ahmad UCP, Lahore	Shooting 25 m Std Pistol		435 32nd out of 33 Team Total 1414 -5x 7 th Position	
23	Zafar Hayyat University of Sargodha	Athletics 200m	Bronze HEC Std:21.90 sec	22.81 48th out of 62	Range 20:0:0 to 25:06:0
24	Adnan Jahangeer University of Punjab	Athletics Long Jump	Bronze HEC Std:6.80 m	6.77m 23th out of 26	Range 8.46 to 5.64 meter
25	Altaf H. Shah GCU Lahore	Athletics Javelin Throw	Gold, 67 m HEC Std:60 m	63.01m 24 out of 26	Range 83.11 to 57.21 meter.
26	Ali Raza University of Punjab	Athletics 3000m St. Chase	Silver HEC Std: 9:53.0 sec	10:01.7sec 19th out of 20	Range 8:32.53 to 10:02 .12
27	Hafiz S. Ali University of Punjab	Athletics 100m	Bronze,10.75 HEC Std: 10.80 sec	13.08sec 57th out of 57	Range 10.10 to 12.31
28	Nighat Kausar University of Lahore	Athletics Triple Jump	10.73 m HEC Std: 9.30 m	NM	Range 14.82 to 11.41 meter
29	Razia University of Karachi	Athletics Heptathlon	Silver	2756 17th out of 17	Range 6623 to 4246 points

Finally 62 Countries were able to reach the Victory Stand. Total of 1,165 medals were awarded; including 353 Gold medals. Performance of shooting team was good in 10m Air Pistol in which Pakistani team got 7th position and also received Diploma of Honor. Performance of Swimming and Athletics players was satisfactory while others were not up to the mark.

HEC Selected players in National Teams & Training Camps to participate in International Events

S. No.	Student Players	University
2nd SAAF JUniversity or Athletics Championship-28 to 29 September 2013 at Ranchi (Jharkand)		
1	Ms. Ghazala Siddique	University of Lahore
2	Mr. Badar Mohy ud Din	Bahauddin Zakariya University, Multan
3	Mr. Asif Ali	University of Central Punjab
4	Mr. Huzran Khan	Islamia College University Peshawar
3rd Islamic Solidarity Games – 22nd September to 1st October 2013 – Indonesia (For Taekwondo event)		
5	Mr. Arslan (Taekwondo)	University of the Punjab, Lahore
6	Mr. Sikandar (Swimming)	University versity of Central Punjab
7	Mr. Rohail (Swimming)	University versity of Central Punjab
Training Camp for National Men's Judo Championship-2013		
8	Mr. Majid	University versity of Central Punjab
9	Mr. Tayyab Raza	University versity of Central Punjab
10	Mr. Ufan Butt	University versity of Central Punjab
National Men's Boxing Camp for upcoming SAF Games, ASBC Championship, AIBA World Boxing Championship, 2013-14		
11	Mr. Syed Israr (52 Kg),	University versity of Sindh, Jamshoro.
12	Mr. S. M Hussain (60 Kg),	University versity of Sindh, Jamshoro.

Meetings: PUSB organized three meetings this year which included 2nd Technical Committee meeting, 46th Sub Committee of PUSB and 15th PUSB meeting.

Certificates: HEC awards certificates to the student players to encourage their efforts in sports activities. HEC awards three types of certificates:

Merit Certificates: Merit Certificates are awarded to those student players who have achieved medals during Intervarsity Championships. HEC has awarded 1040 merit certificates to the student players this year.

Membership Certificates: Membership certificates are awarded to those student players who have represented HEC in National Championships/Competitions.

Colour Certificates: Colour certificates are awarded to those student players who have represented HEC in National Championships/Competitions for consecutive two years.

Financial Support: HEC recognizes the outstanding performance of student players by awarding scholarships and prize money.

Scholarship/Prize Money	Number of Players	Amount (Rs)
Scholarship	117	1,638,000
Prize Money National Games	244	4,747,500
Prize Money other than National Games	93	1,397,500
Total	454	7,783,000

FINANCE

HEC's Finance Division arranges, manages and generates financial resources for the higher education sector of the country with special reference to public sector universities, degree awarding institutes and centres. This Division has been supporting for crafting of a "resource base" for higher education sector, with the aim to transform universities and institutions of higher learning into engine of socio-economic growth and development. It is responsible to budget and obtain recurring grant from the Federal Government for around 124 higher education institutions, HEC secretariat, and its national programmes. It also arranges funds from other international and multilateral donors such as World Bank and USAID in the form of budgetary/financial support. This Division is managing timely disbursement of all recurring and development grants to the Federally funded universities and degree awarding institutions of the country.

It also arranges foreign exchange requirements of different development projects and recurring programmes and plays an integral part to efficiently remit foreign currency for Pakistani scholars studying abroad in multiple disciplines. All such tasks are performed by the three sections of Finance Division namely Finance Planning, Finance Operation, and Business Automation Wing.

Despite financial constraints, during 2012-13, the Finance Division managed to get from the Federal Government, Rs. 32.778 billion as annual recurring grant; Rs. 3.00 billion as supplementary grant on account of ad-hoc relief allowance for employees and pensioners; and an special grant Rs. 500 million for students of Balochistan, FATA and Gilgit-Baltistan. However, fund for development grant were slashed by the Federal Government from Rs 15.800 billion to Rs. 12.014 billion actual release.

The Finance Division is determined to enhance the capacity of the treasury departments of the universities and during 2012-13, 44 Treasurers and other nominees of public sector universities participated in an extensive trainings conducted by HEC in two phases. Moreover, the Accounts and Finance sections of four Regional Centres of HEC were given SAP Academy Training through Siemens Pakistan Ltd and three employees passed the Consultant Level Certification Examination conducted by SAP Malaysia.

The Division has been actively coordinating with the Government of Pakistan in obtaining a three year budgetary support of US$300 million from the International Development Agency (IDA)/ World Bank under Tertiary Education Support Programme (TESP). This programme is supporting the implementation of the government's higher education development programme as outlined in the second Medium Term Development Framework for Higher Education for 2011-2015 (MTDFII). This programme uses Results-Based Financing modality. HEC Finance Division has timely completed its reporting obligations by issuing the six monthly Interim Unaudited Financial Reports (IFURs) to the World Bank.

This Division is also responsible for preparing the Annual Financial Statements to the World Banks for Eligible Expenditure & Technical Assistance Component of the TESP Project. In the year 2012-13 HEC Finance Division prepared and issued Financial Statement of the FY 2011-12 for Certification Audit by the Directorate of Foreign Aid Projects, under Auditor General Office.

Finance Planning Section

The Finance Planning Section of HEC Finance Division is responsible for managing the allocation and disbursement of recurring grant to federally funded public sector universities / degree awarding institutes. For this purposes, budget proposals for recurring grants from the federally funded Universities, Institutes, and Centres of higher learning are examined, needs are assessed and formulated recommendations through a committee constituted by the Commission for allocation of recurring grants in a financial year. Proposed allocations are placed before the Commission and New Item Statement (NIS) is submitted to the Finance Division, Government of Pakistan for incorporation in the Government Budget. Processed to the release of quarterly / monthly installments of recurring grants with the Finance Division, Government of Pakistan as per their policy and transfer funds to the Institutions against their approved allocations. Utilization reports are obtained from the Universities and reports are examined to ensure that funds released by HEC are spent for the purpose for which these were released.

Funds for HEC programmes are allocated and released under Inter University Academic Activities, Promotion of Research, Digital Library, PERN, Seminars and Conferences, Travel Grants, Sports, Accreditation Councils, National Research Programme of Universities, Support for Scientific Journals and HEC Distinguished National Professors. Funds to universities for the faculty appointed under Tenure Track System are also allocated and released. After assessment of the requirements of Universities, and taken up with the Finance Division, Government of Pakistan for additional funds and provide additional (supplementary) grants. HEC Budget is prepared, place it before the HEC Finance and Planning Committee and submit recommendations to the Commission for approval. Also responsible for overseeing the management and control of finances to ensure appropriate use of public funds. Along with aforementioned functions, the Division also supports pillars of institutional development, to achieve strategic aims of the institutions focusing on building economies, leadership and communities, as outlined in Higher Education Medium Term Development Framework 2011-14 (HE-MTDF II).

HEC Recurring Grant

HEC receives bulk provision of funds from the Federal Government and divide these funds in four main categories. Tentative breakup ratios are as follows:

A) Universities and Degree Awarding Institutions	=	70%
B) Centres of Excellence / Chairs / Others	=	10%
C) Promotion of Research Activities by HEC	=	10%
D) HEC- Universities Programmes	=	10%

The basic framework for streamlining HEC recurring funding to universities and institutions of higher learning is (i) Base Grant (ii) Need Grants, and (iii) Performance Grants. The total annual recurring grant from HEC to universities / degree awarding institutions is distributed as under:

Base Grant	: 65%,
Need Grant	: 20%,
Performance Grant	: 15%

Base Grant

Takes into account the parameters/factors that is considered while calculating these grants such as: Type of students (Arts/Humanities/Social Science, Sciences/Agriculture, Medical/ Engineering/Veterinary), Level of students (Undergraduate, MS/MPhil, PhD) Provincial Grant is treated similar to Federal Grant and tuition fees is taken into consideration for allocation purposes. Distribution is made on resources per prorata enrolment basis.

Need Grant

Impact of completed development projects, Implementation of New initiatives, Regional/Location backwardness and Income disparity compensation (Need based scholarships).

Performance Grant

PhD faculty, Research Programmes, Research Publication/Output, Competitive Research Grants Obtained, Quality Enhancement Cell/Regulatory Body Reports/ Accreditation Council, Compliance with Commission's policies, Evaluations by professional bodies at national/international level.

Recurring Budget to the Universities/Institutes/Centres during 2012-13

During 2012-13, HEC received Rs. 32.778 billion as annual recurring grant, Rs. 3.00 billion as supplementary grant on account of ad-hoc relief allowance for employees and pensioners, and Rs. 500 million for students of Balochistan, FATA and Gilgit-Baltistan. Major portion (87.4%) of recurring grant released to HEC was disbursed amongst the universities/institutes/centres as annual recurring grant, supplementary grant and salaries for tenure track faculty. About 11.3% of the recurring budget was distributed to universities/ institutions through National Programmes for Universities under the fund 'Inter University Academic Activities', 'Promotion of Research', 'Pakistan Education Research Network', 'National Programme for Digital Library', 'Technical Assistance under TESP' and 'Prime Minister's Tuition Fee Payment Scheme for Masters & PhD Students of Balochistan, Gilgit-Baltistan and FATA'. The share of HEC Secretariat was around 1.3% of total recurring grant.

Particulars	B.E. 2012-13	R.E. 2012-13
a) Universities/ DAIs/Other Institutions	**28,720,000,000**	**31,720,000,000**
Universities/ DAIs (Through Funding Formula)	24,829,000,000	24,829,000,000
Distance Learning Universities	325,000,000	325,000,000
Institutes/Centres/ Chairs	1,946,000,000	1,946,000,000
Supplementary Grant to Univ/Institutions on Account of Increase in Salary		3,000,000,000
Tenure Track System	1,620,000,000	1,620,000,000
b) National Programmes for Universities, PM Tuition Fee Scheme and HEC Secretariat	4,058,298,000	4,558,298,000
Research Programmes including NRPU	1,200,000,000	1,200,000,000
Digital Library	900,000,000	900,000,000
Inter University Academic Activity	760,000,000	760,000,000
HEC University Programme	478,298,000	478,298,000
Pakistan Education Research Network	200,000,000	200,000,000
Technical Assistance Activities under TESP	60,000,000	60,000,000
Prime Minister's Tuition Fee Payment Scheme for Masters & PhD Students of Balochistan, Gilgit-Baltistan and FATA		500,000,000
HEC Secretariat	460,000,000	460,000,000
Grand Total (a+b)	**32,778,298,000**	**36,278,298,000**

Budget estimates 2012-13 of HEC Secretariat, National Programmes for universities, Tenure Track funds were approved in July 2012 in 10th meeting of HEC Finance and Planning Committee. Each year, as part of Government's annual budget process, Finance Division develops and maintains a medium-term forecast for the HEIs. This Medium Term Budgetary Framework (MTBF) is then used by Government to evaluate the sustainability of programmes and services in the immediate and medium terms. The forecast includes multi-year projections for the expenditures and key performance indicators on the outputs that contribute towards the mission of the Higher Education Commission "to facilitate institutions of higher education to serve as an engine of growth for the socio-economic development of Pakistan". A three-year forecast is made available to the policy makers and public every year through Green Book.

HE-MTDF II

A brief account of the contribution of Finance Division towards HE-MTDF II is given in the following table:

Pillars of institutional development	Outcome	Service /Support by Finance Division during 2012-13
1. Faculty Development	To improve the quality of teaching and research in institutions through programmes to improve faculty pedagogical skills and qualifications of faculty members.	• Funds allocation and release for Tenure Track System in public sector Universities/ HEIs. • Funds Allocation for Interim Placement for Fresh PhDs
2. Quality Assurance	To establish and implement stringent quality criteria developed against international Standards to assess the performance at both the programme and institutional level.	• Allocation of funds for Accreditation Councils established by HEC • Provision of funds for QECs established at Public Sector Universities by QAA
3. Research, Innovation and Entrepreneurship	To ensure that all higher education students benefit from a high-quality learning experience as well as to increase the capacity of higher education institutions to carry out cutting-edge research in all areas.	• Provision of funds for 'National Programme of Digital Library', Nation Research Programme for Universities, Offices of Research Innovation and Commercialization, and several other programmes, being executed under the fund 'Promotion of Research' and 'Inter-University Academic Activities'. • Providing annual recurring grant to Centre of Excellence and other specialized intuitions in public sector to promote research culture in higher education sector.
4. Improving Equitable Access	To maximize opportunities for acquisition of quality higher education for the 17–23 year old age group in Pakistan.	• Collection of necessary information on enrolment, to take informed decision regarding allocation of funds to universities/DAIs, in order to extend higher education facility to Pakistani youth. • Provision of annual recurring grant to Distance Education universities. • Inclusion of new universities in HEC recurring stream for annual grant • Funds Allocation for need based scholarships

Pillars of institutional development	Outcome	Service /Support by Finance Division during 2012-13
5. Excellence in Leadership and Governance	To support excellence in the higher education sector's leadership as well as excellence in the governance and management of institutions of higher learning.	• Allocation of funds for programmes like 'Modern University Governance' and 'University Management Development Programme' designed to build capacity of 1st and 2nd tier of university management.
6. Financial Management and	To enhance transparency, quality and reliability of financial information and comprehensiveness and timeliness in financial reporting. To review tertiary education expenditures that would include institutional productivity to ensure equitable distribution of financial resources amongst the Higher Education institutions	• Training workshop conducted for the Treasurer/Director Finance of all Public Sector universities relating to Financial Management and Accounting. • Provision of funds for Financial Aid offices at public sector universities

Tenure Track System

In addition to the annual Recurring Grant, HEC provides separate Funds to HEIs for the faculty appointed under Tenure Track System (TTS). During 2012-13, a total of 1648 faculty members were paid the salaries under TTS. The detail of TTS faculty working in HEIs during 2012-13 in given in the following table:

Category of HEI	Faculty Appointed under TTS			
	Professors	Associate Professors	Assistant Professors	Total Faculty
General Universities	82	32	746	860
Agriculture Universities	34	3	205	242
Engineering Universities	23	4	86	113
Medical Universities	1	1	53	55
Degree Awarding Institutes	8	20	289	317
Other Institutes	3	4	24	31
Centres	8	2	20	30
Total	159	66	1,423	1,648

The IPFP programme is another initiative under which fresh PhD Scholars are placed in various public/private sector universities, preferably nearest to the domicile city of the Scholar, for a period of one year. This serves as an impetus for the scholars to excel in their field and secure a permanent position. The IPFP is being funded through Tenure Track Fund.

Budget Preparation for National Programmes for Universities and HEC Secretariat

Finance Planning Division is responsible for leading the preparation of annual budget of HEC Secretariat and more than fifty (50) National Programmes for Universities being funded through recurring budget. To facilitate this process, the Division gathered relevant information from all the programme officers, which was analyzed and used in budgetary planning process of the Commission. Budgetary documents were then prepared and presented before the Finance Planning Committee of the Commission in a meeting held on 21st June 2013.

Following are revised estimates approved for financial year 2012-13:

National Programmes for Universities and HEC Secretariat	R.E. 2012-13
Research Programmes including NRPU	1,256,544,000
National Programme for Digital Library	772,219,725
Pakistan Education Research Network	564,564,433
HEC Secretariat	851,880,000
Inter University Academic Activity	768,188,870
HEC University Programme	3,478,298,000
Prime Minister's Tuition Fee Payment Scheme for Masters & PhD Students of Balochistan, Gilgit-Baltistan and FATA	500,000,000

Development of Business intelligence Tool

During 2012-13, Finance Division provided facilitation for the development of a business intelligence tool for Data reporting. Over the past few years Finance Division has been working to enhance business processes and tools used to prepare annual budget of the Universities. The addition of this tool will provide the competent authorities the opportunity to improve upon its financial reporting capabilities. It will provide the means by which to integrate data from multiple sources into a centralized database to be used by policy makers for informed decisions.

The implementation of BI-DRS tool was scheduled to be completed by June 2013. However, during the development phase, some delays were observed, therefore the scope and timeline of the project is adjusted to ensure quality of service to be delivered by the vendor i.e. M/s Techlogix.

Release of Funds under "Subsidy to Scholars under Cultural Exchange Programme"

An amount of Rs 18,363,700 was released during the FY 2012-13 to the Embassies of China, Egypt, Romania, Slovakia, Mexico, Turkey etc. and scholars as remittances and air ticket charges, etc. under the scheme "Subsidy to Scholars under Cultural Exchange Programme".

Monthly/Annual Reconciliation of Recurring Grant with AGPR

The recurring grant is being released in monthly installments by the Finance Division, Govt. of Pakistan. The same has been got reconciled with AGPR on monthly basis and annually for the FY 2012-13.

Meetings organized and represented by HEC Finance Division

Finance Planning Division has actively been participated in policy formulation, financial management, financial planning and decision making, financial assistance from the World Bank and other related issues during the year 2012-13. In this respect, numerous meetings of higher forums were organized and the Division also represented HEC during various meetings at different universities / organizations. Details of some important meetings either organized or represented by Finance Division are depicted below:

- 10th and 11th meeting of HEC Finance Planning Committee to review Annual Budget of HEC Secretariat and National Programmes for Universities were held in July 2012 and June 2013, respectively. The Committee reviewed the estimates and formulated its recommendations for the approval of the Commission.

- Meeting of Sub-Committee was convened in May 2013 to review annual allocation of universities and degree awarding institutions. Recommendations of the Committee got endorsed by the Commission and implemented accordingly.
- A budget review meeting was held in April 2013 to review the fund utilization pattern of different national programmes for Universities and HEC Secretariat budget heads.
- Represented HEC in Finance Planning Committee meetings of various universities/degree awarding institutions held for annual budget approval and agenda items having financial implications.

Finance Operations Section

This section of Finance Division is responsible to process and record all receipts, disbursements and maintain accounts through SAP based ERP solution. Funds are also released for Overseas and Indigenous Scholarships, salary to the Foreign Professors under Foreign Faculty Hiring Programme and Tenure Track Scheme, Promotion of Research, Inter Universities Academic Activities as well as, Digital Library, Pakistan Educational Research Network, Video Conferencing, and different research projects in Universities. Travel Grants to university teachers, and sponsorship for Scientific Journals and support for organizing Seminars in universities is also paid through Finance Operations Section.

Finance Operation Section is also responsible for the operational expenditure of HEC Secretariat like salary, pension & benevolent fund, utility bills, rent of the houses, payment to vendors against supply of goods and services and all other routine expenses. During 2012-13, the Division disbursed Rs. 48,234.19/- million against the development projects of Universities & HEC, and recurring grant and other programmes as per following summary:

S. No.	Description	Payments/ Adjustments	Receipts/ Adjustments
		Amount (in Rs millions)	
	A) Development Grant		
1.	Development Grant to Universities & HEC Managed Projects	11,720.550	12,013.600
	B) Recurring Grant		
1	Recurring Grant to Universities	30,100.000	30,100.000
2	Promotion Of Research	1,242.636	1,200.000
3	IUAA	487.366	760.000
4	Tenure Track	1,841.113	1,620.000
5	HEC Secretariat (Own Recurring)	689.391	460.000
6	HEC, University Programmes	478.298	478.298
7	Digital Library	676.926	900.000
8	Pakistan Education Research Network	558.335	558.240
9	Technical Assistance for Capacity Building	18.426	60.000
10	PM Tuition Fee Scheme Baluchistan FATA	430.151	500.000
Total Recurring		**36,552.64**	**36,636.54**
Grand Total		**48,234.19**	**48,650.14**

Audit by Federal Auditor

The accounts for the fiscal year 2011-2012 were completed and duly audited by federal auditors while audit for the fiscal year 2012-13 is ready to be conducted.

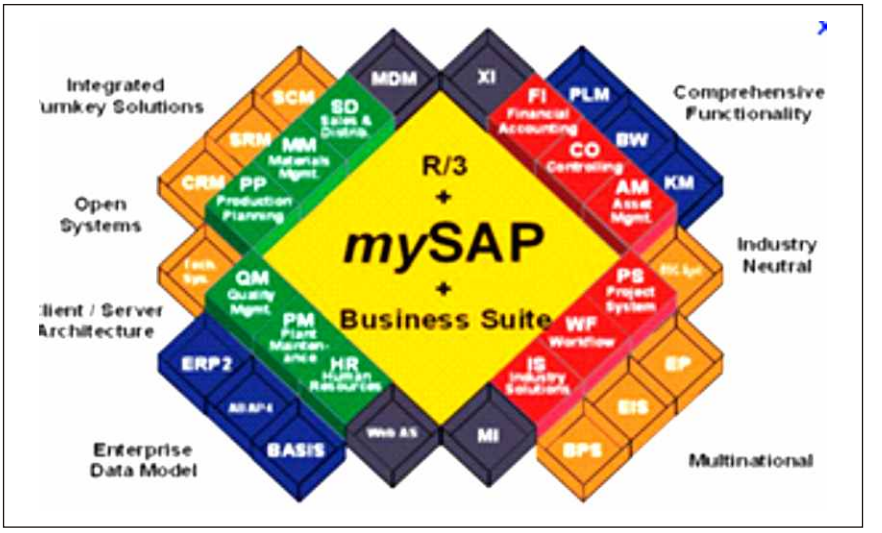
Audit by Independent Chartered Accountant

The audit of HEC Accounts for the FY 2008-09 has been completed by the firm i.e. M/s Awais Hyder Liaquat Nauman Chartered Accountants and audit report has been issued. The services of M/s Illyas Saeed & Co were hired after completion of codal formalities to conduct the audit of the Commission's accounts for the next FY's. Accordingly, the audit for the FY 2009-10 is in progress by the firm.

Business Automation System (BAS) Wing

The BAS department is responsible for implementation and maintenance of SAP based Enterprise Resource Planning (ERP) solution. It also takes care of all periodic financial reports & statements, such as the quarterly and annual reports for the World Bank, the Annual Financial Statements, and the quarterly reporting system for Budget Consumption and Advances. It is liable for coordinating the Technical Assistance (TA) Component of the Tertiary Education Support Programme (TESP) of the World Bank/International Development Agency (IDA). Moreover, trainings of the Treasurers and accounts departments of the universities is coordinated and conducted by this department.

The SAP system has integrated all functions of HEC such as Finance, Development Projects Management, HEC University Programmes, Scholarships, Human Resource Management, Procurement, and Asset Management; as well as, system of recording and reporting of University Recurring and Development Grants.



SAP ERP ECC 6.0

In addition to the responsibility of maintaining the SAP system, in the year under review, BAS wing has further developed and enhanced the SAP system in their respective modules and performed the following tasks:

Finance, Accounts and Planning Modules

- Developed new reports and improved existing reports required by different tiers of HEC management
- Improved advance payment and reporting system
- Screen designed and configured for data entry of all research grants under National Research Programme for Universities
- Developed new fields in Project System to accommodate new requirements
- Developed system generated Bank Deposit Slips for all receipts to ensure its timely deposit and ease of subsequent bank reconciliation.
- Developed Cheque Forwarding Letters generated from system along with cheques thus saving time and effort for manually typing the letters
- Improvement in authorization & restrictions of SAP users based and on relevant General Ledger Accounts
- Configuration of procurement module for HEC regional centres
- Report Development to view the Asset Data
- Development of report for daily bank reconciliation
- Development of Bank Balances Report
- Development of system generated "Bank Schedule" for Recurring and Development banks for submission to Accountant General Pakistan Revenue for endorsement of HEC cheques to banks for honoring the cheques
- Developed complete recording and reporting system for "Pakistan Education Research Network (PERN)

Human Resource Management & Administration Modules

- SAP Training & Event Management Module's Configuration/Development, Testing, Training and Implementation at HEC
- Integration of Human Capital Management and HEC Budget Book
- Developed upload programmes for data updating pertaining to complete information of HEC employees including photograph.
- Employee's Fixation in Pay and Extension in contract appointment of MP Scales
- SAP personal data circulation to the concerns, uploads and updating process for all HEC Officers and Staff
- Configuration of Employee's Annual Increments and Allowances
- Configuration of HEC Accommodation Cases: Hiring Process, Re-Hiring, De-Hiring, Monthly / Semi Monthly Rents and Retention of Houses etc.
- Configuration of HEC Medical expense re-imbursement, screens, permission letters, adjustments, dependent info type and reports
- Development for HEC employee's GPF info type screens and reports

- Project Preparation, Configuration, Development, Testing and Implementation or Go-Live of new SAP HCM sub- modules with Support, Documentation and User's Training



SAP ERP HCM

Assets Management Module

- Configuration of Asset Management System in SAP
- Development of Asset Classes
- Gathered and prepared data of all assets 1988 to 2008 and provided it to concerned sections for reconciliation
- Improved and developed Asset Register and Reports
- Provide online support to regional centres related to data and information verification
- Enter Legacy data of "land" in SAP system

HRD Scholarship Module

- Reporting and Configuration for all HEC's Scholars Data Management
- Prepare reports through SAP for HEC Management, as well as, other organizations like Cabinet Division and Assembly committees related to scholarship queries.
- HRD user's training for complete scholars' life cycle data management and reporting

SAP In-house Trainings, Academy Trainings and Consultant Level Certification

- Five HEC employees completed SAP Academy Training conducted by Siemens Pakistan Ltd
- Four employees passed the Consultant Level Certification Examination conducted by SAP Malaysia
- SAP end user training was given to more than about 125 employees of HEC pertaining to various divisions

Financial Statements for 2011-12

- HEC Management Accounts were prepared for the FY 2011-12 including Financial Statements, details of Recurring and Development Grants to Universities and the Balance Sheet.

Management of HEC Website for the period September 2012 to May 2013

- Management of HEC Internal & External website
- Looking after HEC Degree Attestation System and Foreign Equivalence online Application
- Developed and maintained online system for degree verification by universities for the "National Internship Programme" of the Ministry of Education, Training & Standards in Higher Education (previously dealt with by MoY)

Reporting Assignments for Tertiary Education Support Programme of the World Bank

- Timely submission of the following Financial reports to the World Bank
  - Quarterly Budget Expenditure reports BERs
- Semiannual Interim Unaudited Financial Reports (IUFRs)
  - Statement of Source and Uses of Funds
  - Variance Analysis of Use of Funds
  - Cash Forecast For the 6 Months
  - IDA Disbursement Activity
  - Statement Project Expenditures for Contracts Not Subject to Prior
  - Review Project Expenditures for Contracts Subject to Prior Review
- This Wing is also responsible for preparing the Annual Financial Statements to the World Banks for Eligible Expenditure & Technical Assistance Component of the TESP Project. In the year 2012-13 BAS Wing prepared and issued Financial Statement of the FY 2011-12 for Certification Audit by the Directorate of Foreign Aid Projects, under Auditor General Office. It also helped HEC Audit division in the audit of TESP.

Training cum Workshop for the Treasurers of the public Sector Universities

- Arranged a first ever event of Training cum Workshop for the Treasurers of the universities and Degree Awarding Institutes, It was conducted in two batches. The first one was held at Nathia Gali from April 22- 26, 2013. Whereas the workshop for the second batch was held at the Resource Centre of the Fatima Jinnah Women University, Murree from 27 - 30 May 2013. The objective of the workshop was to study how to bring reforms in financial management system and to devise a strategy for funds mobilization in universities to make them financially sound. It was part of HEC's continuous efforts to develop Financial Management (FM) & Accounting Systems across the sector to enhance transparency, accuracy, timeliness and credibility of financial reporting system.
- The scope of the workshop was as follows: Financial Management
  - Adoption of New Accounting Model (NAM)
  - Budgeting & Internal Controls
  - Accounting Policies and Procedures
  - Financial Reporting (in-year and annual)
  - Government Audit Effectiveness (both internal and external)
  - Revenue Generation Idea

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