

# ANNUAL REPORT 2016-17

## THE UNIVERSITY OF AGRICULTURE PESHAWAR - PAKISTAN



LEADER IN CAREER & SOCIETY BUILDING



Leader in Career & Society Building

**THE UNIVERSITY OF AGRICULTURE  
PESHAWAR – PAKISTAN**

## **VISION**

**To be the leading Agricultural University defined by its innovative academic programmes, result oriented research and far reaching community engagement and service**

## **MISSION**

**UAP aims to positively impact the quality of life in the province, the nation and beyond by offering rich academic experience in an environment of innovative and inspired learning, creative research and community engagement and service**

**ANNUAL REPORT 2016-17**

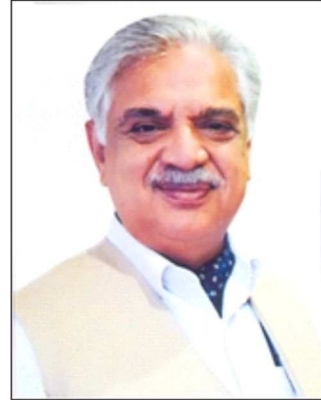
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## Chancellor's Message

The University of Agriculture, Peshawar established in 1981 enjoys the exclusive pride of being one of the leading institutions in the country, providing high quality education in Agriculture, Management and Computer Sciences to its students, The University with its unique mandate to offer quality education is plying a vital role in the agriculture uplift and thereby contributing significantly towards the food and economic needs of the Province. Moreover, the University is providing active leadership in food security for the ever-increasing population in Pakistan being a greatest challenge faced by the nation.



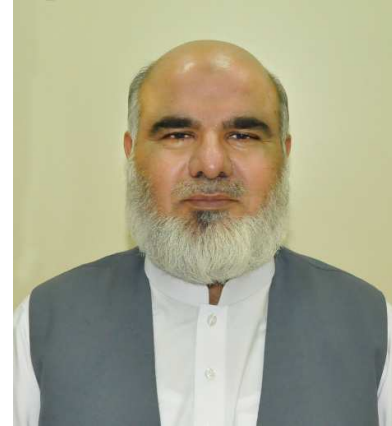
To cope with these challenges the university of Agriculture, Peshawar as a lone technical University involved in agriculture education and research in the Province is mandated to use its technical jurisdiction defined in the law of land is providing trained manpower to the agriculture sector as well as carrying out quality research work on its various aspects including Livestock as well as social sector issues. The graduates of UAP are serving in public and private organizations on key position within Pakistan and abroad. They are our ambassadors and have been bringing in laurels to the name and prestige of the Country.

I am immensely pleased and take the opportunity to warmly congratulate the University administration, Faculty, students and researchers for playing such a valuable role for the sectoral uplift and hope that the available academic and research environment being provided in the shape of well established laboratories, research farm and ICT infrastructure will be utilized to the optimum for the national development.

**Engr. Iqbal Zafar Jhagra**

## Vice Chancellor's Message

The University of Agriculture, Peshawar has the pride of being country's prime institution, characterized as one of the most vibrant and dynamic universities of the country. The innovation in Research and Development is mainly contributed by the five major faculties, providing leadership to the researchers, students and teaching staff to undertake basic and applied research of international repute in vital areas of Crop Production, Animal Husbandry & Veterinary, Plant Protection, Food & Nutrition and Rural Social Sciences including Management Sciences. The outcome from these R&D endeavors are widely shared with local as well as international community for adoption in the field directly benefitting in the rural livelihoods.



University being a seat of higher learning in agriculture sector, facilitates the successful completion of undergraduate and graduate degree programmes by providing a conducive environment for learning and innovation. The University has achieved satisfactory progression in terms of excellence in learning and research, community engagement and has planned to continue the expansion of its research programmes in line with a very well-defined Vision and Mission. The University provides great importance to the community engagement and has promoted strong linkages especially with the farming community. Their feedback helped us a lot to further refine our programmatic directions.

The University strived hard to bring improvement in its governance through better administrative systems and to provide facilitation to the students, faculty and staff; ensuring greater alignment of resources to strategic priorities, increased revenue generating activities; and efficient administrative units.

At the end, I am highly indebted to the worthy Chancellor and Governor Khyber Pakhtunkhwa, Provincial Government and Higher Education Commission, Islamabad for providing all the facilitation in making this University a role model for others to follow. I am also thankful to my faculty and staff for performing excellence in their official pursuits and making the University a role model.

**Prof. Dr. Noor P. Khan**  
**Vice Chancellor**

## Executive Summary

After the enactment of Khyber Pakhtunkhwa Universities Model Act 2012 (Amended 2016), the University of Agriculture, Peshawar made concerted efforts to develop and approve its Statutes 2016 from the statutory bodies of the University. These Statutes are 31 in number and are under implementation to ensure effective governance in the University.

In light of the vision and mission of the University, sustainable growth patterns were observed in physical and technological facilities, academic programmes, research & development, quality assurance, good governance, outreach and students' curricular & co-curricular activities during 2016-17. With this steady growth, the University feels privileged to produce 35 PhDs, 644 M.Sc (Hons), 161 M.Phil, 1075 B.Sc. (Hons)/ DVM and 1410 other quality graduates in varied disciplines of agriculture and allied technologies. These graduates have been hired by different governmental and non-governmental organizations as well as private sector while most of them have been enrolled for higher degree programmes both inland and abroad.

Research innovation remained a prime component of academics in the University. The faculty and researchers earned and working on more than 59 research projects during 2016-17 from different donor organizations both at national and international levels. The research outcomes have been reported in number of publications in shape of research journals. Similarly, a number of publications have been published by the faculty and researchers as chapters in books and quality research articles in reputed national and international journals i.e. 148 in impact factor journals and 270 in the Higher Education Commission's recognized Journals.

Faculty development is always required to update the existing knowledge about new technologies and researches being carried out in the relevant fields. In this regard, more than 15 faculty members were sent for higher studies to the technologically advanced countries of the world.

The faculty and researchers have also been actively involved in community services engaging those in need of professional consultation regarding agriculture, livestock and climate change. This year, too, community interaction for improvement of the agriculture sector and wellbeing of the farming community have been witnessed on large scale with short term trainings, consultancies and outreach activities.

Effective planning by the University during 2016-17 resulted in projected growth both in physical and technological fronts by implementing two PSDP Projects viz. *Strengthening of Institute of Biotechnology & Genetic Engineering (SIBGE)* and *Construction of Boundary Wall around the University of Agriculture, Peshawar*. Similarly, the University is also implementing two ADP Projects viz. *Establishment & Strengthening of Climate Change Centre at the University* and *Establishment of Fish Aquaculture at the University of Agriculture, Peshawar* are in the implementation stage. During the year, concerted efforts were made to develop a mega project titled *Establishment of Technology Development Centre (TDC) at the University of Agriculture, Peshawar* to upgrade the existing facilities of R&D in the fields of Horticulture, Livestock development and Climate Change for the development and promotion of innovative technologies in their relevant fields. Very soon this project will be forwarded to the Federal Government for funding.

Financial assistance to needy students of the University continued during the reporting year. A total of 1636 financial assistance scholarships worth Rs 131.447million, were distributed among the students under a very transparent system. More than 3151 laptops were distributed under the PM laptop scheme in phase manner. Students were also encouraged to participate in different co-curricular activities i.e. sports, dramas, debates, awareness sessions and other healthy activities like exhibitions and educational expos organized by the University and other institutions.

Keeping in view the progress made by the University during the reporting year, it can be revealed that the yearly projected targets were achieved successfully and the lessons learnt will provide a firm base to plan the accelerated growth in the years to come.



## About the University

Since its establishment in 1981, the University has been playing a vital role in imparting Agricultural Education and conducting basic and applied agriculture research throughout the Province and disseminating the research findings among the farmers and general public through various initiatives. The graduates are serving in public-private sectors organizations on key positions within Pakistan and abroad.

The University has Five (05) Faculties, Twenty Three (23) teaching Departments, Three (03) Institutes and One (01) Centre and offers Bachelor, Master, M.Phil and PhD degrees in all disciplines of Agriculture, Animal Husbandry and Veterinary Sciences, Rural Development, Rural Sociology, Bio-technology, Management Sciences, Information Technology and Computer Sciences. The University has initiated PhD degree programme in 1997 and till date more than 240 Ph.D. scholars have graduated so far and about 350 are currently enrolled.

All these academic programmes are run under the supervision of 418 highly qualified faculty out of which 198 hold Ph.D. degrees from leading Universities of international repute. As stated above, the name of Faculties, Departments, Institutes, Sub-Campus and Centre are given below:

### Faculties of the University with Departments

- **Faculty of Crop Production Sciences**
  - Department of Agronomy
  - Department of Horticulture
  - Department of Soil & Environmental Sciences
  - Department of Agricultural Mechanization
  - Department of Water Management
  - Department of Plant Breeding & Genetics
- **Faculty of Crop Protection Sciences**
  - Department of Plant Pathology
  - Department of Plant Protection
  - Department of Entomology
  - Department of Weed Science
- **Faculty of Nutrition Sciences**
  - Department of Food Science & Technology
  - Department of Agricultural Chemistry
  - Department of Human Nutrition
- **Faculty of Animal Husbandry & Veterinary Sciences**
  - Department of Poultry Science
  - Department of Animal Nutrition
  - Department of Livestock Management & Animal Breeding
  - Department of Animal Health

- **Faculty of Rural Social Sciences**
  - Department of Maths, Statistics, & Computer Science
  - Department of Islamic & Pakistan Studies
  - Department of Agricultural Extension Education & Communication
  - Department of Agricultural & Applied Economics
  - Department of Rural Sociology
  - Department of English
- **Institutes of the University:**
  - Institute of Biotechnology & Genetic Engineering
  - Institute of Business Management & Computer Sciences
  - Institute of Development Studies
- **Agricultural University Peshawar, Amir Muhammad Khan (AMK) Campus, Mardan**
- **Climate Change Centre (CCC)**

The University since its establishment has produced 24730 graduates including 240 PhDs. Current enrollment of students in various disciplines is more than 10,000.

The University has three research Journals i.e. Sarhad Journal of Agriculture (X Category), Weed Science Journal of Pakistan (Y Category) and al-Azhar in which valuable research outcomes are shared with wider scientific community across the globe.

Research publications are considered hallmark of any R&D institution. The University has published research on different aspects of the agriculture, livestock, water and social sciences related issues in a variety of nationally and internationally recognized research journals.



*The Grand Campus of University of Agriculture, Peshawar*

## Chapter-1

### Academic Activities

#### Academic Programmes (Undergraduate and Postgraduate)

The University offers Bachelor, Master, DVM, M.Phil and PhD degrees in all disciplines of Agriculture, Animal Husbandry & Veterinary Sciences, Rural Development, Rural Sociology and Bio-technology; and Bachelor, Master and MS degrees in Management Sciences, Information Technology & Computer Sciences.

Department and Degree wise Programmes

Faculty/ Institutes	Departments	Degrees programmes
Faculty of Crop Production Sciences	Agronomy Horticulture Plant Breeding & Genetics Soil & Environmental Sciences Water Management Agricultural Mechanization	B.Sc. (Honours) M.Sc. (Honours) PhD
Faculty of Crop Protection Sciences	Entomology Plant Pathology Plant Protection Weed Science	B.Sc. (Honours) M.Sc. (Honours) PhD
Faculty of Nutrition Sciences	Agricultural Chemistry Food Science & Technology Human Nutrition	B.Sc. (Honours) M.Sc. (Honours) PhD
Faculty of Rural Social Sciences	Agricultural & Applied Economics Agriculture Extension Education & Communication Rural Sociology Mathematics, Statistics & Computer Sciences Pakistan Studies/ Islamiat English	B.Sc. (Honours) M.Sc. (Honours) PhD MA Rural Sociology M.Phil. Rural Sociology
Faculty of Animal Husbandry & Veterinary Sciences	Livestock Management & ABG Animal Health (DVM) Animal Nutrition Poultry Science	B.Sc. (Honours) M.Sc. (Honours) DVM PhD
Institutes in the University	Institute of Biotechnology & Genetic Engineering (IBGE)	B.Sc. Biotechnology M.Phil. Biotechnology PhD
	Institute of Development Studies (IDS)	B.Sc. Rural Development M.Sc. Rural Development B.Sc. Economics M.A & M.Phil. Economics PhD
	Institute of Business & Management Sciences (IBMS)	BBA Honours MBA Honours BS-(IT/CS Honours) MS (CS, IT, MS)

## Academic achievements - List of PhDs Produced during FY 2016-17

S. No.	Scholar	Thesis Title	Supervisor	Year
1.	Mr. Sajjad Zaheer	Nitrogen Management in Dual Purpose Canola under Varying Planting Densities.	Dr. Muhammad Arif	19-09-2016
2.	Mr. Fazli Wahid	Rock Phosphate Solubility as Influenced by Phosphate Solubilizing Bacteria and Arbuscular Mycorrhiza Fungi and its Effect on Growth, Yield and Phosphorus Uptake of Crops.	Prof. Dr. Muhammad Sharif	20-09-2016
3.	Mr. Muhammad Noor	Genetic Analysis for Desirable Attributes in Popcorn.	Prof. Dr. Hidayat Ur Rahman	23-09-2016
4.	Mr. Muhammad Ishaq	Genetic Analysis for Morpho-Yield and Seed Quality Traits in Rapeseed ( <i>Brassica napus</i> L.)	Prof. Dr. Raziuddin	27-09-2016
5.	Mr. Sardar Ali	Genetic Analysis and Genotype by Environment Studies in Maize.	Prof. Dr. Naqib Ullah Khan	27-09-2016
6.	Ms. Umm-e-Kulsoom	Competitive Interactions of Wild Oat ( <i>Avena fatua</i> L.) and Wheat ( <i>Triticum aestivum</i> L.) Under Two Different Agro-ecological Conditions in KP.	Dr. Muhammad Azim Khan	14-10-2016
7.	Mr. Zafar Ul Haq Hashmi	Effect of Deficit Irrigation on Phosphorus Uptake and Wheat Productivity.	Prof. Dr. Muhammad Jamal Khan	27-10-2016
8.	Mr. Ijaz Hussain	Evaluation of Different Heat Treatment Methods for Disease Suppression and Induction of Cold Tolerance in Sweet Orange Fruits cv. Blood Red.	Prof. Dr. Abdur Rab	08-11-2016
9.	Mr. Zakir Hussain Facho	Genetic Diversity in Indigenous Buckwheat Germplasm from Himalayan and Karakoram Valleys of Pakistan.	Prof. Dr. Farhatullah	11-11-2016
10.	Mr. Imranuddin	Effect of Nitrogen, Phosphorus and Zinc on Maize Hybrid and their Carry Over Effect on Faba Bean.	Prof. Dr. Shad Khan Khalil	16-11-2016
11.	Mr. Fazli Subhan	Taxonomic Study of Syrphidae (Diptera) of Northern Dry Mountains Region of Pakistan.	Dr. Maqsood Shah	17-11-2016
12.	Mr. Ikramullah Khan	Evaluation of Different Stress Indicators Associated with	Prof. Dr. M. Subhan Qureshi	25-11-2016

		Reproductive Cyclicity of Cross-Bred Dairy Cows.		
13.	Ms. Robina Karim	Implementation of WTO'S Agreements in Pakistan: Present Status, Future Prospects and Implications for Pakistan's Economy.	Dr. Dawood Jan	06-12-2016
14.	Ms. Asma Rashid	Pathogenic and Genetic Characterization of Strains of <i>Ceratocystis</i> spp. Affecting Mangoes in Pakistan.	Dr. Anjum Munir	20-12-2016
15.	Mr. Fazal Maula	Integrated Management of Mite Pests of Apple Orchards in Swat Valley.	Prof. Dr. Imtiaz Ali Khan	28-12-2016
16.	Mr. Muhammad Siddiq	Fortification of Olive Oil in Palm Oil to Upgrade its Quality, Stability and Acceptability.	Prof. Dr. Hamid Ullah Shah	30-12-2016
17.	Mr. Khilwat Afridi	Inheritance of Yellow Rust Resistance and Glutenin Content in Wheat	Prof. Dr. Naqib Ullah Khan	30-12-2016
18.	Mr. Ijaz Naeem	Development of Genetically Engineered Mustard ( <i>Brassica Juncea</i> ) for Low Viscosity Biodiesel Production.	Prof. Dr. Iqbal Munir	11-01-2017
19.	Mr. Ibni Amin Khalil	Inheritance of Morpho-Yield and Seed Quality Traits in Brassica Napus under Irrigated and Rainfed Conditions.	Prof. Dr. Raziuddin	13-01-2017
20.	Mr. Kamran Azeem	Integrated Nitrogen Management with and Without Beneficial Microbes in Spring Maize and its Carry Over Effect on Subsequent Mung Bean.	Dr. Inamullah	13-01-2017
21.	Mr. Ijlal Hussain	Development and Quality Analysis of Intermediate Moisture Apricot Fruit Bars.	Pro. Dr. Alam Zeb	19-01-2017
22.	Mr. Shakirullah Khan	Analysis of the Prevailing Farm Practices Causing Low Wheat Yield Among the FSC Registered Farmers in Khyber Agency, FATA-Pakistan.	Prof. Dr. Khalid Nawab	13-02-2017
23.	Mr. Zamarud Shah	Molecular Cloning and Over-expression of Heat Shock Transcription Factor hsf1d in Tobacco for Enhancement of Thermotolerance.	Prof. Dr. Safdar Hussain Shah	14-02-2017
24.	Mr. Roshan Zamir	In Vitro Versus in Vivo Propagation Techniques in	Prof. Dr. Abdur Rab	20-02-2017

		Guava ( <i>Psidium guajava</i> L.).		
25.	Mr. Muhammad Saeed	Combining Ability and Heritability in Wheat Using Line × Tester Analysis Under Irrigated and Rainfed Environments.	Prof. Dr. Iftikhar Hussain Khalil	20-02-2017
26.	Ms. Sara Sadiq	Characterization of Bacteriocin Produced by Lactic Acid Bacteria Inhabiting Vegetables.	Dr. Shaukat Ali	19-04-2017
27.	Ms. Mahpara Safdar	Effect of Cinnamon on Morphology and Physiology of Pancreas, Liver and Kidney in Rats.	Prof. Dr. Parvez Iqbal Paracha	02-05-2017
28.	Mr. Sheraz Ahmed	Additive Main Effect and Multiplicative Analysis of Recombinant Inbred Lines in FCV Tobacco.	Prof. Dr. Fida Muhammad	09-05-2017
29.	Mr. Imtiaz Ali	Genetic Diversity and Genotype by Environment Studies in Upland Cotton.	Prof. Dr. Naqib Ullah Khan	11-05-2017
30.	Mr. Sheraz Ahmad Khan	Line X Tester Analysis for Various Parameters in Bread Wheat.	Prof. Dr. Ghulam Hassan	01-06-2017
31.	Syed Waqar Shah	Diversity of Pierids Butterflies (Lepidoptera: Pieridae) and their Host Plants in Potohar Region, Pakistan.	Dr. Muhammad Ather Rafi	05-06-2017
32.	Mr. Habibullah Khan	Effect of Chemically Treated Wood Coal on the Physicochemical Properties of Tomato (Riogrande).	Dr. Saleem Ullah	07-06-2017
33.	Mr. Zar Muhammad	Enhancing Productivity of Cereal Based Cropping System Through Conventional Composting.	Prof. Dr. Muhammad Tariq Jan	07-06-2017
34.	Ms. Abida Salim	Influence of Zn on Maize and Wheat in Combination with Organic Amendments under Calcareous Soil.	Prof. Dr. Sajida Perveen	20-06-2017
35.	Ms. Humera Jamal	An Investigation into the Push and Pull Factors of Brain Drain in KP, Pakistan	Prof. Dr. Mussawar Shah	22-06-2017

**Department and Discipline wise Graduation M. Phil (18 years)**

Department	2016		2017	
	Male	Female	Male	Female
Biotechnology & Genetic Engineering	07	14	09	08
Plant Genomics & Biotechnology	-	-	01	04
Animal Genomics & Biotechnology	-	02	02	02
Natural Resource Management	-	-	02	03
Soil & Environmental Sciences	-	-	-	01
Animal Health (Pathology)	-	01	08	02
Plant & Environmental Protection	-	02	01	02
Theriogenology	02	-	01	-
Applied Economics	03	-	01	-
Economics	02	03	02	03
Sociology	13	-	22	04
Islamic Studies	04	01	09	-
Statistics	02	-	06	-
Botany	06	03	02	01
<b>Total</b>	<b>39</b>	<b>26</b>	<b>66</b>	<b>30</b>

**Department and Discipline wise Graduation M.Sc. (Hons) Agriculture**

Departments	2016		2017	
	Male	Female	Male	Female
Agronomy	31	01	39	03
Agricultural Chemistry	05	02	12	03
Agricultural & Applied Economics	10	01	12	06
Agricultural Mechanization	-	-	01	-
Agric. Extension Education & Communication	04	03	06	-
Entomology	08	01	18	01
Food Science & Technology	23	07	24	04
Horticulture	33	04	49	09
Human Nutrition	10	09	04	16
Plant Breeding & Genetics	10	01	19	04
Plant Pathology	09	02	09	01
Plant Protection	11	01	12	-
Soil & Environmental Sciences	20	01	38	02
Water Management	08	-	05	-
Weed Science	04	-	01	-
Rural Development – IDS	06	01	04	-
Rural Sociology	03	02	02	01
Poultry Science	14	-	23	01
Livestock Mgt. & Animal Breeding & Genetics	14	-	01	-
Animal Nutrition	11	-	28	-
Horticulture (AMK Campus)	-	-	12	-
Soil & Environmental Science (AMK Campus)	-	-	01	01
Agronomy (AMK Campus)	-	-	01	01
<b>Total</b>	<b>234</b>	<b>36</b>	<b>321</b>	<b>53</b>

**Department and Discipline wise Graduation B.Sc (Hons) Agriculture & DVM**

Departments	2016		2017	
	Male	Female	Male	Female
Agronomy	39	02	40	01
Agricultural Chemistry	11	04	08	07
Agricultural & Applied Economics	23	-	08	03
Agricultural Mechanization	05	01	02	-
Agricultural Extension Education & Communication	30	03	18	-
Entomology	33	-	38	02
Food Science & Technology	49	07	40	06
Horticulture	51	08	54	08
Human Nutrition	23	30	18	21
Plant Breeding & Genetics	26	03	33	10
Plant Pathology	19	01	10	-
Plant Protection	24	03	27	07
Soil & Environmental Sciences	42	-	40	-
Water Management	13	-	07	-
Weed Science	04	-	05	-
Rural Development	12	-	04	-
Rural Sociology	11	-	08	04
Biotechnology& Genetic Engineering	09	16	13	13
Animal Health – DVM	52	07	51	08
<b>Total</b>	<b>476</b>	<b>85</b>	<b>424</b>	<b>90</b>

**Department and Discipline wise Graduation in various Self Support Education Programmes**

Disciplines	2016		2017	
	Male	Female	Male	Female
B.B.A (Hons)	346	39	155	11
M.B.A	97	09	10	02
M.B.A (1.5)	-	-	10	-
M.A Economics	02	-	05	02
M.A Rural Sociology	10	04	-	-
M.A English	-	01	01	01
Botany	01	05	-	-
BS (Information Technology)	160	07	50	-
BS (Computer Science)	257	11	69	01
MS (Computer Science)	06	01	19	03
MS (Management Sciences)	30	14	38	08
MS (Information Technology)	09	01	16	-
<b>Total</b>	<b>918</b>	<b>92</b>	<b>372</b>	<b>28</b>



## Convocation 2017

The 11<sup>th</sup> Convocation of the University was held on April 11, 2017 in a graceful manner. Engr. Iqbal Zafar Jhagra, Governor/ Chancellor, Khyber Pakhtunkhwa Universities was the Chief Guest on the occasion. Medals and degrees were awarded to more than 350 students of various disciplines including Agriculture, Biotechnology & Genetic Engineering, DVM, Management Sciences, CS and IT at Bachelor, Master, M.Phil and PhD level.



The honourable Chancellor, in his address, congratulated the graduating students in the 11<sup>th</sup> convocation. He urged the students to take this achievement as first step towards their personal development and bright future. He said that development in agriculture is the need of the day, as in spite of availability of sufficient land and resources, the nation is confronted with the challenge of food security. He advised the graduates to continue their hard work with full devotion for the country's prosperity and development.



The Vice Chancellor, Prof. Dr. Zahoor Ahmad Swati, in his inaugural address highlighted the achievements of the University, and informed that the scientists of the University had introduced numerous Wheat varieties including Siran 2010, Atta Habib, Ghaznavi, Janbaz, Ghanimat-e-IBGE and Niamat-e-IBGE.

He mentioned that the University has so far produced 15424 Undergraduate, 9507 Postgraduate and 240 PhD graduates since 1981. He said that the University is striving hard to provide all possible facilities and support to its students.



## Chapter-2

### Research and Development

#### R&D in the University

The University of Agriculture, Peshawar highly recognizes the importance of research & development for the promotion of agriculture sector in this Province. The knowledge generated through various research projects provides a platform for the researcher to bring innovation in academic programmes. The faculty and researchers of the university has secured a number of research projects from the donor organizations through a competitive process. The detail is given in the following table;

#### Research Projects by the Faculty during 2016-17

S. No.	Title of project	Principal Investigator	Funding agency	Status	Amount (Rs. Million)
1.	Building soil organic matter using integrated nutrients management approach for improving cereal productivity, nitrogen dynamics and carbon budget	Dr. Ahmad Khan	HEC	On-going	7.600
2.	'Climate smart' agriculture for steering food security by fostering cropping intensity in seasonal gaps	Dr. Muhammad Arif	USPCAS-AFS, University of Agriculture, Faisalabad & University of California, Davis	On-going	4.990
3.	Development of water efficient hybrid Wheat for Pakistan and China	-do-	Pakistan Science Foundation	On-going	62.300
4.	Improving phosphorus availability, use efficiency and productivity through biochar for sustainable cereal-based cropping system	-do-	HEC	On-going	2.600
5.	Extraction of phenolic and its application on clovers to be ensiled for improved forage quality	Prof. Dr. Muhammad Akmal	HEC	On-going	0.948
6.	Enrichment grain N-content for improved backing quality	-do-	-do-	On-going	2.013
7.	Domestication of medicinal plants at higher altitude of North West Pakistan	Dr. Muhammad Azim Khan	Pakistan Agricultural Research Council	Newly Launched	4.810
8.	Weed seed bank studies in Wheat and Maize cropping	Dr. Zahid Hussain	HEC	Newly Launched	3.900

	areas of KP for sustainable weed management and soil fertility				
9.	Management of wild onion and other associated weeds in Chickpea for long term control policy in Southern district of KP-Pakistan.	Dr. Imtiaz Khan	HEC	Newly Launched	1.470
10.	Prediction of grain yield losses and implications for economic weed management in Khyber Pakhtunkhwa	Dr. Muhammad Azim Khan	ALP/PARC	Completed	5.690
11.	Integrated Weed Management in Chickpea in Southern Districts of NWFP	Dr. Ijaz Ahmad Khan	HEC	-do-	2.310
12.	Environment Friendly Weed Management in Vegetables	Dr. Zahid Hussain	HEC	On-going	2.217
13.	Survey and confirmation of Herbicide resistant weed of wheat in Pakistan	Dr. Saima Hashim	HEC	On-going	3.368
14.	Weed Seed bank studies in wheat and Maize growing areas of KPK for sustainable weed management and soil fertility	Dr. Zahid Hussain	HEC	On-going	3.390
15.	Estimation and Exploitation Allelopathic Potential of Different Weeds Infesting Field Crops of KPK, Pakistan	Dr. Muhammad Ishfaq Khan	HEC	Completed	3.810
16.	Management of Aquatic Weed in the fresh water bodies of irrigated KPK	Dr. Bakhtiar Gul	HEC	On-going	3.269
17.	Integrated Management of Horse Purslane (Trianthema portulacastrum L.) in Maize Grown For Grain and Forage in Irrigated and Rainfed Areas of Khyber Pakhtunkhwa	Dr. Muhammad Saeed	HEC	Completed	1.579
18.	An approach to non-chemical and eco-friendly weed management in maize	Dr. Muhammad Saeed	HEC	-do-	2.996
19.	Evaluation and comparison of flat plate and parabolic through solar collectors for water distillation, water heating and drying of fruits and vegetables	Prof. Dr. Mansoor Khan Khattak	HEC	Newly Launched	2.290

20.	Development of an efficient digester for production of purified biogas from biomass	-do-	-do-	-do-	2.260
21.	Commercialization of mushroom culture in KPK	Dr. Sartaj Alam	Endowment Fund, UAP	On-going	2.260
22.	Establishment of informal disease free seed potato production system in KPK	Prof. Dr. Muhammad Arif	Endowment Fund, UAP	On-going	1.424
23.	Characterization of fungus transmitted rod shaped viruses infecting potato and sugarbeet crops of NWFP and screening of germplasm for source for resistance to them	-do-	HEC	Completed	2.141
24.	Establishment of FM Radio	Prof. Dr. Khalid Nawab	University's R&D Endowment Fund	On-going	2.920
25.	Technology transfer to beekeepers by the establishment of model commercial honey bee farm at The University of Agriculture, Peshawar	Prof. Dr. Inayatullah	-do-	-do-	1.328
26.	Systematics of family Chalcididae (Chalcidoidea: Hymenoptera) of Khyber Pakhtunkhwa	-do-	HEC	-do-	3.800
27.	Enhancing yield of wheat by priming seeds, effect of soil moisture deficit and limiting soil nitrogen	Dr. Ishaq A. Mian	-do-	-do-	0.500
28.	Improving plant-microbe Interaction through biochar application for sustainable cropping system In degraded soil	Prof. Dr. Zahir Shah	Pakistan Agricultural Research Council	-do-	3.673
29.	Prevalence and molecular characterization of contagious Caprine Pleuropneumonia isolates in small ruminants in Khyber Pakhtunkhwa	Prof. Dr. Umar Saddique	Pakistan Science Foundation	-do-	3.900
30.	Molecular epidemiology of Bovine Tuberculosis in Dairy Animal Dairy products and Human beings	-do-	HEC	-do-	1.500
31.	Isolation, identification and testing of pharmaceutically active antimicrobial metabolites from white flower plant	Dr. Shakoor Ahmad	HEC	-do-	0.370

	mirabilis jalapa				
32.	Physio-chemical & hormonal effects of acupuncture combined with morphine & clonidine drugs to provide analgesia in goats	Dr. Zahir Shah	Pakistan Science Foundation	On-going	1.700
33.	Molecular characterization of clostridium perferingen and development of toxoid vaccine	Dr. Sher Bahadar Khan	-do-	On-going	2.278
34.	Molecular characterization of Mycoplasma capricolum subsp. capripneumoniae Pakistan strain for the establishment of effective diagnostics and vaccines	Dr. Farhan Anwar Khan	HEC	On-going	20.47
35.	Regulation of Guava flowering to enhance fruit quality during winter season	Prof. Dr. Abdur Rab	-do-	On-going	2.900
36.	Production of certified fruit plants	Dr. Gohar Ayub	University's R&D Endowment Fund	On-going	1.254
37.	Optimizing the nutritive value of traditional and novel feeds	Dr. Nazir Ahmad Khan	International Livestock Research Institute	Newly launched	0.6019
38.	Increasing Sugarcane productivity through chip buds nursery raising and transplanting seedling age.	Dr. Fazal Munsif	HEC	On-going	1.500
39.	Economic analysis of policies affecting pulses in Pakistan SRA	Dr. Khurram Nawaz Sadozai	Australian Centre for International Agriculture Research (ACIAR)	Newly Launched	0.500
40.	Isolation and structure elucidation of antimicrobial compounds effective against the wilt pathogens from Penicillium sp.	Dr. Zafar Iqbal	Pakistan Science Foundation	On-going	1.800
41.	Exploring bioactive natural products from the fungal sources of Pakistan	-do-	HEC	-do-	7.500
42.	Assessing the effect of water born pathogens spread by floods	Dr. M. Nouman Ahmad	Directorate of Science & Technology	-do-	0.600
43.	Integration of 1-MCP and hypobaric treatments to enhance the storage life of	Dr. Majid Suhail Hashmi	HEC	-do-	9.200

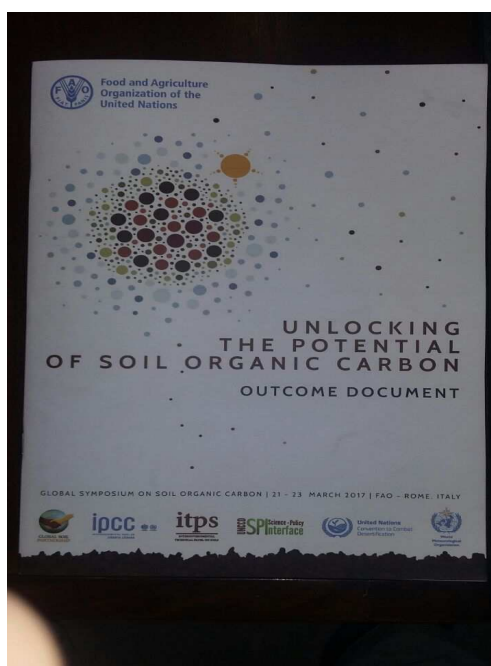
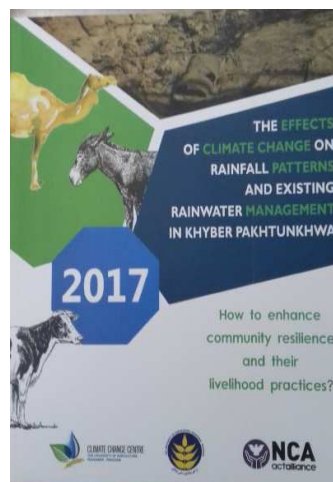
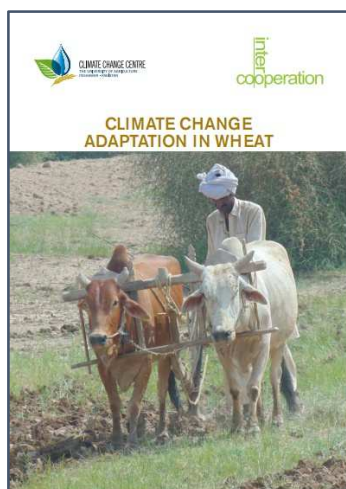
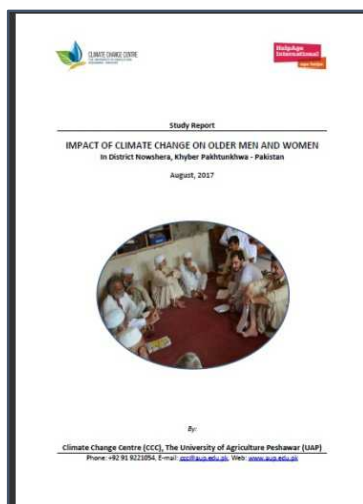
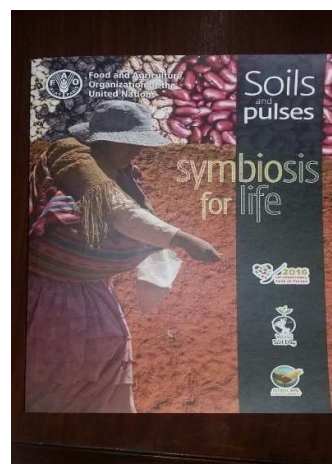
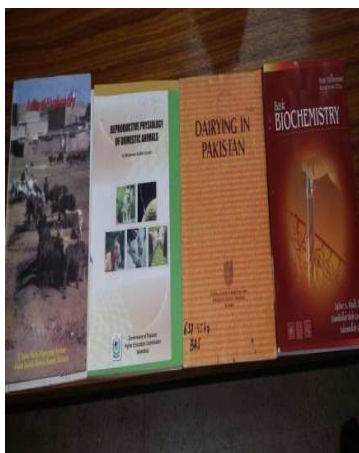
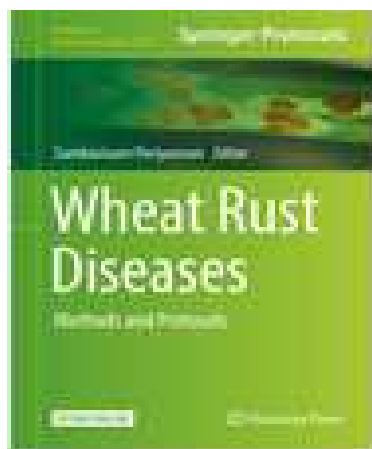
	apple fruit.				
44.	Post flood nutritional status of pre-school going children from flood hit area of Khyber Pakhtunkhwa	Dr. Zafar Mahmood	-do-	-do-	5.210
45.	Analysing flood impacts on waterborne pathogens and diarrhea in Khyber Pakhtunkhwa Pakistan	-do-	-do-	-do-	4.930
46.	Development of Hydroponic Fodder Production Technology	Prof. Dr. Sohail Ahmad	Directorate of Science & Technology	Completed	0.500
47.	Molecular characterization of Pakistani <i>Puccinia striiformis</i> f.sp. <i>tritici</i> through development of rapid genotyping platform	Dr. Sajid Ali	HEC	On-going	0.500
48.	A transgenic approach to modulate sulfur-enhanced defense in Oilseed rape	Dr. Muhammad Sayyar Khan	-do-	On-going	4.260
49.	Improving water use efficiency and stress tolerance of wheat by genetic transformation with CHSP22.9 from wild water melon	Dr. Aqib Iqbal	-do-	-do-	4.750
50.	DNA Sequencing based detection of Multidrug Resistant Mycobacterium tuberculosis through Allele Specific multiplex PCR	-do-	Directorate of Science and Technology	-do-	0.500
51.	Genetic Engineering of sugarcane with the rice tonoplast H <sup>+</sup> -P Phase gene to improve sucrose content and salt tolerance	Dr. Muhammad Sayyar Khan Kazi	Pakistan Science Foundation (PSF)	On-going	2.500
52.	Environmental Biosafety Assessment on Transgenic Oil Seed Rape Lines harboring the Synthetic Chitinase Gene ( <i>NiC</i> ) Conferring Fungal Disease Resistance	-do-	Center for Environmental Risk Assessment (CERA), ILSI Research Foundation, USA	-do-	1.000
53.	Modification of Egg cholesterol content through Medicinal Plants	Dr. Naila Chand	PSF	Complete	1.500
54.	Evaluation of economic, welfare and environmental aspects of naturally mated and artificially inseminated broiler	Prof. Dr. Sarzamin Khan	HEC	On-going	8.900



	breeders under cage versus floor systems				
55.	Exploring the potential of phytogetic feed additives as growth promoters in broilers	Dr.Abdul Hafeez	HEC	On-going	0.500
56.	Assessment & Quantification of Methane Gas from hydro – Electric Reservoir	Dr. Nayab Gul	HEC	Completed	3.300
57.	Evaluation and Identification of High Yielding Winter Wheat Genotypes	Prof. Dr. Iftikhar Hussain Khalil	Agriculture Innovation Program (AIP) PARC	On-going	3.000
58.	Assessment of indigenously developed recombinant inbred lines in rice for commercial cultivation in Khyber Pakhtunkhwa	Dr. Syed Mehar Ali Shah	NRPU-HEC	-do-	2.630
59.	Molecular Based Genetics Divergence in Indigenous Common Bean of Himalaya Pakistan	Prof. Dr. Farhatullah	Agriculture Innovation Program (AIP) PARC	-do-	3.000



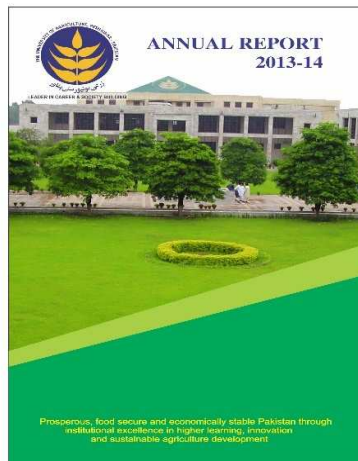
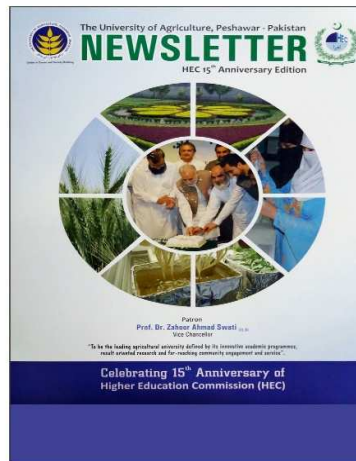
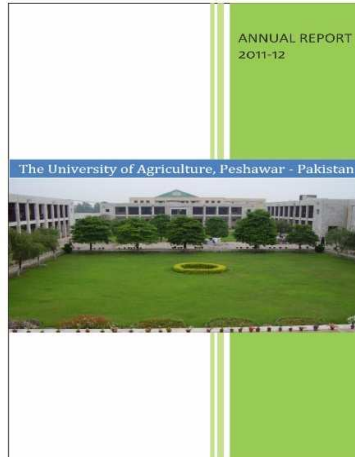
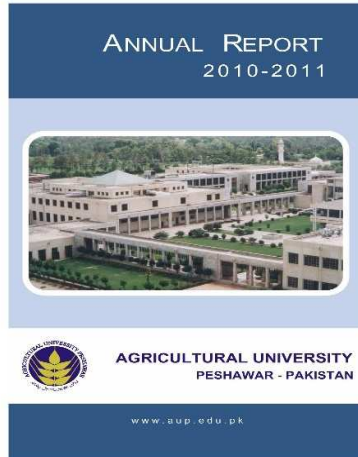




- viii. Farmers' Experiences and Perceptions. (2016). Intercoperation Pakistan & Climate Change Centre, University of Agriculture, Peshawar.
- ix. Fahd Rasul, Ashfaq Ahmad, Muhammad Arif, Ishaq Ahmad Mian, Kawsar Ali, Muhammad Farooq Qayyum, Qaiser Hussain, Muhammad Aon, Shahzad Latif, Ruben Sakrabani, Muhammad Saghir, Genxing Pan, and Simon Shackley. 2017. Biochar for Agriculture in Pakistan. book chapter in "Sustainable Agriculture Reviews" published by Springer, UK. Volume 22-2017. ISBN 978-3-319-48005-3, DOI 10.1007/978-3-319-48006-0.
- x. Amanullah(2016), Soil and Pulses: Symbiosis for Life. FAO, Rome-Italy (ISBN: 978-92-5-109501-0).
- xi. Dr. Amanullah(2017), Rice - Technology and Production. InTech, Rijeka, Croatia (ISBN: 978-953-51-5200-2).
- xii. Dr. Amanullah (2017), Unlocking the Potential of Soil Organic Carbon. UNO/FAO/IPCC (ISBN: 978-92-5-109759-5)
- xiii. Dr. Amanullah, S. Fahad and S. Anwar *et al.* 2017. Rice Crop Responses to Global Warming: An Overview. In: Amanullah and Shah Fahad (eds.) Rice - Technology and Production. In Tech, Rijeka, Croatia. Pp: 1-10.

## Annual Reports & Newsletters

Publication of the Annual Reports and the quarterly Newsletter is a regular source for disseminating achievements and contribution made by the University in the areas of knowledge creation, imparting professional education, human resource development and community development. It also helps in establishing and maintaining linkages with other institutions and stake-holders both inland and abroad.



## Conferences and Seminars

Organized by the Faculty & Staff during 2016-17

S. No.	Title of the Conference/Seminar & Date	Target Group	Number of Participants	Funding Agency
1	Climate Change Threats to Agriculture & Food Security Nov. 22-24, 2017	Faulty Researchers students Line departments Farmers Stakeholders etc.	400	HEC, Swiss Agency for Development & Cooperation Swiss, Intercooperation Pakistan
2	4 <sup>th</sup> International Workshop on Dairy Science Park and industrial exhibition at Selkuk University, Konya, Turkey Nov. 01-05, 2017	Faculty, researchers, students	500	HEC
3	National Conference on “Thinking Climate Change Adaptation in Water and Farming” (Think – Adapt, 2016) Nov. 28-30, 2016	Faulty Researchers students Line departments Farmers Stakeholders etc.	300	Swiss Agency for Development & Cooperation Swiss Solidarity, Intercooperation Pakistan
4	Supply Chain Analysis of Palm Oil , Dec. 20, 2016 Dr. Khuram Nawaz Sadozai & other Faculty members at National Agricultural Research Center, Islamabad	Agricultural Economist, Researchers, PhD Scholars and other related stake holders	100	The University of Agriculture, Peshawar& the University of Sumetara Utara, Indonesia
5	Supply Chain Analysis of Palm Oil, Dec. 21 <sup>th</sup> , 2016, Dr. Khuram Nawaz Sadozai & other Faculty members at PMAS Arid Agriculture University, Rawalpindi	-do-	100	-do-
6	Statistical Facts and Data Analytics of Child Nutrition Status in Flood Hit Areas of Khyber Pakhtunkhwa Jan. 5-6, 2017	MPhil, PhD scholar and faculty members	50	HEC & Department of Maths, Stats & Computer Science, UAP, Peshawar
7	Two days training workshop on “How to Write a Worth Publishing Research Paper” Oct. 19-20, 2017	Faculty, Researchers & Students	35	PASTIC (PSF)





National Conference on “Thinking Climate Change Adaptation in Water & Farming” (Think – Adapt, 2016), Nov. 28-30, 2016



Participants of the Sustainable Land Management Workshop & Networking Session, Dec. 04-05, 2017



Seminar on Climate Change Threats & Challenges



Pakistani delegates at DSP Konya Nov 1, 2017

### Trainings and Workshops Organized by the Faculty & Staff during 2016-17

S. No.	Title of the Training/ Workshop	Target Group	Number of Participants	Funding Agency
1	Clean seed potato production multiplication and marketing May 16-18, 2017	SMS, District Directors, Agriculture Officers, farmers and Students	32	Endowment Fund, UAP
2	Workshop on Awareness on impact of climate change on water and crops at Karak district, Nov. 05, 2017	Farmers, Agriculture Line Departments & NGOs	40	W4L- Helvetas Swiss Intercooperation Pakistan
3	Workshop on Awareness on impact of climate change on water and crops at Tank district, Nov. 05, 2017	-do-	34	-
4	Consultation workshop on redefining AEZ of KP	Multi Stakeholders	38	-do-
5	Google Earth Training March 20, 2017	Faculty and Students	24	-do-
6	Awareness seminar on rising threats and challenges on the context and application of climate change March 22, 2017	-do-	44	FnF Germany
7	Workshop on Implication of Climate Change on farming system and water resources in District Dir and Chitral Jan 26, 2017	Farmers of District Dir and Chitral	26	LPH - Helvetas Swiss Intercooperation, Pakistan
8	One week training on Bio-risk management Sept. 7-11, 2016	Faculty and students	25	Relief International
9	Two orientation workshops on GRE Preparation, Sept. 22, 2016 & Dec. 07, 2016 by the Directorate of P&D	Senior students & researchers	70	United States Educational Foundation in Pakistan (USEFP)
10	One day training/workshop on "Anti-Plagiarism Policy & Turnitin Use" Oct. 14, 2016	Faculty members	30	The University of Agriculture, Peshawar
11	Workshop on Sustainable Land Management and Land Degradation Dec. 4-5, 2017	Officials of Agriculture Line Depts. of Distt. Lakki Marwat & D IKhan	28	SLMP – II Khyber Pakhtunkhwa
12	Postgraduate Diploma on Food Safety and Control, Feb-Dec. 2016	Food Safety Diploma	29	UNIDO, Pakistan
13	Diploma under NOVITIC (Prime Minister Scheme) May-Nov., 2016	Food Processing & Preservation	25	Govt. of Pakistan

### Conferences and Seminars Attended by the Faculty & Staff during 2016-17

S. No.	Title of the Conference/Seminar attended & Date	Name of the Faculty/ Staff attended	Title of the paper(s) presented	Organizer/ Institution & Venue (City & Country)
<b>Department of Agronomy</b>				
1	Innovations in Agriculture March 28-29, 2017	Dr. Ahmad Khan	Khan, A. Quantification of soil pools temperature sensitivity and priming effect through isotopic technique	Department of Agronomy, University of Agriculture, Peshawar
2	Doing more with less, 24-28, Nov 2017	-do-	Khan, A. Nitrogen translocation efficiency in wheat depends on N sources and tillage practices	Victoria, Australia
3	International Congress on Agricultural, Food and Biological Sciences (ICAFNBS-2016) Nov. 15-16, 2016	Dr. Asim Muhammad	Vigor and Viability of harvested Wheat Seeds Affected by Beneficial Soil Nitrogen Fixing Microbes with Nitrogen Ratios	Kuala Lumpur, Malaysia
4	National Conference on "Thinking Climate Change Adaptation in Water and Farming" (Think – Adapt, 2016) Nov. 28-30, 2016	-do-	Effect of Environmental Variation on Yield and Yield Components of Mung Bean Varieties	Climate Change Centre, the University of Agriculture, Peshawar
<b>Department of Soil &amp; Environmental Sciences</b>				
5	Research & Event on Food Safety Dec. 5-8, 2016	Prof. Dr. Muhammad Sharif	Role of PSB & AMF on Crop Yield	DAAD/HEC Islamabad, Pakistan
6	Use of satellite technology for soil quality monitoring Sept. 05, 2016	-do-	Use of satellite technology for soil quality monitoring	-do-
7	National conference on Environment. Aug. 8-10, 2016	-do-	Environment	Department of Environmental Sciences, BaraGali, Summer Campus, University of Peshawar

Department of Agricultural Mechanization				
8	Seminar on Agriculture mechanization for Developing Countries (July 21 to August 10, 2016)	Prof. Dr. Mansoor Khan Khattak	Ministry of Finance and Commerce of China	Beijing, China
Department of Plant Breeding & Genetics				
9	7 <sup>th</sup> International Scientific Agriculture Symposium "AgroSym 2016" October 6-9, 2016	Prof. Dr. Farhatullah	Morphological Characterization and Estimation of Genotype x Environment Interaction of Indigenous Buck wheat Germplasm collected from Gilgit Baltistan	Jahorina, Bosnia and Herzegovina
Institute of Biotechnology & Genetic Engineering				
10	4 <sup>th</sup> Environmental Sciences Conference on Water and Food security in Changing Environment, August 8-10, 2016	Prof. Dr. Iqbal Munir	-	Department of Environmental Sciences, BaraGali, Summer Campus, University of Peshawar
Department of Plant Protection				
11	International Conference on Agriculture, Forest, Food Sciences and Technologies (ICAFOF) May 15 17,2017	Prof. Dr. Ahmad-Ur-Rahman Saljoqi	Rearing of <i>Spodoptera litura</i> (fabricius) (lepidoptera: noctuidae) on artificial diet and its predation by <i>chrysoperla carnea</i> (stephens) (neuroptera: chrysopidae)	University of Nevsehir Haci Bektas Veli at Cappadocia, Nevsehir, Turkey
12	Climate Change threats to Agriculture and Food Security Nov. 22-24, 2017	-do-	Categorization of Commercial Canola Cultivars Resistance against Aphid ( <i>L. Erysimi</i> K.) Through Phenotypic Characters	The University of Agriculture, Pesh8oawar
13	37th Pakistan Congress of Zoology (International) Feb 28 – March 2, 2017	-do-	Evaluation of Different Potato Varieties Against Potato Aphid ( <i>M. persicae</i> (S.)Hemiptera: Aphididae).In Swat.	Zoological Society of Pakistan, GC University of Faisalabad
14		-do-	To Categorize the Antibiosis and	



			Tolerance in eight different cultivars of potato against <i>M.persicae</i> (Homoptera: Aphididae)	
15	13 <sup>th</sup> National Conference of Weed Science August 19-21, 2016	Mr. Khwaja Junaid	-	Shaheed Benazir Bhutto University, Sheringal, Upper Dir Pakistan
<b>Department of Weed Sciences</b>				
16	7 <sup>th</sup> International Scientific Agriculture Symposium Oct. 06-09, 2016	Dr. Muhammad Azim Khan	Climatic factors can affect growth, competitive ability, dispersal, and seed production potential of weeds and nutritional status of wheat	Jahorina, Bosnia and Herzegovina
17	13 <sup>th</sup> National Conference of Weed Science on "Vegetation management in the Era of Climate Change for sustainability Aug, 19-21 2016	Dr. Bakhtiar Gul	Inventory of wild plants of Peshawar University Campus	Shaheed Benazir Bhutto University, Sheringal, Upper Dir Pakistan
18	2 <sup>nd</sup> Africa-International Allelopathy Congress (2016)	Dr. Imtiaz Khan	-	Sousse, Tunisia
19	International Conference on advances in Natural and Applied Science (ICANS-2016)	-do-	-	Antalya, Turkey
20	International Conference on advances in Natural and applied Science (ICANS-2016)	-do-	-	Antalya, Turkey
21	International Conference on Emerging Trends & Challenges in Science, Technology and Society.	-	-	University of Mauritius, Port Lious, Mauritius

Department of Plant Pathology				
22	National Conference on “Thinking Climate Change Adaptation in Water and Farming” (Think – Adapt, 2016) Nov. 28-30, 2016	Prof. Dr. Shaukat Hussain & Faculty members	-	Climate Change Centre, The University of Agriculture, Peshawar
23	Innovations in Agriculture March 2017	-	-	The University of Agriculture, Peshawar
24	4 <sup>th</sup> workshop of programme evaluators of NAEAC/ HEC September 28-30, 2017	-	-	NAEAC/ HEC, Islamabad
25	Plant health and sustainably agriculture Nov. 2017	-	-	Bahauddin Zakria, University Multan
Department of Agricultural Chemistry				
26	8 <sup>th</sup> Chemistry Conference on Chemistry in Engineering and life sciences Nov. 28-30, 2016	Dr. Mudassar Iqbal	Biological Synthesis of Agriculturally important Nanoparticles	Pakistan Atomic Energy Commission, PINSTECH, Islamabad, Pakistan
27	1 <sup>st</sup> International Conference on Recent Innovations in Pharmaceutical Sciences Oct. 25, 2016	-do-	-	Riphah Institute of Pharmaceutical Science, Margalla Motel, Islamabad Pakistan
Department of Animal Nutrition				
28	National Conference on “Thinking Climate Change Adaptation in Water and Farming” (Think – Adapt, 2016) Nov. 28-30, 2016	Prof. Dr. Nazir Ahmad, Dr. Muhammad Mobashar and Dr. Nazir Ahmad Khan	-	Climate Change Centre, The University of Agriculture, Peshawar
29	National workshop on organic Food and Health: Avenues of	Dr. Nazir Ahmad Khan	-	Pakistan Council of Science and Technology, Islamabad

	innovation and Entrepreneurship August 29, 2016			
<b>Department of Extension Education &amp; Communication</b>				
30	38 <sup>th</sup> International colloquium of the International Section Oct. 12-14, 2016	Prof. Dr. Muhammad Zafarullah Khan	Assessing the impacts of Personal and communication skills of Agricultural Professionals on Farming community for food sustainability in Pakistan	International Social Security Association, Paris, France
<b>Department of Agricultural Economics</b>				
31	International Conference on Sustainable Agriculture in Pakistan Nov. 14-16, 2016	Dr. Khuram Nawaz Sadozai and Dr. Abass Ullah Jan	Allocative Efficiency Analysis of Tobacco Growers in District Mardan, Khyber Pakhtunkhwa: Implications for Sustainable Agriculture	U.S.-Pakistan <u>Center</u> for Advanced Studies in Agriculture and Food Security, University of Agriculture, Faisalabad-Pakistan
<b>Department of Rural Sociology</b>				
32	1 <sup>st</sup> National Conference on Emerging Trends and Challenges in Social Sciences, Nov. 15-16, 2016	Dr. Intikhab Alam	Role of Traditional Elders in the Establishment of the Law and Order in Fata	Bahauddin Zakariya University, Multan
33		Dr. Mushtaq Ahmad Jadoon	Role of Patriarchy in the Denial of Women Share in Family Inheritance in Pakistan	-do-
34		Mr. Muhammad Jawad	Role of Education in the Reduction of Family Size	-do-
35		Mr. Ubaid-ur-Rehman	Role of Awareness in the Formation of Parents Attitude Towards Female Education	-do-
36	4 <sup>th</sup> Environmental Science Conference August 8-10, 2016	Prof. Dr. Mussawar Shah and Dr. Asadullah	Forestry on Private Lands: A Strategy to Overcome Environmental Risks	Bara Gali, Summer Campus, University of Peshawar
<b>Department of Maths, Stats &amp; Computer Science</b>				
37	ICT August 4-6, 2016	Dr. Zafar Mehmood	Effective tools for good governance	PARD, Peshawar, Pakistan
38	"Creating capabilities for Growth" organized by CDPR and IGC Nov. 16, 2016	-do-	-	Serena Hotel, Islamabad

39	Statistical Facts and Data Analytics of Child Nutrition Status in Flood Hit Areas of Khyber Pakhtunkhwa” Jan. 5 2017	-do-	Overview of the Project Regarding Child Nutrition in the Flood Hit Areas Khyber Pakhtunkhwa and Major Findings	Department of Maths, Stats & CS, The University of Agriculture, Peshawar
40	Numerical Computing & Its Applications Feb. 28, 2017	Prof. Dr. Fazal-i-Haq and Dr. Zeeshan Alam	-	University of Engineering & Technology, Peshawar
41	“International Conference On Emerging Trends in Science and Technology” Sept 5-9, 2016	Dr. Zafar Mahmood	The Engineering Methods and Statistical Thinking	Fatima Jinnah Women University Rawalpindi
<b>Institute of Development Studies</b>				
42	4 <sup>th</sup> Environmental Science Conference: Water and food security in a changing environment Aug. 8-10, 2016	Dr. Inayatullah Jan	Rainwater harvesting for food security in Pakistan: Key policy implications	BaraGali, Summer Campus, University of Peshawar
43	1 <sup>st</sup> International Conference ‘Bridging the Gap through 5Es - Education, Equity, Entrepreneurship, Employability and Empowerment’ Oct. 25-26, 2016	-do-	Empowerment of rural women and their role in household decisions in rural Northwest Pakistan	University of Sargodha, Pakistan
45	4 <sup>th</sup> International Conference on Energy, Environment and Sustainable Development (EESD) Nov. 01- 03, 2016	-do-	Social acceptance of energy efficient cooking technology in Pakistan: challenges and opportunities	Mehran University of Engineering & Technology, Jamshoro, Pakistan
45	Consultative seminar on Creating Capabilities for Growth Nov. 16, 2016	-do-	-	Consortium for Development Policy Research (CDPR) and International Growth Centre (IGC), Serena Hotel, Islamabad

Department of Poultry Science				
46	36 <sup>th</sup> Pakistan Congress of Zoology, 2016	-	Silkworm meal as alternate protein ingredient in broiler ration.	Department of Zoology, University of Sindh, Jamshoro
47	International conference on Climate Change Threats to Agriculture and Food Security March 28-29, 2017	Dr. Naila Chand	Modification of egg cholesterol content through <i>Berberis lyicum</i>	The University of Agriculture, Peshawar
48	6 <sup>th</sup> international and 15 <sup>th</sup> national conference on dynamic trends in plant science-fostering environment and food security. May 9-11, 2017	-do-	Invitro and invivo therapeutic studies of allium cepa against local isolates of Mycoplasma gallicepticum	Sardar Bahadur Khan Women's university, Quetta
49	Poultry Science Conference (PSC IPEX 2017) August 24-26, 2017	-	Phytate degradation and nutrient digestibility influenced differently in different sorghum genotypes by broilers at day 21	University of Veterinary and Animal Sciences, Lahore
50	International conference on Innovations in agriculture. November 22-24, 2017	-	Effect of ambient temperature on the performance and immunity of broiler strains	The University of Agriculture, Peshawar
51	Conference on sustainable crop and animal production systems. Dec. 8-10, 2016	-	-	Organized by Pakistan Agricultural Scientists Forum and The University of Haripur, Haripur

**Professional Trainings and Workshops Attended by the Faculty & Staff during 2016-17**

S. No.	Title of the Training/Workshop attended & Date	Name of the Faculty/ Staff attended	Funding Agency/ Institution	Venue (City & Country)
<b>Department of Agricultural Mechanization</b>				
1	Training course on new technology popularization of agricultural mechanization, Aug. 30 – Sept. 26, 2016	Dr. Muhammad Amin	Chinese Academy of Agricultural Mechanization Sciences	Beijing , China
<b>Department of Plant Breeding &amp; Genetics</b>				
2	Breeding strategies to anticipate global climate change, July 20, 2016	Prof. Dr. Naqib Ullah Khan	Indonesian Breeding Science Society, Indonesia	Pekanbaru, Riau, Indonesia
<b>Institute of Biotechnology &amp; Genetic Engineering</b>				
3	Intellectual Property Rights, Dec. 19, 2016	Dr. Quahir Sohail, Dr. Muhammad Sayyar Khan and Dr. Asad Jan	The University of Agriculture, Peshawar & DoST, Khyber Pakhtunkhwa	Peshawar
4	Training on Laboratory Equipment and Consumables, July 28-31, 2016	Prof. Dr. Iqbal Munir	Thermo Fisher Scientific	Dubai, United Arab Emirates
<b>Department of Plant Pathology</b>				
5	Antiplagiarism policy and turnitin use, Oct. 14, 2016	Prof. Dr. Shaukat Hussain	QEC, The University of Agriculture, Peshawar	Peshawar
6	National Conference on "Thinking Climate Change Adaptation in Water and Farming" (Think – Adapt, 2016) Nov. 28-30, 2016	-do-	Climate Change Centre, The University of Agriculture, Peshawar	Peshawar
<b>Department of Plant Protection</b>				
7	Major insect pest of fruit and their control, July 20, 2016	Dr. Bashir Ahmad (Resource Person)	Food & Agricultural Organization	Peshawar
8	Orchard Pest Management, August 17, 2016	-do-	-do-	-do-
9	Management Skills, Nov. 2-5, 2016	Mr. Shamshad Khan	-do-	-do-
<b>Department of Animal Nutrition</b>				
10	Bio-Risk Management, Oct. 3-7, 2016	Prof. Dr. Nazir Ahmad, Prof. Dr. Altafur Rehman, Dr. Muhammad Mobashar, Dr. Muhammad Tahir, Mr. Tahir Khan, Mr.	Department of Animal Nutrition, The University of Agriculture and Relief International Pakistan	Peshawar

		Muhammad Saleem Khan and Mr. Shoaib Sultan		
<b>Department of Animal Health</b>				
11	2 <sup>nd</sup> BCIM workshop on livestock Production, Management & Disease prevention, Dec. 4-11, 2016	Prof. Dr. Umar Sadique	Chinese Government	Yunnan, China
12	Teaching methodologies and Resource Management, Oct. 3-7, 2016	Dr. Hamayun Khan	University of Veterinary & Animal Sciences, Pakistan	Lahore
13	Curriculum Development for Bio risk Management Sept. 3-7, 2017	Prof. Dr. Umar Sadique	Sandia Labs, USA	Sri Lanka
14	Bio risk Management Raising Awareness April 19-22, 2017	-	Sandia Labs, USA	Phuket, Thailand
15	International Poultry Expo conference August 24-26, 2017	-	Lahore, Pakistan	Pakistan
16	Curriculum Development for Bio risk Management Nov. 13-18, 2016	Prof. Dr. Umar Sadique	Sandia Labs, USA	Bangkok
<b>Department of Extension Education &amp; Communication</b>				
17	Effect of the Communication Skills and innovation methods for outreach and extension, Dec. 8-9, 2016	Dr. Raheel Saqib	University of Agriculture, Faisalabad	Faisalabad
<b>Department of Rural Sociology</b>				
18	Thinking Climate Change Adaptation in Water and Farming (Think – Adapt, 2016) Nov. 28-30, 2016	Dr. Bushra Shafi	Inter-Cooperation	Peshawar
<b>AMK Campus Mardan</b>				
19	29 <sup>th</sup> Master Trainers Faculty Professional Development Programme, Oct. 17 – Dec. 09, 2016	Mr. Alamgir Khan	Learning & Innovation Division, HEC	Islamabad
20	Turnitin Training Oct. 14, 2016	Mr. Saeed Khan	Directorate of Quality Assurance, the University of Agriculture, Peshawar	Peshawar
21	Intellectual Property Rights Dec. 16, 2016	-do-	PASTIC and DoST, Khyber Pakhtunkhwa	-do-

22	Workshop on Organic Farming, Dec. 26, 2016	-do-	Sadiq Poultry, Rawalpindi	-do-
<b>Institute of Business &amp; Management Sciences</b>				
23	Orientation Session on Capital Stock Market/ Financial Institution	All Faculty members	Pakistan Stock Exchange	Peshawar
<b>Directorate of P&amp;D</b>				
24	Project Planning Software “Primavera” Aug. 29-31, 2016	Mr. Khalid Iqbal	PPMI, Planning Commission, Pakistan	Islamabad
25	Financial Management Reforms in Public Sector Universities & HEIs. Dec. 12-15, 2016	Mr. Rizwan Ahmad	HEC	Islamabad
26	Project Analysis 2016	Mr. Abdus Salam	EICA, Cairo	Egypt
27	Project Preparation & Management in Public Sector	Mr. Khalid Iqbal Mr. Daud Nazim	PPMI, Planning Commission, Pakistan	Islamabad
<b>Climate Change Centre</b>				
29	AgMIP Midterm Workshop Phase II and Training Workshop on Tradoff Analysis for Multidimensional Impact Assessment (TOA-MD), Dec. 20-22, 2016	Mr. Irshad Ali Mr. Muhammad Abbas Qazi	University of Agriculture, Faisalabad	Faisalabad
<b>Administration</b>				
30	Implementation Status of KP RTI Act, 2013, Nov. 10, 2016	Mr. Muhammad Riaz	Centre for Governance & Public accountability (CGPA)	-do-
31	Improving communication and Media Outreach, Oct. 5, 2016	-do-	Institute for Research, Advocacy and Development (IRADA)	-do-
32	Role and Responsibilities of Public Information Officers July 19, 2016	-do-	Centre for Governance & Public accountability (CGPA)	-do-





Three Months training Course on Project Analysis, EICA, Cairo – Egypt 2016



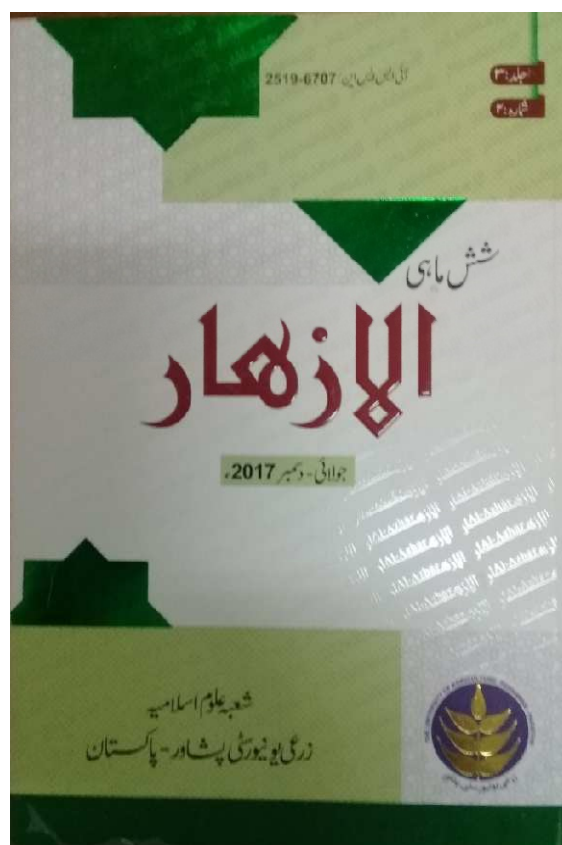
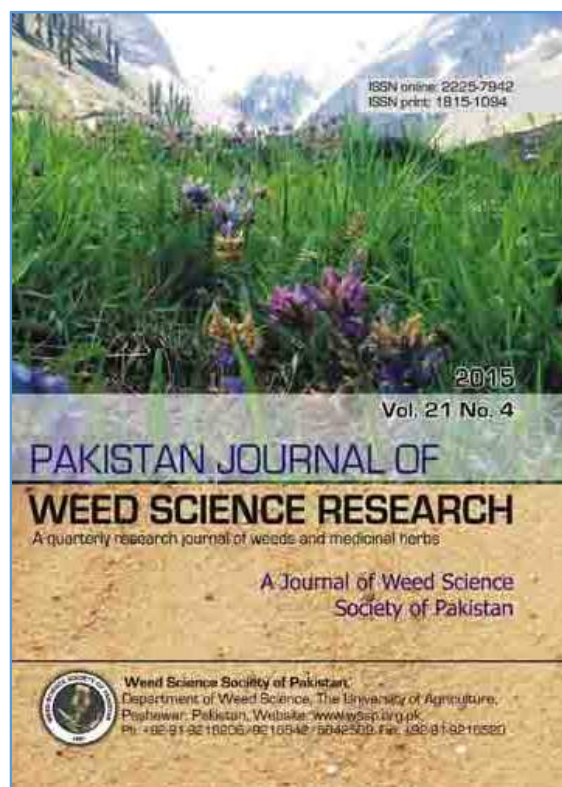
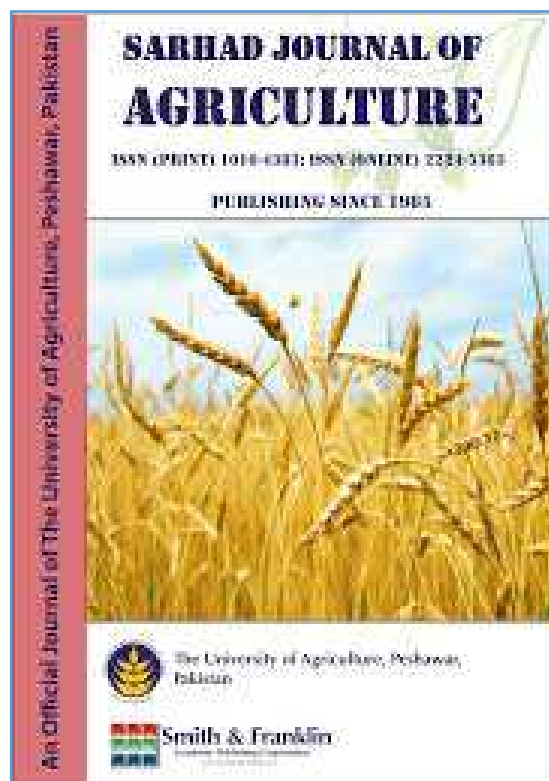
Three days training on Financial Management Reforms in Public Sector Universities & HEIs arranged by HEC, Islamabad

## Research Journals

The University owns three research journals i.e.

- i. Sarhad Journal of Agriculture (quarterly)
- ii. Pakistan Journal of Weed Science Research (quarterly) and
- iii. Al-Azhar. (biannual, Department of Islamiyat)

All these Journals are accredited by the HEC. SJA is in 'X' category and a candidate for 'W' category. All the papers are being reviewed by experts from technologically Advanced Countries.



## Research Collaboration

**Joint Research Collaborations, MoU during 2016-17**(indigenous/foreign) by the Faculty/Researchers.

### 1. Department of Poultry Science

The Department of Poultry Science has established research collaboration with Sandia Lab, USA particularly in the areas pertaining to attaining expertise in the Bio Risk Management. Two faculty members of the Department also have got in to joint venture of mutual interest with the University of Putra, Malaysia.

### 2. Department of Plant Breeding & Genetics

The department of Plant Breeding & Genetics collaborated with various research organization and institution during the year 2016-17. These institutions and centre included;

- a. National Wheat Program, Islamabad
- b. Ayub Agriculture Research Institute, Faisalabad
- c. Cereal Crops Research Institute Pirsabak (CCRI), Nowshera
- d. National Institute for Food and Agriculture (NIFA), Tarnab

### 3. Department of Plant Pathology

The Department of Plant Pathology is in collaboration with Agriculture Extension Department for virus free seed potato production in the Province. It also have collaborated with the Chiba University, Japan for capacity building of faculty members. Other such examples include Agriculture Research Institute, Mingora, Agriculture Research Institute, Tarnab and NARC, Islamabad for students' research.

Specific collaboration and linkages were developed with Dr. Gulshad Ali of the University of Florida, USA in connection with work on population studies and management of Fusarium wilt of tomato. In this connection, Ms. Asma Akbar, a Ph.D scholar of Prof. Shaukat Hussain, visited USA under International Research Support Initiative Programme (IRSIP) of HEC for six months and worked on detection, epidemiology and management of Fusarium wilt of tomato at the University of Florida.

### 4. Climate Change Centre (CCC)

In the CCC, 03 PhD scholars were sponsored for their research on Climate Change issues, one each on Water, Agronomy and Agriculture Extension Education. Their visit and trainings in the Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences HAFL, Switzerland was also sponsored by the Swiss Agency for Development & Cooperation (SDC) and Helvetas Swiss Intercooperation (HSI) Pakistan. The training was on advance level learning of "Information literacy and scientific writing" and exposure to CC Adaptation.

Prof. Dr. Muhammad Zulfiqar, Director CCC, the University of Agriculture, Peshawar along with Dr. Jawad Ali – Deputy Director Helvetas Swiss Intercooperation visited Switzerland and Germany during Sept. 03 – 15, 2017, for International Conference on Research for Development (ICRD 2017) and meetings in the University of Bern, Helvetas Head Office, ETH University Zurich, Helvetas Germany, UN University Bonn and IFOAM Bonn.

He also participated in the SAARC regional consultation meeting on water, energy and food nexus in Thimphu on July 4, 2017. In his presentation during the meeting, he elaborated that food and water

are essential for existence whereas, energy is the key to human development. Therefore, access to these resources and their sustainable management are the basis for sustainable development.

5. Dr. Mudassar Iqbal, Department of Agricultural Chemistry established research collaboration on Green Synthesis of nano-pesticides with Dr. Hassan Wahab, Pakistan Atomic Energy Commission, PINSTECH, Islamabad, Pakistan for sharing of knowledge and equipment exchange.
6. Dr. Muhammad Ishfaq Khan, Department of Weed Science collaborated with Turkey's Universities under Mevlana Exchange Programme for Faculty and Students for a possible joint research project.
7. Dr. Asad Jan, IBGE established Faculty Exchange and Research Collaboration linkages with Shinozake Yamaguchi, RIKKEN, University of Tsukuba, Japan.
8. Prof. Dr. Iqbal Munir, Director IBGE established Student Exchange and Research Collaboration with Dr. Timothy Durette, Laboratory of Biochemistry and Molecular Biophysics, Kansas State University, USA.
9. The University also signed MoUs with organizations and institutions - both national and international, during the reporting year. Purpose of the MoUs include Academics and research collaboration and capacity building.
  - a. Virtual University
  - b. Aga Khan Rural Support Programme (AKRSP)
  - c. Shandong Normal University, Jinan, China
  - d. Yunnan Agricultural University, China
  - e. Lanzhou University, China
  - f. University of Sumatera Utara, Indonesia
  - g. Selcuk University, Konya, Turkey
  - h. CZECH University of Life Sciences Prague (CULS) Czech Republic
  - i. Pakistan Metrology Department, Islamabad
  - j. Norwegian Church Aid, Pakistan
  - k. SLMP-II, Govt. of Khyber Pakhtunkhwa

### Operation of Office of Research, Innovation and Commercialization (ORIC)

Research & Innovation are the integral parts of the University of Agriculture, Peshawar. The spirit behind is to commercialize the knowledge generated for the benefit of common men. Under the overall guidance of HEC, the University has streamlined and strengthened the research activities through creating and establishing fully functional ORIC at the University. The ORIC is mandated to promote research culture in the University and to ensure commercialization of the research products through enhanced linkages with various stakeholders. The ORIC also assists the faculty to Identify and inform them about the research grants opportunities, research funds from the national and international organizations available for the scientists. Efforts are underway to further strengthen this important facility in order to keep track of all the research activities carried out in the University and to effectively commercialize the relevant research for its maximum benefit to the industry and community at large.



### Guidelines on Research Projects by HEC Focal Point

The research projects won through competitive process at HEC are dealt by the HEC Focal Point of this University. Prof. Dr. Iftikhar Hussain Khalil is actively performing his duties as HEC Focal Point. At present the total worth of all the 97 research projects is Rs.164.916 million and 224 students are enrolled as HEC indigenous scholars. To facilitate the students, faculty and researchers about the standard operating procedures, a self-contained booklet has been published by the University.



### R&D Endowment Fund Secretariat

The University has the privilege of establishing its R&D Endowment Fund to promote the culture of adaptive research and outreach of the proven technologies. The R&D Endowment Fund Secretariat of the University invite project proposals through advertisement in different newspapers and the University's Website from faculty, scientists, researchers and development practitioners working in the public sector. These grants are highly competitive and preference is given only to the projects addressing issues related to the productivity, profitability, competitiveness and sustainability of agriculture sector with focus on small farmers and women empowerment.

The sponsored projects mainly focus on Technology Transfer in different fields of Agriculture and livestock in Khyber Pakhtunkhwa and FATA. Some of the activities during the reporting period (2016-17) are as under;

### Technical and Financial Progress Report 2008-2015

The Endowment Fund Secretariat University of Agriculture, Peshawar has published the first ever Technical and Financial Progress Report on the activities of Endowment Fund covering the period from 2008 to 2015. The report consist activities since 2008, hierarchy of the EFS i.e. Scrutiny committee, Technical committee and Executive Committee.

### List of R&D Endowment Fund Projects awarded

The Endowment Fund Secretariat has awarded 10 projects on technology transfer to various faculty members of the university and scientists working in other organizations. The details of projects awarded are as follows:

S. No.	PI	Project Title	Organization/ Institution	Cost (Rs in million)
1	Prof. Dr. Sajjad, Department of Entomology	Technology Transfer to bee keepers by the establishment of a model commercial honey bee farm at the University of Agriculture Peshawar.	The University of Agriculture, Peshawar	1.328
2	Dr. GoharAyub, Department of Horticulture	Establishment of certified fruit nursery at department of	-do-	1.254

		Horticulture, The University of Agriculture Peshawar.		
3	Dr. Wisal Mohammad, Soil Science Division, NIFA	Improving off season vegetable production under high and walk in tunnels through integrated management of nutrients, water and diseases	NIFA, Peshawar	1.413
4	Dr. Barkat Ali Khan, Pesticide Lab, Tarnab	Dissemination of technology on withholding periods of frequently used pesticides to fruit and vegetable growers.	ARI, Tarnab, Peshawar	1.671
5	Dr. Dost Muhammad, Department of SES	Production of P enriched compost (Phosphocompost) to enhance P use efficiency, compost quality and crop productivity.	The University of Agriculture, Peshawar	1.987
6	Prof. Dr. Muhammad Arif, Department of Plant Pathology	Establishment of informal disease free seed potato production system in Khyber Pakhtunkhwa Province	-do-	1.424
7	Dr. Muhammad Sajid, Department of Horticulture	Enhancement of tunnel farming technology by using drip irrigation system for the production of off season vegetables	-do-	1.095
8	Prof. Dr. Khalid Nawab, Department of Agric. Ext. Edu. & Comm.	Establishment of FM Radio at The University of Agriculture Peshawar	-do-	2.929
9	Dr. Amanullah, Department of Agronomy	Transfer of modern production technology of field crops cultivation to farmers through field days and trainings.	-do-	1.190
10	Dr. Sartaj Alam, Department of Plant Pathology	Commercialization of mushroom culture in Khyber Pakhtunkhwa	-do-	2.223

#### Technical and Financial Progress Report 2016

The Endowment Fund Secretariat, has published second Technical and Financial Progress Report 2016. The report included activities those undertaken in the Endowment Fund Secretariat during the year 2016.



## Chapter-3

### Quality Assurance

#### Quality Assurance in the University

The Quality Enhancement Cell (QEC) was established in the University under the directives of Higher Education Commission (HEC) on October 16, 2006. This cell was initially established on a small scale with limited staff and basic responsibilities. However, with the passage of time, the responsibilities of the QEC increased enormously. QEC is engaged in numerous indoor and outdoor activities i.e. Self-Assessment Process, Teachers and Course Evaluation, Implementation of Anti-Plagiarism policy, Institutional Performance Evaluation (IPE) Process, Facilitating in Accreditation Process, Self IPE, Internal MPhil and PhD Review. A Training Cell has also been established in QEC for imparting trainings to the faculty, administrative staff, supporting staff and students. The current structure of QEC staff is as follow:

1. Director QA (Additional Charge)
2. Deputy Director
3. Assistant Director (02)
4. Office Assistant
5. Junior Clerk
6. Naib Qasid

Keeping in view the importance of this Directorate, the University Syndicate renamed Quality Enhancement Cell as Directorate of Quality Assurance (DQA).

Directorate of Quality Assurance is a well-established office of the University, headed by a Director reporting to the Vice Chancellor. The basic objective of the DQA is to ensure and enhance the quality of education to compete with counterparts within and across the boundaries. The DQA is responsible for planning and coordinating self-assessment activities in the University. This directorate is following the guidelines of the HEC and chalks out future plans for enhancement of quality education. The directorate is unique in the University in the sense that its performance is directly monitored by Quality Assurance Agency (QAA) of HEC on the basis of certain targets/criteria. During last year it has achieved all targets in the action plan provided by the HEC and rated as 'W' category.

#### Impact of Quality Assurance in the University

With the establishment of Quality Assurance Directorate, a quality culture has developed in the University. Almost all degree programmes offered by teaching departments of the University in Agricultural Sciences have been accredited by the National Agricultural Education Accreditation Council (NAEAC). The remaining programmes in some departments are also on the list to be accredited by their relevant councils. Teachers' Evaluation Analysis Reports help the teachers to improve their teaching skills. Course files are prepared, maintained and improved. Importantly, implementation of strict Plagiarism Policy, research work of the scholars, students theses and internship reports are put up for plagiarism test, which help in eradicating the cut-copy-paste culture from the University up to a greater extent.

Self Assessment Process is a major activity of the Quality Assurance initiatives in the University. In this process each degree awarding department/institute of the University has prepared a comprehensive report (i.e. Self Assessment Report) for each degree programme offered. These reports are then scrutinized by Assessment Team (Programme Evaluators) which identifies the strengths and weaknesses of the programmes. Assessment Team submit their comments for improvements and suggestions for remedial of those weaknesses. The departments prepare implementation plans to take corrective actions and are committed to improve their programmes in future. Internal MS/MPhil and PhD Program Review is recently assigned to this directorate. Through these reviews, the implementation of minimum criteria of MS/Phil and PhD programmes are verified and ensured at the University.

### Membership of International Associations/Networks

The Directorate of Quality Assurance is linked with the Quality Assurance Agency of HEC, Pakistan. Moreover, the DQA has international memberships like Asia Pacific Quality Network (APQN), the Talloires Network, and the Association of Quality Assurance Agencies of the Islamic World (AQAAIW).

### Accreditation Process

The Directorate of Quality Assurance is mandated to perform internal assessment through Self-Assessment Process to ensure Internal Quality Assurance. Similarly, external quality is ensured by Accreditation Councils. Progress on Accreditation process is mentioned below:

#### Accreditation of Agricultural Programmes by NAEAC

In 1<sup>st</sup> round the National Agriculture Education Accreditation Council (NAEAC) accredited all agricultural programmes offered by the University and its sub-campus. These accreditations were valid till June 2016. The National Agriculture Education Accreditation Council (NAEAC) has started 2<sup>nd</sup> phase of accreditation in June 2016. In this connection, they visited the University's, AMK Campus, Mardan for external evaluation and accreditation of B.Sc(Hons) and M.Sc(Hons) of following disciplines on October 06, 2016:

1. Agronomy
2. Horticulture
3. Soil & Environmental Sciences

NAEAC team visited main campus of the University in February 2017 and February 2018 to accredit B.Sc(Hons) and M.Sc (Hons) programmes of following eight disciplines:

1. Agronomy
2. Soil & Environmental Sciences
3. Entomology
4. Plant Breeding & Genetics
5. Agricultural Chemistry
6. Plant Pathology
7. Horticulture
8. Institute of Biotechnology & Genetic Engineering (IBGE)



### Accreditation of Business and Computer Degree Programmes

Presently the DQA is involved in helping Institute of Business & Management Sciences (IBMS) in preparation of Self-Assessment Reports of its various degree programmes. Business and CS/IT programmes of the IBMS will be accredited from National Business Education Accreditation Council (NBEAC) and National Computing Education Accreditation Council (NCEAC), respectively.



At this stage, IBMS has been registered with National Business Education Accreditation Council (NBEAC) and its BBA (Hons) and MBA (1.5) programmes have been approved in screening process. The mentor visit was also arranged for IBMS on January 4, 2017. During the mentor visit, the Director IBMS presented the current status of the Institute. The Mentors guided the IBMS's administration and faculty regarding necessary steps to be taken before applying for accreditation. The Mentor submitted a Report to the IBMS in which they have identified weak areas. The Institute is currently working on those areas identified in the Mentor Report.

### Internal MS/MPhil/M.SC(H) and PhD Programme Review Process

Quality Assurance Agency (QAA) of HEC in its 23<sup>rd</sup> meeting held at Islamabad during May 18-19, 2017 asked the universities to conduct Internal MS/M.Phil/M.Sc(Hons) and PhD programme review periodically. The DQA in consultation with Directorate of Advanced Studies & Research has planned to conduct internal MS/MPhil and PhD reviews at department level to prepare the departments regarding MS/MPhil and PhD Review before the actual visit to be carried out by the HEC Review team. For this purpose, the DQA has prepared evaluation checklist.

In this connection, Internal Review team was constituted on May 29, 2017, with the following members:

- a) Concerned Dean
- b) Director Advanced Studies & Research
- c) Director QA, UAP
- d) QEC officer from other University (If available)
- e) Deputy Director QA-UAP

The team will visit each department for internal review as per checklist provided by the HEC. Each Head of the department will deliver a brief presentation regarding MS/M.Phil/M.SC(Hons) and PhD programme and will provide following five files:

- a) MS/M.Phil or equivalent Student File
- b) PhD Student File
- c) MS/M.Phil or equivalent Faculty File
- d) PhD Faculty File
- e) Programme File

## Extending technical Support to other Universities and the HEC

Dr. Farman Ullah, Director QA contributed as Resource Person in a training workshop on “Self-Assessment Procedures” organized by Quality Enhancement Cell of Malakand University, Chakdara. He also delivered trainings on “Quality Assurance and Governance” as resource person under Tertiary Education Support Programme (TESP) sponsored by the HEC at Karachi, Lahore and Islamabad during March-May, 2017. Dr. Farman is also attended meeting as member of Plagiarism Standing Committee (PSC) of International Islamic University, Islamabad.

Muhammad Bilal, Deputy Director QA facilitated a training workshop as Resource Person on “Quality Assurance and Self Assessment Process” at Khushal Khan Khattak University, Karak on April 25, 2017.

### Extending Technical Assistance and Support to the Faculty

A Training Cell is established at Quality Assurance Directorate with the purpose to impart trainings to the faculty and students of the University regarding QAA standards, Self-Assessment process, Accreditation process, Institutional Performance Evaluation (IPE) Process and Plagiarism testing. The Centre will also take care of imparting training to the faculty regarding teaching methodologies & research and other training programmes to the stack holders.

### Trainings/Workshops/Seminars organized on Quality Assurance

The Directorate of Quality Assurance regularly organizes trainings/Workshops/Seminars on Quality Assurance and Self-Assessment Process for faculty members. The purpose of these awareness seminars and workshop is to create awareness among faculty members regarding Quality standards/criteria and the means by which these criteria may be assessed and implemented. These awareness seminars sensitized importance of quality assurance in higher education.

The following trainings/workshops were arranged during reporting period:

1. Training Workshop on “Anti-Plagiarism Policy & Turnitin Use” for

faculty members held on 14<sup>th</sup> October, 2016.

2. One day Seminar was arranged for all Head of Departments on “External Quality Assurance & Accreditation held on February 3, 2017.





### Online Survey System

Online Survey System developed for Teachers and Course evaluation. In this context, Focal persons from each department have been selected and trained. DQA arranged a Training Workshop for focal persons on “Online Self- Assessment Survey System” in Video Conference Room of the University. Through this online facility, now students can give their feedback about teachers and courses from anywhere in free place without any hesitation.

### Self-Assessment Reports

During reporting period (2016-17), 10 Self-Assessment Reports have been prepared as given below:

1. B.Sc (Hons) programme offered by Agronomy. (2<sup>nd</sup> Cycle)
2. M.Sc (Hons) programme offered by Agronomy. (2<sup>nd</sup> Cycle)
3. B.Sc (Hons) programme offered by Soil & Environmental Sciences. (2<sup>nd</sup> Cycle)
4. M.Sc (Hons) programme offered by Soil & Environmental Sciences. (2<sup>nd</sup> Cycle).
5. BBA(Hons) programme offered by IBMS
6. MBA(1.5) programme offered by IBMS
7. B.Sc (Hons) programme offered by Plant Breeding & Genetics. (2<sup>nd</sup> Cycle).
8. M.Sc (Hons) programme offered by Plant Breeding & Genetics. (2<sup>nd</sup> Cycle).
9. B.Sc (Hons) programme offered by Entomology. (2<sup>nd</sup> Cycle)
10. M.Sc (Hons) programme offered by Entomology. (2<sup>nd</sup> Cycle)

### Other Accomplishments/ Activities

S.No.	Date	Activity and Accomplishments
1.	July 13, 2016	Arranged visit of Assessment Team (AT) to Department of Water Management for internal assessment and evaluation of its B.Sc (Hons) and M.Sc (Hons) degree programme. The AT reviewed SARs, performed Rubric evaluation and visited facilities of department.
2.	July 29, 2016	DD QA Arranged a meeting at the University regarding Accreditation of Business and Management Sciences Programmes being offered by IBMS. Meeting agenda was: <ol style="list-style-type: none"> <li>1. Status of Accreditation of Business Programmes</li> <li>2. NOC for Agri-Business Programme</li> <li>3. Status of Accreditation of Computer Science and IT programmes.</li> </ol>
3.	August 08, 2016	Arranged a meeting with programme team of BS(IT) and BS(CS) programs to review progress in Accreditation process of said programmes.
4.	August 22-26, 2016	Visit to Faisalabad as team leader to review five universities of Faisalabad under HEC Intuitional Review programme.
5.	September 8, 2016	Arranged a meeting regarding Accreditation of Business and Management Sciences Programmes being offered by IBMS, under the Chairmanship of Vice Chancellor.
6.	October 6, 2016	Onsite visit of Accreditation Inspection Committee of NAEAC to the University of Agriculture Amir Muhammad Khan Campus, Mardan to accredit the following programmes: <ol style="list-style-type: none"> <li>1. Agronomy</li> <li>2. Soil &amp; Environmental Sciences</li> <li>3. Horticulture</li> </ol>
7.	October 21& 28, 2016	2 <sup>nd</sup> Cycle Self-Assessment Reports finalized for B.Sc(Hons) and M.Sc(Hons) programmes of Agronomy and Soil & Environmental Science department.

8.	November 9, 2016	Self-Assessment Reports finalized for BBA(Hons) and MBA(1.5) programmes of IBMS.
9.	November 16, 2016	Meeting with Institute of Business & Management Sciences (IBMS), UAP regarding accreditation of existing programs and NOC for new programme.
10.	December 02, 2016	2 <sup>nd</sup> Cycle Self-Assessment Reports finalized for B.Sc(Hons) and M.Sc(Hons) programmes of Plant Breeding & Genetics department.
11.	Dec. 21-22, 2016	Deputy Director QA attended 22 <sup>nd</sup> Progress Review meeting of QECs arranged by QAA HEC in Islamabad.
12.	January 04, 2017	Arranged Mentor Visit for Accreditation of BBA(Hons) and MBA(1.5) of Institute of Business and Management Sciences (IBMS).
13.	January 16, 2017	Provided guidance and Mentoring to the newly established QEC of Gandhara University Peshawar regarding functioning and operations of QEC
14.	February 03, 2017	Arranged One day Seminar on “ External Quality Assurance & Accreditation”
15.	February 15-16, 2017	Onsite visit of Accreditation Inspection Committees (AICs) of NAEAC to the University of Agriculture Peshawar for external evaluation and accreditation of B.Sc(Hons) and M.Sc(hons) programmes of the following discipline:: <ol style="list-style-type: none"> <li>1. Agronomy</li> <li>2. Soil &amp; Environmental Sciences</li> <li>3. Plant Breeding &amp; Genetic</li> <li>4. Entomology</li> </ol>
16.	February 15, 2017	First draft of Self Assessment Report submitted by Department of Maths, Stat & Computer Science for its M.Phil Statistics Programme.
17.	March 1-2, 2017	Director and Deputy Director QA attended 02 Day Workshop on “Higher Education: Access & Quality” organized by Frontier Education Foundation under auspices of HED, Government of Khyber Pakhtunkhwa.
18.	April 14, 2017	Arranged a meeting to discuss process for initiating Postgraduate Degree Programme in Fisheries and Aquaculture.
19.	April 17-21, 2017	Director QA delivered training as resource person under TESP training sponsored by the HEC at HEC Regional Center, Lahore.
20.	April 24-26, 2017	Director QA delivered training as resource person under TESP training sponsored by the HEC at HEC Regional Center, Karachi.
21.	April 25, 2017	Deputy Director QA facilitated a training workshop as Resource Person on “Quality Assurance and Self Assessment Process” at Khushal Khan Khattak University, Karak.
22.	May 18-19, 2017	Attended 23 Progress Review Meeting of QECs and Training on “Pre-Visit Preparation of IPE, MS/M.Phil & PhD Program Review” organized by Quality Assurance Agency of HEC.
23.	May 31, 2017	Director and Deputy Director QA attended meeting of all faculty members of Plant Protection Department regarding Accreditation and MS/MPhil & PhD Review Process.
24.	June 19, 2017	DQA arranged “Pre-visit Internal Review of MS/M.Phil/Equivalent & PhD Programme” at the Institute of Developmental Studies (IDS).



## Chapter-4

### Faculty Development

Effective performance can be ensured by continuous trainings of the employees in an organization. These training programmes must focus on the professional development of the employees enabling them to meet the challenges arises from the paradigm shift in the academic, research and institutional administration and management.

#### Faculty Development Programmes (MS/PhD local + foreign)

The University has been regularly encouraging and facilitating its faculty members and other staff to improve their professional knowledge and skills needed in fulfilling their professional obligations. Currently, more than 20 faculty members have won foreign scholarships through open competition sponsored by the HEC and the host universities of the developed countries. Out of these, 11 scholars have completed their Doctorate/ Post Doc. and have joined the University.

#### Faculty and Scholars Returned

List of Faculty/researchers returned after completing their Ph.Ds/ Post Doc. during 2017

S. No.	Name	Host Country	Programme	Area of specialization
1	Mr. Muhammad Salim (Lecturer)	Turkey	PhD	Plant Protection
2	Mr. Saeed ul Haq	China	PhD	Horticulture
3	Mr. Fazali Wahid	Pakistan	PhD	-do-
4	Mr. Masood Ahmad	Pakistan	PhD	-do-
5	Ms. Faiza Aman	-do-	PhD	-do-
6	Mr. Irfanullah	-do-	PhD	Agric. & Applied Economics
7	Mr. Amjad Ali	-do-	PhD	--do--
8	Dr. Naeem Khan	China	Post Doc.	Weed Science
9	Dr. Muhammad Saeed	-do-	Post Doc.	-do-
10	Mr. Muhammad Ammad Khan	China	PhD	Rural Development & Management studies
11	Dr. Muqadar Shah	UVAS, Pakistan	PhD	Anatomy
12	Dr. Zia ur Rehman	China	PhD	Reproduction

Faculty/ Administration presently pursuing their PhD/ Post Doc.

Faculty and administration pursuing their PhD/ Post Doc. in national and international Universities and institutions during 2017.

S.No.	Name	Specialization	Country
1.	Dr. Ibadullah	Pharmacology	Pakistan
2.	Dr. Tariq Hussain	Microbiology	China
3.	Dr. Hamid Sattar	Surgery	China
4.	Dr. Ihsan Ali	Anatomy	China
5.	Mr. Muhammad Imran Khan	Physiology	Pakistan
6.	Mr. Muhammad Faiq	Food Science & Technology	Thailand
7.	Mr. Rizwan Ahmad	Rural Development (IDS)	Pakistan
8.	Mr. Abdus Salam	Agriculture Extension Education & Communication	Pakistan
9.	Mr. Muhammad Ilyas Khan	Food Science & Technology	Pakistan
10.	Mr. Tahseen Ullah	Horticulture	Pakistan
11.	Mr. Khalid Iqbal	Management Sciences (Human Resource Development)	Pakistan
12.	Mr. Daud Nazim	Management Sciences (Marketing)	Pakistan
13.	Mr. Yaser Iqbal Paracha	Management Sciences (Finance)	Australia
14.	Mr. Nadeem Iqbal	Management Sciences (Finance)	Pakistan
15.	Mr. Rameez Raja	Sociology	China
16.	Mr. Iftikharud Din	Statistics	Pakistan
17.	Mrs. Seema Zubair	Statistics	Canada
18.	Dr. Sartaj Alam	Mycology - Post doc.	Japan

## Chapter-5

### Access

Pakistan is an Agricultural country and more than 70% of its population is directly or indirectly depend on this sector for their livelihood. In order to supplement the efforts to promote enhanced agriculture productively, the University has been imparting professional education in various disciplines of Agriculture, Animal Sciences and Rural Social Sciences. Moreover, there are also some programmes being implemented on self-finance basis which include Masters' Degree Programme in Economics, Rural Sociology, Islamiat, BS& MS in Management Sciences, Computer Sciences and Information Technology.

#### Equity

The University give high importance to select students on merit in its various disciplines regardless of their gender, religion, and regions. By this way, the University also attracts a number of students from different countries as well.

#### Employability

Due to diversity of specializations and degree programmes offered by the University, the graduates of this University mostly find employment opportunities in multiple institutions inside as well as outside the country. A large number of the University graduates obtain competitive scholarships and pursue higher education in the technologically advanced countries of the world.

The target sectors for our graduates are;

- Government sector's Agriculture research and extension system and allied departments including livestock & dairy development
- Development organizations –both national and international NGOs, involved in relief and livelihood improvement initiatives
- Agro-based industries such as food, pesticides, fertilizers, organics, value addition and related software industries etc.
- In hospitals as Nutritionists and Dieticians
- In banks - providing agro products, services especially National Bank of Pakistan, Zarai Taraqiati Bank Limited, etc.

The Business and Information Technology graduates mostly find employment in services sector, communications, DFI's, Airlines, and software houses. Some of our graduates have initiated their own business setups using their entrepreneurial skills and knowledge.

## Department, Programme wise Strength& Gender

### Department, Programme wise Students Strength & Gender Details PhD, 2016-17

S. No.	Name of Department/ Institution	Female	Male	Total
1	Agricultural & Applied Economics	4	8	12
2	Agricultural Chemistry	3	8	11
3	Agricultural Extension Education & Communication	3	13	16
4	Agricultural Mechanization	-	5	5
5	Agronomy	2	37	39
6	Animal Nutrition	1	9	10
7	Entomology	1	6	7
8	Food Science & Technology	3	15	18
9	Horticulture	7	19	26
10	Human Nutrition	5	10	15
11	Livestock Management and Animal Breeding & Genetics	-	6	6
12	Plant Breeding & Genetics	10	14	24
13	Institute of Biotechnology & Genetics Engineering	19	18	37
14	Plant Pathology	5	4	9
15	Plant Protection	3	13	16
16	Poultry Science	-	19	19
17	Rural Development	3	16	19
18	Rural Sociology	5	21	26
19	Soil & Environmental Sciences	5	27	32
20	Water Management	1	6	7
21	Animal Health (Pathology)	1	4	5
22	Animal Health (Therionology)	-	2	2
23	Weed Science	-	9	9
24	Institute of Development Studies (Economics)	2	5	7
	<b>Total</b>	<b>83</b>	<b>294</b>	<b>377</b>

**Department, Programme wise Students Strength & Gender (M.Sc (Hons) 18 Years, 2016-17**

S. No.	Name of Department/ Institution	Female	Male	Total
1	Agricultural & Applied Economics	5	25	30
2	Agricultural Chemistry	13	18	31
3	Agricultural Extension Education & Communication	2	33	35
4	Agricultural Mechanization	1	12	13
5	Agronomy	5	126	131
6	Animal Nutrition	3	78	81
7	Entomology	3	46	49
8	Food Science & Technology	13	91	104
9	Horticulture	15	160	175
10	Human Nutrition	68	52	120
11	Livestock Management and Animal Breeding & Genetics		47	47
12	Plant Breeding & Genetics	15	65	80
13	Plant Pathology	3	31	34
14	Plant Protection	11	60	71
15	Poultry Science	3	51	54
16	Rural Development	1	27	28
17	Rural Sociology	3	8	11
18	Soil & Environmental Sciences	5	98	103
19	Water Management	0	9	9
20	Weed Science	0	8	8
	<b>Total</b>	<b>169</b>	<b>1045</b>	<b>1214</b>

**Department, Programme wise Students Strength & Gender Details (M.Phil.) 18 Years, 2016 – 17**

S. No.	Name of Department/ Programme	Female	Male	Total
1	Agricultural & Applied Economics	3	1	4
2	Biotechnology & Genetic Engineering	73	75	148
3	Economics	11	19	30
4	Islamic Studies		11	11
5	Pathology (Animal Health )	5	15	20
6	Sociology	6	29	35
7	Statistics	4	11	15
8	Theriogenology (Animal Health )	1	8	9
	<b>Total</b>	<b>103</b>	<b>169</b>	<b>272</b>

**Department, Programme wise Students Strength & Gender Details (MS) 18 Years, 2016 – 17**

S. No.	Name of Programme	Female	Male	Total
1	MS Management Sciences	10	104	114
2	MBA (1.5)	6	88	94
3	MS Computer Science	14	111	125
4	MS Information Technology	2	57	59
	<b>Total</b>	<b>32</b>	<b>360</b>	<b>392</b>

**Department, Programme wise Students Strength & Gender Details (Masters) 16 Years, 2016 – 17**

S. No.	Name of Department/ Institution	Female	Male	Total
1	Botany		1	1
2	Economics		1	1
3	MBA ( 3. 5 )	9	67	76
4	Rural Sociology		1	1
	<b>Total</b>	<b>9</b>	<b>70</b>	<b>79</b>

**Department and Programme wise Students' Strength & Gender Details (16 Years) 2016-17**

S. No.	Departments offering B.Sc (Hons), DVM, and other BS Programmes	Gender Wise		Total
		Female	Male	
1	BSc. Agriculture (First two years of B.Sc (Hons) Agriculture; where the students are taught basic Agriculture and remains under supervision of Directorate of Teaching)	210	1027	1237
2	Agricultural & Applied Economics	10	24	34
3	Agricultural Chemistry	10	26	36
4	Agricultural Extension Education & Communication	2	87	89
5	Agricultural Mechanization	2	6	8
6	Agronomy	2	76	78
7	Entomology	9	67	76
8	Food Science & Technology	7	74	81
9	Horticulture	18	126	144
10	Human Nutrition	80	62	142
11	Plant Breeding & Genetics	5	40	45
12	Plant Pathology	5	34	39
13	Plant Protection	8	68	76
14	Rural Development	5	39	44
15	Rural Sociology	1	38	39
16	Soil & Environmental Sciences	4	64	68
17	Water Management	0	10	10
18	Weed Science	2	37	39
19	B.Sc (Hons.) Biotechnology	107	107	214
20	BBA (Hons.)	85	1988	2073
21	BS ( CS )	51	1744	1795
22	BS ( I T )	25	642	667
23	BS Economics	28	181	209
24	D V M (Animal Health)	51	319	370
	<b>TOTAL</b>	<b>727</b>	<b>6886</b>	<b>7613</b>

**Department and Programme-wise Strength AMK Campus (16 Years) 2016-17**

S.No.	Departments (BS Programmes)	Female	Male	Total
01	BSc. (Hons) Agriculture	2	179	181
02	Agricultural & Applied Economics	-	10	10
03	Agronomy	-	15	15
04	Horticulture	-	22	22
05	Plant Protection	-	8	8
06	Rural Development	-	13	13
07	Soil & Environmental Sciences	-	8	8
08	BBA ( Hons )	-	25	25
09	BS ( CS )	-	43	43
	<b>TOTAL</b>	<b>2</b>	<b>323</b>	<b>325</b>



## Chapter-6

### Universities Building Economies

Research and innovation in the Universities provide a firm base to the economic development of the country. It is always important that the Universities must disseminate the benefits of the research, they are undertaking for the strengthening of the national economy since they are positioned as a key player in jobs creation and strengthening exports. During the reporting year, the following activities were undertaken.

#### a. Department of Plant Breeding & Genetics

The department of Plant Breeding & Genetics has been engaged in commercialization of the research being conducted in the University with certain organization and companies. These companies included;

- i. Jalendher Seed Corporation, Punjab
- ii. Neelum Seed Corporation, Punjab
- iii. TASCO Seed Company Sindh

#### b. Department of Poultry Science

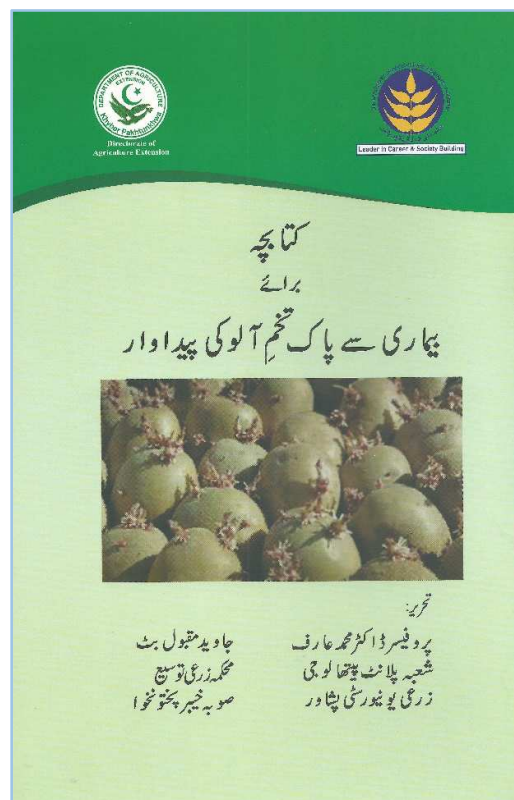
The department of Poultry Science has been supporting the relevant industry for public wellbeing and economic outcome. Some of the interactions included Big Bird Poultry Company for artificial insemination in the chicken production. Other facilitation and support extended to the Alltech Pakistan and members of the Pak-Poultry Association (Khyber Pakhtunkhwa Zone). Such interaction involved technology transfer to the poultry farmers and also contributed towards affordable availability of poultry products to the consumers.

#### c. Department of Plant Pathology

Prof. Dr. Muhammad Arif, planned, developed and implemented an MoU between the University and the Department of Agriculture Extension, Government of Khyber Pakhtunkhwa on “Establishment of informal disease free seed potato production system in KP province”.

A three days Training of Trainer (ToT) workshop on Clean Seed Potato Production, Multiplication and Marketing was arranged during May 16 - 18, 2017. The participants included senior staff of Department of Agriculture Extension viz. Agricultural Officers and Subject Matter Specialist from six target districts Abbottabad, Dir, Manshera, Nowshera, Peshawar and Swat.

A technical bulletin in Urdu on “Clean Seed Production in Potato” was also published for the benefit of the growers.



## Chapter-7

### Strengthening Physical Infrastructure

The Directorate of Planning & Development (P&D) is mandated to plan various activities like developing policies and programmes, preparation and execution of developmental schemes, execution of donor funded projects, arranging national and international conferences/seminars/workshops and all other activities related to developmental schemes like Human Resource Development (HRD), monitoring of civil work and procurement of technical equipment and other equipment. Besides, these activities P&D also develop linkages with other organizations and institutions for mutual collaboration and ultimately development of the University.

Presently, the Directorate is executing two developmental schemes from Public Sector Development Programmes (PSDP-Federal Government) and two from Annual Development Programme (ADP-Provincial Government). The brief details of these projects are depicted below;

#### Projects funded under Public Sector Development Programme (PSDP)

##### **1. Strengthening of Institute of Biotechnology & Genetics Engineering (SIBGE), the University of Agriculture, Peshawar**

The scheme was approved by the Central Development Working Party (CDWP) at the capital cost of Rs. 341.583 million with Foreign Exchange Component of Rs. 99.047 million. The main purpose was to build R&D capability in biotechnology to innovate, produce new technologies as well as new products and also to integrate recombinant DNA technology and animal technology to augment and enhance skills and technology development at IBGE.

The main components of the project are;

- Civil Work
- Human Resource Development
- Scientific equipment
- Office and Library equipment
- Books and Literature
- Furniture and Fixture and Project execution staff

##### **2. Construction of Boundary Wall at the University of Agriculture, Peshawar**

The scheme was approved by the CDWP in its meeting held on January 14, 2016 at the capital cost of Rs. 235.160 million. The project was envisaged with an idea to provide secured environment for the students, faculty and staff of the University.

The main components of the project are;

- Construction of boundary wall
- Watching pickets
- RCC Box Culverts
- Electrification
- Retaining Wall
- Haul Road
- Surveillance System and Networking



***Newly constructed Academic & Research Labs under the SIBGE Project***







***Newly constructed Boundary Wall around the University along with allied facilities***



***Newly constructed Boundary Wall around the University along with allied facilities***

## Projects funded under Annual Development Programme (ADP)

### 1. Establishment and Strengthening of Climate Change Centre at the University of Agriculture, Peshawar

The scheme was approved by the DDWP in its meeting held on December 03, 2015 at the cost of Rs. 17.991 million. The project was designed to initiate climate sensitive research and facilitate farming communities in adaptation to climate change and its impacts on farming system. Similarly, it was also planned to aware farmers about impacts of climate change and adaptation needs for key crops to reduce production losses and development of synergies with other organizations and institutions working on climate change and adaptation.

The main components of the project are:

- Staff Salaries
- IT equipment
- Furniture and fixture
- Electric equipment
- Research and Development
- Outreach



*Participants of the Consultative Workshop under the ADP Scheme*

### 2. Provision of Academic & Research Facilities in Fish Aquaculture at the University of Agriculture, Peshawar

The project was approved by the DDWP dated September 18, 2017. This is 2<sup>nd</sup> Project being funded by the Provincial government. Total cost of the two year project is Rs. 50.00 million. Objective of the project is development of facilities for the academic and research programmes in the University. The post graduate Degree programme in the Fish Aquaculture and related sciences will promote fish industry in the region. The project has the following listed components.

- Civil Work
- Seminars
- Lab. Equipment
- Furniture & Fixtures
- Contingences



*Inauguration Ceremony of the New ADP Scheme*

## Chapter-8

### Strengthening Technological Infrastructure

#### HEC Digital Library

HEC National Digital Library (DL) is a Programme to provide researchers within public and private universities in Pakistan and non-profit research and development organizations with access to international scholarly literature based on electronic (online) delivery, providing access to high quality, peer-reviewed journals, databases, articles and e-Books across a wide range of disciplines. The prime aim of this repository was to quench the information thirst of the researchers, faculty members and students of academic institutions and non-profit organizations. This library has given access to more than 300 Universities/ Degree Awarding Institutions (DAIs)/ R&D organizations.

Affordable access to scientific and technological research information is widely recognized as critical in supporting the needs of the indigenous education and research sector of a country. The DL programme provides a productive national information service.

The main vision of this programme in the University is to meet the teaching and research needs of the faculty and students by providing access to high-quality/scholarly information. Modern information and communication technologies are becoming an increasingly flexible medium for the purpose of delivering and retrieving information.

Latest, authenticated and peer review literature results from research conducted worldwide are available through this programme. HEC Digital Library can be searched on the University Digital Library page globally, however facility of full access to these resources is only available in the University campus. The HEC has provided the following databases to this University, via its URL: [http://www.digitallibrary.edu.pk/kpk\\_agriuni.html](http://www.digitallibrary.edu.pk/kpk_agriuni.html)

#### **1. ProQuest Business Premium Collection**

The Business Premium Collection combines ProQuest's most popular business databases to provide your library with a truly comprehensive business research solution. By adding specialty business subject resources to the broad coverage of the ABI / INFORM Collection, you can meet the needs of more of your patrons no matter what their specialty.

#### **2. ProQuest Social Science Premium Collection**

Proquest Social Science Premium Collection will provide libraries with more comprehensive coverage of all areas of social sciences - something that is increasingly important as research becomes more interdisciplinary.

#### **3. Scopus**

Scopus is the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings

#### **4. ProQuest Dissertation & Theses**

ProQuest Dissertations and Theses Global is the world's most comprehensive collection of dissertations and theses from around the world, spanning from 1743 to the present day and offering full text for graduate works added since 1997 and all the prior work written. It contains a significant amount of new international dissertations and theses both in citations and full text.

#### **5. American Association of Physics Teachers**

Two AAPT publications provide up-to-date physics knowledge, at a level comprehensible for many users. These publications assist in the learning of new and traditional teaching methodologies and use of modern technology in Physics.

#### **6. American Chemical Society**

ACS provides access to over 30 peer-reviewed journals and magazines in all fields of chemistry. Its strengths include Core, Applied, Organic Chemistry, Bio- Chemistry, Pharmaceuticals, Polymers and Materials Science.

#### **7. American Mathematical Society**

Provides full-text online access to its four journals as well as MathSciNet database. Covers international mathematical literature dating back to 1940, providing access to the bibliographic data and reviews in the Mathematical Reviews database.

#### **8. Association Of Computing Machinery**

The ACM contains full-text from 28 ACM Journals and Transactions, 10 ACM Magazines, over 40 ACM Special Interest Newsletters, 15 non-ACM journals and publications and over 100 annual conference proceedings. Content strengths include all areas of Information Technology, with full archival content for all ACM publications.

#### **9. BRILL**

Brill publishes 200 journal titles - including 16 e-only titles and 6 full open access titles - focused on Humanities and Social Sciences, International Law and selected areas in the Science.

#### **10. EBRARY**

ebrary offers a wide variety of multidisciplinary content. It acquires large number of titles from leading academic publishers.

#### **11. ELSEVIER (Science Direct)**

Science Direct is the world's leading electronic collection of scientific journals. Renowned for the high-quality of its content in all branches of science, technology and medicine. Subscribed subject areas are;

- i. Agricultural & Biological Sciences
- ii. Biochemistry, Genetics & Molecular Biology
- iii. Computer Science
- iv. Veterinary Science & Veterinary Medicine

#### **12. EMERALD**

Emerald is a dynamic database comprising over 150 titles in the fields of Management, Information Science and Engineering. The Emerald fulltext collection features over 58,000 articles from titles published by Emerald. Flagship titles such as Management Decision, European Journal of Marketing, Journal of Documentation, Leadership and Organization Development Journal, the TQM Magazine and Industrial Robot.



### **13. IMF ELIBRARY**

The IMF is viewed as one of the world's most authoritative sources for economic information, analysis and harmonized statistics. IMF eLibrary provides comprehensive data and original analysis, with coverage of almost every economy in the world and a special focus on developing and emerging economies.

### **14. Institute for Operations Research & Management Sciences (INFORMS)**

The INFORMS is the largest professional society in the world for professionals in the field of operations research. It publishes 12 scholarly journals that describe the latest O.R. methods and applications and a membership magazine with news from across the profession.

### **15. Institute of Electrical & Electronics Engineers (IEEE)**

Provides access to almost a third of the world's current Electrical Engineering and Computer Science literature. IEL provides full-text access to 132 IEEE and 45 IEE journals, magazines, transactions and conference proceedings as well as active IEEE standards.

### **16. Nature Publishing**

Nature is amongst the most prestigious journals of the world. Includes prompt publications of significant advances in all branches of science as well as providing a forum for the reporting and discussion of news and issues concerning science.

### **17. Science Online**

Provides access to full text of the prestigious Science publication. It allows users to search within Science and across a multitude of scientific journals. Provided to selected public-sector universities in Pakistan on the basis of identified research requirements.

### **18. SIAM**

SIAM fosters the development of applied mathematical and computational methodologies needed in various application areas. Applied Mathematics in partnership with computational science is essential in solving many real-world problems. Through publications, research and community, the mission of SIAM is to build cooperation between Mathematics and the worlds of science and technology.

### **19. Springerlink**

SpringerLink provides access to 503 full-text Springer-Verlag Journals and 738 full-text journals formerly published by Kluwer Academic Publishing. One of the world's leading information services for Science, Technical and Medical journals.

### **20. TAYLOR & FRANCIS Journals**

Taylor & Francis has grown rapidly over the last two decades to become a leading international academic publisher.

### **21. University of Chicago Press**

Founded in 1891, the University of Chicago Press was conceived by President William Rainey Harper as an "organic part" of the University, extending the influence of Chicago scholars around the world. Today the Journals Division of the Press distributes nearly 50 journals and hardcover serials, presenting original research from international scholars in the social sciences, humanities, education, biological, medical, and physical sciences.

## 22. Wiley-Blackwell Journals

Since the Blackwell-Synergy merger with Wiley-Interscience, all the journals available to HEC consortium are now available through Wiley-Interscience. Online database containing over 1,234 journals in science, technology, medicine, humanities and social sciences. The use of HEC Digital Library in the University is very low. A provision exists to get maximum benefit of these precious resources. The Main Library Professional staff is striving to improve its usage by imparting hand on training/orientation to the faculty and post-graduate students.

List of some useful websites is given below:

	Websites Details	URL/Link
1	Agricultural Statistics of Pakistan 2014-15	<a href="http://www.pbs.gov.pk/agri-stat-tables">http://www.pbs.gov.pk/agri-stat-tables</a>
2	Pakistan Economic Survey, 2016	<a href="http://www.finance.gov.pk/survey_1516.html">http://www.finance.gov.pk/survey_1516.html</a>
3	Finance Department, Khyber Pakhtunkhwa	<a href="http://www.financekpp.gov.pk/">http://www.financekpp.gov.pk/</a>
4	Free eBooks	<a href="http://www.en.bookfi.org">www.en.bookfi.org</a> (12,32,495 eBooks) <a href="http://www.libgen.org/">http://www.libgen.org/</a> <a href="http://www.gen.lib.rus.ec">www.gen.lib.rus.ec</a> <a href="http://www.archives.org/">http://www.archives.org/</a> <a href="http://www.isohunt.com">www.isohunt.com</a> <a href="http://www.findpdfdoc.com/">http://www.findpdfdoc.com/</a> <a href="http://www.freefullpdf.com/#gsc.tab=0">http://www.freefullpdf.com/#gsc.tab=0</a> <a href="http://www.ebooksgo.org">www.ebooksgo.org</a> <a href="http://www.doabooks.org">www.doabooks.org</a>
5	Free Open Access Websites for Articles	<a href="http://www.ask.com">www.ask.com</a> <a href="http://www.altavista.com">www.altavista.com</a> <a href="http://www.bing.com">www.bing.com</a> <a href="http://www.doaj.org/">www.doaj.org/</a> <a href="http://www.gigablast.com">www.gigablast.com</a> <a href="http://www.scholar.google.com">www.scholar.google.com</a>
6	Free Questions & Answers	<a href="http://www.answers.com">www.answers.com</a> <a href="http://www.ask.com">www.ask.com</a>
7	ICRISAT (Interl. Crops Res. Instt. for the Semi-Arid Tropics)– An Electronic Library	<a href="http://www.elibrary.icrisat.org/Agri_Web_files/Agricultural_Websites_on_the_Net.htm">http://www.elibrary.icrisat.org/Agri_Web_files/Agricultural_Websites_on_the_Net.htm</a>
8	Pakistan Economic Survey, 2013-14 Highlights	<a href="http://www.finance.gov.pk/survey/chapters_14/Highlights_ES_201314.pdf">www.finance.gov.pk/survey/chapters_14/Highlights_ES_201314.pdf</a>
10	Pakistan Yearbook, 2012-13	<a href="http://www.pbs.gov.pk/content/yearbook-2012-13">http://www.pbs.gov.pk/content/yearbook-2012-13</a>
11	Theses/Dissertations	<a href="http://www.eprints.hec.gov.pk">www.eprints.hec.gov.pk</a> (National Dissertations) <a href="http://www.oatd.org">www.oatd.org</a>

## Procurement/Introduction of new technology in the campus (2016-17)

## Procurement/Introduction of new technology

## Hardware (2016-2017):

S. No.	Item Name	Specification	Qty.	Total
1.	Computers	Different Brands	123	123
2.	Laptops	Different Brands	22	22
3.	Multimedia	Different Brands	06	06
4.	Printers	Different Brands	20	20
5.	Photocopier	Different Brands	03	03
6.	Digital/DSLR Camera	Different Brands	02	02
7.	UPS	Different Brands	10	10
8.	Servers	Dell Power edge R720	03	03
9.	Scanners	Different Brands	06	06
10.	Tonnners	Tonnners for different printers	200+	200+
11	Boundary Wall CCTV Project	Static Cameras:	70	70
		PTZ Cameras:	25	25
		NVRs 32 channels:	04	04
		Racks:	44	44
		LCD Screens	05	05
		Computer System HP Core-i-7:	05	05
		ODF:	35	35
		UPS :	28	28
		<b>Accessories:</b>		
		JOYSTICK CONTROLLER	02	02
		MS Poles for Cameras:	45	45
		SFP Modules:	100	100
		<b>Cabling:</b>	14	14
		Fiber Optic, UTP, FTP, Power Cables.	76	76
		Server	02	02
		8-PORT POE SWITCH	25	25
		24-PORT NON POE SWITCH	17	17
		Fiber Optic Core Switch	03	03
		Laptop Core i7	06	06

## Software (2016-17):

S. No.	Description	No of Licenses
1.	Windows 10 Enterprise Edition	900
2.	Office 2013 Pro Plus Edition	900

S. No.	Description	No of Licenses
1.	Windows 7 Professional	900
2.	Windows 8.1 Professional	900

3.	Windows Server 2012 Standard	03
4.	Microsoft Office 2013	450
5.	Kaspersky Antivirus (Enterprise Series)	100
6.	KOHA Software for Main Library Computerization	01

**List of sessions/topics held in VCR during 2016-2017**

S. No.	Event Type	Event Title	Date & Time
1	On-Line Seminar	"Triangulation of Teaching, Assessment and Learning Outcomes" by Indus University Karachi,	27-July-2016 : 02:00 pm
2	Defense Seminar	Mr. Abdul Qahar, PhD Defense Seminar "Department of Agronomy"	01-August-2016 : 9:00 am
3	On Line Meeting	Training conducted by Dr. Muhammad Afzal (Dean)	Sept. 08, 2015
4	Defense Seminar	"Use of Biotechnology products in Animal Production Practices" by the Faculty of Animal Health & Veterinary Sciences	Sept. 15, 2015
5	Seminar	Scientific Writing organized by Virtual Education Project Pakistan	Oct. 20, 2015
6	Meeting	Video Conference meeting of Chairman HEC with Vice Chancellors of 08 universities	22- August-2016 : 09:00 am
7		Ms.Mahpara Safdar, PhD Defense Seminar "Department of Human Nutrition"	29-August-2016 : 10:00 am
8	Defense Seminar	Mr.Fazli Wahid, PhD Defense Seminar "Department of Soil & Environmental Sciences"	01-Sept-2016 : 10:00 am
9	Defense Seminar	Mr. Muhammad Ishaq, PhD Defense Seminar "Department of Plant Breeding & Genetics"	02-Sept-2016 : 10:00 am
10	Defense Seminar	Mr. Imranud Din, PhD Defense Seminar "Department of Agronomy"	05-Sept-2016 : 10:00 am
11	Meeting	Review of FDP executed under PSDP Funded Development Projects through Video Conference	06- Sept-2016 : 12:00 pm
12	Defense Seminar	Ms. Robina Karim, PhD Defense Seminar "Department of Agricultural & Applied Economics"	08-Sept-2016 : 09:30 am
13	Defense Seminar	Mr. Muhammad Noor, PhD Defense Seminar "Department of Plant Breeding & Genetics"	08-Sept-2016 : 12:00 am
14	Defense Seminar	Mr. Zafar Ul Haq Hashmi, PhD Defense Seminar "Department of Water Management"	09-Sept-2016 : 09:00 am
15	Defense Seminar	Mr. Zamarud Shah, PhD Defense Seminar "Institute of Biotechnology and Genetic Engineering"	09-Sept-2016 : 11:00 am
16	Defense Seminar	Mr. Sardar Ali, PhD Defense Seminar "Department of Plant Breeding & Genetics"	19-Sept-2016 : 09:30 am
17	Defense Seminar	Mr. Ijaz Hussain, PhD Defense Seminar "Department of Horticulture"	21-Sept-2016 : 09:30 am
18	Session	USEFP Presentation	22-Sept-2016 : 10:00am

19	Defense Seminar	Ms. Umm e Kulsoom, Ph.D Defense Seminar "Department of Weed Science"	23-Sept-2016 : 10:00am
20	Defense Seminar	Mr. Ikramullah Khan, Ph.D Defense Seminar "Department of Livestock Management"	28-Sept-2016 : 10:00am
21	Defense Seminar	Mr. bni Amin Khalil, PhD Defense Seminar "Department of Plant Breeding & Genetics"	06-Oct-2016 : 10:00 am
22	Workshop	ICT for Agriculture Extension by IDS & Faisalabad University	10-Oct-2016 : 08:00 am
23	Workshop	Anti-Plagiarism Policy & Turnitin Use by QEC	11-Oct-2016 : 08:00 am
24	Defense Seminar	Mr. Fazal Maula, PhD Defense Seminar "Department of Entomology"	18-Oct-2016 : 10:00 am
25	Workshop	"Research Project Writing" by Virtual Education Project Pakistan VEPP	20--Oct-2016 : 08:00 am
26	Workshop	"Research Project Writing" by Virtual Education Project Pakistan VEPP	11-Oct-2016 : 08:00 am
27	Meeting	PM Laptop Scheme "Laptop Distribution Ceremony Phase 2"	17- Oct-2016 : 12:00 am
28	Defense Seminar	Mr. Zakir Hussain, PhD Defense Seminar "Department of Plant Breeding & Genetics"	24-Oct-2016 : 10:00 am
29	Defense Seminar	Mr. Fazli Subhan, PhD Defense Seminar "Department of Entomology"	27-Oct-2016 : 10:00 am
30	Defense Seminar	Ms. Humera Jamal, PhD Defense Seminar "Department of Rural Sociology"	31-Oct-2016 : 02:00 pm
31	Meeting	On-Line Meeting Prime Minister's Laptops Scheme	08-Nov-2016 : 01:00 pm
32	Defense Seminar	Mr. Ijlal Hussain, PhD Defense Seminar "Department of Food Science"	29-Oct-2016 : 10:00 am
33	On-Line Course	NMR Spectroscopy of Biological Molecules	29-Nov-2016 : 11:00 am
34	Defense Seminar	Ms. Qudsia Khalid, PhD Defense Seminar "Institute of Biotechnology and Genetic Engineering "	30-Oct-2016 : 10:00 am
35	Session	Investor Education and International Relation by Securities and Exchange Commission of Pakistan (SECP)	30-Oct-2016 : 11:30 am
36	Session	Orientation Session of US Education Foundation Program for Students	07-Dec-2016 : 09:00 am
37	Defense Seminar	Mr. Khilwat Afridi, PhD Defense Seminar "Department of Plant Breeding & Genetics"	13-Dec-2016 : 10:00 am
38	Training	USAID Training for Talent grooming Students	31-Oct-2016 : 02:00 pm
39	Training	USAID Training for Talent grooming Students	08-Nov-2016 : 01:00 pm
40	Workshop	Workshop on Intellectual Property Rights (IPRs)	Nov. 8, 2016
41	Defense Seminar	Mr. Roshan Zameer, PhD Defense Seminar "Department of Horticulture"	Oct. 29, 2016
42	Defense Seminar	Mr. Ijaz Naeem, PhD Defense Seminar "Institute of Biotechnology and Genetic Engineering "	Nov. 29, 2016
43	Seminar	Organic Farming- Clean Food	Oct. 30, 2016
44	Defense Seminar	Mr. Kamran, PhD Defense Seminar "Department of Agronomy"	Oct. 30, 2016 Dec. 7, 2016

45	Defense Seminar	Mr. Shoaib Sultan, PhD Defense Seminar "Department of Animal Nutrition"	Dec. 13, 2016
46	Defense Seminar	Mr. Muhammad Saeed, PhD Defense Seminar "Department of Plant Breeding & Genetics"	16-Jan-2017 : 10:00 pm
47	Seminar	"Quality Assurance and Self-Assessment Process" Organized by Directorate of Quality Assurance	03-Feb-2017 : 09:30 am
48	Workshop	"Research Tools & Techniques (SPSS & Research Methodology)" organized by PASTIC & Dept of Animal Nutrition	2-March-2017 : 08:00 am
49	Workshop	"Research Tools & Techniques (SPSS & Research Methodology)" organized by PASTIC & Dept of Animal Nutrition	3-March-2017 : 08:00 am
50	On Line Course (04 Months)	"Basic Chinese Language Course -V" organized by Virtual Education Project Pakistan "VEPP" (classes : Tuesdays & Thursdays )	07-March-2017 : 02:00 pm to 04:00 pm
51	On Line Course	"The role of Natural Products in infections and Inflammation" organized by Virtual Education Project Pakistan "VEPP"	15-March-2017 : 11:15 am
52	Workshop	"Bringing innovations in food value chain for sustainable development in KP & FATA" organized by Faculty of Animal Husbandry and Veterinary Sciences	29-March-2017 : 09:00 am
53	Defense Seminar	Mr. Imtiaz Ali, Ph.D Defense Seminar "Department of Plant Breeding & Genetics"	31-March-2017 : 10:00 am
54	Defense Seminar	Mr. Sheraz Ahmad Khan, Ph.D Defense Seminar "Department of Plant Breeding & Genetics"	06-April-2017 : 10:00 am
55	Defense Seminar	Mr. Sheraz Ahmad , Ph.D Defense Seminar "Department of Plant Breeding & Genetics"	07-April-2017 : 10:00 am
56	Defense Seminar	Mr. Mian Ahmad Raza, Ph.D Defense Seminar "Department of Plant Breeding & Genetics"	17-April-2017 : 10:00 am
57	Defense Seminar	Ms. Abida Saleem, Ph.D Defense Seminar "Department of Soil & Environmental Sciences"	05-May-2017 : 10:00 am
58	Training Workshop	"Research Tools & Techniques Citation Management "MENDELEY" organized by Dept Of Livestock Management.	10-May-2017 : 10:00 am
59	Training Workshop	Training of Trainers (ToT) Workshop organized by Dept of Plant Pathology	16-May-2017 : 09:00 am
60	Training Workshop	Training of Trainers (ToT) Workshop organized by Dept of Plant Pathology	17-May-2017 : 09:00 am
61	Training Workshop	Training of Trainers (ToT) Workshop organized by Dept of Plant Pathology	18-May-2017 : 09:00 am
62	Defense Seminar	Mr. Sadiq Ali, PhD Defense Seminar "Department of Weed Science"	19-May-2017 : 10:00 am
63	Defense	Mr. Habibullah, PhD Defense Seminar	22-May-2017



	Seminar	"Department of Agriculture Chemistry"	: 10:00 am
64	Defense Seminar	Ms. Gul Naz, PhD Defense Seminar "Department of Agronomy"	24-May-2017 : 10:00 am
65	Defense Seminar	Mr. Zar Muhammad, PhD Defense Seminar "Department of Agronomy"	24-May-2017 : 11:30 am
66	Defense Seminar	Ms. Neelum Andaleeb, PhD Defense Seminar "Department of Agricultural & Applied Economics"	25-May-2017 : 10:00 am
67	On Line Course (04 Months)	"Basic Chinese Language Course -V" organized by Virtual Education Project Pakistan "VEPP" (classes : Tuesdays & Thursdays )	25-May-2017 02:00 pm to 04:00 pm
68	On-Line Session	Education Testing Council (ETC) Test Fall 2017	07-July-2017 : 03:15 pm
69	Defense Seminar	Mr. Nadia Mubarik, PhD Defense Seminar "Institute of Biotechnology and Genetic Engineering"	22-August- 2017 : 10:30 am
70	Defense Seminar	Mr. Muhammad Anees Afsar , PhD Defense Seminar "Department of Agronomy"	23-August- 2017 : 09:30 am
71	Defense Seminar	Mr. Muhammad Kamal Shah , PhD Defense Seminar "Department of Pathology Animal Health"	29-August- 2017 : 10:00 am
72	Defense Seminar	Ms. Bibi Haleema, PhD Defense Seminar "Department of Horticulture"	19-Sept-2017 : 10:00 am
73	Workshop	"Refining Agro-Ecological Zones for KP" organized by Climate Change Center UAP	20-Sept-2017 : 09:00 am
74	Defense Seminar	Mr. Zia ur Rahman, PhD Defense Seminar "Department of Poultry Science"	21-Sept-2017 : 09:00 am
75	Defense Seminar	Mr. Sardar Ahmad, PhD Defense Seminar "Department of Rural Sociology"	25-Sept-2017 : 09:00 am
76	Defense Seminar	Mr. Naveed Ahmad, PhD Defense Seminar "Department of Horticulture"	26-Sept-2017 : 10:30 am
77	Defense Seminar	Mr. Rafiullah, PhD Defense Seminar "Department of Poultry Science"	05-Oct-2017 : 09:30 am
78	Workshop	"How to write a worth publishing research paper" organized by PASTIC & Director ORIC UAP	18-Oct-2017 : 08:00 am
79	Workshop	"How to write a worth publishing research paper" organized by PASTIC & Director ORIC	19-Oct-2017 : 08:00 am
80	Seminar	Seminar on "Preventive Cardiology" organized by Dept of Human Nutrition	08-Nov-2017 : 10:30 am
81	Defense Seminar	Ms. Attaullah, PhD Defense Seminar "Department of Plant Pathology"	15-Nov-2017 : 10:00 am
82	Conference	Conference on Climate Change "Threats to Food Security" Dept. of Agronomy	22-Nov-2017 : 9:00 am
83	Conference	Conference on Climate Change "Threats to Food Security" Dept. of Agronomy	23-Nov-2017 : 9:00 am

84	Conference	Conference on Climate Change “Threats to Food Security” Dept of Agronomy	24-Nov-2017 : 9:00 am
85	Defense Seminar	Mr. Sajid Muhammad, PhD Defense Seminar "Department of Plant Breeding & Genetics"	24-Nov-2017 : 09:30 am
86	Defense Seminar	Mr. Attaullah Khan, PhD Defense Seminar "Department of Agronomy"	28-Nov-2017 : 09:30 am
87	Defense Seminar	Mr. Muhammad Zamin, PhD Defense Seminar "Department of Horticulture"	05-Dec-2017 : 09:30 am
88	Defense Seminar	Mr. Haider Ali, PhD Defense Seminar "Department of Rural Development"	08-Dec-2017 : 09:00 am
89	Defense Seminar	Mr. Muhammad Ijaz Khan, PhD Defense Seminar "Department of Agronomy"	08-Dec-2017 : 11:00 am
90	Defense Seminar	Mr. Syed Tanveer Shah, PhD Defense Seminar "Department of Horticulture"	11-Dec-2017 : 10:00 am
91	Defense Seminar	Mr. Muhammad Ilyas, PhD Defense Seminar "Department of Horticulture"	18-Dec-2017 : 09:30 am
92	Defense Seminar	Mr. Abdul Sattar Shah, PhD Defense Seminar "Department of Food Science & Technology"	19-Dec-2017 : 10:00 am
93	Seminar	Seminar on “Youth Entrepreneurship” organized by Youth Engagement Services & UAP	22-Dec-2017 : 09:00 am
94	Defense Seminar	Mr. Zahid Mehmood , PhD Defense Seminar "Department of Food Science & Technology"	26-Dec-2017 : 10:00 am
95	Defense Seminar	Mr. Jawad Anwar, PhD Defense Seminar "Department of Agriculture Chemistry"	27-Dec-2017 : 10:00 am
96	Defense Seminar	Mr. Ghufraan ul Haq, PhD Defense Seminar "Department of Plant Pathology"	28-Dec-2017 : 10:00 am

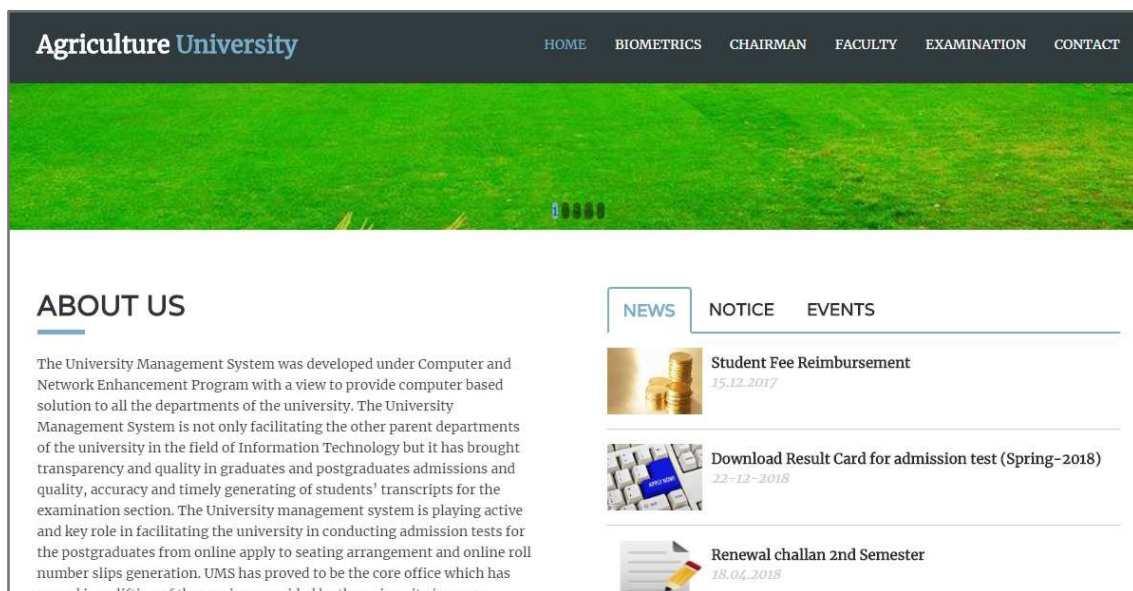
## University Management System(UMS)

The UMS Section has achieved a lot and added a lot to the best interests of the university within limited resources. It has not only facilitated the students in different ways but also helped in automation of different parent departments of the university. A brief overview is as underlined.

The UMS Section has designed and implemented successfully the following modules:-

1. **University Admission Testing Services** a complete and fool proof in all respect. This module fulfills the following measures;
  - a). Online apply to test, issue of test form & bank challan form.
  - b). SMS Alerts (Roll No and Hall Detail) and Roll No Slip
  - c). Seating arrangement plan & chair stickers along with picture.
  - d). SMS result & online roll number slip download.
2. **Online applications** to different programmes of graduates and postgraduates level. This module facilitates in the manner of;
  - a). Online apply, students download forms and challan to be submitted in any HBL bank nearer to the candidate.
  - c). Automatic merit list generation in the respective category.
  - d). SMS system to keep in touched with the students at each stage of his/her admission.
3. **Student Registration Module** contains the following;
  - a). Student registration Proforma.
  - b). Searching student (by variety of criterion)
  - c). Department wise student's reports.
  - d). Session and semester wise student's report.
  - e). Student's summary.
4. **Examination System**, A full fledge secrecy automated system runs in the Controller Examination Section of the University to facilitating and benefiting the students as well as controller office. The System is having the following attributes.
  - a). Students are assigned different subject semester wise.
  - b). Blank Award List.
  - c). Marks entry Regular & Reappear students.

- d) Result on GPA and CGPA
  - e). Printing DMC's
  - f). Printing individual and full transcript.
  - g). Provisional certificate.
5. **Finance & Budgeting**, The university management system has incorporated a module in department of Finance Directorate including,
- a). Budget Classification sheets.
  - b). Payable vouchers.
  - c). Receivable vouchers.
  - d). Cash Book
  - e). Bank Book.
  - f). A/C Ledger and Bank Ledger.
6. **Online Degree Verification**, in order to facilitated students online verification to their degrees has been incorporated.
7. **Quality Enhancement Cell**, contain different types of evaluation Proforma.
8. **UMS department** has been involved in providing all type of records to the different sections of the department i.e.,
- a). Provides accurate figures and data for Prime Minister Laptop Scheme.
  - b). Provide students data to Prime Minister Internship program.



UMS Layout on Website (www.aup.edu.pk)

## Chapter-9

### Universities Building Communities

#### University's Role in Building Community

The Universities around the world besides fulfilling the primary obligation of training and educating the youth and undertaking research, have been expected and contributing to the community development especially where they are situated. Interacting with society and disseminating benefits of their research is considered to be an important task of the universities which is equally important to justify their existence.

#### University-community Interaction

##### i. Department of Plant Pathology

The outreach activities of the department included diagnosis of plant diseases, advice on plant disease control to farmers and those interested in agriculture. The mushroom programme of the department provided professional advice to mushroom growers and farmers of Khyber Pakhtunkhwa for the establishment of mushroom farms at cottage and commercial levels and provided high quality spawn of oyster mushroom to farmers, NGOS etc.

Poverty alleviation of farming comity of KP through clean potato seed production, multiplication and marketing. Farming comity of six target districts (Peshawar, Nowshera, Abbottabad, Mansehra, Swat, Dir,) were trained, and input (seed potato) as well as best practice guides were provided.

##### ii. Department of Plant Protection

The department provided consultative and Pest management services to the growers of Maize crop, Cucurbits, Potato, Brassica, Cabbages, and other vegetables growers in various localities of Peshawar.

##### iii. Department of Poultry Science

The department of Poultry Science has been regularly providing post-mortem services to the poultry farmers. Similarly consultancy services are also provided to breeders farmers as and when required.

##### iv. Climate Change Centre (CCC)

Climate Change Centre, in collaboration with Helvetas Swiss Intercooperation Pakistan and Pakistan Meteorological Department developed climate scenarios for three districts of Lower Dir, Upper Dir and Chitral. Scenarios of all the three districts are available in PDF at the centre and will be published soon.

#### **Research Trial / Study Reports**

Climate Change Centre, through faculty, conducted research trials on response of wheat and maize varieties to sowing intervals in different climatic zones of Khyber Pakhtunkhwa. Besides, studies were also completed on climate change adaptation in wheat in Khyber Pakhtunkhwa, and water availability and existing operational framework of Tank Zam Rudh Kohi irrigation system. All these were funded by Helvetas Swiss Intercooperation Pakistan. Following reports of the trails and studies are available;

- I. “Response of Wheat Varieties to Sowing Intervals as Rainfed/ Unirrigated Crop in Khyber Pakhtunkhwa”
- II. “Effect of Sowing Time on the Yield of Different Maize Varieties and Hybrids under Different Climatic Zones of Khyber Pakhtunkhwa”
- III. “Climate Change Adaptation in Wheat”
- IV. “Assessment of Water Availability and Review of Existing Operational Framework of Tank Zam Rudh Kohi Irrigation System”

#### **Impact of climate change on elder citizens**

The Climate change Centre in collaboration with HelpAge Pakistan conducted study on the “Impact of climate change on elder citizens” at Nowshera during August 2017. Main focus was on their health, livelihood and social life. Findings of the study were shared with local administration and community of the Nowshera District.



#### **Effects of Climate Change on rainfall patterns of KP province and to gauge the communities**

The University in collaboration with Norwegian Church Aid (NCA) undertook an evidence based research for exploring the effects of climate change on rainfall patterns of KP province and to gauge the communities’ coping mechanisms for dealing with the changes and management of rainwater at grassroots levels. The findings of research were to help policy makers dealing with disaster management, climate change and to support development initiatives of various organizations/departments in the country and particularly in the Province. A highly qualified team of the University took part in the study. The team used qualitative and quantitative research methods, climate projections of temperature and rainfall, Focus Group Discussions and Key Informants and personal observations in completing the study in three districts of KP namely Swat, Nowshera and Lakki Marwat.

*Signing Ceremony of MoU with NCA*





## Prime Minister's National Laptop Scheme 2017

Prime Minister's Laptops Scheme under the Prime Minister's Youth Programme is for Talented Students with the main objective to enhance the scope of research and quality education in the country and increase the access to information technology. The scheme is envisioned to bring a paradigm shift in the current education and research culture in the country.

Whereas during 2016, under the 2<sup>nd</sup> phase of the scheme total of 1214 laptops were distributed to the students. While during 2016, under the 3<sup>rd</sup> phase of the scheme 791 laptops will be distributed among the students of the University on merit. Total 351 students of the University received laptops under the Prime Minister Laptop Scheme Phase IV & V for the session 2016-17.



**Participants of the Two days talent grooming workshop for the USAID scholars of the University. The workshop content included Communication skills, presentation skills, personality development, interpersonal skills and entrepreneurship. (Dec. 14-15, 2016)**



### Directorate of Financial Assistance & Development (FAD)/ Scholarships

The Directorate of FAD support students from financially poor backgrounds. The Directorate serves as a platform to reach out to all sections including donor agencies, corporate sector, financial sector, the esteemed alumni and charities to contribute to and assist the needy students in their pursuit of Higher Education. Total amount of Rs.131.447/- has been awarded to 1636 students through scholarships, fee concession and fee reimbursement programme during the year 2016-17. The Directorate is also facilitating PM Tuition Fee Reimbursement Scheme for the students of affected and backward areas, FATA and AJK.

#### Detail of Scholarship disbursed during the year 2016-17

S. No.	Scholarship Programme	Target Degree Programme	Type	No.	Amount/ Scholarship	Total Payments (Rs. In Mn)
1	Students Welfare Endowment Fund	All Degree Programmes	Full Funded	21	48000	1.008
2	USAID Funded Merit & Needs Based Scholarship	B.Sc. (Hons) Agriculture	Fully Funded	28	67000	1.876
3	HEC-Need Based Scholarship	-do-	Fully Funded	49	72000	3.528
4	FATA & Baluchistan Scholarship	Agriculture, BBA, DVM, BSCS, BSIT	Fully Funded	35	95000	3.325
5	FATA Reserved Seat Scholarship	B.Sc. (Hons) Agriculture	Partial	60	27000	1.620
6	FATA Reserved Seat Scholarship	DVM	-do-	36	27000	0.972
7	Political Scholarship	All Degree Programmes	-do-	450	5000	2.250
8	MORA Scholarship	-do-	-do-	140	9000	1.260
9	Pakistan Baitul Maal Scholarship	-do-	-do-	32	15000	0.480
10	Northern Area Stipend	-do-	-do-	15	3450	0.052
11	AJK Stipend	-do-	-do-	5	10000	0.050
12	Occupied Kashmir Scholarship	-do-	Fully Funded	11	300000	3.300
13	ATI Quetta	Agriculture	Partial	68	6000	0.408
14	Afghan Students' Scholarship Scheme	Agriculture, BBA, BSCS, BSIT	Fully Funded	280	175000	49.000
15	Diya Pakistan Scholarship	All Degree Programmes	Partial	25	16000	0.400
16	Livestock (Quetta)	DVM	-do-	28	12000	0.336
17	Punjab Educational Endowment Fund	All Degree Programmes	-do-	10	145000	1.450
18	USAID Funded Merit & Needs Based Scholarship	M.Sc. (Hons) Agriculture	Fully Funded	19	72000	1.368
19	Professional Education Foundation	All Degree Programmes	Partial	21	24000	0.504
20	Pakistan Scottish	M.Sc. (Hons)	Fully	08	150000	1.200

	Scholarship Scheme	Agriculture	funded			
21	PM Fee Reimbursement Scheme	Master & Doctoral level programmes	Tuition fee	300	190200	57.060
	<b>Total</b>			<b>1636</b>	<b>1468650</b>	<b>131.447</b>

Pictures of Physical Verification visits to hometowns of the recommended students for financial assistance and scholarships awarded during 2016-17





## Chapter-10

### Sports& Co-Curricular Activities

Participation and involvement of students in different co-curricular and sports activities is the need of the day and essential for inculcating in them the sense of responsibility, discipline, obedience, punctuality and generating the quality of leadership, patience and enhance emotional stability. The Directorate of Sports at the University is trying to involve students in sports activities and provides all possible facilitation.

#### Sport Events during 2017











## Chapter-11

### Universities Building Leadership

#### Leadership by the Faculty

The University celebrated 15 years anniversary of the Higher Education Commission. During the celebration various events were organized included Debates completion, Painting competition, Blood Donation camp, issuance of special edition of the University's Newsletter highlighting University's academic and research achievements particularly in the last 15 years under the patronage of HEC.





*Orientation session of the Faculty members/ field teams participated in the Study on Farmers' Perception on Climate Change impact on Agriculture & Livestock in 10 Districts of Khyber Pakhtunkhwa*

### Honours and Awards

Some of the Honours and Awards won by the Faculty during 2016-17

Name of Faculty Member	Designation/ Department	Name of the Award	Authority Giving the Award	Date
Prof. Dr. Muhammad Arif	Professor/Agronomy	Best Teacher Award	HEC	2016-17
Prof. Dr. Ahmad-Ur-Rahman Saljoqi	Professor/Chairman	Travel Grant Award	HEC	May 15-17, 2017
Dr. Ishaq Ahmad Mian	Assistant Professor/ Soil & Environmental Sciences	Honorary Research Fellow	University of Aberdeen, UK	July, 2016
Prof. Dr. Umar Sadique	Professor/ Animal Health	Best Research Article	International Organization of Mycoplasma, Australia	2016-17
Dr. Hamayun Khan	Assistant Professor/ Animal Health	International Teachers Award	Yamaguchi University, Japan	2016-17
Dr. Farhan Anwar	Assistant Professor/ Animal Health	6 <sup>th</sup> HEC Outstanding Research Award	HEC	2017



## Chapter-12

### Finance

#### Financial Summary: Actual Receipts and Expenditures (2016-2017)

Budget at a Glance 2016-17

(Rs. In Million)

S.No.	Heads	2016-17 Actual	2017-2018 Budget Estimates
<b>A)</b>	<b>RECEIPTS</b>		
1	Opening Balance	-22.902	23.573
2	Recurring Grant	796.265	855.604
3	Supplementary / Special Grant	25.000	115.00
4	Tenure Track Grant	89.916	79.781
5	Receipts from Own Resources	575.670	563.60
<b>6</b>	<b>Total Receipts</b>	<b>1,463.949</b>	<b>1,637.558</b>
<b>B)</b>	<b>EXPENDITURE</b>		
1	Salary of Sanctioned Posts	793.313	937.993
2	Salary of Tenure Track Faculty	156.202	162.690
3	Non-Salary Expenditure	490.861	583.322
<b>4</b>	<b>Total Expenditure</b>	<b>1,440.376</b>	<b>1,684.005</b>
	<b>Closing (A - B)</b>	<b>23.573</b>	<b>-46.447</b>

#### Details of Income from Own Resources

(Rs. In Million)

Code No.	Budget Heads	2016-17 Actual	2017-2018 Budget Estimates
Co2813	Education General Fees	473.086	440.500
Co2812	Hostel Fees / User Char	39.175	45.000
Co2818	Others	63.336	77.000
	<b>Total Own Resources</b>	<b>575.670</b>	<b>563.600</b>

#### Details of Establishment Charges

(Rs. In Million)

Budget Heads	2016-17 Actual	2017-2018 Budget Estimates
Total Pay of Faculty / Officers	390.685	498.238
Total Pay of Staff / Others	184.826	223.670
Total Pay (Pay of Officers + Pay of Staff)	575.511	721.908

Total Regular Allowances	176.729	171.844
Other Regular Allowances	113.951	122.678
Total Regular Allowances (Regular+ Others)	290.680	294.522
Other Allowances (AO1271 - 99)	83.323	84.253
<b>Total Establishment Charges</b>	<b>949.515</b>	<b>1100.683</b>

## Head wise details of Non-Salary Expenditures

(Rs. In Million)

Budget Heads	2016-17 Actual	2017-2018 Budget Estimates
Fees (Total)	5.290	8.150
Communication (Total)	8.486	9.235
Utilities (Total)	73.488	76.020
Occupancy Costs (Total)	61.573	64.710
Motor Vehicles (Total)	0.002	13.200
Consultancy & Contractual Work (Total)	0.000	1.000
Travel & Transportation [Total]	9.967	12.810
General Operating Expenses (Total)	47.775	63.150
Total Operating Expenses	206.581	248.275
Employees Retirement Benefits (Total)	226.596	259.367
Repair and Maintenance (Total)	7.777	13.550
Feasibility Studies (Total)	0.000	0.040
Research Survey & Exploratory Operations (Total)	0.272	0.550
Financial Assistance/ Scholarships (Total)	30.485	35.650
Technical Assistance (Total)	0.000	0.020
Entertainments and Gifts (Total)	1.611	2.100
Other Transfer Payments (Total)	0.747	1.270
Expenditure on Acquiring of Physical Assets (Total)	16.764	22.300
Civil Works - Buildings & Structures (Total)	0.029	0.200
<b>Total Non-Salary Expenses</b>	<b>490.861</b>	<b>583.322</b>

## Chapter-13

### University Governance

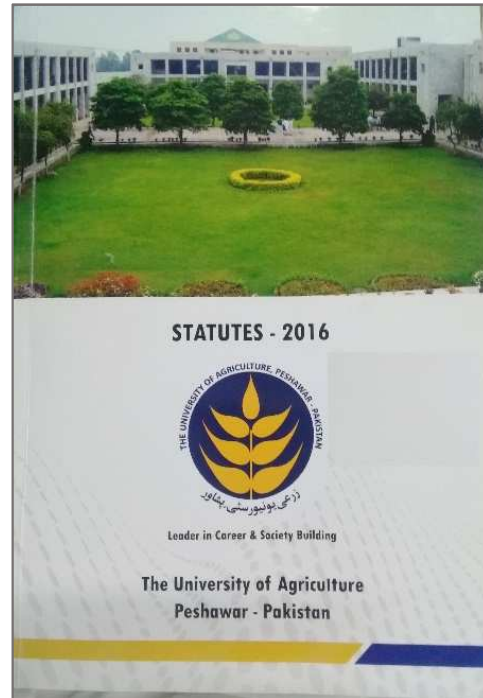
#### University Governance

The University of Agriculture, Peshawar after the promulgation of Khyber Pakhtunkhwa Universities Act, 2012 (Amended 2016) reframed its Statutes 2016 and got them approved from the relevant statutory bodies of the University. Currently the University is governed under its newly approved Statutes 2016 through the following statutory bodies:

- i. Senate
- ii. Syndicate
- iii. Academic Council

The composition of these authorities is complete. Additionally, the following authorities have been established as enshrined in the Universities Act to manage appropriately matters concerning the University academics, finances, students' affairs, merit-based faculty and other staff selection.

- i. Board of Faculties
- ii. Board of Studies
- iii. Selection Board
- iv. Board of Advanced Studies & Research
- v. Finance & Planning Committee
- vi. University Discipline Committee



#### Senate

The Senate has the power of general supervision of the University and shall hold the Vice-Chancellor and the Authorities accountable for all functions of the University. The Senate shall have all powers of the University not expressly vested in an Authority or Officer by the Act and all other powers not expressly mentioned in the Act that are necessary for the performance of its functions. 2<sup>nd</sup> meeting of the Senate was held on July 21, 2016 under the chairmanship of Chancellor/ Governor Khyber Pakhtunkhwa Engr. Iqbal Zafar Jhagra.

#### Senate meetings

Senate Meeting	Date
3 <sup>rd</sup> meeting	October 24, 2016
4 <sup>th</sup> meeting	December 28, 2016
5 <sup>th</sup> Meeting	October 26, 2017

#### Syndicate

The Syndicate is an executive body of the University which exercise general supervision over the affairs and management of the University subject to the provisions of the Universities Act and Statutes. During 2016-17, four meetings were held as per the following schedule:

### Syndicate Meetings 2016-2017

Meetings	Date
95 <sup>th</sup> meeting	October 25, 2016
96 <sup>th</sup> meeting	December 13, 2016
97 <sup>th</sup> meeting	April 17, 2017
98 <sup>th</sup> meeting	June 23, 2017

### Academic Council

The Academic Council is a principal academic body of the University with a mandate to lay down proper standards of instruction, research and examinations and to regulate and promote the academic life of the University, Colleges and Institutions subject to the provision of the Act and Statutes. During 2016- 17, two meetings were held as per details given below:

Meetings	Date
37 <sup>th</sup> meeting	March 13, 2017
38 <sup>th</sup> Meeting	November 29, 2017

### Board of Faculties

Functions of the Board of Faculties include: to coordinate teaching and research work in the subjects assigned to the faculties and to scrutinise the recommendation of the Board of Studies for further reporting to the Academic Council.

### Board of Studies

The Board of Studies have advisory role in all academic matters connected with the instructions, research, publications and examination in the subject or subjects concerned. Additionally, to propose curricula and syllabi for all the degrees, diplomas and certificate courses in the subject(s) concerned.

### Selection Board

The Selection Board is a recommending body with the mandate to consider applications for teaching and administrative posts and recommend the names of suitable candidates for appointment/promotion to such posts. During the reporting period meeting of 82<sup>nd</sup> Selection board was held on May 02, 2016.

### Advanced Studies & Research Board (ASRB)

The ASRB is an advisory and executing body on all matters connected with the promotion of advanced studies (post graduate), publication and research in the University. It is also mandated to process post graduate curricula, dissertations evaluation reports, panels of names of papers setters and examiners for comprehensive (written and oral) examination in light of recommendations made by the board of studies. The ASRB meeting, held during the reporting year as per schedule given below;

### Advanced Studies & Research Board meetings

Meetings	Date
30 <sup>th</sup> meeting	August 23, 2016
31 <sup>st</sup> meeting	November 02, 2016
32 <sup>nd</sup> Meeting	Feb. 22, 2017
33 <sup>rd</sup> Meeting	April 27, 2017

34 <sup>th</sup> Meeting	July 20, 2017
35 <sup>th</sup> Meeting	Nov. 07, 2017

### Finance & Planning Committee (F&PC)

F&PC is mandated to advise on the annual statement of accounts, annual and revised budget estimates and to review periodically the financial position of the University. It advises the Syndicate on all matters relating to planning, development, finances, investments and accounts of the University. It also prepares short term and long term academic development plans including staff and resource development. Meetings details during the reporting period is as under:

Meetings	Dates
70 <sup>th</sup> meeting	June 03, 2016
71 <sup>st</sup> meeting	April 12, 2017
72 <sup>nd</sup> Meeting	October 27, 2017

### Affiliation Committee

The Affiliation Committee is an advisory body for recommending affiliation of colleges/ institutes to the Syndicate after reviewing the infrastructure and other facilities required for imparting standard education.

### University Discipline Committee

The Discipline Committee deals with all inter-institute cases of indiscipline in the University. It proposes regulations relating to the conduct of University students, maintenance of discipline and action for breach of discipline. The Committee is mandated to recommend suspension, expulsion or rustication of students, on the basis of inquiry conducted under the rules.



## Chapter-14

### Office of Resource Generation/Development

#### Initiatives, Mobilization, Implementation and Commercialization

In order to initiate and further strengthen the existing research and commercialization programme of the university for transfer of technology to the relevant stakeholders, the university has already adopted a well-structured systematic approach for generation of resources, its mobilization, utilization and commercialization towards economic development of the province and the country at large.

Following few activities initiated by the university over a period of time to cope with the financial crisis:

- i. Fruits plant and ornamental plant nursery
- ii. Dairy farming and dairy products
- iii. Poultry farming (chicken and Quail)
- iv. Wheat and maize being grown for Reseach as well as source of revenue for the University
- v. Mushrooms being grown at the Campus
- vi. Fruits' juices and jams being extracted and made at the Univerity
- vii. Renting out University Auditorum and classroom to various testing agencies and organizations
- viii. Renting out University's Guest Houses
- ix. Shoping markets and other property rented out by the University
- x. Consultancy services to organizations especially NGOs
- xi. Capacity building programmes organized and conducted for the staff of Governmental and Non Governmental Organziations on need basis

#### Future Plans

The University tries to cater to all possible commercialization activities and projects by effectively utilizing its resources to generate other means of income and enhance the financial capability of the university and to attain fiscal independence. For this purpose Business Incubation Centre programmes will be initiated to commercialize the research carried out in the university through:

1. Establishing strong linkages with other private and business entities
2. Capacity building programmes for the stakeholders
3. Publication and patents





## Chapter-15

### Health Centre/Medical Facilities

#### Medical Facilities Available

One of the main emphasis of the university administration for provision of healthy working environment is the provision of all necessary medical and health care facilities to the faculty, staff and students. In this pursuit, a well facilitated medical health centre with all necessary facilities was established in the university premises for providing the basic health facilities and for handling an emergency situation in the surrounding vicinity. These services were further strengthened by accommodating the Rescue 1122 in the University to provide any emergency and first aid facilities round the clock to the residents on the Agriculture University Campus and the greater campus.

The Rescue 1122, established its centre in the university. The centre is having all necessary facilities like fire-fighting, ambulance service etc. to cope with any untoward situation on the campus. So far this Centre trained about 1000 students and staff members to handle any emergency situation on the campus and in providing the first aid facilities to affectees in any such emergency situation.

These dedicated services facilitated almost 2000 students and 800 staff members and their families for providing the basic health and first aid facilities during the year.

#### Counselling for Stress Reduction

One of the basic objectives of the human resource management is the provision a healthy and stress free working environment to the employees of the organization. Keeping in view, this very important aspect of the HRM, the University is very keen to provide all necessary students and employees care facilitation on the campus, which includes the class rooms, offices and in the hostels for making them a useful citizens of the country towards its growth and development.

Keeping in view huge number of students, it is very difficult to provide special counselling for stress reduction and conflicts resolution across the board. However, counselling is provided within possible means. The care and facilitation include resolving the conflicts and counselling the students during stress so that they learn how to live a healthy and effective life and be able to maintain their academic and personal growth. Efforts are underway to enhance students' care facilities in order to give them psychological and emotional comfort and to enhance their academic capabilities.

