

ANNUAL REPORT 2022-23



Report Prepared by:

Directorate of Planning & Development
The University of Agriculture, Peshawar - Pakistan



Leader in Career & Society Building

VISION

To be the leading Agricultural University defined by it's innovative academic programs, result oriented research and far reaching community engagement and service

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CHANCELLOR'S MESSAGE

I feel deeply pleased to learn about compilation of the Annual Report of the University of Agriculture and felicitate its administration, faculty, researchers and students for successfully steeping ahead. Its vital role in agriculture uplift and delivering significant services to ensure food security by making skilled manpower available is well realized.

Having availed the opportunities of quality education in Agriculture, Management and Computer Sciences, the graduates of the University are serving in public and private organizations on key positions within the country and abroad. They are our ambassadors and have been bringing laurels to the name and prestige of the country as well.

I am sure the Annual Report would be depicting a perfect gist of the achievements over the prescribed period and correct guidance toward achieving next milestone of its continuing long journey. I wish that the institution may earn future goals in all the relevant sectors with distinctions both at national and international levels.

Good luck to all.

Governor Khyber Pakhtunkhwa/
Chancellor, The University of Agriculture, Peshawar

VICE CHANCELLOR'S MESSAGE

The University has been contributing to the higher education in various areas of agriculture, livestock and other allied fields of sciences in accordance to their need. Today, creation and application of knowledge is obligatory for an educational institution to stand out and to substantiate its existence. The University of Agriculture, Peshawar has emerged as one of the best Universities in the country for the purpose and role. The academic programs, quality of research and achievements by faculty members, researchers and students have earned this magnificent position for the University.

Undoubtedly, quality education is the only solution to many social problems that we see around us. The cognoscente among the masses genuinely expects of the universities and the academia to play its role as the salvation. Having this responsibility on our shoulders, we have to work even harder to come up to the expectation of society. In this regard, I see great potential in the teachers, researchers and students of the University especially in contributing towards achieving excellence in the field of agriculture, livestock and allied fields of education.

I congratulate the faculty, students and staff on the academic achievement and advancement during the preceding year. I expect that they must keep up the great work. I am confident that we will continue to grow and develop in the days to come and will ultimately emerge as socially and economically stable nation.

The government, at the same time is expected to support the educational institutions particularly universities through provision of sufficient funding as well as framing legislation that encourages them to effectively pursue their invaluable mandate.

Prof. Dr. Jehan Bakht
(Fulbrighter)
Vice Chancellor

EXECUTIVE SUMMARY

This summary provides an overview of the operations, achievements and development of the University during 2022--23. In the reporting year, the University has continued to be blessed with energetic leadership and carry on the journey of progress and advancement. In spite of financial constraints, it has attained better governance with the support of statutory bodies, academic progress, and development of new infrastructure and continued smooth functioning by effectively engaged faculty, researchers, staff, and students. This has allowed the university to leap forward in pursuit of its vision and mission. Significant landmark achievements are summarised here;

- i. In the academic year 2022-23, the University has produced 85 PhDs, 44 M.Phil, 362 M.Sc. (Hons) Agriculture and 635 B.Sc. (Hons) Agriculture. The University also produced 804 graudates in other BS & MBA programs on self support basis. This also included 71 post graduates in MS Management Science & Computer Science.
- ii. The faculty was facilitated in presenting their research in domestic and foreign conferences, and seminars. They completed and have been working on more than thirty four research projects won through open competitions.
- iii. Based on their research and exploration, the faculty and researchers have published quality research papers in reputed national and international journals, books, and chapters in books.
- iv. The University pursued and encouraged research collaboration with organizations and institutions of higher reputation and signed MoUs during the reporting year.
- v. The faculty and researchers have also been actively involved in community services by engaging those in need of professional consultation regarding agriculture, livestock and other allied sciences. Like research dessimination through conferences, this year too, community interactions for improvement of the agriculture and general wellbeing of the farming community have been exercised. These activities also include short term trainings, consultancies and outreach activities on the farmers' fields.
- vi. The physical and technical infrastructure of the university continued to be improved and strengthened. Three ongoing developmental projects were being implemented, two from ADP and one from PSDP during 2022-23. This includes a mega developmental project titled: "*Establishment of Technology Development Centre (TDC) at the University of Agriculture, Peshawar*" of capital cost of Rs.1676.911 and FEC Rs.25.602 million. Development of Onion & Tomato Pocket Area in Bajaur & Mohmand Districts of Rs. 24.73 million and Support value Chain in Agriculture products through Private Enterprise Development" of Rs 51.56 million in the provincial ADP development budget for a University is another landmark achievement.
- vii. Students were also facilitated through scholarships, and provision of healthy environment in hostels and on campuses. They were also encouraged to participate in different co-curricular activities i.e. sports, dramas, debates, awareness sessions and other healthy activities organized by the University and other institutions.

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 agricultural research throughout the Province and disseminating the research findings among the farmers and general public through various initiatives. The graduates are serving in public and private sector organizations on key positions within Pakistan and abroad.

The University has six (06) Faculties, Twenty Three (23) teaching Departments, four (04) Institutes, One (01) Centre and sub campuses which offers Bachelor, Master, M.Phil. and PhD degrees in all disciplines of Agriculture, Animal Husbandry & Veterinary Sciences, Rural Development, Rural Sociology, Bio-technology, Management Sciences, Information Technology and Computer Sciences. All these academic programs are run under the supervision of 395 highly qualified faculty members out of which 180 hold Ph.D. degrees from leading Universities of international repute. Names of the Faculties, Departments, Institutes, Sub-Campus and Centre are given below:

- **Faculty of Crop Production Sciences**
 - Department of Agronomy
 - Department of Horticulture
 - Department of Soil & Environmental Sciences
 - Department of Agricultural Mechanization & Renewable Energy Technology
 - Department of Water Resources Management
 - Department of Plant Breeding & Genetics
 - Institute of Biotechnology & Genetic Engineering
- **Faculty of Crop Protection Sciences**
 - Department of Plant Pathology
 - Department of Plant Protection
 - Department of Entomology
 - Department of Weed Science & Botany
- **Faculty of Nutrition Sciences**
 - Department of Food Science & Technology
 - Department of Agricultural Chemistry & Biochemistry
 - Department of Human Nutrition
- **Faculty of Animal Husbandry & Veterinary Sciences**
 - Department of Poultry Science
 - Department of Animal Nutrition
 - Department of Livestock Management & Animal Breeding
 - College of Veterinary Sciences
- **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
 - Institute of Development Studies

- **Faculty of Management & Computer Sciences**
 - Institute of Business & Management Science
 - Institute of Information Technology & Computer Sciences
- **Agricultural University Peshawar, Amir Muhammad Khan (AMK) Campus, Mardan**
- **Climate Change Centre (CCC)**

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

Research publications are considered hallmark of any R&D institution. The faculty 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.

Chapter-1**UNIVERSITY GOVERNANCE**

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

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

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

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

THE SENATE

Senate has the power of general supervision over the University and shall hold the Vice-Chancellor and the Authorities accountable for all the functions of the University. It shall have all powers of the University not expressly vested in an Authority or Officers by the Act and all other powers not expressly mentioned in the Act that are necessary for the performance of its functions. The 9th and 10th meetings of the Senate were held on June 21, 2022 and August 30, 2022 respectively.

THE SYNDICATE

The Syndicate is an executive body of the University which exercises general supervision over the affairs and governance of the University subject to the provisions of the Khyber Pakhtunkhwa Universities Act, 2012 and Statutes, 2016. During 2021-22, three meetings were held as per the following schedule:

Meetings	Date
113 th meeting	October 5, 2022
114 th meeting	October 20, 2022
115 th meeting	June 14, 2023
116 th meeting	September 13, 2023

THE ACADEMIC COUNCIL

The Academic Council is a principal academic body of the University mandated with 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 2022-23, following listed meetings were held:

Meetings	Date
47 th meeting	May 20, 2022
48 th meeting	September 16, 2022
49 th meeting (Emergency)	October 04, 2022
50 th meeting (Emergency)	October 19, 2022
51 st meeting (Emergency)	November 21, 2022
52 nd meeting	August 10, 2023

THE BOARD OF FACULTY

Functions of the Board of Faculty (BoF) include: to coordinate teaching and research work in the subjects assigned to the faculties and to scrutinise the recommendations of the Boards of Studies for further reporting to the Academic Council. The BoF besides looking into students scholars matters also perform such other functions as may be assigned to it.

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(s) concerned. Additionally, the Board of Studies also proposes curricula and syllabi for all the degrees, diplomas and certificates courses in the subject(s) concerned.

Selection Board

The Selection Board is a recommending body with the mandate to consider all eligible applications for teaching and administrative positions. The Selection Board provides equal opportunities to all and recommendation/evaluation of the interviews is presented to the Syndicate for final decision. During the reporting period an important meeting of Selection Board (91st) was held during September 06-10, 2022.

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 papers setters and examiners for comprehensive (written and oral) examination in light of the recommendations made by the Board of Studies.

The Finance & Planning Committee (F&PC)

The 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, investment and

accounts of the University. It also prepares short term and long term academic development plans including staff and resource development.

Meetings details of F&PC held during the reporting period is as under:

Meetings	Dates
81 st meeting	May 10, 2022
82 nd meeting	May 16, 2022
83 rd meeting	May 18, 2023
84 th meeting	Ausut 24, 2023

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.

List of Senate members

S #	Position	Current Status
1.	Chairperson/Chancellor	Ex-officio
2.	The Pro Chancellor	Ex-officio
3.	The Vice Chancellor	Ex-officio
4.	One member of the Provincial Assembly of the Khyber Pakhtunkhwa to be nominated by the Speaker of the said Assembly	Arbab Jehandad Khan Member of Provincial Assembly
5.	A retired judge to be nominated by the Chief Justice of Peshawar High Court;	Justice (R) Miftahuddin Khan
6.	Secretary to Govt. of Khyber Pakhtunkhwa, Agriculture Department	Ex-officio
7.	Secretary to Govt. of Khyber Pakhtunkhwa, Higher Education Department or his nominee not below the rank of Additional Secretary	Ex-officio
8.	Secretary to Govt. of Khyber Pakhtunkhwa, Finance Department or his nominee not below the rank of Additional Secretary	Ex-officio

9.	Secretary to Govt.of Khyber Patkhunkhwa, Establishment Department or his nominee not below the rank of Additional Secretary	Ex-officio
10.	The Chairman, Higher Education Commission or his nominee not below the rank of Director General	Chairman HEC
11.	One eminent or distinguished graduate of the University who is not its employee to be nominated by the Chancellor;	Dr. Farman Ullah Anjum
12.	Two persons from the academic community of the Province of the Khyber Pakhtunkhwa or the country, other than an employee of the University, at the level of Professor or Principal, to be appointed by the Chancellor;	1. Prof. Dr.Jamil Ahmad Vice Chancellor, Hazara University, Manshera 2. Prof. Dr.FidaYounus Khattak Pak-Austria Fachhochschule Institute of Applied Sciences and Technology, Haripur
13.	Four University Teachers, including one Professor, one Associate Professor, one Assistant Professor and one Lecturer to be elected by the teachers of their respective cadres from amongst themselves	1. Prof. Dr.Iftikhar Hussain Khalil 2. Dr.Nazir Ahmad Khan Associate Professor 3. Dr.Arshad Khan Assistant Professor 4. Dr. Kamran Sohail Lecturer
14.	Four persons from society at large being persons of distinction in the fields of administration, management, education, academics, law, accounting, medicine, fine arts, architecture, industry, agriculture, science, technology and engineering with a view to reflecting a balance across the various fields, to be nominated by the Chancellor:	1. Prof. Dr.Iftikhar Ahmad Vice Chancellor Abbottabad University of Science & Technology, Abbottabad 2. Mr. Muhammad ZarfarTahirkheli Atiq Law Associates. 3. Prof. Dr. Zia Ul Haq Vice Chancellor Khyber Medical University,Peshawar 4. Dr. Muhammad Saleem, Chairman Department of Botany, Islamia College University, Peshawar
15.	One University Administrative Officer to be elected from amongst all the Administrative Officers in the prescribed manner.	Mr. Muhammad Bilal Assistant Director, Physical Education
16.	Observer	Director Quality Assurance

List of Selection Board Members

S.No.	Name/Designation of Member
1.	Vice Chancellor
2.	Dean of the Faculty concerned
3.	The Chairperson of the Teaching Department/Director of the Institute concerned
4.	Syed Muhammad Javed Member, Khyber Pakhtunkhwa Public Service Commission, Peshawar
5.	VACANT One member of the Syndicate nominated for the Selection Board
	i.Prof. Dr. Riaz Khattak Person of eminence, nominated by the Chancellor
	ii.Prof. Dr. Zia-Ul-Haq Person of eminence, nominated by the Chancellor
6.	Three subject experts from the standing list of subject experts approved by the Syndicate for teaching positions while one of them has to be a Psychologist in case of Lecturer and Assistant Professors and BS-17 to BS-20 in case of officers; As per relevant statutory provisions, the Syndicate on the recommendations of Selection Board approved the proposed subject experts for evaluation of credential for the positions of Associate Professors and Professors and as subject expert on Selection Board for Lecturers and Assistant Professors.
7.	Head of the concerned Directorate/Setup (in case of appointment of Administrative staff)
8.	The Registrar of the University (Secretary)

List of Academic Council Members

S.No.	Name/Designation of Member	Constituency
1.	Vice Chancellor (Chairperson)	Ex-officio
2.	All Deans	Ex-officio
3.	All Chairmen	Ex-officio
4.	All Professors	Ex-Officio
5.	Director IDS	Ex-officio
6.	Director IBGE	Ex-officio
7.	Director IBMS	Ex-officio
8.	Director Teaching	Ex-officio
9.	Director ASR	Ex-officio
10.	Director QEC (Obsrever)	Ex-officio
11.	Controller of Examinations	Ex-officio
12.	Director AMK Campus	Ex-officio
13.	Registrar (Member-cum- Secretary)	Ex-officio
14.	Dr. Saima Hashim, Weed Science	Associate Professor
15.	Dr. Anwar Ali Shad, Agricultural Chemistry & Biology	Associate Professor
16.	Dr. Ibad Ullah Jan, College of Veterinary Sciences	Assistant Professor
17.	Dr. Toheed Iqbal, Entomology, AMK Campus	Assistant Professor
18.	Dr. Amjad Ali, Agricultural & Applied Economics	Lecturer
19.	Dr. Muhammad Shahid Khan, AMK Campus	Lecturer

Chapter -2

ACADEMIC ACTIVITIES

Academic Programs (Undergraduate and Postgraduate)

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

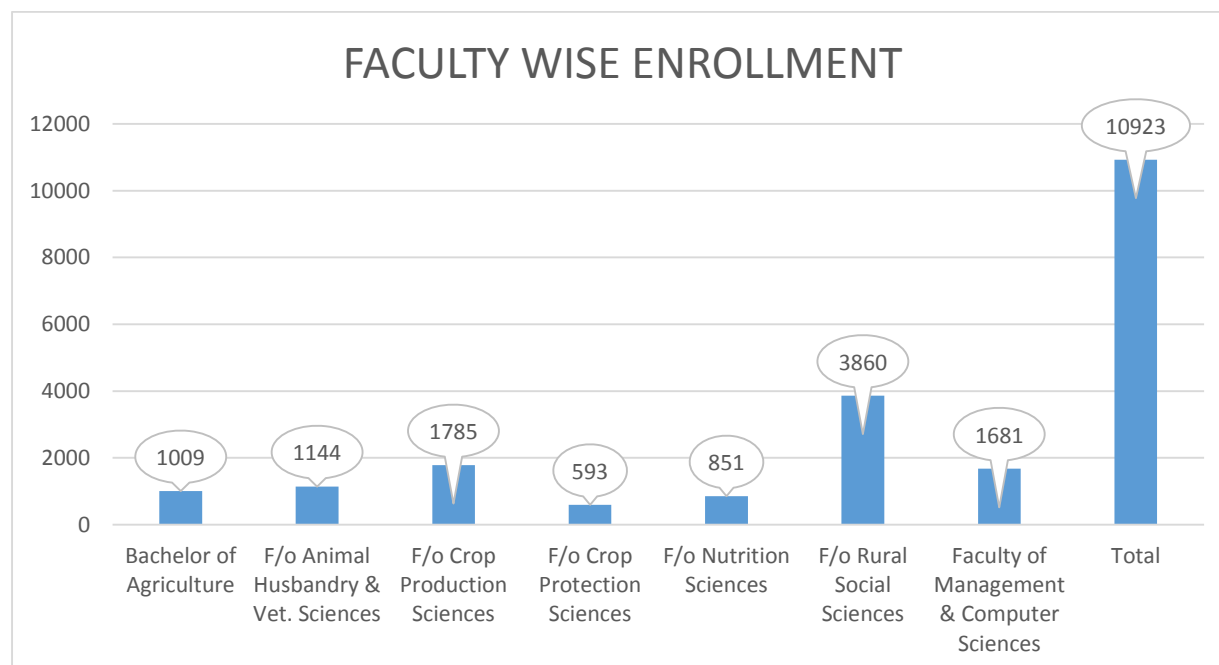
The University offers various postgraduate and undergraduate degree programs in 23 departments and 03 institutes of six faculties i.e. Faculty of Crop Production Sciences, Faculty of Animal Husbandry and Veterinary Sciences, Faculty of Crop Protection Sciences, Faculty of Nutrition Sciences, Faculty of Rural Social Sciences, and Faculty of Management and Computer Sciences.

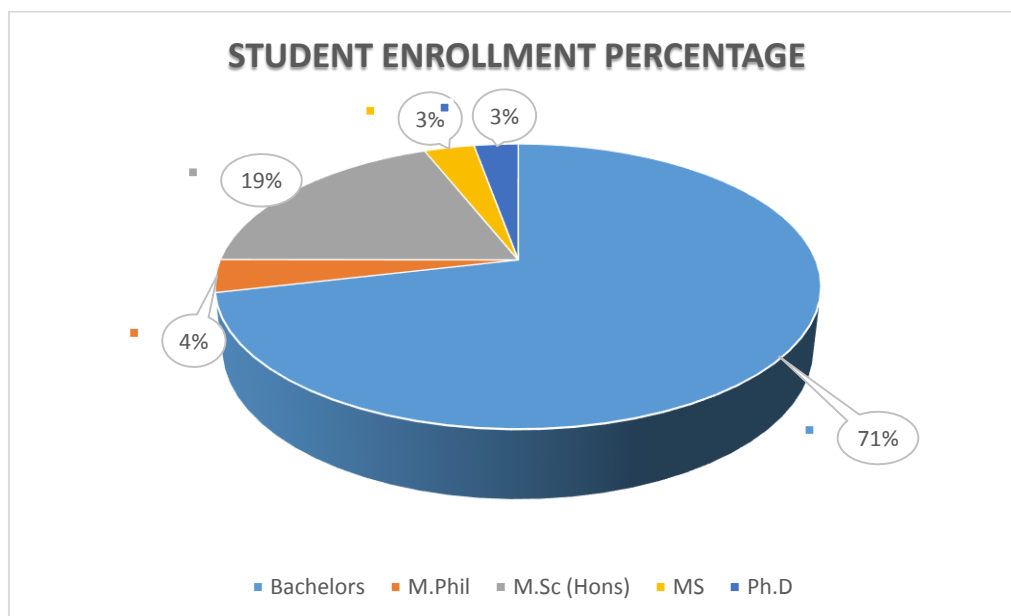
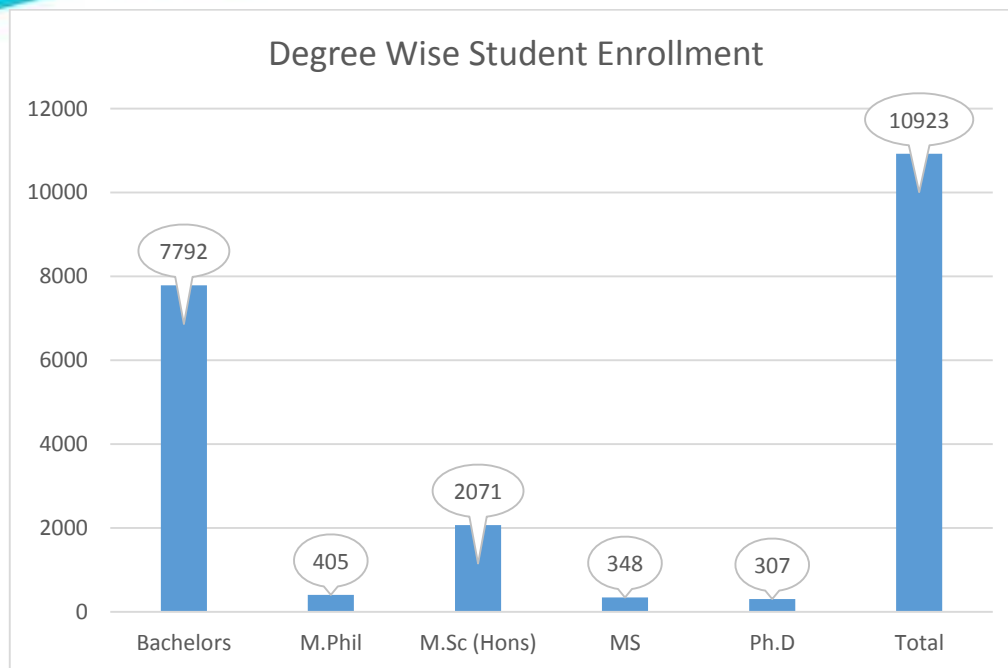
Department and Degree wise Programmes

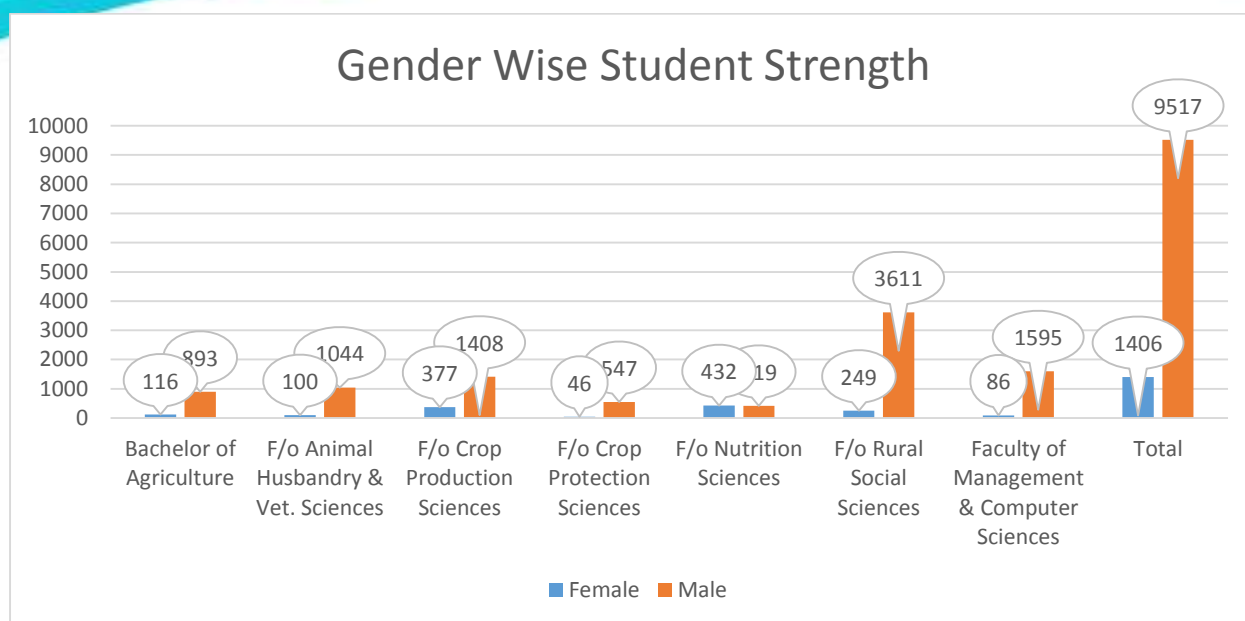
Departments	Faculty/ Institutes	Degrees programmes
<ul style="list-style-type: none"> • Agronomy • Horticulture • Plant Breeding & Genetics • Soil & Environmental Sciences • Water resource Management • Agricultural Mechanization 	Faculty of Crop Production Sciences	B.Sc. (Honors) M.Sc. (Honors) PhD
<ul style="list-style-type: none"> • Entomology • Plant Pathology • Plant Protection • Weed Science & Botany 	Faculty of Crop Protection Sciences	B.Sc. (Honors) M.Sc. (Honors) PhD
<ul style="list-style-type: none"> • Agricultural Chemistry & Biochemistry • Food Science & Technology • Human Nutrition 	Faculty of Nutrition Sciences	B.Sc. (Honors) M.Sc. (Honors) PhD
<ul style="list-style-type: none"> • Agricultural & Applied Economics • Agriculture Extension Education & Communication • Rural Sociology • Mathematics, Statistics & Computer Science • Pakistan/Islamic Studies • English 	Faculty of Rural Social Sciences	B.Sc. (Honors) M.Sc. (Honors) PhD MA Rural Sociology M.Phil. Rural Sociology

<ul style="list-style-type: none"> Livestock Management & ABG College of Veterinary Sciences Animal Nutrition Poultry Science 	Faculty of Animal Husbandry & Veterinary Sciences	B.Sc. (Honors) M.Phil./M.Sc. (Honors) DVM PhD
<ul style="list-style-type: none"> Institute of Business & Management Sciences (IBMS) Institute of Information Technology & Computer 	Faculty of Business Management & Computer Sciences	BBA Honors MBA Honors BS(IT/CS Honors) MS(CS,IT,MS, Agribusiness)
<ul style="list-style-type: none"> Institute of Biotechnology & Genetic Engineering (IBGE) 	-	B.Sc. Biotechnology M.Phil. Biotechnology PhD
<ul style="list-style-type: none"> Institute of Development Studies (IDS) 	-	B.Sc. Rural Development M.Sc. Rural Development B.Sc. Economics M.A & M.Phil. Economics PhD

Faculty Wise Enrollment







FACULTY OF CROP PRODUCTION SCIENCES

The Faculty Crop Production Sciences (FCPS) is one of the major faculties in the University that is headed by Mert. Prof. Dr. Fida Mohammad, Dean of the Faculty. The Faculty has six teaching departments and two institutes. The Dean manages and supervises all the academic and research activities of the faculty.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	No of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
1	Agronomy	10	10	8	96	122	15	53
2	Horticulture	18	15	10	100	87	30	55
3	Institute of Biotechnology & Genetic Engineering	26	25	15	316	189	35	55
4	Plant Breeding & Genetics	9	6	5	42	63	49	13
5	Soil & Environmental Sciences	7	6	5	0	27	6	10
6	Water Resources Management	5	4	2	87	107	21	8
7	Agricultural Mechanization & RET	3	2	-	-	6	-	-

FACULTY OF CROP PROTECTION SCIENCES

The Faculty of Crop Protection Science is one of the important faculty of the University that has four departments. The Faculty is headed by Prof. Dr. Ahmad-Ur-Rahman Saljoqi, Dean of the Faculty.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	Number of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
	Entomology	9	6	1	75	100	17	28
	Weed Science & Botany	11	11	1	14	16	2	30
	Plant Pathology	9	8	2	13	42	6	16
	Plant Protection	8	5	4	111	98	15	38

FACULTY OF NUTRITION SCIENCES

The Faculty of Nutrition Sciences is comprised of three departments. The Faculty is headed by Dean, Prof. Dr. Muhammad Ayub, who manages and coordinates the academic activities of the faculty.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	Number of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
1	Agricultural Chemistry & Biochemistry	11	11	7	49	54	21	28
2	Food Science & Technology	10	8	1	81	110	12	30
3	Human Nutrition	9	7	-	178	121	16	13

FACULTY OF ANIMAL HUSBANDRY & VETERINARY SCIENCES

Faculty of Animal Husbandry & Veterinary Science is a significant part of the University. The faculty is offering various academic programs related to the livestock sector through teaching, research and industrial services. The Faculty is headed by Prof. Dr. Sarzamin Khan, who supervises and coordinates all the academic activities of the faculty.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	Number of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
1	Animal Livestock Management, Breeding & Genetics	8	7	5	250	78	16	58
2	Poultry Science	7	6	4	250	64	19	23
3	Animal Nutrition	5	3	2	110	45	20	15
4	College of Veterinary Sciences	25	24	12	304	22	19	42

FACULTY OF RURAL SOCIAL SCIENCES

The Faculty of Rural Social Sciences is one of the largest and leading faculties of the University offering wide range of courses in Rural Development, Rural Sociology, Islamic Studies, Agriculture Extensions Education, Agriculture & Applied Economic. The faculty has also three supporting education departments which fulfill the requirements of all the teaching departments in the field of basic and applied sciences including Department of Mathematics, Statistics & Computer Sciences, Pakistan Studies and English. The faculty is headed by Prof. Dr. Himayatullah Khan, who manages and supervises all the academic activities the faculty.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	Number of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
1	Institute of Development Studies	15	10	2	253	39	17	17
2	Agricultural & Applied Economics	8	8	3	11	31	16	15
3	Rural Sociolog	8	6	1	33	61	26	25
4	Agricultural Extension Education & Communication	8	8	2	76	20	11	27
5	Maths, Stats & Computer Science	8	5	4	20	3	-	12
6	English	2	-	-	-	-	-	2
7	Islamic/Pakistan Studies	2	2	1	10	15	-	6

FACULTY OF BUSINESS MANAGEMENT & COMPUTER SCIENCES

The Faculty of Business Mangement & Computer Sciences is offering academic programs in Business Management, Computer Sciences and Information Technology. The faculty consist of Institute of Business & Management Sciences (IBMS) and Institute of Computer Sciences & Information Technology (ICS/IT). Prof. Dr. Dawood Jan is leading the faculty as Dean.

S.No	Name of Department /Institute	Total Number of Faculty	Total Number of faculty having PhD	Number of Faculty with Post Doc.	Total Number of Students (2022-23)			Number of research papers published by faculty (2022-23)
					Undergraduate	Post graduate	Ph.D	
1	Institute of Business & Management Sciences	35	5	2	1478	153	25	23
2	Institute of Computer Sciences & Information Technology	63	14	-	2724	46	5	18

UNIVERSITY STUDENT STRENGTH 2022-23

	Bachelors			M.Phil			M.Sc (Hons)			MS			Ph.D			Total		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total
The University of Agriculture, Peshawar	748	6861	7609	165	240	405	379	1646	2025	47	301	348	65	242	307	1404	9290	10694
Amir Muhammad Khan Campus, Mardan	2	181	183	0	0	0	0	46	46	0	0	0	0	0	0	2	227	229
Total	750	7042	7792	165	240	405	379	1692	2071	47	301	348	65	242	307	1406	9517	10923

FACULTY WISE ENROLLMENT 2022-23

	Bachelors			M.Phil			M.Sc (Hons)			MS			Ph.D			Total		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total
Bachelor of Agriculture	116	893	1009	0	0	0	0	0	0	0	0	0	0	0	0	116	893	1009
F/o Animal Husbandry & Vet. Sciences	54	652	706	11	36	47	27	307	334	0	0	0	8	49	57	100	1044	1144
F/o Crop Production Sciences	160	541	701	121	115	236	79	678	757	0	0	0	17	74	91	377	1408	1785
F/o Crop Protection Sciences	6	203	209	0	0	0	37	325	362	0	0	0	3	19	22	46	547	593
F/o Nutrition Sciences	211	172	383	3	3	6	207	231	438	0	0	0	11	13	24	432	419	851
F/o Rural Social Sciences	148	3145	3293	30	86	116	29	151	180	23	160	183	19	69	88	249	3611	3860
Faculty of Management & Computer Sciences	55	1436	1491	0	0	0	0	0	0	24	141	165	7	18	25	86	1595	1681
Total	750	7042	7792	165	240	405	379	1692	2071	47	301	348	65	242	307	1406	9517	10923

DEPARTMENT WISE POSTGRADUATE ENROLMENT

Departments	M.Phil				M.Sc (Hons)				MS			Ph.D			
	2022		2023		2022		2023		2022		2023	2022		2023	
	F	M	F	M	F	M	F	M	F	M	M	F	M	F	M
Agricultural & Applied Economics	0	0	0	0	2	4	0	1	0	0	0	1	1	0	2
Agricultural Chemistry & Biochemistry	0	0	3	3	3	6	1	1	0	0	0	0	1	0	2
Agricultural Extension Education & Communication	0	0	0	0	2	9	1	7	0	0	0	0	2	0	0
Agricultural Mechanization & RET	0	0	0	0	0	5	1	1	0	0	0	0	0	0	0
Agronomy	0	0	0	0	1	39	0	0	0	0	0	0	2	0	3
Animal Health	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0
Animal Nutrition	0	0	0	0	4	26	0	6	0	0	0	0	2	0	3
College of Veterinary Sciences	5	2	1	16	0	0	0	0	0	0	0	0	0	1	0
Entomology	0	0	0	0	2	22	0	7	0	0	0	0	2	0	2
Food Science & Technology	0	0	0	0	9	18	0	0	0	0	0	0	0	2	2
Horticulture	0	0	0	0	6	23	2	6	0	0	0	1	2	0	2
Human Nutrition	0	0	0	0	32	3	0	0	0	0	0	0	0	3	2
Institute of Biotechnology & Genetic Engineering	19	23	3	5	0	0	0	0	0	0	0	2	1	2	0
Institute of Business & Management Sciences (IBMS)	0	0	0	0	0	0	0	0	5	20	11	2	8	0	0

Institute of Computer Sciences & Information Technology (ICS/IT)	0	0	0	0	0	0	0	0	2	25	11	2	7	2	3
Institute of Development Studies	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0
Islamic/Pakistan Studies	0	4	6	3	0	0	0	0	0	0	0	0	0	0	0
Livestock Management, Animal Breeding & Genetics	0	0	0	0	0	18	1	9	0	0	0	0	3	0	1
Maths, Stat & Computer Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Breeding & Genetics	0	0	0	0	4	12	0	5	0	0	0	0	0	0	0
Plant Pathology	0	0	0	0	0	4	0	0	0	0	0	1	1	0	0
Plant Protection	0	0	0	0	2	18	2	10	0	0	0	0	0	0	0
Poultry Science	0	0	0	0	1	9	0	3	0	0	0	0	0	0	2
Rural Development	0	0	0	0	1	16	0	6	0	0	0	0	3	0	0
Rural Sociology	1	11	0	4	2	2	1	2	0	0	0	1	4	0	2
Soil & Environmental Sciences	0	0	0	0	1	23	0	2	0	0	0	0	5	0	2
Water Resources Management	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Weed Science & Botany	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0
Total	26	41	15	38	72	263	9	71	5	31	15	10	45	10	28

Department and Discipline Wise Enrolment in M. Phil (18 Years) 2022-23

Department	M.Phil		
	F	M	Total
Agricultural Chemistry & Biochemistry	3	3	6
Animal Health	1	1	2
College of Veterinary Sciences	2	16	18
Institute of Biotechnology & Genetic Engineering	22	28	50
Islamic/Pakistan Studies	0	4	4
Rural Sociology	1	4	5
Total	29	56	85

Department and Discipline wise Enrolment in M.Sc (Hons) Agriculture 2022-23

Department	M.Sc (Hons)		
	F	M	Total
Agricultural & Applied Economics	1	4	5
Agricultural Chemistry & Biochemistry	3	4	7
Agricultural Extension Education & Communication	2	10	12
Agricultural Mechanization & RET	1	2	3
Agronomy	1	37	38
Animal Health	0	0	0
Animal Nutrition	4	21	25
BSc Hons Agriculture	0	0	0
College of Veterinary Sciences	0	0	0
Fishiers & Aquaculture	0	0	0
Entomology	2	29	31
Food Science & Technology	9	18	27
Horticulture	8	27	35
Human Nutrition	32	3	35
Institute of Biotechnology & Genetic Engineering	0	0	0
Institute of Business & Management Sciences (IBMS)	0	0	0
Institute of Computer Sciences & Information Technology (ICS/IT)	0	0	0
Institute of Development Studies	0	0	0
Islamic/Pakistan Studies	0	0	0
Livestock Management & Animal Breeding & Genetics	1	15	16
Plant Breeding & Genetics	4	17	21
Plant Pathology	0	3	3
Plant Protection	3	24	27
Poultry Science	0	6	6
Rural Development	1	10	11
Rural Sociology	3	3	6
Soil & Environmental Sciences	3	28	31
Water Resources Management	0	9	9
Weed Science & Botany	0	6	6
Total	78	276	354

Academic Achievements

List of PhDs Produced during FY-2022-23

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
1.	Abu Bakar Sufyan S/O Abdul Saboor Bhutta (2017-Agr-U-37611)	Prof. Dr. Nazir Ahmad	Animal Nutrition	Production of Fungal Treated Wheat Straw Using Different Pasteurization Techniques and Its Evaluation As a Part of Total Mixed Ration on Production Performance in Lactating Holstein Cows.	03-01-2022
2.	Muhammad Mehran Anjum S/O Amir Nawab (2012-Agr-U-27365)	Prof. Dr. Muhammad Arif	Agronomy	Optimizing Sowing Windows for Wheat Hybrid Lines under Varying Irrigation Regimes.	03-01-2022
3.	Bashir Muhammad S/O Muhammad Said (2010-Agr-U-23545)	Prof. Dr. Mussawar Shah	Rural Sociology	The Role of Accountability in Curbing Corruption with Reference to Rural Uplift in Peshawar, Khyber Pakhtunkhwa, Pakistan.	04-01-2022
4.	Waqar Ahmad S/O Falak Sher (2010-Agr-U-23300)	Prof. Dr. Mussawar Shah	Rural Sociology	Analysis of Institutional Intra-Faith Disintegration and Its Revival to Social Reintegration in District Hangu Pakistan.	05-01-2022
5.	Rasheed Akbar S/O Fazal Akbar (2010-Agr-U-21807)	Prof. Dr. Imtiaz Ali Khan	Entomology	Exploiting Host Preference and Botanicals for the Management of Bruchid Beetle (<i>CallosobruchusMaculatus</i>) FAB. (<i>Bruchidae: Coleoptera</i>).	17-01-2022
6.	Mazhar Ullah S/O Ihsan Ullah (2009-Agr-U-19654)	Dr. Mohammad Sayyar Khan Kazi	IBGE	Transformation of Sugarcane (<i>Saccharum officinarum</i> L.) with the <i>Oryza sativa</i> Vacuolar Pyrophosphatase (OVPI) Gene for Improved Salt Stress Tolerance.	18-01-2022
7.	Nadia Farooq D/O Muhammad Farooq (2009-Agr-U-19207)	Dr. Asad Ullah	Rural Sociology	Analysis of Intrinsic, Interpersonal and Extrinsic Factors Affecting Youth Attitude Towards Agricultural Occupations at District Mardan Khyber Pakhtunkhwa.	03-02-2022
8.	Sarir Ahmad S/O Dr. Nisar Muhammad (2009-Agr-U-19332)	Prof. Dr. Ahmad-Ur-Rahman Saljoqi	Plant Protection	Management of Whitefly, <i>Bemisia tabaci</i> (Gennadius.) (<i>Hemiptera: Aleyrodidae</i>) and Molecular Detection of Begomovirus disease in Okra Crop.	03-02-2022
9.	Momin Khan S/O Muzamin Khan (2007-Agr-U-15272)	Dr. Naila Chand	Poultry Science	Assessment of Maggot Meal as Substitute of Soya Bean Meal in the Ration of Meat and Egg Type Birds.	07-03-2022

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
10.	Muhammad Najmus Saqib S/O Zahidullah (2007-Agr-U-15290)	Prof. Dr. Muhammad Subhan Qureshi	LM & ABG	Stress Factors affecting Sustainable Dairy Farming and Improvement Strategies for District Peshawar.	10-03-2022
11.	Muhammad Asad Jan S/O Hidayat Shah (2007-Agr-U-15432)	Dr. Bushra Hassan Jan	Rural Sociology	Analysis of Dispute Resolution Council's Effectiveness in Rural Areas of District Mardan-Khyber Pakhtunkhwa-Pakistan.	16-03-2022
12.	Mian Muhammad Arif S/O Mian Zahir Shah (2008-Agr-U-17329)	Dr. Malik Muhammad Shafi	Economics (IDS)	Input-Use Efficiency and Profitability in Commercial Broiler Poultry Farming in Peshawar Valley of Khyber Pakhtunkhwa.	17-03-2022
13.	Alamzeb Khan S/O Jehanzeb Khan (2007-Agr-U-14886)	Dr. Naushad Khan	Rural Development	Causes of Militancy and Its Effect on Education in District Mohmand of Khyber Pakhtunkhwa.	18-03-2022
14.	Muhammad Yasin S/O Khan Bahadar PIASA, Islamabad (2000-Agr-U-6605)	Dr. Muhammad Ramzan Khan	PGB	Sequence and Expression Analyses of Shattering Cascade Genes in Canola (<i>Brassica napus</i> L.).	31-03-2022
15.	Nawab Ali S/O Muhammad Amir Khan (2012-Agr-U-26925)	Prof. Dr. Mohammad Akmal	Agronomy	Economizing Nitrogen for Wheat Growth, Yield and Quality Under Water Regimes.	01-04-2022
16.	Reema Zia D/O Ziaul Haq (2011-Agr-U-27573)	Prof. Dr. Noor P. Khan	Economics (IDS)	Comparative Advantage and Government Intervention in Pakistan's Rice (Paddy) Sector: Implications for Farmer Income, Trade and Future Policy Options.	06-04-2022
17.	Khadim Nabi S/O Fazal Rabi (2006-Agr-U-13357)	Dr. Malik Muhammad Shafi	Rural Development	Analysis of Livelihoods and Food Security Among Rural Households of Khyber Pakhtunkhwa.	13-04-2022
18.	Maid Zaman S/O Muhammad Naseem (2013-Agr-U-29703)	Prof. Dr. Imtiaz Ali Khan	Entomology	Morphometric, Distribution, Mapping and Molecular Analysis of Isoptera in Various Agro-Ecological Zones of Khybr Pakhtunkhwa.	10-05-2022
19.	Almas Ashraf D/O Muhammad Ashraf Khan PIASA, Islamabad (2014-Agr-U-34257)	Dr. Muhammad Ramzan Khan	PGB	Structural and Functional Characterization of Deeper Rooting (DRO) Gene from Wheat (<i>Triticum aestivum</i> L.).	26-05-2022
20.	Sadiq Hussain S/O Samin Jan (2010-Agr-U-22510)	Prof. Dr. Muhammad Sharif	SES	Effect of Microbes and Vermicompost Applied With Different Phosphorus Levels on Yield and Phosphorus Uptake of Wheat and Maize..	30-06-2022

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
21.	Abdul Majid Khan Dawar S/O Abdul Samad Khan Dawar (2008-Agr-U-16870)	Dr. Imtiaz Khan	Weed Science & Botany	Integration of Different Weed Management Approaches in Wheat Under Rainfed Conditions.	14-07-2022
22.	Mushtaq Ahmad S/O Tahmeed Ullah (2008-Agr-U-16718)	Prof. Dr. Malik Inayatullah Jan	Rural Development	Socio-Economics Effects and Willingness-To-Pay for Micro Hydropower Schemes in District Shangla.	14-07-2022
23.	Muhammad Arafat S/O Muhammad Karim (2012-Agr-U-27692)	Prof. Dr. Munir Khan	Economics (IDS)	Effects of Education on Poverty and Well-Being of Rural Households in District Hangu, Khyber Pakhtunkhwa.	18-07-2022
24.	Noor Badshah S/O Zar Badshah (2014-Agr-U-31791)	Prof. Dr. Sohail Ahmad	IBGE	Identification of Novel Mutations in the Autosomal Recessive Epileptic Families in Khyber Pakhtunkhwa.	27-07-2022
25.	Noor Muhammad S/O Faqr Muhammad (2004-Agr-U-11150)	Prof. Dr. Shah Alam Khan	Plant Protection	Studies Resistant Mechanism of Selected Canola Genotypes Against <i>Aphis Lipaphis. erysimi</i> Kalt. (Hemiptera: Aphididae) Through Conventional and Molecular Techniques.	27-07-2022
26.	Huma Naqeeb D/O Mohammad Naqeeb Khan (2003-Agr-U-10334)	Dr. Zia ud Din	Human Nutrition	Nutritional – Psychosocial Determinants and Genetic Polymorphism Association With Breast Cancer: A Case-Control Study in Khyber Pakhtunkhwa, Pakistan.	11-8-2022
27.	Muhammad Fawad S/O Noor Muhammad (2009-Agr-U-19329)	Prof. Dr. Muhammad Azim Khan	Weed Science & Botany	Intergrated Management of Parasitic Weed (Orobanch spp) and Associated Weeds in Tomato (Solanum lycopersicum Mill).	31-08-2022
28.	Tasneem Shah D/O Dr. Zahir Shah (2011-Agr-U-23845)	Prof. Dr. Muhammad Tariq	SES	Soil Microbial Dynamics and Crop Productivity As Influenced by Biochar Under Different Cropping Systems.	31-08-2022
29.	Najmul Saqib S/O Dr. Shah Nazar Khan (2006-Agr-U-13177)	Prof. Dr. Himayatullah Khan	Rural Development	Role of Agroforestry Practices in Sustainable Rural Livelihoods in Khyber Pakhtunkhwa.	13-09-2022
30.	Bibi Hajira D/O Fazli Ghani (2007-Agr-U-14934)	Dr. Imran Khan	Human Nutrition	Health Potential of Sorghum and Barley-Containing Bread: Targeting Biomarkers of Cardiometabolic Health.	21-09-2022
31.	Noorul Wahab S/O Muhammad Zaman (86-Agr-U-2072)	Dr. Zia ud Din	Human Nutrition	Occupational Burnout Syndrome and Nutritional Psycho-Physiological Responses Among University Teachers.	10-10-2022

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
32.	Irfanullah S/O Aqalmand Bacha (2008-Agr-U-16771)	Prof. Dr. Muhammad Sajid	Horticulture	Elicitation of Secondary Metabolites Production and Green Synthesis of Silver Nanoparticles in Adventitious Root Culture of <i>Indigofera Heterantha</i> .	18-10-2022
33.	Ibadullah S/O Masood (2011-Agr-U-23888)	Prof. Dr. Dost Muhammad	SES	Optimizing N: S Ratio for Higher Maize-Wheat Productivity and Nutrient Uptake Under Varying Fertility Management and Climatic Conditions.	31-10-2022
34.	Subhanuddin S/O Sikandar Khan (2006-Agr-U-13314)	Prof. Dr. Mansoor Khan Khattak	AMRET	Comparison of Mechanical and Chemical Weed Control of Wheat-Maize Cropping System.	31-10-2022
35.	Ziaul Islam S/O Amir Baz Khan (2006-Agr-U-13562)	Dr. Asad Sultan	Poultry Science	Effect of Organic Acid Blend, Phyto-Essential Oils and Protease Enzyme Individually and in Combination on Broiler Production Performance, Gut Health and Nutrient Utilization.	10-11-2022
36.	Ijaz Ahmad S/O Yar Khan (2009-Agr-U-19242)	Prof. Dr. Musharaf Ahmad	Plant Pathology	Status of Bacterial Spot Disease in Khyber Pakhtunkhwa, Its Eco-Friendly Management and Genetic Diversity of Isolates.	27-11-2022
37.	Fakhar Ul Islam S/O Muhammad Raza (2005-Agr-U-12424)	Dr. Asim Muhammad	Agronomy	Influence of Micro-Nutrients on Growth and Yield of Rainfed Chickpea and Its Seed Storability Potential.	06-12-2022
38.	Saiful Islam S/O Saidul Abrar (2003-Agr-U-10474)	Prof. Dr. Muhammad Zubair Khan	Water Resources Mgt.	Hydraulic Performance of Secondary Canal Under the Influence of Design, Physical and Users' Induced Factors.	06-12-2022
39.	Ibrarul Haq S/O Muhammad Rashad (94-Agr-U-4615)	Dr. Malik Muhammad Shafi	Rural Development	Determinants of Non Timber Forest Products Collection and Its Contribution to Rural Household's Income in District Swat.	06-12-2022
40.	Shahzad Imran S/O Imran Muhammad (2008-Agr-U-16710)	Prof. Dr. Muhammad Arif	Agronomy	Tillage and Plant Residue Management for Enhancing Wheat Yield and Soil Fertility.	06-12-2022
41.	Rukhsar Ali S/O Gul Sher (2001-Agr-U-8078)	Dr. Ali Muhammad	FST	Development and Storage Study of Low Caloric Products Prepared From Mango and Loquat Blended Pulp Using Stevia Sweetener.	06-12-2022
42.	Mian Sabahatullah S/O Inayatullah (2008-Agr-U-16689)	Prof. Dr. Maqsood Shah	Entomology	Taxonomic Study of Subfamily Opiinae (<i>Braconidae</i> : <i>Hymenoptera</i>) of Different Ecological Zones of Khyber Pakhtunkhwa Province-Pakistan.	06-12-2022

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
43.	Muhammad Rabnawaz Khan S/O Mumtaz Ahmad (2009-Agr-U-21330)	Prof. Dr. Amanullah Jan	Agronomy	Influence of Preceding Crops, Nitrogen and Sulfur Levels on Sesame Production under Limited Irrigation.	06-12-2022
44.	Muhammad Waheed S/O Dalil Khan (2007-Agr-U-15207)	Prof. Dr. Dost Muhammad	SES	Effect of Pretreated FYM Compost on Phosphorus Availability, Fractionation and Crops Yield in Calcareous Soils.	06-12-2022
45.	Imtiaz Ahmad S/O Ghulam Qader (86-Agr-U-2027)	Dr. Imran Khan	Human Nutrition	Effect of Chamomile and Wild Thyme-Containing Bread on Biomarkers of Cardiometabolic Health.	15-12-2022
46.	Murad Ali S/O Shamshad Khan (2006-Agr-U-13304)	Prof. Dr. Said Wahab	FST	Food Safety Perspective: Evaluation of the Quality Attributes of Different Frying Mediums Used in Frying of Traditional Chapli Kabab.	29-12-2022
47.	Abdullah Shah S/O Ajmeer Shah (2007-Agr-U-14848)	Prof. Dr. Mohammad Akmal	Agronomy	Optimization of Maize Productivity for Sowing Time and N-Rate.	09-01-2023
48.	Liaqat Ali S/O Mian Zarzary (2013-Agr-U-29659)	Prof. Dr. Mussawar Shah	Rural Sociology	Assessing the Implied Effects of Suicide on Left Behind Families in District Swat, Pakistan.	13-01-2023
49.	Sajjad Khan S/O Shamshad Khan (2007-Agr-U-15326)	Prof. Dr. Naila Chand	Poultry Science	Effect of Supplementation of Bacillus Subtilis and Gum Arabic on Overall Performance, Selected Gut Microbiota and Intestinal Morphology of Broiler Chicks.	13-01-2023
50.	Muhammad Zubair S/O Jehan Zeb Khan (2003-Agr-U-10420)	Prof. Dr. Hamayoon Khan	Agronomy	Enhancing Soil Fertility and Cereal Productivity Through Cropping Sequence and Tillage Practices.	13-01-2023
51.	Khalid Farooq S/O Obaid Ur Rahman (2016-Agr-U-38554)	Dr. Nazir Ahmad Khan	Animal Nutrition	Investigating the Potential of Maize Silage Based Forage Blends for Improving Animal Productivity Under Smallholder and Commercial Production Systems.	13-01-2023
52.	Islam Zeb S/O Aurang Zeb (2008-Agr-U-16905)	Dr. Mehboob Alam	Horticulture	Microbial and Heavy Metals Analyses of Irrigation Water and Vegetables Collected from Various Areas of District Swat, Khyber Pakhtunkhwa.	30-01-2023
53.	Sadaqat Khan S/O Gul Bar Khan (2003-Agr-U-10368)	Dr. Saleem Ullah	Ag Ch.	Effect of Selenium on growth and Chemical Properties of Tomato Hybrid Salar F1.	02-02-2023

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
54.	Nagina Zeb D/O Jahan Zeb (2006-Agr-U-13205)	Prof. Dr. Noor Ul Amin	Horticulture	<i>Developing in Vitro and in Vivo Propagation Protocols for Silvery (Leucophyllum frutescens).</i>	02-02-2023
55.	Muhammad Ilyas S/O Niaz Muhammad Khan (2010-Agr-U-23233)	Prof. Dr. Asad Jan	IBGE	Investigating the Role of OsTZF1 Gene Under Native Promotor Against Abiotic Stress Tolerance in Rice.	03-03-2023
56.	Talha Jan S/O Shakirullah Jan (2010-Agr-U-21803)	Prof. Dr. Muhammad Arif	Agronomy	Integration of Biochar, Beneficial Microbes and Organic Sources for Improving Maize Yield and Soil Fertility.	03-03-2023
57.	Faisal Ahmad S/O Yaqeen Khan (2010-Agr-U-21917)	Dr. Farhan Anwar Khan	Animal Health (Pathology)	Genomics and Geno-Plasticity Analysis of Mycoplasma Capricolum Subsp. Capripneumoniae Local Strain for the Evolution and Molecular Epidemiology of Contagious Caprine Pleuropneumonia.	22-03-2023
58.	Shehryar Khan S/O Wazir Muhammad Khattak (2009-Agr-U-19340)	Dr. Shazma Anwar	Agronomy	Improving Wheat-Productivity and Soil-Fertility Through Nitrogen Management.	22-03-2023
59.	Aasia Sakina D/O Mohammad Miskeen PIASA, Islamabad (2011-Agr-U-23556)	Dr. Iftikhar Ahmed	PGB	Molecular and Physiological Characterization for Salt Tolerance in Rice (Oryza sativa L.).	03-04-2023
60.	Farhan Ahmad S/O Abdullah Jan (2013-Agr-U-31789)	Prof. Dr. Asad Jan	IBGE	Stress Inducible Expression of Drebia Gene for Abiotic Stress Tolerance in Rice.	03-04-2023
61.	Ghulam Qadar S/O Ghulam Mustafa (2013-Agr-U-29728)	Prof. Dr. Khalid Nawab	AEE	An Investigation into Competencies of High School Teacher Teaching Agriculture in Azad Jammu and Kashmir.	03-04-2023
62.	Waqas Alam S/O Fazal Halim (2009-Agr-U-19536)	Prof. Dr. Sarzamin Khan	Poultry Science	Evaluation of Growth Performance, Stress, Immune Status and Production Performance of Broiler Breeders Under Cage Versus Floor Systems.	13-04-2023
63.	Said Sajjad Ali Shah S/O Zahir Shah (2007-Agr-U-15332)	Prof. Dr. Umer Sadique	Animal Health (Pathology)	Sero-Prevalence, Molecular Identification and Pathological Study of Theileriosis in Crossbred Cattle of Khyber Pakhtunkhwa.	27-04-2023

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
64.	Khanzada Khan S/O Haya Khan (2007-Agr-U-15287)	Prof. Dr. Nazir Ahmad	Animal Nutrition	Responses of Broiler Chickens to Cinnamon (Cinnamomum zeylanicum) and Turmeric (Curcuma longa L) Powders Under Thermoneutral Conditions and Under Heat Stress Conditions.	27-04-2023
65.	Shandana D/O Mohammad Shafiq (99-Agr-U-5951)	Dr. Ayesha Khan	AEE	Recent Trends and Future of Information and Communication Technologies (ICT) Tools in Agricultural Extension Services in Selected Districts of Khyber Pakhtunkhwa.	10-05-2023
66.	Sulha Syed D/O Rafiq Ahmed Shah (2007-Agr-U-15218)	Dr. Muhammad Sayyar Khan	IBGE	Utilization of Sulfur Metabolic Engineering and Plant-Microbe Interaction to Enhance Phytoremediation Potential of Brassica Juncea.	15-05-2023
67.	Younas Khan S/O Zahoor Wahid (2017-Agr-U-38517)	Prof. Dr. Mussawar Shah	Rural Sociology	Exploring the Institutional and Subjective Inabilities to Fulfill Food Security Requirement at Household Level in Torghar Northern KP, Pakistan.	19-05-2023
68.	Alia D/O Mushtaq Ahmed Muhammad PIASA, Islamabad (2011-Agr-U-27507)	Dr. Shahzad Asad	PEP	Distribution and Biology of Panama Wilt Disease Pathogen and Its Control Using Trichoderma Species.	19-05-2023
69.	Muhammad Shuaib S/O Amir Subhan (2011-Agr-U-24375)	Dr. Abdul Hafeez	Poultry Science	Effect of Inclusion of Soybean Hulls in Ration on Performance, Nutrient Digestibility, And Egg Quality at Peak Production Period in Laying Hens.	30-05-2023
70.	Urooj D/O Abdul Shakoor (2008-Agr-U-16755)	Dr. Syed Attaullah Shah	AgEc,	Integrating Environmental and Natural Resources Into Household Level Multidimensional Poverty Analyses in Various Climate Zones of Khyber Pakhtunkhwa, Pakistan.	30-05-2023
71.	Shah Khalid S/O Sartaj Mohammad (2012-Agr-U-27376)	Prof. Dr. Amanullah	Agronomy	Enhancing Wheat Productivity and Zinc Biofortification Through Zinc, Compost, and Zinc Solubilizing Bacteria.	02-06-2023
72.	Akhtar Ali S/O Amir Bostan (2010-Agr-U-21657)	Dr. Asad Ali Khan	Agronomy	Response of Maize to Organic and Inorganic Potassium Fertilization.	12-06-2023
73.	Myra Nazeer D/O Nazeer Khan (99-Agr-U-5970)	Prof. Dr. Muhammad Jamal	SES	Characterization of Designed Biochar for Stabilization of Heavy Metals in Agriculture Soil.	12-06-2023

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
74.	Amjad Ali Bacha S/O Muhammad Haneef Bacha (2001-Agr-U-7960)	Dr. Zia Ud Din	Human Nutrition	Effectiveness of Lifestyle Modification in Combination with Psyllium Husk Fiber Intervention on Metabolic Health of Centrally Obese School Teachers.	15-06-2023
75.	Inam Ullah S/O Khair Ulla (2010-Agr-U-21530)	Prof. Dr. Himayatullah Khan	Rural Development	Socioeconomic Effects of Militancy in Tribal District South Waziristan.	15-06-2023
76.	Khalid Khan S/O Abdul Matheen (2008-Agr-U-17124)	Prof. Dr. Syed Muhammad Suhail	LM & ABG	Genetic Characterization and Polymorphism in Beta Casein Gene in Azi-Kheli Buffaloes.	21-06-2023
77.	Khwaja Junaid S/O Khwaja Muhammad Ali (2008-Agr-U-16954)	Prof. Dr. Shah Alam Khan	Plant Protection	Screening and Evaluation of Rice Germplasm For Resistance Against Rice Leaf Folder (Cnaphalocrocis medinalis G.) (Lepidoptera: Crambidae).	21-06-2023
78.	Haq Nawaz S/O Muhammad Fayaz (2010-Agr-U-22551)	Prof. Dr. Hamayoon Khan	Agronomy	Management of Rice Transplantation for Improvement of Yield and Yield Components at Swat Valley.	21-06-2023
79.	Aamir Iqbal S/O Abdul Hakeem (2015-Agr-U-34102)	Dr. Sajid Ali	IBGE	Diversity in Pathogen Genetic Lineages Prevalent in Response to Host Diversity in European Wheat Germplasm in the Himalayan and Hindukush Region of Pakistan.	26-06-2023
80.	Abdul Zahir S/O Aman Khan (2012-Agr-U-27583)	Dr. Asad Ullah	Rural Sociology	Sociological Analysis of Factors Influencing Farmer's Satisfaction with Prevailing Canal Water Irrigation System in Central Khyber Pakhtunkhwa.	27-06-2023
81.	Umair Ahmad S/O Mohabat Khan (2010-Agr-U-21997)	Dr. Asad Sultan	Poultry Science	Production Performance, Gut Health and Nutrient Digestibility of Broilers Fed High Level of Poultry By-product Meal with an Exogenous Phyto-Protease and Multi-Strain Probiotics.	27-06-2023
82.	Majid Khan S/O Muhammad Bacha (2015-Agr-U-42140)	Dr. Intikhab Alam	Rural Sociology	Exploring the Dimensions and Extent of Drug Addiction among Youth in Rural Areas of Dir Lower-Khyber Pakhtunkhwa, Pakistan.	05-07-2023
83.	Sajid Khan S/O Jan Nisar (2011-Agr-U-24160)	Dr. Ahmad Khan	Agronomy	Wheat Productivity and Soil Fertility in Response to Stimulated Manure Decomposition.	12-07-2023

S.No.	Name & Parentage and Regd. No.	Advisor Name	Deptt.	Thesis Title	Year/Date
84.	Muhammad Ashfaq-u-Rahman S/O Fazal Muhammad (2003-Agr-U-10410)	Prof. Dr. Saleem Khan	Human Nutrition	Effect of Diet High in Energy, Protein, Iron, Zinc and Vitamin A on Body Weight and Nutritional Status in Patients with Tuberculosis.	25-07-2023
85.	Tauqeer Ahsan S/O Abdul Aziz (2007-Agr-U-15321)	Prof. Dr. Muhammad Tariq	Animal Nutrition	Investigating the Potential Worth of Soybean Hulls as Feed Ingredient for Broiler Chicken.	15-08-2023

Department and Discipline Wise Graduation M. Phil (18 Years), Master & MS 2022-23

Department	M.Phil			Masters		MS		
	F	M	Total	M	Total	F	M	Total
Animal Health	0	1	1	0	0	0	0	0
College of Veterinary Sciences	0	1	1	0	0	0	0	0
Institute of Biotechnology & Genetic Engineering	23	8	31	0	0	0	0	0
Institute of Business & Management Sciences (IBMS)	0	0	0	17	17	4	18	22
Institute of Computer Sciences & Information Technology (ICS/IT)	0	0	0	0	0	7	15	22
Institute of Development Studies	3	2	5	0	0	0	0	0
Maths, Stat & Computer Science	0	1	1	0	0	0	0	0
Rural Sociology	5	4	9	0	0	0	0	0
Total	31	17	48	17	17	11	33	44

Department and Discipline wise Graduation M.Sc (Hons) Agriculture 2022-23

Department	M.Sc (Hons)		
	F	M	Total
Agricultural & Applied Economics	2	5	7
Agricultural Chemistry & Biochemistry	3	7	10
Agricultural Extension Education & Communication	0	8	8
Agricultural Mechanization & RET	0	1	1
Agronomy	1	48	49
Animal Health	0	0	0
Animal Nutrition	1	11	12
College of Veterinary Sciences	0	0	0
Entomology	3	26	29
Food Science & Technology	4	16	20
Horticulture	2	57	59
Human Nutrition	18	8	26
Institute of Biotechnology & Genetic Engineering	0	0	0
Institute of Business & Management Sciences (IBMS)	0	0	0
Institute of Computer Sciences & Information Technology (ICS/IT)	0	0	0
Institute of Development Studies	0	0	0
Livestock Management & Animal Breeding & Genetics	5	23	28
Maths, Stat & Computer Science	0	0	0
Plant Breeding & Genetics	1	10	11
Plant Pathology	8	9	17
Plant Protection	3	16	19
Poultry Science	2	17	19
Rural Development	2	7	9
Rural Sociology	0	1	1
Soil & Environmental Sciences	2	31	33
Water Resources Management	0	0	0
Weed Science & Botany	0	0	0
Weed Science & Botany	0	4	4
Total	57	305	362

Department and Discipline Wise Graduation B.Sc (Hons) Agriculture and DVM2022-23

Department	Bachelors		
	F	M	Total
Agricultural & Applied Economics	2	14	16
Agricultural Chemistry & Biochemistry	3	15	18
Agricultural Extension Education & Communication	2	28	30
Agricultural Mechanization & RET	1	7	8
Agronomy	2	52	54
Animal Health	13	46	59
Animal Nutrition	-	-	-
College of Veterinary Sciences (DVM)	-	-	-
Entomology	3	33	36
Food Science & Technology	11	22	33
Horticulture	12	56	68
Human Nutrition	32	7	39
Institute of Biotechnology & Genetic Engineering	9	23	32
Institute of Business & Management Sciences (IBMS)	12	333	345
Institute of Computer Sciences & Information Technology (ICS/IT)	21	553	574
Institute of Development Studies	8	23	31
Livestock Management and Animal Breeding & Genetics	-	-	-
Mathsm Stat & Computer Science	-	-	-
Plant Breeding & Genetics	5	22	27
Plant Pathology	1	8	9
Plant Protection	9	65	74
Poultry Science	-	-	-
Rural Development	2	47	49
Rural Sociology	4	18	22
Soil & Environmental Sciences	3	39	42
Water Resources Management	-	6	6
Weed Science	-	6	6
Weed Science & Botany	-	-	-
Total	155	1423	1578

Chapter -3

RESEARCH AND DEVELOPMENT

Agriculture is the backbone of Pakistan, Its contribution to country GDP is approx. 24 %. The University of Agriculture through its research program not only training the postgraduate research students in basic and applied research but also carried out basic and applied research that have national and global impacts. The faculty applied to various competitive research grants through the Office Research Innovation & Commercialization (ORIC) of the University. During 2019-20, ORIC submitted number of new research projects to various national and international funding agencies. The various national funding agencies for research project include Higher Education Commission (HEC) program through National Research Program for the Universities, Pakistan Agricultural Research Council through Agricultural Linkages Program (ALP) and Ministry of Science & Technology through Pakistan Science Foundation (PSF).



Extraction of oil from tuberoses flowers under HEC funded Research Project, (P.I. Dr Masood Ahmad, Department of Horticulture)

Fakhr e IBGE Brassica Variety Released

Rapeseed/Semi Canola Variety, "Fakhr-e-IBGE" was developed at IBGE, the University of Agriculture Peshawar by Principal Breeder and Director Professor Dr. Iqbal Munir and his team. It was presented before the Provincial Seed Council meeting chaired by the honorable minister for Agriculture, Livestock and Dairy Development, Government of Khyber Pakhtunkhwa and was approved for commercial cultivation on farmers fields. Fakhr-e-IBGE is having 15% more yield potential, higher oil content than the check variety and moderately resistant to Aphids and diseases. Fakhr-e-IBGE has very low concentration of Erucic acid, thus safe for patients with cardiovascular diseases.



Prof. Dr. Iqbal Munir, Dr. Dawood Ahmad and Dr. Waqar Ahmad visiting the field trials of the Fakhr e IBGE Brassica variety released during the year 2023

The faculty and researchers have won number of the research projects from both national and international competitive grants. Various research endeavours of the faculty is briefly discussed below:

Research and Integration Demonstration on Water-saving High-efficiency and Eco-friendly technologies for Dryland Agriculture (PSF-NFCC CHINA)

The P.I of the project is Dr. Ishaq Mian, Associate Professor, Department of Soil & Environment Sciences, The University of Agriculture, Peshawar. The project was funded by Pakistan Science Foundation, Islamabad. Project Scope, activities and objective include the following:

Evaluation of water footprint of main crops in dryland of China and Pakistan

In this project, evaluation of the "blue water", "green water", "gray water" and total water footprint will be carried out for the main crops of dryland in China and Pakistan, and we will recognize the key source of water footprint for different cultivation systems and the driving factors for spatial variation of water footprint. Such a work will provide the fundamental reference for the R&D of key water-saving technologies and guidance for making water management policy on national and regional scale.

Research and development of key eco-friendly technologies to reduce water footprint in dryland

(a) R&D of eco-friendly and high-efficiency rain-fed agriculture technologies. With aim to improve the utilization efficiency of "green water", we will create and develop micro-water harvesting systems, research and develop sustainable mulching cultivation systems and improve the conservation tillage methods. By integrating new technologies, we will create new rain-fed cultivation systems which can produce more food with less environmental cost.

(b) R&D of IoT based deficit fertigation technology. With aims to reduce "blue water" and "grey water" footprints in drylands in the dryland of China and Pakistan, we will research and develop decision model of IoT based deficit fertigation for main crops of China and Pakistan, develop sensors to collect weather, crop and soil information and online management systems, and design information-sharing network and synchronous management methods in regional scale.

(c) R&D of technologies to collect water and nitrogen from air. Research the mechanism to use nanometer materials (bioinspired cavity-microfibers and metal-organic frameworks) and semiconductor material to collect evapotranspired water and dissolved nitrogen (mainly in the form of NH_3) from air, and develop corresponding devices and technologies which can be applied in different dryland cultivation systems.

(d) Technology integration and demonstration. With the guidance of water footprint evaluation, we will create new eco-friendly and high-efficiency dryland farming systems with integration of developed technologies in this project and existing technologies for rain-fed and irrigation regions respectively. Based on those, we will build demonstration base and conduct training and information awareness campaigns to promote new dryland farming systems.

(e) Development of big data platform for dryland agriculture. To ensure continuity of the research and subsequent development of this project and create information sharing and

technology cooperation platform, we will develop China-Pakistan united database for dryland farming, multi-dimensional display system for new dryland farming technologies and water footprint evaluation and prediction system.

Optimization of Environmental and Nutritional Standards for Mass Production of Mealworm under Tropical Environment of Pakistan

The P.I of the project is Prof. Dr. Sarzamin Khan, Department of Poultry Science, The University of Agriculture, Peshawar. The project was funded by Pakistan Science Foundation, Islamabad.

The project titled “Optimization of Environmental and Nutritional Standards for Mass Production of Mealworm under Tropical Environment of Pakistan” aim include standardization of environmental standards for mass production of meal worm using different substrate in order to develop meal worm based commercialized nutritional products for backyard, fancy and commercial poultry and pets. Total fifteen experiments were conducted during this project. One patent, four products (details attached), one review and ten research papers were produced. The patent titled production and assessment of super worm based probiotic was registered with patent office in Peshawar (Receipt attached). The research papers were submitted to various journals. Three papers of them have so far accepted and published while others are under review with international journals. A paper from results of the project was presented in second international conference on biological research and applied science in January 17-19, 2022 held at Jinnah University for Women, Karachi. Six MS (three awarded and two have passed through board of studies) and two PhD scholars have conducted their research under the project. The PhD scholars have completed the data analysis and are in writing phase. Economic feasibility for mass production of the meal worm was developed. The local women poultry farmers total 50 were trained on the meal worm production, processing and using as chicken feed. Total 400 kg of meal worm meal was produced during the project. A 150 kg meal worm meal was distributed among the trainers. The remaining was used in the research experiments conducted under the project. The self-life was increased through oil extraction and the extracted oil were used as broiler feed supplement.

Development of local variants based infectious bronchitis virus (IBV) vaccine

The P.I of the project is Prof. Dr. Sarzamin Khan, Department of Poultry Science, The University of Agriculture, Peshawar. The project was funded by Pakistan Science Foundation, Islamabad.

The research project is working on the development of local variants based infectious bronchitis virus (IBV) vaccine for the control of major threat to local Poultry Industry.

Respiratory diseases caused by IBV result in huge economic losses to this sector. Vaccination with live and inactivated vaccines is considered to be the most cost-effective approach for disease control. However, mass usage of live vaccines containing strains of diverse origin has resulted into the evolution of new viral strains, which are resistant to the currently used vaccines and has caused numerous outbreaks even in the presence of vaccination. Needless to say, this indicates the need for detailed studies on emerging variants that can potentially be included in future vaccines for effective vaccination campaigns. To fill this knowledge gap and to design appropriate control and preventive measures, we here propose three hypotheses: 1. Variant types of IBV are circulating in the respiratory tracts of commercial poultry in Pakistan making the currently used vaccines ineffective and mostly useless; 2. Molecular genotyping and whole

genome sequencing approaches will identify host- and region-specific fingerprint profiles of these viruses with probability of providing nucleic acid signatures of novel/emerging viruses; and 3. The development of vaccines using local viral strains (based on the information generated in this project) will prove to be helpful in controlling the devastating mortalities caused by these two viruses. The specific objectives of this study will be surveillance of IBV in Khyber Pakhtunkhwa to determine the prevalence of different variants and genotypes of IBV for the development of safe and effective inactivated vaccines using locally detected strains of these viruses.

Development of Key Rice Bran Treatment Technology as Food Ingredients in Pakistan

The P.I of the project is Prof. Dr. Zafar Iqbal, Department of Agricultural Chemistry & Biochemistry, The University of Agriculture, Peshawar and Professor Zhengcheng Wei, Principal Investigator (PI) from China. The project was funded by Pakistan Science Foundation, Pakistan.

This collaborative project entitled "Development of Key Rice Bran Treatment Technology as Food Ingredients in Pakistan," was initiated under the International Science & Technology Cooperation Project of Guangdong province, China. The project activities were carried out with Professor Zhencheng Wei at the Sericultural & Agri-Food Research Institute, Guangdong Academy of Agricultural Sciences, China and aimed to transfer rice bran stabilization technology to Pakistan and develop various products from stabilized rice bran.

Over the course of three years, the collaborative efforts of researchers of the University of Agriculture, Peshawar, Pakistan and the Guangdong Academy of Agricultural Sciences, China successfully achieved objectives of the project.



The project successfully transferred rice bran stabilization technology to Pakistan, enabling local producers to improve the quality and preservation of rice bran. This technology is expected to have a significant impact on the rice bran processing industry in Pakistan.

A range of products utilizing stabilized rice bran as a key ingredient were developed during the project, including rice bran-based snacks, brown rice, and rice bran coffee. These products have the potential to contribute to food security and improved nutrition in Pakistan. The project provided valuable training and knowledge exchange opportunities for researchers and professionals from both Pakistan and China.

The successful implementation of rice bran stabilization technology and the development of rice bran-based products have the potential to boost the local economy by creating new opportunities for farmers, processors, and entrepreneurs in the food industry. The PI from UAP, Professor Zafar Iqbal extended heartfelt gratitude to the Guangdong Department of Science & Technology, China for their support and funding throughout this project. The project exemplifies the power of international cooperation in advancing agriculture and technology and we eagerly anticipate further collaborations and advancement in the future, he commented.

PHYTOCHEMICAL AND ANTI-DIABETIC POTENTIAL OF MEDICINAL PLANTS OF NWFP-PAKISTAN

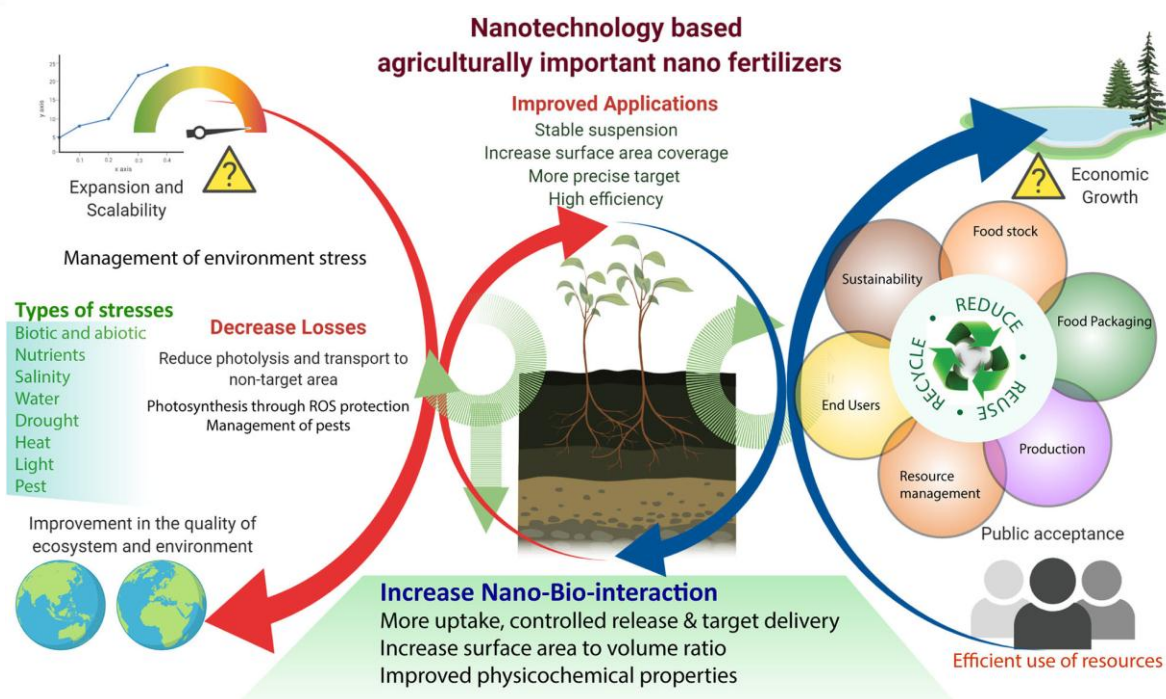
The P.I of the project is Dr. Anwar Ali Shad, Department of Agricultural Chemistry & Biochemistry, The University of Agriculture, Peshawar. The project was funded by Higher Education Commission.

In this Research Project, a total of 40 plant species, belonging to 24 plant families, were identified for treating diabetes. Among the plant families, the highest number of plant species identified as antidiabetic potential are Moraceae (5 species) followed by Asteraceae (4) Myrtaceae (3), Cucurbitaceae (3), Euphorbiaceae, (3), and Fabaceae (2). Furthermore. It was observed that the leaves part of the selected plant were the most commonly utilized part for the preparation of antidiabetic remedy (30%) followed by fruits (28%), aerial parts (13%) seeds (12%). Likewise, The *Debregeasia saeneb* plant extract exhibited a reduction in inflammation but was not as effective as other tested plants. Our investigation of the phytochemicals analysis of crude methanolic extracts of different plants such as *Aerva javanica*, *Linum usitatissimum*, *gymnospora royalena*, *Elaeagnus umbellata*, *Tagetes minuta*, *Primula denticulata*, *Apium Graveolens*, *Fagonia olivieri*, *Debregeasea saeneb* confirmed the presence of alkaloids, carbohydrates, flavonoids, terpenoids, tannins, and saponins. In the in-vivo and invitro study, the antidiabetic potential of the crude methanolic extract of *Aerva javanica*, *Linum usitatissimum*, *gymnospora royalena*, *Elaeagnus umbellata*, *Tagetes minuta*, *Primula denticulata*, *Apium Graveolens*, *Fagonia olivieri*, and *Debregeasea saeneb* plants on blood glucose level of STZ induced diabetic animals at two different dose levels (200 and 400 mg kg⁻¹ body weight) reveal promising results. Flaxseeds methanolic extracts (500 ml) decreased glucose level from (193.16 mg/dl±0.2946) to (84.20 mg/dl±0.2953), followed by flax methanolic extract (250 ml) which decreased glucose level from 196.07 mg/dl±0.2003 to 88.06 mg/dl±0.1184. Nevertheless, our results confirm that it is a safe alternative for reducing blood glucose

DEVELOPMENT OF ZINC OXIDE NANOPARTICLES (ZNONPS) AS A NOVEL ZINC NANO FERTILIZER FOR SUSTAINABLE AGRICULTURE AND REDUCING ZINC DEFICIENCY IN PAKISTAN.

The P.I of the project is Dr. Ishaq Mian, Associate Professor, Department of Soil and Environment Sciences, The University of Agriculture, Peshawar. The project was funded by Higher Education Commission, Islamabad.

The Pakistan population is increasing with alarming rate, demanding the development of a very efficient agriculture while allowing reduction of poverty and hunger. Also, the per capita cultivated land is decreasing year by year. Limited area of additional arable lands and shortage of water resources in the country, it is obligatory to use mineral fertilizers more efficiently to achieve the increase in food production indispensable to feed this growing population and support economic development. Also, high application rate of conventional fertilizers has caused thoughtful environmental problems such as soil, water and air pollution. The environmental problems and low nutrient use efficiency of chemical fertilizers remain a main problem and a barrier for attaining realistic sustainability in agriculture. Moreover, the wide difference in cost benefits ratio due to over-application of chemical fertilizers decrease revenue margins for growers. Thus, there is a high attention towards the development of new innovative fertilizer sources in order to increase the fertilizer use efficiency.



NANOTECHNOLOGY-BASED AGRICULTURALLY IMPORTANT NANO FERTILIZERS INCREASE AGRONOMIC PRODUCTIVITY, EFFICIENCY, AND REDUCE ENVIRONMENTAL STRESS. EFFICIENT UTILIZATION OF NANOTECHNOLOGY IN AGRICULTURE FOR FUTURE SUSTAINABILITY.

Another related problem with crop production is Zinc (Zn) deficiency in Pakistani soils. In 70% Pakistani soils, Zn deficiency is quite common. Zinc deficiency affects 22.1% of women of reproductive age (WRA) and 18.6% of children under the age of five in Pakistan, according to the National Nutrition Survey (NNS 2018). Zinc is an essential micronutrient for all plants as it plays a key part in a number of physiological activities such as in the biosynthesis

proteins and enzymes, chlorophyll and in many metabolic processes. The low availability of Zn for plants cause to reduced crop yield and poor nutritional quality of grains and derivatives. Wheat and rice are a critical component of the diet and consumption of wheat and rice with low Zn concentrations in the grain can potentially have adverse impact on people's health such as stunted growth and impaired neurodevelopment in children, increased susceptibility to infections in children and adults, and complications during the pregnancy and childbirth. The traditional Zn fertilizers are not always efficient, and in some soils, they may result in only low (or no) improvements in plant nutrition.

In the framework of sustainable agriculture, use of nanotechnology for the advancement of novel kinds of fertilizers is regarded as one of the possibly capable choice for significantly increasing food production to meet the increasing food demands of population with the extra benefits of sustainability under the present scenario of climate change. The potential of adding Zn in the form of nanoparticles as fertilizer is an outstanding idea that has been explored recently and Zn nanoparticles would be smartest delivery tools for zinc element. The Zn nanoparticles are more efficient (e.g., through slow release), this can decrease fertilizer consumption and related adverse environmental consequences.

Nanoparticles (NPs) are exceptional materials with a distinctive dimension from 1 to 100 nm and extraordinary structural and physicochemical features. The practice of nanotechnology in agriculture demarcated the next edge in agriculture to make vagaries in food production and agriculture practices.

The broad research objective is to investigate if ZnONPs might help as a novel nanofertilizer, one that could supplement optimum Zn and improve Zn nutrition and crop productivity in the field environment. This project will utilize a novel and very effective ZnONPs technology to attain sustainability towards food production and improve Zn nutrition of both crops and humans while also reducing any potential adverse environmental impact.

The activities to be undertaken will include synthesis with three types of morphologically different ZnONPs. Pot and field experiments will be conducted by growing wheat and rice crops and ZnONPs will be applied through seed priming, foliar and soil. The effect of ZnONPs will be compared with traditional zinc sulphate fertilizer also. Soil, foliar and seed priming application methods of ZnONPs will also be studied. Most of the field crop growing areas worldwide are deficient in certain micronutrients (e.g., Zn), so nano fertilizers can act as effective and efficient fortification products for crop and fresh food products. Nano fertilizers increase the bioavailability of nutrients through their high specific surface area, miniature size and high. On the other hand, by providing balanced nutrition, nanofertilizers enable the plant to combat various biotic and abiotic stresses, with overall clear advantages.

ENHANCEMENT OF RUST DISEASE RESISTANCE IN WHEAT USING AGROBACTERIUM-MEDIATED PROTEIN TRANSLOCATION (A NON GMO APPROACH)

The P.I of the project is Dr. Majid Khan, Assistant Professor, Institute of Biotechnology & Genetic Engineering, The University of Agriculture, Peshawar. The project was funded by Pakistan Science Foundation.

In 2015, the Global Harvest Initiative reported that “accelerating productivity growth is a necessary component to achieve food and nutrition security”. In the time of the green revolution from the 1930s until the late 1960s this was mainly achieved through improved agricultural

practices and by enhancing crop productivity through classical breeding (da Silva et al., 2015; Zeigler, 2015). The development of technologies to genetically modify crops has provided new possibilities to introduce traits such as disease or pest resistance in a relatively short time frame, opening up to a more efficient and sustainable production of crops without the use of pesticides or other chemicals (Toenniessen et al., 2003). Although, the global use of GM technology is limited by the European market, it is an invaluable tool for scientific research purposes that is applied all over the world for crop improvement (Khush, 2012). Considerable progress has been made in identification and cloning of genes involved in plants resistance against diseases. With the aid of plant molecular biology and biotechnology, a large number of resistance genes and antifungal proteins and peptides have been isolated and assessed through in-vitro bioassays. Genes and gene products that are involved in signaling pathways have also been predicted. Strategies like enhancement of plant structural defense, neutralization of fungal toxins and exploitation of antifungal genes from non-plant sources have been used to produce transgenic plants. Exploitation of these approaches has shown significant reduction of fungal diseases in many cases. However genetically modified plants especially vegetables and crops are not easily acceptable both in international and local markets. So, an alternate solution is the application Agrobacterium-mediated protein translocation (AMPT) technology which will not only solve the problem of gene based resistance against the diseases but will also keep the plant non-transformed (Vergunst et al., 2000; Li et al., 2014; Sakalis et al., 2014; Khan et al., 2017). As wheat is the most important crop throughout the world, the enhancement in its productivity through the control on its diseases using a non-GMO and non-toxic technique would be a great achievement as a result of successful completion of this project, in which we will apply this new technology (AMPT) to eradicate the most worst disease of wheat plant (Rust specifically) using Lr34 (Krattinger et al., 2009), Yr15 (Klymiuk et al., 2018) and antifungal genes ChiC (Khan et al., 2008) OR wasabi defensin (WD) gene (Khan et al., 2014) directly against the pathogen (Pucciniasp).

DEVELOPING A CLIMATE RESILIENT AND SUSTAINABLE PRODUCTION SYSTEM FOR RICE CROP THROUGH NATURAL RESOURCES UTILIZATION AND GENOMIC SELECTION.

The P.I of the project is Dr. Israr Ud Din, Assistant Professor, Institute of Biotechnology & Genetic Engineering, The University of Agriculture, Peshawar. The project is submitted for funding to US-Aid Agriculture Linkages Program, Pakistan Agricultural Research Council.

Maize, wheat and rice account for 87% of all grain production worldwide and are considered to be staple food for over 4 billion people. Rice is not only a good source of vitamin B, fibres, and proteins, but is also high in energy, as its main constituent is starch. Precisely, rice alone feeds almost half of humanity providing more food energy than any other crop, and constituting the majority of daily caloric intake in developing countries. Assuming that rice-cultivating regions will experience dramatic climatic fluctuations, a sustainable increase in productivity requires varieties with improved yield potential that are more stress tolerant and more efficient in resource use. This entails a comprehensive understanding of processes involved in plant development and adaptation to a changing environment. Substantially, improvements in yield potential rely on complex agronomic traits involving both physiological and morphological features. On one hand, yield stability can be achieved in rice varieties characterized by a high degree of plasticity of the root system, able to deal with limitations of nutrients as well as to increase tolerance to abiotic stresses (i.e. drought and flooding). On the other hand, rice yield potential is directly dependent on the architecture of reproductive structures (the inflorescence), as directly related to the number and size of seeds

produced per plant. In Pakistan, the effect of natural disasters on agriculture, including disasters caused by climate change has been gradually growing. It is believed that during the next decade, Pakistan's future rice production is expected to reduce substantially from the current level. As there is less scope for rice area to grow in the future, any growth in rice production will have to come only from productive gains. Since climate change is a continuous process, the rice production system requires specific adaptation strategies to prevent rice yield losses and its variability. Therefore, it's crucial to develop better production system including crop establishment methods, improving water and nutrient efficiency and microbial resources utilization that make cropping systems more resilient to extreme weather events. The spread of climate resilient production technologies would benefit rice production systems' resilience. Therefore, the objectives of this project include research to explore the following:

- (1) To exploit the potential of local and exotic germplasm under aerobic ecosystem.
- (2) Selection of cultivars for potential cultivation as DSR
- (3) Evaluation for the nutrient use efficiency
- (4) Development of biochemical and molecular markers for beneficial agronomic traits under DSR system through association analysis.

BIOAUGMENTATION OF SOILS CONTAMINATED WITH EXCESSIVE PESTICIDE APPLICATION ON PEACH PLANTATION IN THE VALLEY OF SWAT

The P.I of the project is Dr. Sayyar Khan Qazi, Associate Professor, Institute of Biotechnology & Genetic Engineering, The University of Agriculture, Peshawar. The project was funded by Pakistan Science Foundation.

Pesticide application on crop plants to control insect pests has been widely accepted throughout the world. Despite the visible benefits on crop production, pesticide application has been a source of environmental degradation. Massive pesticide application reduces the soil fertility through negative impacts on beneficial rhizospheric microbiota. The soil microbiota plays crucial roles in the overall plant development and defense against biotic and abiotic stresses. In Pakistan, pesticide application on agricultural and horticultural crops has increased by many folds since the last decade of 20th century. In the valley of Swat, peach is one of the most important fruit that is grown on 60% of the area under cultivation. Peach is one of the main fruits of Pakistan and a significant contributor of local and national agricultural economy. However, heavy pesticide application is practiced on peach plantation and the negative impacts surpass the benefits of increased production. The increased pesticide deposition in the soil may adversely affect the diversity and beneficial activities of useful microbiota as well as the overall soil fertility. Also, the active ingredients of pesticides may leach into the soil and enter into the river water, resulting adverse effects on aquatic life. To cope with this issue, various mitigation strategies have been utilized such as integrated pest management, crop rotation etc. However, the most durable and promising approach is to harness the pesticide degradation potential of microbes that utilize various mechanisms to degrade the toxic ingredients into nontoxic compounds. In the proposed research, the contaminated soil under peach plantation in the valley of Swat would be analyzed for the presence of active ingredients of pesticides, followed by isolation of microbiota capable of pesticide degradation potential. The outcomes of the project are expected to boost the socio-economic development as well as enhancing agriculture production and environmental protection.

OPTIMIZING THE INCLUSION RATE OF CANOLA MEAL AND GUAR MEAL IN FEED OF BROILERS AND LAYERS

The P.I of the project is Dr. Abdul Hafeez, Associate Professor, Department of Poultry Science, The University of Agriculture, Peshawar. The project was funded by Higher Education Commission.

Poultry is the most vibrant and potential subsector of livestock with current investment of more than 700 billion PKR in Pakistan, with a rapid growth rate of 8 to 10 % in the current years. Feed contributes to approximately 60% of total cost of production in broilers, and upto 45-50 % in layers. Soybean, the most expensive and commonly used oilseed meal in poultry ration (upto 30%), is mostly being imported from US, Brazil and Argentina etc. Pakistan spent 150 million US \$ on import of soybean alone in the year 2014-2015. Other oilseed meals having considerable quantities of crude protein are relatively inexpensive sources; however their dietary inclusion rate is limited due to presence of various anti-nutritional factors. It may be hypothesized that through identification and application of an effective treatment method, the negative effects of such anti-nutritional factors could be minimized. To achieve the ultimate objectives of the current project, effect of feed treatment methods including fermentation and enzymatic treatment at different dietary inclusion levels of relatively inexpensive oilseed meal sources including canola meal guar meal and their optimum inclusion levels will be evaluated in broilers. The findings of the current project will be vital for the poultry industry of Pakistan, which will be benefited in terms of provision of knowledge regarding optimum inclusion levels of relatively inexpensive canola meal and guar meal in poultry feed, as alternative of expensive protein sources including soybean. Additionally, the data generated from the current project will be helpful to government officials and policy makers in order to devise policies for enhancing production of cheaper ingredients to be used in poultry feed, which will be helpful to save huge money being spent on import of soybean, leading to socio-economic development of the country.

UNIVERSITY RESEARCH FARM ACTIVITIES**Wheat Sowing Organized by University New Development Farm**

One Day Wheat Sowing event: Sowing of climate resilient high yielding wheat lines developed by Washington State University for the sub continent at The University of Agriculture, Peshawar in collaboration of the University of Agriculture, Faisalabad under the chairmanship of Vice Chancellor Prof. Dr. Jehan Bakht.

On this occasion, Provincial Minister for Higher Education Department, Khyber Pakhtunkhwa Prof. Dr. Muhammad Qasim Jan was the Chief Guest. US Consul General, Peshawar, Shante More, Senator Nauman Wazir, Vice Chancellor University of Agriculture Faisalabad Prof. Dr. Iqar Ahmad Khan, Air Commodore Amin Khan, Vice Chancellor University of Engineering & Technology Peshawar Prof. Dr. Iftikhar Hussain attended the event as guests.

Dean and Pro Vice Chancellor Prof. Dr. Daud Jan, Dean Prof. Dr. Muhammad Ayub and Director of New Development Farm Prof. Dr. Muhammad Arif along with faculty members and administrative officers also participated. The Vice Chancellor Prof. Dr. Jehan Bakht welcomed the guests. Registrar Dr. Rizwan Ahmed briefed the participants about the University.

1. TOTAL FARM AREA & DISTRIBUTION OF FARM LAND:

S#	Farms	Cultivated (Acres)	Non-cultivated (Acres)	Total (Acres)
1	Agronomy	115	05	120
2	PBG	28	01	29
3	Horticulture	36	02	38
4	Dairy Farm	16	05	21
	TOTAL	195	13	208

i. Production statistic of major crops:**a. Wheat statistics of various varieties:**

S#	Wheat varieties	Quantity (kg)
1	Wheat (Ghanimat)	1750
2	Wheat (Wadan)	1250
3	Wheat (Khaista)	7000
4	Chinese Varieties Wheat	1300
5	Siran Wheat	300
6	Ata-Habib Wheat	6000
7	Gulzar 2019	7000
8	Pir Sabak, 2015	6500

b. Maize statistics of various varieties:-

S#	Maize varieties	Quantity (kg)
1	Maize (Hybrid)	2525
2	Maize (Azam)	4250

c. Canola statistics of various varieties:-

S#	Canola varieties	Quantity (kg)
1	Fakhr e IBGE	1100
2	Sersoon IBGE	450
3	Canola NIFFA	200

d. Oats statistics varieties

S #	Oats verity	Quantity (Kg)
1	Oats (Australian)	1200

ii. Fodder with varietiesname:

S #	Fodder verity	Area (Acres)
1	Berseem (Palosa)	31
2	Oats (Australian)	31.5
3	Maize (Aafaq)	12.5
4	Alfalfa	1.5
5	Rhodes Grass	1.5

iii. Farm income:

S#		
	Berseem as Green Fodder& Seed	33,315,78/-
1	Maize as Green Fodder and Seeds	20,092,19/-
2	Wheat Grains	67,199,69/-
3	Miscellaneous	43,226,57/-
4	Tractor	43,500/-
Total		16,426,923/- (inclusive paid tax)

iv. Farm expenditure detail July 2022 to June 2023

S. #	Description	Cost (Rs)
1	Repair of Tractor AM-13	44,180
2	Repair of Tractor AM-14	67,995
3	Repair Tractor PRG-9142	27,810
4	Harvesting and Threshing of Winter Crops	695000
5	G.S. Register II Miscellaneous repair and others	--
6	Purchase of New Machineries& Stand for HG1	928700
7	Court Fee	85,000
8	POL for Tractors	--
9	Purchase of Seeds etc	170300
10	Purchase of Fertilizers	--
Total Amount		2,018,985

LIST OF STUDENT RESEARCH AT THE UNIVERSITY FARM (2022-23)

S.#	Name of student	Supervisor	Research Title	Degree
1	Mr.Muhammad Uzair Khan	Prof. Dr. Amanullah	Integrated management of beneficial microbes, phosphorus and zinc on wheat productivity and bio-fortification.	Ph.D.
2	Mr.Abbas Saleem	Prof. Dr. Muhammad Arif	Crop residues management for reducing nitrogen requirements of wheat-maize cropping system.	Ph.D.
3	Mr.Maaz Khan	Prof. Dr. Muhammad Arif	Dual purpose cereals management for ensuring fodder availability and food security.	Ph.D.
4	Mr.Saeed Khan	Prof. Dr. Habib Akbar	Impact of integrated nitrogen application at critical stages on wheat yield and its components.	Ph.D.
5	Mr.Said Aman Ullah	Prof. Dr. Amanullah	Effect of foliar and soil application of phosphorus on growth, yield and yield component of wheat.	M.Sc. (Hons)
6	Mr.Shehzad Ahmad	Prof. Dr. Habib Akbar	Effect of sowing methods on agronomic practices of wheat hybrids lines.	M.Sc (Hons)
7	Mr.Muhammad Musa	Prof. Dr. Muhammad Arif	Effect of maize Stover mulching and raised bed planting and growth and yield of wheat under reduced dose of NPK fertilization.	M.Sc (Hons)
8	Mr.Shehryar Rafique	Prof. Dr. Inamullah Khan	Seed yield and quality of late sown Triticale as affected by narrow row spacing and high seed rates.	M.Sc (Hons)
9	Mr.Kareem Ashfaq	Prof. Dr. Inamullah Khan	Seed yield and quality of late sown durum wheat as affected by various nitrogen and seed rates.	M.Sc (Hons)
10	Mr.Abubakar Hamid	Prof. Dr. Muhammad Arif	Effect of ultra low seed rates on yield and yield and yield component of different wheat lines.	M.Sc (Hons)
11	Mr.Hamid Ali Khan	Prof. Dr. Muhammad Arif	Agronomic performance of Chinese hybrids wheat lines in Peshawar.	M.Sc (Hons)

S.#	Name of student	Supervisor	Research Title	Degree
12	Mr.Abu Bakkar	Prof. Dr. Amanullah	Effect of foliar and soil nitrogen management on wheat growth and yield.	M.Sc (Hons)
13	Mr.Numan Shah	Dr. Asim Muhammad	Effect of different sowing methods on yield and yield components of chickpea varieties.	M.Sc (Hons)
14	Mr.Shah Nawaz	Prof. Dr. Muhammad Arif	Fodder potential of Rhode grass under varying nitrogen and irrigation levels.	M.Sc (Hons)
15	Mr. Adnan Ali	Dr. Fazal Munsif	Impact of nano zinc oxide particle on growth biochemical traits and yield of wheat under drought stress.	M.Sc (Hons)
16	Mr. Abuzar Iqbal	Prf. Dr. Inamullah Khan	Effect of organic and inorganic nitrogenous sources on yield and yield components of sunflower hybrids.	M.Sc (Hons)
17	Mr. Mehran Khan	Dr. Asad Ali Khan	Effect of phosphorus, humic acid and farmyard manure on growth and yield of maize	M.Sc (Hons)
18	Mr. Muhammad Tauseef Khan	Dr. Asim Muhammad	Effect of sowing dates and phosphorus on yield and yield components of common bean.	M.Sc (Hons)
19	Mr. Muhammad Hamza	Dr. Shahan Shah	Integration of farmyard manure and Zinc for improving Maize growth and yield.	M.Sc. (Hons)
20	Mr. Faiz Muhammad	Dr. Ahmad Khan	Effect of Beneficial microbes and phosphorus sources on maize growth and yield component.	M.Sc. (Hons)
21	Mr. Subbuktageen Khan	Dr. Asim Muhammad	Influence of different organic sources and bio fertilizers on yield and yield attributes of mungbean.	M.Sc. (Hons)
22	Mr. Zargham Ali Khan	Dr. Shahan Shah	Impact of trichoderma species and application of iron on maize yield and yield components.	M.Sc. (Hons)

S.#	Name of student	Supervisor	Research Title	Degree
23	Mr. Muhammad Owais	Dr. Ahmad Khan	Effect of mineral and manure nitrogen on maize growth and yield under various tillage implements.	M.Sc. (Hons)
24	Mr. Muhammad Sohaib Khan	Prof. Dr. Habib Akbar	Soybean seed optimization under intensification and seedbed practices.	M.Sc (Hons)
25	Mr. Iftikhar Shah	Dr. Shazma Anwar	Influence of organic amendments on maize productivity.	M.Sc (Hons)
26	Mr. Hassan Nawaz	Dr. Ihanullah Daur	Enhancing maize performance through seed dressing with trichoderma species and humic acid.	M.Sc (Hons)
27	Mr. Muhammad Abdullah Khan Mansoor	Dr. Shahan Shah	Optimizing maize production using trichoderma species bio-fertilizer with zinc supplementation.	M.Sc (Hons)
28	Main Zawar Ulhaq	Dr. Ihanullah Daur	Boosting mung bean yield with rock phosphate and green sand utilizing nutrient solubilizing bacteria.	M.Sc (Hons)
29	Mr. Aimal Khan shenwari	Prof. Dr. Amanullah	Foliar and soil potassium management for improving maize productivity and profitability.	M.Sc (Hons)
30	Mr. Muhammad Ibrar	Dr. Shahan Shah	Integration of trichoderma species and farmyard manure for the improvement of maize yield and yield components.	M.Sc (Hons)
31	Mr. Talha Hashim	Dr. Shazma Anwar	Effect of tri-choderma and phosphorus application on mung bean performance.	M.Sc (Hons)
32	Mr. Fahad Ashraf	Dr. Shazma Anwar	Effect of nitrogen levels on varying maize population for fodder productivity.	M.Sc (Hons)
33	Mr. Abbas Saleem	Prof. Dr. Muhammad Arif	Crop residues management for reducing nitrogen requirements of wheat-maize cropping system.	Ph.D.
34	Ms. Kiran Atta	Prof. Dr. Habib Akbar	Ear tip removal of non-tip covering and different nitrogen effect on yield and yield components of maize.	M.Sc (Hons)

S.#	Name of student	Supervisor	Research Title	Degree
35	Mr. Ubaid Ullah	Dr. Ihsanullah Daur	Farmyard manure integration with microbes and humic acid for boosting maize yield.	M.Sc (Hons)
36	Mr. Muhammad Awais Khan	Dr. Asim Muhammad	Impact of foliar application of zinc and boron on yield and yield components of soybean.	M.Sc (Hons)
37	Mr. Yasir Ahmad	Prof. Dr. Inamullah Khan	Effect of compost levels with and without tri-choderma on the performance of sweet corn.	M.Sc (Hons)
38	Mr. Tauqeer Ahmad	Prof. Dr. Inamullah Khan	Impact of rock phosphate and single super phosphate with and without phosphorus solubilizing bacteria on the agronomic performance of sweet corn.	M.Sc (Hons)
39	Mr. Muhsin Khan	Dr. Shazma Anwar	Integrated application of bio-fertilizer and nitrogen sources on maize productivity and soil fertility.	Ph.D.
40	Mr. Kossoko Djalal	Dr. Asim Muhammad	Effect of tillage, organic matter and nitrogen fertilization on yield and yield components of maize.	Ph.D.
41	Mr. Omar Farooq	Prof. Dr. Muhammad Arif	Effect of nitrogen levels on maize sesbania intercropping.	M.Sc (Hons)

LIST OF STUDENTS RESEARCH OF THE DEPARTMENT OF POULTRY SCIENCES (2022-2023)

S. No.	Name of Student	Supervisor	Title of thesis	Degree
1	Mr. Waqas Alam	Prof. Dr. Sar Zamin Khan	Evaluation Of Growth Performance, Stress, Immune Status and Production Performance Of Broiler Breeders Under Cage Versus Floor Systems	PhD
2	Mr. Momin Khan	Prof. Dr. Naila Chand	Assessment of Maggot meal as source of protein supplementation in the ration of meat and egg type birds	PhD
3	Mr. Muhammad Shuaib	Dr. Abdul Hafeez	Effect of inclusion of soybean hulls in ration on performance, nutrient digestibility and egg quality at peak production period in laying hens	PhD
4	Mr. Umair Ahmad	Dr. Asad Sultan	Production performance, gut health and nutrient digestibility of broiler fed high level of poultry byproduct meal with an exogenous phyto-protease in multi strains probiotics	PhD
5	Ms. Sara Khan	Prof. Dr. Naila Chand	Effect of methionine and organic zinc, on the performance, gut health and nutrient digestibility in coccidiosis infected broilers	M.Sc (Hons)
6	Mr. Muhammad Ishtiaq Khan	Prof. Dr. Naila Chand	Comparative effect of organic and inorganic zinc on overall performance, intestinal histomorphology and zinc excretion in broilers	M.Sc (Hons)
7	Mr. Fazli Subhan	Prof. Dr. Naila Chand	Green tea as an alternative to antibiotics growth promoters and its effect on overall performance, gut health, and Economics in broilers	M.Sc (Hons)
8	Ms. Bushra Sana	Prof. Dr. Naila Chand	Immunomodulatory and growth promoting effect of hemp seed in broilers	M.Sc (Hons)
9	Ms. Maria Imtiaz	Prof. Dr. Naila Chand	Effect of metabolic extract of <i>Moringaoleifera</i> on growth performance digestibility and immunity of quails	M.Sc (Hons)
10	Ms. Kashmala	Prof. Dr. Naila Chand	Comparative Effect of Organic Zinc probiotic and their combination on <i>Emeriatenella</i> Infection in Quails.	M.Sc (Hons)
11	Ms. Rabia Ishaq	Prof. Dr. Naila Chand	Effect of Methonolic extract of neem leaves on the performance of <i>EmeriaTenella</i> infected quails.	M.Sc (Hons)
12	Mr. Mashal Khan	Prof. Dr. Naila Chand	Effect of tea tree oil on coccidiosis in quails	M.Sc (Hons)
13	Mr. Muhammad Ishtiaq Khan	Prof. Dr. Naila Chand	Comparative effect of organic and inorganic zinc on overall performance, intestinal histomorphology and zinc excretion in broilers	M.Sc (Hons)

S. No.	Name of Student	Supervisor	Title of thesis	Degree
14	Mr. Fazli Subhan	Prof. Dr. Naila Chand	Green tea as an alternative to antibiotics growth promoters and its effect on overall performance, gut health, and Economics in broilers	M.Sc (Hons)
15	Mr. Zarak Khan	Prof. Dr. Sarzamin Khan	Effect of Meal worm-derived Chitosan on gut health and performance in Broilers	M.Sc (Hons)
16	Mr. Waqar Ahmad	Mr. Muhammad Mushtaq	In vitro and in vivo antimicrobial activities of lactobacillus with proteolytic enzymes	M.Sc (Hons)
17	Mr. Imran Stankzai	Prof. Dr. Sarzamin Khan	Evaluation of the effect of poppy seed supplementation on growth performance and gut morphology in Japanese quail (<i>CoturnixCotrunix Japonica</i>)	M.Sc (Hons)
18	Mr. Taimoor Zada	Prof. Dr. Sarzamin Khan	Effect of dried sprouted wheat grains on growth performance, immunity and liver function of broilers	M.Sc (Hons)
19	Mr. Ahmad Khan	Dr. Asad Sultan	Effect of different levels of ginger derived powder proteases on growth performance, humoral immune response, nutrients digestibility and energy utilization by birds at day 35	M.Sc (Hons)
20	Mr. FazliRaziq	Dr. Muhammad Mushtaq	Effect of methanolic extract of lavender seeds on overall performance and gut histomorphology in broilers	M.Sc (Hons)
21	Mr. Irfan Ullah	Dr. Rafiullah	Effect of supplementation of papaya (<i>Carica papaya</i>) seed on growth performance, carcass traits and histomorphology of Japanese Quails	M.Sc (Hons)
22	Mr. Muhammad Abdullah	Dr. Muhammad Mushtaq	Antioxidant and immunomodulatory effect of methanolic extract of coriander seed in broilers.	M.Sc (Hons)
23	Mr. Qamber Pirai	Dr. Abdul Hafeez	Effect of supplementation of pomegranate peel powder on growth performance, lesion scoring and histopathology on coccidian infected broilers	M.Sc (Hons)
24	Mr. Israr Ahmad	Dr. Abdul Hafeez	Effect of dietary inclusion of lemon peel powder on performance, cecal lesion scoring and histopathology in broilers challenged with coccidiosis.	M.Sc (Hons)
25	Mr. Sajid Nawaz	Prof. Sarzamin Khan	Effect of dried fig (<i>Ficuscarica</i>) fruit powder on growth performance and economics of broilers production	M.Sc (Hons)
26	Mr. Muhammad Israr	Dr. Rafiullah	Comparative chemical composition and energy value of commercial broiler feeds and its effect on growth performance carcass traits and economics of broilers	M.Sc (Hons)

S. No.	Name of Student	Supervisor	Title of thesis	Degree
27	Mr. UsamaSaleem	Dr. Abdul Hafeez	Effect of dietary inclusion of betaine on performance blood profile and apparent total nutrient digestibility in broiler challenged with coccidiosis	M.Sc (Hons)
28	Mr. Hamza	Mr. Imranullah	Supplementation of soybean oil as energy source at graded level at starter and finisher phase on performance digestive organ size and nutrients digestibility of broilers	M.Sc (Hons)
29	Mr. Baseerat Ali	Prof. Dr. Sar Zamin Khan	Feed added synergistic effect of probiotic and proteolytic enzyme on overall performance intestinal morphology and microbiota in broiler birds	M.Sc (Hons)
30	Mr. FaheemUllah Khan	Dr. Rafiullah	Effect of AzollaPinnata Meal Supplementation on growth performance, carcass traits and gut histomorphology in commercial broilers.	M.Sc (Hons)
31	Mr. Abdul Basit Arif	Mr. Imranullah	To assess the Effect of Raw Honey on the overall Performance, Egg Production and Different Egg Parameters of the Japanese Quails	M.Sc (Hons)
32	Mr. Saeed M. Khan	Prof. Dr. Sarzamin Khan	Hepatoprotective effect of fagonia (Indica) in Broilers with induced hepatotoxicity	M.Sc (Hons)
33	Mr. Muhammad Adnan Shams	Prof. Dr. Sarzamin Khan	In-vitro and In-vivo Antibacterial Effect of Hydroxamic Acid in Broilers	M.Sc (Hons)
34	Mr. AshiqUllah	Prof. Dr. Sarzamin Khan	Effect of liquorice (Glyrrhizaglabra) on growth performance and Gut Morphometry of Broilers	M.Sc (Hons)
35	Mr. Ibadullah Jan	Prof. Dr. Sarzamin Khan	Solid State Fermentation of Cereal by Product using wheat bran and its assessment in broiler ration.	M.Sc (Hons)
36	Mr. Zeeshanul Haq	Prof. Dr. Sarzamin Khan	Solid state fermentation of Cereal by product (RICE BRAN) and it assessment in broiler ration.	M.Sc (Hons)
37	Mr. Mohsin Khan	Prof. Dr. Sarzamin Khan	Effect of Graded Corn Replacement with Solid State fermented Corn on performance and Economics of Broiler Production.	M.Sc (Hons)
38	Mr. Adnan Shah	Prof. Dr. Sarzamin Khan	Effect of Cooked Hotel fish Waste supplementation on the performance and economics of broilers.	M.Sc (Hons)
39	Mr. Najmul Saqib	Dr. Asad Sultan	Effect of dietary graded levels of dried orange (Citrus sinenes) pulp on growth performance, liver function and nutrient utilization by broilers at day 35.	M.Sc (Hons)

S. No.	Name of Student	Supervisor	Title of thesis	Degree
40	Mr. Shah Faisal	Dr. Abdul Hafeez	Effect of supplementation of feed with grape seed extract (GSE) on performance, Nutrient Digestibility and Blood Profile at early production period in laying hens.	M.Sc (Hons)
41	Mr. Ibrahimullah	Dr. Rafiullah	Effect of supplementation of mealworm scales (<i>Tenbriomolitor.</i>) on growth performance, Carcass Traits and histomorphology of Japanese Quails.	M.Sc (Hons)
42	Mr. Shah Zeb	Prof. Dr. Sarzamin Khan	Effect of super warm oil supplementation on growth performance of broilers.	M.Sc (Hons)
43	Mr. Fawad Ahmad	Dr. Asad Sultan	Effect of methanolic extract of citrus peeling (<i>Citrus sinensis</i>) on production performance, humoral immunity, nutrients and energy utilization of meat type quails	M.Sc (Hons)
44	Mr. Syed Hamayoun	Dr. Asad Sultan	Assessment of graded level of dried citrus peelings (<i>Citrus sinensis</i>) on growth performance, immunity, nutrients retention, and energy utilization of quails	M.Sc (Hons)
45	Mr. Darwish Khan	Dr. Abdul Hafeez	Effect of supplementation of diet with AzollaPinnata meal on growth performance, carcass characteristics and intestinal, histomorphology in Japanese quails	M.Sc (Hons)
46	Mr. Nouman Khan	Mr. Imranullah	Effect of supplementation of sunflower oil on production performance and economics of broilers	M.Sc (Hons)
47	Mr. Atifur Rehman	Dr. Abdul Hafeez	Impact of dietary inclusion of zinc methionine (zn-met) on oxidative status of quails raised in open sided house	M.Sc (Hons)
48	Mr. Muhammad Bilal	Mr. Imranullah	Effect of canola oil as feed additive on growth performance, economics and histomorphology of commercial broilers	M.Sc (Hons)
49	Mr. Taimur Hayat	Prof. Dr. Sarzamin Khan	Effect of aqueous extract from ajwain (<i>Trachyspermumammi</i>) seeds on growth performance, gut health and economics of broilers	M.Sc (Hons)
50	Mr. Syed Nasir Ali	Dr. Asad Sultan	Effect of ginger derived liquid phyto protease at different level on production performance, gut pH and morphometry, nutrients, and energy utilization of meat type birds.	M.Sc (Hons)
51	Mr. Zeeshan Ahmad	Dr. Rafiullah	Comparative study of super worm and meal worm on growth performance, carcass trait, and histomorphology of Japanese quails	M.Sc (Hons)

S. No.	Name of Student	Supervisor	Title of thesis	Degree
52	Mr. Tariq Aziz	Dr. Asad Sultan	Impact of ginger derived liquid phyto protease (zingibain) on gut health, growth performance, economics and nutrient utilization by Japanese quails (<i>Coturnix japonica</i>) fed on the animal protein concentrate (APC) based diet.	M.Sc (Hons)
53	Mr. Muhammad Shahkar Uzair	Dr. Muhammad Mushtaq	Impact of serratiopeptidase on efficacy of neomycin against induce escherichia coli infection in broiler chicks	M.Sc (Hons)

RESEARCH PROJECTS BY THE FACULTY DURING 2022-23

S.NO	Title of Project	Principal Investigator	Funding Agency	Project Status	Amount
1	Promotion of wheat seed production by technology transfer to small landholders' farmers	Prof. Dr. Muhammad Arif	Endowment Fund Secretariat University of Agriculture, Faisalabad, Pakistan	Ongoing	5.196 million
2	Dual purpose cereals: management for forage and grain production for ensuring fodder availability in the shortfall period and food security for sustainable crop production in the central and northern regions of Khyber Pakhtunkhwa	Prof. Dr. Muhammad Arif	Higher Education Commission of Pakistan	Ongoing	5.05995 million
3	Introducing dry chain technology for enhancing living standard of cereal based farming community	Dr. Shazma Anwar	NRPU-HEC	Ongoing	10 million
4	Employing plant growth promoting bacteria in phytoremediation of foodborne pathogens and toxic metals from wastewater	Dr. Mehboob Alam	Higher Education Commission of Pakistan	Completed	3.816 million
5	The effect of brassinosteroid and chitosan on the morphological and biochemical changes in tomato under drought stress	Dr. Imran Ahmad	Higher Education Commission of Pakistan	Completed	1.783072
6	Production of certified flat plants	Prof. Dr. Gohar Ayub	Endowment fund AUP	Ongoing	1.25 million
7	Enhancement of tunnel farming technology using drip irrigation system for the production of offseason vegetable	Dr. Muhammad Sajid	Endowment fund AUP	Ongoing	1.09 million
8	Optimization of production technology and value addition in Tuberose	Dr. Masood Ahmad	NRPU	On going	5.2 million
9	Research and Integration Demonstration on Water-saving High-efficiency and Eco-friendly for Dryland Agriculture.	Dr. Ishaq Ahmad Mian	Pakistan Science Foundation	Ongoing	8.24

S.NO	Title of Project	Principal Investigator	Funding Agency	Project Status	Amount
10	Development of zinc oxide nanoparticles as a novel zinc nanofertilizer for sustainable agriculture and reducing zinc deficiency in Pakistan	Dr. Ishaq Ahmad Mian	Higher Education Commission of Pakistan	Ongoing	12.24
11	Enrichment of indigenous extracted and commercially available humic acid with micronutrients for increasing crop production.	Dr. Maria Mussarat	Higher Education Commission of Pakistan	Financial Status Pending	4.2
12	Assessment of Sedimentation in Small Dams constructed in Lachi region of Khyber Pakhtunkhwa	Prof. Dr. Zubair Khan	---	Submitted	5 million
13	The Farmers' Perception and Adaptation to Climate Change in the Khyber Pakhtunkhwa Province of Pakistan	Dr. Naveedullah	ALP-PARC	Submitted	5 million
14	Development of Prismatic type Solar Collector for drying of fruits and vegetables	Dr. Muhammad Ramzan	ALP-PARC	Ongoing	7.23
15	Evaluating nematocidal efficacy of syngenta based unregistered product "coded" against plant parasitic nematodes in Citrus	Dr. Ishrat Naz	Syngenta Pakistan	Ongoing	
16	Molecular characterization of root knot nematodes (Meloidogyne spp.) parasitizing tomato and cucumber in selected districts & their management through systemic coded product of syngenta	Dr. Ishrat Naz	Syngenta, Pakistan	Ongoing	
17	Detection, identification and association of damping off fungal pathogens with wheat and corn in selected fields of Punjab and Khyber Pakhtunkhwa provinces	Dr. Ishrat Naz	Syngenta Pakistan	Ongoing	

S.NO	Title of Project	Principal Investigator	Funding Agency	Project Status	Amount
18	Exploring the potential of wild plants in dry zones of Southern Punjab and KPK	Prof. Dr. Muhammad Azim Khan	Higher Education Commission of Pakistan	Ongoing	4.9 Million
19	Management studies of noxious weed (Asphodelus tenuifolius- Wild onion) in chickpea growing areas of District Karak, Khyber Pakhtunkhwa, Pakistan	Dr. Imtiaz Khan	PSF, Islamabad	Ongoing	3.1 Million
20	Management of Parthenium hysterophorus by plant competition and insect herbivory in Khyber Pakhtunkhwa	Dr. Naeem Khan	Higher Education Commission of Pakistan	Ongoing	3.3 Million
21	Optimizing the nutritive value of maize silage in relation to dairy cow performance and milk quality	Prof. Dr. Nazir Ahmad Khan	PARC (ALP)	Completed	3.49
22	Optimizing the utilization of maize silage in smallholders and commercialization dairy and fattening rations in relation to feed-use efficiency, animal performance and farm profitability	Prof. Dr. Nazir Ahmad Khan	USAID-AIP	Completed	3.311
23	Exploiting the genetic diversity of traditional and novel cultivars/germplasm of wheat to optimize the nutritional value of wheat forage and wheat straws for ruminant livestock in Pakistan	Prof. Dr. Nazir Ahmad Khan	ILRI- Islamabad	Completed	1.1523
	Development of Local Toxin Binder for Prevention and Control of Mycotoxicosis in Poultry	Dr. Muhammad Mobashar	Pakistan Science Foundation	On-going	1,786,836

S.NO	Title of Project	Principal Investigator	Funding Agency	Project Status	Amount
24	Establishment of Efficient Molecular Techniques for the Meat Samples Speciation		Pakistan Science Foundation	Ongoing	2.19
25	Balkhi sheep mutton production and quality potential through testes mediated gene transfer (TMGT) transgenesis		Higher Education Commission of Pakistan	Ongoing	6.41
26	Optimization of environmental and nutritional standards of mass production of mealworm meal under the tropical environment of Pakistan.	Prof. Sarzamin Khan	Pakistan Science Foundation	Ongoing	6.8
27	Production of local variants-based ND and IB vaccines for commercial poultry	Prof. Sarzamin Khan	Pakistan Science Foundation	Approved	8.00
28	<i>Optimizing the inclusion rate of canola meal and guar meal in feed of broilers and layers</i>	Dr. Abdul Hafeez	Higher Education Commission of Pakistan	Approved	5.229
29	Development of Key rice bran treatment technology as a food ingredient in Pakistan” under International Science & Technology Cooperation program, P.R. China	Prof. Dr. Zafar Iqbal	China	Completed	10.5
30	Development of simple photo bioreactor for quality algal biomass and oil production	Dr. Saleem Ullah	Pakistan Science Foundation	Completed	4.3
31	Phytochemical and Anti-diabetic potential of Medicinal plants of NWFP-Pakistan	Dr. Anwar Ali Shad	Higher Education Commission of Pakistan	Completed	3.2

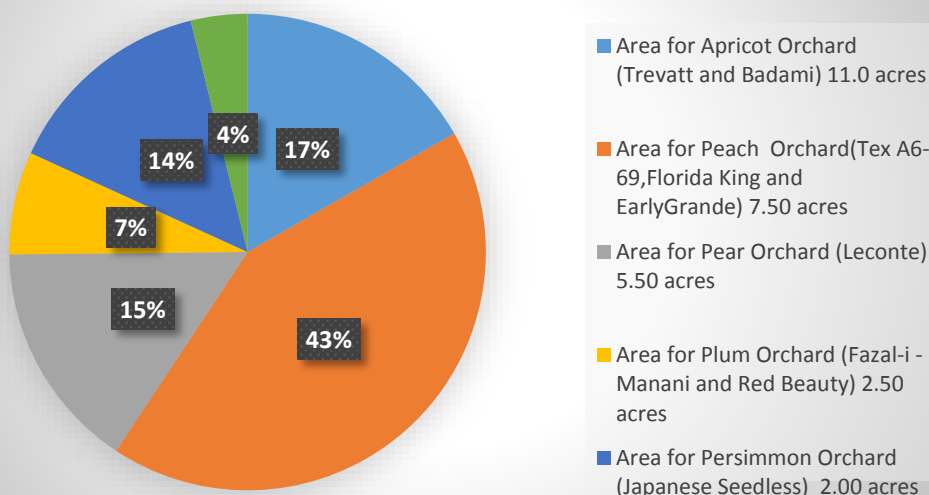
S.NO	Title of Project	Principal Investigator	Funding Agency	Project Status	Amount
32	Fabrication of nano-cellulosic-stabilized Pickering emulsions loaded with citrus peel limonene: An organic and health-friendly food preservative alternative to hazardous chemicals	Dr. Ikram Ullah	Higher Education Commission of Pakistan	Ongoing	2.814
33	Achieving SDG 6: Inclusive Governance of Urban Water and Sanitation.	Prof. Dr. Inayatullah Jan	Higher Education Commission of Pakistan	Ongoing	2.4
34	Modeling the effect of socioeconomic climate condition and topography on Malaria and Dengue	Prof. Dr. Zafar Mahmood	Higher Education Commission of Pakistan	Ongoing	2.8

Horticultural Research Farm Activities

Land Distribution

Area under roads, water channels and offices	2.00 acres
Area under fruit nursery	2.00 acres
Area for student research	2.000 acre
Area for vegetable cultivation (student demonstration block)	1.00 acres
Progeny garden	1.00 acres

Fruit Production and Area



Fruit Orchard with varieties Area (Acre)		Production (tonnes)
Area for Apricot Orchard (Trevatt and Badami)	11.0 acres	14.61
Area for Peach Orchard (Tex A6-69, Florida King and EarlyGrande)	7.50 acres	37.23
Area for Pear Orchard (Leconte)	5.50 acres	13.59
Area for Plum Orchard (Fazal-i-Manani and Red Beauty)	2.50 acres	6.10
Area for Persimmon Orchard (Japanese Seedless)	2.00 acres	12.54
Area for Loquat Orchard (Local)	1.50 acres	3.36
Total Area	38.00 acres	

Saleable Nursery Plants details

Fruit nursery	Saleable plants	Small plants
Apricot (Travett)	270	540
Apricot (Badami)	250	90
Florida-king peach	750	1250
Early grand peach	150	710
Peach (Tex A6-69)	70	90
Nectarine	220	60
Plum (Fazal-i-Manani)	300	720
Plum (Red Beauty)	40	21

Fig	20	10
Pomegranate	200	100
Pear	20	40
Grape fruit (Reed)	50	20
Citrus (Sherkhana- I)	120	30
Grape fruit (Ruby Red)	100	43
Pomelo	180	53
Seedless lemon	100	49
Sweet lime	50	20
Citrus (Blood Red)	37	30
Total	2,927	3,876
Wild peaches	2,100	-
Pear suckers	120	-
Sour orange	3,300	14,000

Income statement of Horticulture Research Farm from July 2022 to June 2023

S. No	Items	Net amount	Tax	Total amount
1	Auction of fruit orchard	2,833,350/-	566,670/-	3,400,020/-
2	Different fruit nursery plants	137,660/-	-	137,660/-
3	Sale of fodder crops	441,000/-	88,200/-	529,200/-
4	Auction of dried and fallen fruit trees and branches	79,170/-	15,834/-	95,004/-
Grand Total				4,161,884/-

Expenditure year 2022-23

S. No	Dated	Purchase/ Repair	Amount
1	18/10/2022	Pesticides	33,100/-
2	18/11/2022	Peach stone	47,000/-
3	13/11/2022	Tractor front suspension and steering box repair	20,300/-
4	25/02/2023	White wash	32,100/-
Total			132,500/-
1	06/09/2022	Diesel oil 200 liters	49,640/-
2	01/11/2022	Diesel oil 350 liters	82,600/-
3	01/11/2022	Engine oil 8 liters	6,758/-
4	29/04/2023	Diesel oil 200 liters	58,760/-
Total			197,758/-
GRAND TOTAL			330,258/-

List of Horticulture Research Farm Students year 2022-23

S. No	Name of student	Supervisor name	Research title	Degree
1	Mr. Asad	Dr. Syed Tanvir Shah	Effect of Sulphur and salicylic acid in the growth and yield of potato	M.Sc. (Hons)
2	Mr. Ayaz Khan	Dr. Mehboob Alam	Effect of boron on growth and seed yield of pea cultivars	M.Sc. (Hons)
3	Mr. Zubair Khan	Dr. Syed Tanvir Shah	Effect of biochar levels on the growth and yield of radish cultivars	M.Sc. (Hons)
4	Mr. Niamat Ullah	Dr. Faiza Aman	Effect of foliar application of plant extract on the growth and yield and quality ice-berg lettuce	M.Sc. (Hons)
5	Mr. Zubair Ahmad	Dr. Neelam Ara	Genetic variability and heritability estimation for yield and yield related traits in garden pea	M.Sc. (Hons)
6	Mr. Numan Ali	Prof. Dr. Gohar Ayub	Effect of potassium levels with and without potassium solubilizing bacteria on growth and yield of carrot	M.Sc. (Hons)
7	Mr. Naseeb Ullah	Dr. Mehboob Alam	Effect of vermicompost on growth and yield of pea cultivars	M.Sc. (Hons)
8	Miss. Khkola Khan	Dr. Gohar Ayub	Effect of phosphorus levels and phosphorus solubilizing bacteria on growth and yield of radish	M.Sc. (Hons)
9	Mr. Farman Ali	Dr. Neelam Ara	Effect of turmeric extract and acetyl salicylic acid on growth and yield of cauliflower	M.Sc. (Hons)
10	Miss. Asma	Dr. Gohar Ayub	Effect of boron on growth and yield of coriander cultivars	M.Sc. (Hons)
11	Mr. Abdul Qudoos Khan	Dr. Saeed-Ul-Haq	Effect of phosphorus and boron on growth and yield of black seed	M.Sc. (Hons)
12	Mr. Haneef Ullah	Dr. Saeed-Ul-Haq	Effect of potash levels and time of application on growth and yield of cumin	M.Sc. (Hons)
13	Mr. Farid Ullah Mamozai	Dr. Neelam Ara	Effect of maize grain extract and yeast solution on growth and yield of radish	M.Sc. (Hons)
14	Mr. Salman Zafar	Mr. Khawaja Junaid	Efficiency of different synthetic insecticides against thripstabi on garlic	M.Sc. (Hons)
15	Mr. Muhammad Zubair	Dr. Muhammad Salim	Efficiency of different synthetic insecticides and botanical extract against <i>Diamon black moth</i> on cauliflower	M.Sc. (Hons)
16	Mr. Raheem Ullah	Dr. Neelam Ara	Effect of seed priming with moringa and maize grains extract on the growth and yield of okra	M.Sc. (Hons)
17	Mr. Farman Ullah	Dr. Neelam Ara	Influence of different concentration of bio-char and foliar application of neem leaf extract on growth and yield of brinjal	M.Sc. (Hons)
18	Mr. Sher Pacha	Dr. Neelam Ara	Effect of foliar application of seaweed extract and boron on growth and yield of okra	M.Sc. (Hons)
19	Miss. Khadija-Tul-Kubra	Dr. Faiza Aman	Influence of willow extract and dipping durations on the rooting of tomato cuttings	M.Sc. (Hons)
20	Miss. Aiman Nawaz	Dr. Neelam Ara	Effect of seed priming on bitter gourd with different plants extract at different priming duration	M.Sc. (Hons)
21	Abdul Basit	Dr. Farzana Fatima	Effect of Boron on the yield and post- harvest quality of Pear fruit	M.Sc. (Hons)
22	Abdul Ahmad	Dr. Farzana Fatima	Effect of gibberellic acid (GA ₃) on the preandpost-harvestperformance of Persimmon (Cv. Japanese Seedless) Fruits	M.Sc. (Hons)

Research Glimpses at Different Experimental Site/ Station



Students Research "Effect of Boron on Growth and Seed Yield of Pea Cultivars" Supervised by Dr. Mehboob Alam, Department of Horticulture.

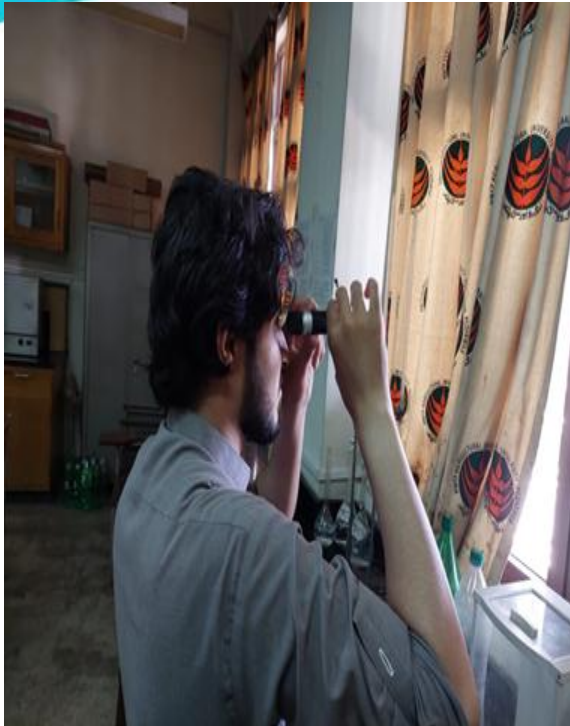


**Student Research “Effect of Vermicompost on Growth and Yield of Pea Cultivars”
Supervised by Dr. Mehboob Alam, Department of Horticulture.**



Student Research “Effect of Foliar Application of Plant Extract on the Growth and Yield and Quality Ice-Berg Lettuce” Supervised by Dr. Faiza Aman, Department of Horticulture.





**Student Research “Effect of Boron on the Yield and post- harvest Quality of Pear Fruit”
Supervised by Dr. Farzana Fatima, Department of Horticulture.**



Student Research “Effect of gibberellic acid (ga3) on the pre and Post harvest performance of persimmon (cv. Japanese seedless) fruits” Department of Horticulture.

**Ornamental Horticulture Nursery
Department of Horticulture**

Area of Ornamental Nursery

Area under offices, plant propagation, two green houses and water channels	1.00 acres
Area for student research	1.00 acres
Area under grounds and gardens nursery (ornamental plants and other seasonal flower are propagated for University beautification)	1.00 acres
Total area	3.00 acres

Detail Income by Ornamental Horticulture Nursery during 2022-23

S. #	Particulars	Bank account number	Slip Number	Date	Amount
1	Sale of Ornamental Plants	7450-7	0008180	10/8/2022	11,870/-
2	Sale of Ornamental Plants	7450-7	0008181	16/9/2022	10,790/-
3	Sale of Ornamental Plants	7450-7	0008182	2/11/2022	4,740/-
4	Sale of Ornamental Plants	7450-7	0008183	28/2/2023	10,020/-
5	Sale of Ornamental Plants	7450-7	0008184	8/3/2023	5,150/-
6	Sale of Ornamental Plants	7450-7	0008187	17/3/2023	3,960/-
7	Sale of Ornamental Plants	7450-7	020720	17/5/2023	5,050/-
Total					51,580/-
Book Adjustment					
S. #	Particulars	Book Adjustment		Date	Amount
1	Ornamental Plants	Book Adjustment		7/4/2023	15,050/-
2	Ornamental Plants	Book Adjustment		7/4/2023	2,000/-
3	Ornamental Plants	Book Adjustment		15/6/2023	3,000/-
4	Ornamental Plants	Book Adjustment		15/6/2023	3,000/-
Total					23,050/-
Grand Total					74,630/-

Expenditure during 2022-23

S. No.	Dated	Purchase/ Repair	Amounts
1	21/9/2022	Repair of tractor radiator	800/-
2	24/11/2022	Clutch and water body repair	7,750/-
Total			8,550/-

Available Plants in Nursery:

S.No.	Name of plants	Quantity
1	Fan palm	500
2	Euphorbia	100
3	Goldenduranta	3000
4	Syngonium	100
5	Dracaena	200
6	Jasmine	100
7	Hypericum	50
8	Ninthra	50
9	Gardenia	50
10	Gap tree	100
11	Roses	1000
12	Hibiscus	100
13	Jaman	100
14	Creeper	50
15	Spider plants	50
16	Gul chin	50
17	Jatropha	100
18	Moringa	200
19	Schefflera	200
20	Euphorbia single	100
21	Murraya	300
22	Rat ki rani	100
23	Euonymus	200
24	Iresine	100
25	Money plants	100
26	<i>Ficus Benjamina</i>	500

List of Research Students 2022-2023

S No	Name of Students	Supervisor	Research Title	Degree
1	Sumbal Ayaz	Dr. Masood Ahmad	Influence of zinc and iron nanoparticles on the qualitative and quantitative attributes of gladiolus on calcareous soil	Ph.D.
2	Hamza Ali	Dr. Masood Ahmad	Influence of willow bark extract and application times on the production of roselle.	M.Sc. (Hons)
3	Hassam Mujahid	Dr. Masood Ahmad	Influence of zinc nano particles and their time of application on the flowering production of narcissus.	M.Sc. (Hons)
4	Atiq ur Rehman	Dr. Masood Ahmad	Influence of combine application of zinc and iron nano particles and their time of application on the production of tuberose.	M.Sc. (Hons)
5	Hammad Khan	Mr. Fazli Wahid	Effect of paclobutrazol on growth and fruit production of ornamental pepper	M.Sc. (Hons)
6	Sheraz Ahmad	Dr. Masood Ahmad	Effect of various levels and sources of sulfur on flower production and oil content of tuberose	M.Sc. (Hons)
7	Muhammad Abbas	Dr. Masood Ahmad	The effect of pinching and salicylic acid on flower and seed production of larkspur (<i>Delphinium ajacis</i> L.)	B.Sc. (Hons)
8	Abdullah	Prof. Dr. Abdul Mateen	Effect of salicylic acid on the growth and production of lettuce cultivars (red laurel, red oak, large speed, milky white)	B.Sc. (Hons)

Research Glimpses at Different Experimental Site/ Station

Student Research “Influence of Zinc and Iron Nanoparticles on the Qualitative and Quantitative Attributes of Gladiolus on Calcareous Soil” Supervised by Dr. Masood Ahmad, Department of Horticulture.



Student Research “Influence of Combine Application of Zinc and Iron Nano Particles and their time of Application on the Production of Tuberose” Supervised by Dr. Masood Ahmad, Department of Horticulture.



Student Research “Effect of Various Levels and Sources of Sulfur on Flower Production and Oil Content of Tuberose” Supervised by Dr. Masood Ahmad, Department of Horticulture.



Student Research “Influence of Willow Bark Extract and application times on the Production of Roselle” Supervised by: Dr. Masood Ahmad, Department of Horticulture.



Student Research “Influence of Zinc Nano Particles and their time of Application on the Flowering Production of Narcissus”, Supervised by: Dr. Masood Ahmad, Department of Horticulture.

Publication by Faculty/Researchers

Books/Chapter Published:

Department	Name of the Book	Author	Book ISBN	Publisher
Horticulture	Citrus-Health benefit and Production technology	Prof. Dr. Muhammad Sajid Prof Dr. Aman Ullah	Print ISBN 978-1-78985-427-5 Online ISBN 978-1-78985-428-2	INTECHOPEN LIMITED, England and Wales, The Shard, 25 th floor, 32 London Bridge Street
	<i>Achieving sustainable greenhouse cultivation</i>	Beatrix W Alsanius, Sammar Khalil, A. Tadesse, Anna-Karin Rosberg, K. J. Bergstrand, Rahel Hartmann, Lars M Mogren, Mehboob Alam , M. Grudén, T. Naznin and A. Getahun.	9781786762801	Taylor and Francis
	Sustainable Plant Nutrition in a Changing World	Javed Nawab, Junaid Ghani, Sardar Khan, Muhammad Amjad Khan, Abid Ali, Ziaur Rahman, Mehboob Alam , Abd El-Latif Hesham and Ming Lei.	9780443186752	Springer
	Book chapter: Mobile Apps for Human Nutrition: A Review In Book title: Mobile Devices and Smart Gadgets in Medical Sciences	Book chapter authors: Ahmad, M., M. A. Khan, M. Bibi, Z. Ullah and S. T. Shah. Book Author: S. Umair	9781799825210 (hardcover) 9781799825227 (ebook)	Springer
	Book chapter title: Microorganism: A potent biological tool to combat insects and herbivores Book title: <i>Plant growth promoting microorganisms for sustainable biotic and abiotic stress management</i> ”.	Book chapter authors: Shah, S. T., A. Basit, M. Sajid and H. I. Mohamed. Book authors: Heba I. Mohamed Hossam El-Din Saad El-Beltagi Kamel A. Abd-Elsalam	ISBN 978-3-030-66586-9 (hardcover) ISBN 978-3-030-66587-6 (eBook)	Springer
	Book chapter title: Cyanobacteria and algae as biocontrol agents against fungal and bacterial plant pathogens Book title: <i>Plant growth promoting microorganisms for sustainable biotic and abiotic stress management</i> ”.	Book chapter authors: Shah, S. T., A. Basit, I. Ullah and H. I. Mohamed Book authors: Heba I. Mohamed Hossam El-Din Saad El-Beltagi Kamel A. Abd-Elsalam	ISBN 978-3-030-66586-9 (hardcover) ISBN 978-3-030-66587-6 (eBook)	Springer
	Book chapter title: Plant growth promoting Rhizobacteria (PGPR) as biocontrol agents against viral protection. Book title: <i>Plant growth promoting microorganisms for sustainable biotic and</i>	Book chapter authors: Basit, A., S. T. Shah, S. T. Muntha, H. I. Mohamed. Book authors: Heba I. Mohamed Hossam El-Din Saad El-Beltagi Kamel A. Abd-Elsalam	ISBN 978-3-030-66586-9 (hardcover) ISBN 978-3-030-66587-6 (eBook)	Springer

	<i>abiotic stress management</i> ".			
	Book chapter title: Microbial Bioactive Compounds produced by Endophytes (Bacteria and Fungi) and their Uses in Plant Health	Book chapter authors: Basit, A., S.T. Shah and I. Ullah, I. Ullah and H.I. Mohamed	ISBN 978-3-030-66586-9 (hardcover)	Springer
	Book title: Plant growth promoting microorganisms for sustainable biotic and abiotic stress management".	Book authors: Heba I. Mohamed Hossam El-Din Saad El-Beltagi Kamel A. Abd-Elsalam	ISBN 978-3-030-66587-6 (eBook)	
Agronomy	Plant growth regulators for climate smart agriculture.	Inamullah	ISBN 9780367623456	CRC Press, Taylor & Francis Group,
	Salt and Drought Stress Tolerance in Plants: Signaling Networks and Adaptive Mechanisms	Inamullah	ISBN 978-3-030-40276-1	Springer Nature Switzerland
	Tillage and crop production	Ahmad Khan	978-981-32-9151-5	Springer
	Chapters – 3	Shazma Anwar		
	Chapter – 17	Amanullah		FAO/Intech/CRC/Wesser
Soil and Environmental Sciences	Advances in rice research for abiotic stress tolerance (2019)	S. Fahad, M. A. Khan, I UR Rehman, Ishaq A. Mian		Woodhead Publishing
	Advances in rice research for abiotic stress tolerance (2019)	S. Fahad, M. Adnan, M. Noor, Ishaq A. Mian...		Woodhead Publishing
	Advances in rice research for abiotic stress tolerance (2019)	MA. Rahman, IA. Khan, Ullah, Ishaq A. Mian...		Woodhead Publishing
	Environment, Climate, Plant and Vegetation Growth	F. Wahid, M. Sharif, A. Ali, S. Fahad, M. Adnan, Ishaq A. Mian...		Springer
	Environment, Climate, Plant and Vegetation Growth	M. Arif, T. Jan, M. Riaz, S. Fahad, M. adnan and Ishaq A. Mian...		Springer
	Measuring Emission of Agricultural Greenhouse Gases	M Zaman, K Kleineidam, L Bakken, J Berendt, C Bracken, K. Dawar		
Plant Protection	Agronomic Crop (Chapter)	Dr. Muhammad Salim	978-981-15-0025-1	Springer, Singapore
Weed Science	Introduction and Application of Organic Fertilizers: Possibly Shield the Environment	F. Wahid, Muhammad Azim Khan	--	Cambridge Scholars Publishers, UK.
	Cotton production and uses: Agronomy, crop protection and postharvest technologies.	M. Tariq, Muhammad Azim Khan	978-981-15-1471-5	Springer Nature, Singapore
	Introduction and Application of Organic Fertilizers as Protectors of Our Environment. Role of Arbuscular Mycorrhizal Fungi and Biochar in Remediation of Heavy Metals.	F. Wahid, Muhammad Azim Khan	1-5275-8098-9	Cambridge Scholars Publishing

Maths, Stat & Computer Science	Resampling Techniques in Regression Analysis for Model Simplification: Model Selection Strategies LAP LAMBERT	Dr Zafar Mahmood	978-3-659-14290-1	Academic Publishing
Rural Sociology	Knocking at Alternate Doors: Survey of Android-Based Smartphone Applications for Alternate Medicines." <i>Mobile Devices and Smart Gadgets in Medical Sciences</i>	Khan, Rafiullah, Shafi Bushra		IGI Global, 2020 22-38
ICS/IT	Mobile devices and smart gadgets in human rights	Book chapter by various faculty	9781522569398	IGI
IDS	Water profile of KP	Zulfiqar		
	Agro ecological zones of kp	Zulfiqar		
IBGE	Understanding Plant Responses to Drought and Salt Stresses: Advances and Challenges in "Omics" Approaches. In: Transgenic Crops - Emerging Trends and Future Perspectives By Muhammad Sarwar Khan and Kauser Abdulla Malik	Mohammad Sayyar Khan Kazi and Mudassar Nawaz Khan (October 23rd 2019).	DOI: 10.5772/intechopen.81041.	IntechOpen
	Plant Response Mechanisms to Abiotic Stresses	Shahzad Ali, Nadir Zaman, Waqar Ali, Majid Khan , Muhammad Aasim, Asmat Ali and Muhammad Usman	978-1-83969-771-5	IntechOpen-
	Glutathione Is a Key Component in Abiotic Stress Responses. In Improving Abiotic Stress Tolerance in Plants (pp. 49-68). CRC Press. (2020).	Bangash, S. A. K., & K. Bela		CRC Press
	Plant glutathione peroxidases: Structural and functional characterization, their roles in plant development. Glutathione in plant growth, development and stress tolerance. 99-111.	Bela, K., S.A.K. Bangash and J. Csiszar		Springer,
	Plant glutathione peroxidases: Antioxidant enzymes in plant stress responses and tolerance. Glutathione in plant growth, development and stress tolerance. 113-126.	Bela, K., S.A.K. Bangash, Riyazuddin and J. Csiszar. (2017).		Springer,

Conferences and Seminars

Conferences, Seminars, Workshops & Training Organized by Faculty & Staff During 2022-23:

S. No.	Title of the Training/ Workshop	Target Group	Number of Participants	Funding Agency
1	Organized one day International seminar on “Demography, Human Development and Economic Profiles of Kabul, Kurram, and Gomal Rivers Basins” on 14th March 2023 at UAP with the financial and technical support of IWMI and USAID.	Faculty and MS/PhD students of the University of Agriculture, Peshawar	30	International Water Management Institute (IWMI) and USAID.
2	Two days national seminar on “Prospects and economic benefits of garlic variety NARC HG1: Awareness-Training-Business Opportunity”. 7-8 January, 2023.	Farmers and businessmen throughout Pakistan	100	Sarhad Chambers of Commerce
3	Organized one day seminar on “Mechanical Rice Transplanting and Practical demonstration of Kubota Rice Transplanter” on 27-7-2022	Faculty and students of the University of Agriculture, Peshawar	200	Financial support of MESKAY & FEMTEE Trading Co. (pvt) Ltd Faisalabad.
4	Organized one days training workshop on “Climate Smart Agriculture practices for farmers of District Khyber Tehsil Bara and LandiKotal” on 15 June, 2023.	Farmers of District Khyber (Tehsil Bara and LandiKotal)	30	Islamic Relief Pakistan
5	Organized two days training and field visits on “Climate Smart Agriculture practices for Farmers of newly merged District Khyber” on 16 and 17 March, 2023.	Farmers of District Khyber	40	Islamic Relief Pakistan
6	E-Poster presentation on: Profitability of Pure vs. Integrated Application of Organic and Inorganic Nitrogen Fertilizers under Rice-Wheat System in Global Symposium on Soils for Nutrition held at the UN FAO Headquarters on 26-29 July, 2022 (FAO)	Global online each country	1000 plus	FAO
7	Soil Management in Post Flood Scenario, 2022	Researchers, students, farmers	200	SSSP, UAP
8	World Water Day 22 March 2023 (Dr. M. Zubair Khan)	Water Professionals, OFWM Staff and Students of UAP	60	World Bank/OFWM
9	Organized Two Days Seminar on “Agricultural Water Management in “Built and Road” Countries” in Collaboration with China, CRSRI, UNESCO, Global Water Partnership (Dr. Naveedullah)	Students	25	-

S. No.	Title of the Training/ Workshop	Target Group	Number of Participants	Funding Agency
10	Irrigation Agronomy (Oct. 19-21, 2022) (Prof. Dr. Tahir Sarwar/Prof. Dr. M. Zubair Khan)	Officers of On-Farm Water Management Dept. and Agricultural Extension Dept, KP	30	World Bank assisted Khyber Pakhtunkhwa Irrigation Improvement Project (KP-IAIP)
11	World Water Day (Dr. Naveedullah)	Students, Policy Makers	50	OFWM
12	Design, Installation and Operation of Drip Irrigation System (Dec. 08-10, 2022)	District Directors / District Officers of On-Farm Water Management Department	30	World Bank assisted Khyber Pakhtunkhwa Irrigation Improvement Project (KP-IAIP)
13	Irrigation Agronomy (Jan. 25-27, 2023)	Officers of On-Farm Water Management Dept., Agricultural Extension Dept, and Soil & Water Conservation Dept., KP	30	World Bank assisted Khyber Pakhtunkhwa Irrigation Improvement Project (KP-IAIP)
14	Design, Installation and Operation of Sprinkler Irrigation System (March 1-3, 2023)	District Directors / District Officers of On-Farm Water Management Department	30	World Bank assisted Khyber Pakhtunkhwa Irrigation Improvement Project (KP-IAIP)
15	Refresher training workshop on Drip and Sprinkler Irrigation Systems (June 13-14, 2023)	District Directors / District Officers of On-Farm Water Management Department	30	World Bank assisted Khyber Pakhtunkhwa Irrigation Improvement Project (KP-IAIP)
16	Controlling threats to the Livestock February 06, 2023	Livestock Farmers	30	TDC,UAP
17	Antimicrobial Resistance (AMR), Antimicrobial Use (AMU), Transboundary Animal Diseases (TADs) and Herd Health Management September 29, 2022	Undergrad and Postgrad students	40	HSP, Islamabad
18	Ultrasonography in Bovines September 13-15, 2022	Veterinarians, Undergrad and Postgrad students	40	CVS, UAP

S. No.	Title of the Training/ Workshop	Target Group	Number of Participants	Funding Agency
19	Molecular Diagnostics and Bioinformatics for the Infectious Diseases February 26, 2022	Health Professionals, Veterinarians, Undergrad and Postgrad students	40	CVS, UAP
20	Three days hand-on training workshop on meal/super-worm production as poultry areas of Khyber Pakhtunkhwa	Rural women	50	HEC, Pakistan
21	Artificial insemination Training	Matric needy students	25	NAVATTC , Islamabad
22	Poultry Housing and management	Matric needy students across the province	23	NAVATTC , Islamabad
23	Artificial insemination Training	Matric needy students	505	NAVATTC , Islamabad
24	Modern Dairy Farming Practices for Small Scale Farmers	Farmers	50	USAID-ERDA
25	Nutrition In Emergency	MS students	40	UNICEF/KMU
26	Nutrition Advocacy Awareness Seminar	University student and faculty	200	UNICEF/KMU
27	On farm workshop for Orchard owners/farming communities of District Nowshera Mankey Sharif	Farming Community	15	Syngenta, Pakistan
28	Field day and on farm workshops on “Management of Root knot nematodes” in Charsadda and Harichand	Farming Community	25	Syngenta, Pakistan
29	17 th National Weed Science Conference held at the University of the Punjab, Lahore (June 27-28, 2022)	Students, Faculty and Researchers	100	HEC and Weed Science Society of Pakistan
30	Two days training on “Awareness and control of wild oat (<i>Asphodelus tenuifolius</i>) in chickpea at District Karak” held on Jan 26-27, 2023 at Department of Weed Science and Botany, UAP.	Farmers, Faculty and Researchers	50	Pakistan Science Foundation, Islamabad
31	1st International Conference on Computing Technologies, Tools and Application (ICTAPP-23) 09 th – 11 th May, 2023	Researchers from Academia and Industry	More than 300	Directorate of Youth Affairs Govt. KPK and Pakistan Science Foundation (PSF)

S. No.	Title of the Training/ Workshop	Target Group	Number of Participants	Funding Agency
32	Cyber Security for IoT Devices May 09 th , 2023	Students of BS Computer Science and BS Information Technology	70	
33	Emerging Cyber Security Threats: Practical Exploitation and Best Practices for Protection May 10 th , 2023	Students of BS Computer Science and BS Information Technology	70	
44	Virtual Desktop Infrastructure and Server Virtualization May 11 th , 2023	Students of BS Computer Science and BS Information Technology	70	
45	Hydrological Modelling using SWAT model	Water Professionals and students of WRM	40	IWMI/USAID

Participation in International/ National Training Course/ Seminar/ Conference/ Workshop/ Symposia/ Exhibitions (Physically/ Online) during 2022-23

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)
1	Hands on Training on Application of GPS and GNSS technologies in precision Agriculture July 2022	Dr. Muhammad Hanif	Flat plate solar collector for Solar drying	PMSARID University Rawalpindi
2	Management of major fruits and vegetables in value chain for the merged areas of KP Pakistan July, 2022	Dr. Muhammad Hanif	Role of solar dryers in agriculture	UAP
3	Attended National Seminar on Prospects and economic benefits of garlic variety NARC HG-I: Awareness – Training – Business opportunity January 07-08, 2023	Dr. Shahan Shah	-	The University of Agriculture, Peshawar
4	Attended National Seminar on Mechanical rice transplanting and practical demonstration of Kubota Rice Trans-planter July 27, 2023	All faculty of Agronomy Department	-	Meskey Femtee Trading Company

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)
5	Integrated Nutrients Management is Key for Sustaining Crop Productivity & Soil Health September 19-23, 2022	Dr. Amanullah	Invited Speaker (online)	Remtech Europe Ferrara (ITALY)
6	Wise Management of Indigenous Organic Resources: an efficient move towards sustainable crop production & soil health January 4-5th, 2023	Dr. Amanullah	Invited Speaker (online)	Nanning, China
7	Gender mainstreaming in water management under USAID-funded water management for enhanced productivity. June 20 -222023	Dr. Shazma Anwar	USAID	Karachi
8	Mechanical transplanting and practical demonstration of Kubota Rice transplanter. July27, 2022	Dr. Shazma Anwar	UAP	Peshawar
9	Attended one day seminar on “Accelerating change to solve the water and sanitation crisis” on World Water Day March 22, 2023	Prof. Dr. Inamullah Khan	Crop Zonation for Saving Irrigation Water	The OFWM Department and the Deptt. of Water Resources Management, UAP
10	4th International Conference on “Food Security and Sustainable Agriculture in Tropics (IC-FSSAT)” hosted by the Faculty of Agriculture, Hasanuddin University Indonesia February 15-16, 2023.	Prof. Dr. Inamullah Khan	Delivered lecture on “Smallholder-scale smart agriculture: A solution towards global efforts to reduce environmental footprint and to create resilient food security”	The Faculty of Agriculture, Hasanuddin University Indonesia.
11	Vegetable breeding, seed production, Marketing, registration and certification June 5-12, 2022	Prof. Dr. Inamullah Khan	Delivered lecture on “Climate Smart Agriculture – Technology and practices for vegetable production”	Organized by FAO at VIP Guest House University Town Peshawar
12	Olive good agronomic practices focusing on pruning	Dr. Masood Ahmad	PSDB olive projects	ARI, Tarnab, Peshawar
13	Publishing with IEEE open excess journal	Dr. Masood Ahmad	IEEE, U.S	Online
14	WORLD SOIL DAY 2022	Dr. Gohar Ayub Dr. Muhammad Sajid Dr. Mehboob Alam Dr. Masood Ahmad	Directorate General Soil & Water Conservation, Khyber Pakhtunkhwa	Department of Soil & Environmental Science , the University of Agriculture Peshawar, Pakistan

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)
15	Development of national action plan for forest & landscape restoration in Pakistan	Dr. Masood Ahmad	PFI, Peshawar	Pakistan Forest Institute, Peshawar and Work Band.
16	ASTM COMPASS Database	Dr. Masood Ahmad	ASTM International and HEC.	HEC, Islamabad
17	From research to Publication: An overview on IEEE Publication Process”, (Online Training)	Dr. Masood Ahmad	(IEEE) New York, United States of America.	Institute of Electrical and Electronic Engineering (IEEE) New York, USA
18	Food Safety and Nutrition Expo 2022	Dr. Imran Ahmad	UAP/PCSIR/Nutrition Department	PCSIR Laboratory, Peshawar
	British Council-Higher Education Commission PI Capacity Building Program, Sep, 2022	Dr. Ishaq Ahmad Mian	Higher Education Commission	Islamabad, Pakistan
19	British Council-Higer Education Commission “ Research Grant Proposal Training, Feb, 2023	Dr. Ishaq Ahmad Mian	Higher Education Commission	Islamabad, Pakistan
20	2nd Pakistan Water Week 2022: The Role of Water-Energy-Food Ecosystem (WEFE) Nexus for a Climate Resilient Pakistan October 22-24, 2022	Prof. Dr. M. Zubair Khan	--	Islamabad
21	Multistakeholder Consultation on Transformative Futures for Water Security (TFWS) Initiative, January 03, 2023	Prof. Dr. M. Zubair Khan	--	Islamabad
22	Water and Climate Seminar on “Human Behavior and the Analysis of Irrigation Systems” -June 7, 2023	Prof. Dr. M. Zubair Khan	--	Peshawar (Online)
23	Application of Google Earth Engine in Agriculture and Water Resources Management, from Feb 6 - 8, 2023	Prof. Dr. Syed Iftikhar Hussain Shah	USAID/IWMI	Soil & Water Conservation Directorate, Peshawar
24	Groundwater Monitoring in Khyber Pakhtunkhwa, from May 22-23, 2023	Syed Iftikhar Hussain Shah	USAID/IWMI/PCRWR	PCRWR Headquarters, Islamabad
25	Computer-Aided-Design (CAD) - HEC-HMS Training August 22-24, 2022	Prof. Dr. M. Zubair Khan Dr. Naveedullah S. Iftikhar Kazmi	USAID/IWMI	Islamabad

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)
26	National Consultation Workshop on Water Accounting and Water Resources Assessment Standards for Pakistan March 9 th , 2023	Prof. Dr. M. Zubair Khan	IWMI/USAID/PCRWR etc	Islamabad
27	Training on Groundwater Monitoring in Khyber Pakhtunkhwa May 22-23 2023	S. Iftikhan Kazmi	IWMI/USAID/PCRWR	Islamabad
28	Flood Early Warning System (Simulation Modelling) May 24-26 2023	Prof. Dr. M. Zubair Khan & Dr. Naveedullah	IWMI/USAID/PCRWR	Islamabad
29	Training Workshop on “ Big Geo-Spatial Data Analysis” on September 14, 2022	Dr. Naveedullah	IWMI	University of Peshawar
30	One Day Capacity Building Workshop on “ Climate Change Financing and Investment Project Prioritization” September 13, 2022	Dr. Naveedullah	Asian Development Bank	Serena Hotel, Peshawar
31	Three Days Training Workshop on “Flood Early Warning System (Simulation Modelling)’ May 24-26, 2023	Dr. Naveedullah	IWMI, USAID	Islamabad
32	Enhancing Molecular Biology, Epidemiology, Sequencing October 2021-November 2022	Prof. Dr. Umer Sadique Dr. Farhan Anwar Khan Dr. Shakoor Ahmad	Princess Haya Biotechnology Center (PHBC), Jordan University of Science and Technology (JUST), Irbid, Jordan; SNL, New Mexico, USA	Virtual
33	Enhancing Molecular Biology Techniques and Cybersecurity” February 21-27, 2023	Prof. Dr. Umer Sadique Dr. Farhan Anwar Khan	SNL, New Mexico, USA	Princess Haya Biotechnology Center (PHBC), Jordan University of Science and Technology (JUST), Irbid, Jordan
34	Two days Food Safety and Nutrition Expo 2022, 26-27 Oct 2022	Prof. Dr. Nazir Ahmad Khan	-	Nutrition Group

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)
35	Two days Food Safety and Nutrition Expo 2022, 26-27 Oct 2022	Dr. Muhammad Mobashar	-	Nutrition Group
36	Food Security Through Sustainable Plant Protection Strategies, Jan16-20, 2022	Dr. Muhammad Mobashar	-	UAP
37	4-days <i>international conference</i> on "Food Security through Sustainable Plant Protection, Jan,24-27 2022	Dr. Muhammad Mobashar	-	UAP
38	International Conference on Sustainable Agriculture and Food Security. August, 27-31 2023	Dr. Muhammad Mobashar	-	Summer Campus, Bara Gali
39	2nd International WANA Congress (May, 10-11 2023) Isfahan, Iran	Dr. Rajwali Khan	Bioinformatics analysis and the association of polymorphisms within the caprine <i>GDF9</i> gene promoter with economically useful traits in Damani goats	Royan Institute for Biotechnology Asfahan, Iran
40	Hands-on training on Meal/Super-worm production (Feb 01-03,2023)	Women of the flood affected areas of KP	54	PSF
41	Roadmap to antibiotic-free poultry production in Khyber Pakhtunkhwa (Feb 09, 2023)	Poultry farmers	32	TDC
42	Biological waste Management in Research & Diagnostic Laboratories May22, 2023	Mr. Zafar Ali Shah		Abasyn University
43	PSF (NSLP) Concept paper preparation & Submission (November 2 nd 2022)	Dr. Tariq Masood	ORIC Office, The University of Agriculture, Peshawar	The University of Agriculture, Peshawar
44	Teaching Skills (November 30 th 2022)	Dr. Tariq Masood	ORIC Office, The University of Agriculture, Peshawar	The University of Agriculture, Peshawar
45	2-Day training course on documentation requirements based on ISO/IEC 17025:2017 PNAC JUNE 21-22, 2022	Dr. M Suleman		PNAC Islamabad

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)
46	2-Day training course on documentation requirements based on ISO/IEC 17025:2017 PNAC JUNE 21-22, 2022	Dr. Mudassar Iqbal		PNAC Islamabad
47	Halal Food Authority	Dr. Zia ud din Dr. Imran		
48	Economic issues and sustainable development	Prof. Dr. Inayatullah Jan	Energy sustainability and socio economic diversification	Women University, Mardan
49	Emerging trend in Agricultural Technologies March 27 to April 04 2023	Prof. Dr. Inayatullah Jan	NCRD, Islamabad	Kharagpur India
50	Digital Data Collection Methods and Analysis in Social Sciences [5-6 June, 2023]	Prof. Dr. Zafar Mahmood	Higher Education Commission	Department of Computer Science, The University of Agriculture, Peshawar
51	Data Collection of Sero Prevalence Survey in Selected Districts of Khyber Pakhtunkhwa [15-16 June, 2023]	Prof. Dr. Zafar Mahmood	Department of Maths, Stats & C. Science, The University of Agriculture Peshawar, Agha University Karachi and Direct Focus Community Aid	Department of Maths, Stats & C. S, The University of Agriculture, Peshawar, Pakistan
52	Aspiring Leaders Cohort (Cohort 2) of the Empowering Women in Higher Education in Pakistan program 01.02.2023 To 30.10. 2023	Dr. Bushra Hassan Jan	Michigan State University (MSU) United States of America & US Embassy Islamabad	Virtual Training from Michigan State University (MSU) and Islamabad, Pakistan
53	Pakistan Science Foundation (Natural Sciences Linkages Program) Concept Paper Submission 02.11.2022	Dr. Bushra Hassan Jan, Dr. Asad Ullah, Dr. Jawad, Dr. Saima Sarir, Dr. Ubaid ur Rahman	The University of Agriculture, Peshawar	The University of Agriculture, Peshawar
54	Teaching Methodology in Higher Education Institutions Nov, 11 – Dec 1, 2022	Dr. Bushra Hassan Jan, Dr. Asad Ullah, Dr. Jawad, Dr. Saima Sarir, Dr. Ubaid ur Rahman	The University of Agriculture, Peshawar	The University of Agriculture, Peshawar
55	Molecular diagnostics and Bioinformatics for the infectious diseases	Dr. Ishrat Naz	Syngenta, Pakistan	National (AUP), Peshawar

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)
56	Three days international conference on “Food Security through Sustainable Agriculture Strategies in the Current Climate Change Scenario” (March 08-10, 2023)	All faculty members of the department		The University of Agriculture, Peshawar, Pakistan
57	International Ege Congresses, 02-04, September 2022	Dr. Haroon Khan		Ege University, Izmir, Türkiye
58	6 th International Congress on Current Developments In Science And Technology September,16-182022	Dr. Haroon Khan		Malatya, Türkiye
59	Joint ESENIAS and DIAS Scientific Conference and 11 th ESENIAS Workshop on “Invasive alien species under conditions of global crisis” Nov, 13–15 2022	Dr. Haroon Khan		Demre, Antalya, Türkiye
60	International Congress on Environment, disaster & forest, December 02-03, 2022	Dr. Haroon Khan		Adana, Türkiye
61	5th International Agriculture Congress, Dec, 5-6 2022	Dr. Haroon Khan		Pamukkale University, Türkiye
62	International Conference on Biodiversity and bioprospecting (ICBB 2022) (June 22-24, 2022)	Dr. Imtiaz Khan and Dr. Ishfaq Khan		Department of Plant Resources, Kathmandu, Nepal
63	Two days training on “Teaching Methodologies in HEIs” Nov 30 – Dec 01, 2022	Dr. Zahid Hussain	Directorate of ORIC, The University of Agriculture Peshawar	The University of Agriculture, Peshawar
64	One day session on “Awareness on Geographical Indications (GIs) and Consultations for Joining Lisbon Agreement for International Registration for GIs” Dec 15, 2022	Dr. Zahid Hussain	Jointly organized by IPO-Pakistan and Directorate of Quality Enhancement, University of Peshawar	Sahibzada Abdul Qayyum Museum Conference Hall, University of Peshawar
65	International Workshop on Climate Smart Agriculture for Pakistan, Nov. 30- Dec. 2, 2022	Dr. Haroon Khan,		Administration and Management Institute, Ministry of Agriculture and Rural Affairs, China
66	Undergraduate Education Policy (UEP)	Dr. Mohib Ullah	HEC	Lahore

Research Journals

Sarhad Journal of Agriculture (Print ISSN 1016-4383; Online ISSN 2224-5383) is the official journal of The University of Agriculture, Peshawar, Pakistan. It is an open-access and peer-reviewed journal that publishes research articles on quarterly basis in every discipline of agriculture including Plant Production Sciences, Protection Sciences, Nutrition Sciences and Social Sciences. The research articles are received from national and international agricultural scientists, which are referred to highly qualified, capable and experienced subject specialists for evaluation. The journal is managed by highly qualified Editorial Board under the supervision of Chief Editor and Patron (Vice Chancellor).

Al-Azhār having ISSN No (2519-6707) is the trilingual (English, Urdu, Arabic) biannual research journal of Department of Islamic Studies, The University of Agriculture, Peshawar which publishes papers in the field of Islamic Studies and Arabic having the features of creativeness and enquiry; however, it encourages the papers dealing with the Socio-Religious issues.

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Cited by:

Scopus (<http://www.scopus.com/sources.url>)

Research Collaboration/Linkages MoU

Joint Research Collaboration, MoUs

S#	Name of Organization
1	UAP IOSF Food Security Education
2	Selcuk University Turkey
3	Made foundation USA
4	Weather Walay and Bakhabar Kissan
5	South East Forest University China
6	Peshawar Zoo
7	Shaheed Benazir Women University
8	IBGE and CHIMEN BARI ITALY olive Pakistan
9	ZTBL
10	Unilasella institute polytechnic Campus
11	IBGE and CHIMEN BARI ITALY olive Pakistan
12	Provincial Health Sciences Academy
13	Azarbaijan Agranam University
14	Beijing Engineering Research Council
15	Hazara University
16	VRI Peshawar
17	Provincial Health Sciences Academy
18	Azarbaijan Agranam University
19	VRI Lahore
20	Hazara University
21	VRI Peshawar
22	IBMS, University of Agriculture, Faisalabad
23	ARI Tarnab
24	UET Peshawar
25	Lanzhou University China
26	The Institute of Animal Nutrition & Feed Yunnan Agriculture University, China
27	Shandong Normal University, Jinan, China
28	Yunnan Agriculture University, China
29	Virtual University
30	PMD
31	Virtual University
32	AKRSP
33	The Institute of Animal Nutrition & Feed Yunnan Agriculture University of China
34	CZECH University of life sciences Prague (CULS) Czech Republic

35	Agribusiness Support Fund
36	Inter cooperation Pakistan
37	GIK Institute of Engineering Science & Technology
38	Chiba University Japan
39	RESCUE -1122 Service
40	IC
41	The Regional Integrated Multi-Hazard Early Warning System for Africa & Asia
42	University of Nottingham, UK
43	Gediz University, Izmir, Turkey
44	The Ohio State University, Columbus, Ohio, USA
45	University De Dicle, Turkey
46	Gediz University, Izmir, Turkey
47	University of California, USA
48	The National Bio-Saline Agriculture Program, Islamabad
49	College of Pharmacy & Nutrition, University of Saskatchewan, Canada
50	IC
51	University of California, USA
52	Prudent Consultants (Pvt) Ltd
53	Pak-Turk International Cag Educational Foundation
54	Pakistan Metrological Department (PMD)
55	ASF
56	ASF
57	Pamukkale University, Turkey
58	German Agency for International Development (GIZ)
59	Wildlife Department Government of Khyber Pakhtoonkhwa
60	Relief International
61	Relief International
62	Pamukkale University, Turkey
63	Inter Cooperation (IC)
64	University of Ballarat, Australia
65	Consortium of Universities from Afghanistan
66	Tsukuba, Japan
67	Pakistan Agricultural Research Council (PARC)
68	PMD & COMSATS Institute of Information Technology, Islamabad
69	RIPORT
70	Agro tech
71	The University of Tsukuba, Japan
72	MONSENTO Company UOAF
73	Graduate School of Horticulture Chiba University, Japan
74	Hashoo Foundation, Islamabad
75	The University of Illinois at Urbana-Champaign, USA
76	Institute of Zoology of the National Academy of Sciences, Ukrain

77	Federal Ministry for Livestock & Dairy Development, Islamabad
78	The University of Illinois at Urbana-Champaign, USA
79	Institute of Zoology of the national Academy of Sciences, Ukraine
80	The University of Illinois at Urbana Champaign, USA & Southern Illinois University, USA
81	Aberyswyth University, UK
82	The Regents of the University of California on behalf of the Davis Campus, USA
83	ROZEE- PAK
84	The College of Agriculture & Environmental Sciences, the University of California, USA
85	FATA Development Program (Livelihood Development Program)
86	The Regents of the University of California on behalf of the Davis Campus, USA
87	The College of Agriculture & Environmental Sciences, the University of California, USA
88	FATA Development Program (Livelihood Development Program)
89	British Council, Pakistan
90	Simon Fraser University, Canada
91	The University of British Columbia, Okanagan

S.No	Name of the University/Institute/Organization Signed MoUs with the University during 2022-23
1	Petal Seed Company, Malakand Road Sher Garh, Mardan, Khyber Pakhtunkhwa
2	Akora Seeds Company, Akora Khattak, Khyber Pakhtunkhwa
3	Jalendher Seed Corporation, Punjab
4	Neelum Seed Corporation, Punjab
5	TASCO Seed Company, Sindh
6	Huazhong Agricultural University, Wuhan, China
7	Sandia National Laboratories, USA
6	University of California, Davis USA
7	National Institute for Food & Agriculture (NIFA), Tarnab, Peshawar
8	Cereal Crops Research Institute, (CCRI) Pirsabak, Nowshera
9	National Wheat Program, NARC, Islamabad
10	Ayub Agriculture Research Institute, Faisalabad
11	Professor Dr. Csiszar, Department of Plant Molecular Biology Group, University of Szeged, Hungary
12	Aarhus University, Denmark
13	University Paris-Saclay, France
14	University, Yangling, China
15	Cukrova University, Turkey
16	Agri-Biotech Center, BAAFS Beijing, Republic of China
17	Provincial Health Services Academy, Peshawar
18	Lady Reading Hospital, Peshawar
19	Khyber Teaching Hospital, Peshawar
20	State Key Lab of Agricultural Microbiology, College of Veterinary Medicine, Huazhong Agricultural University, Wuhan, China

Chapter -4**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) in 2006. With the passage of time, responsibilities of the QEC increased manifold. Keeping in view the importance of the cell, the University's Syndicate acceded to upgrade the status of QEC to full-fledged Directorate of Quality Assurance (DQA).

The DQA is engaged in numerous indoor and outdoor academic activities i.e. self-assessment process, faculty and course evaluation, implementation of anti-plagiarism policy, institutional Performance Evaluation (IPE) process, facilitating in accreditation process, self IPE and postgraduate review. Currently, another task has been assigned to this Directorate that is research journals verifications and authentication for postgraduate students and faculty members.

Staff position of the DQA is as follows:

1. Prof.Dr. Muhammad Arif, Director
2. Mr. Muhammad Shahid, Additional Director
3. Mr. Muhammad Riaz, Deputy Director
4. Dr. Kamran Nawaz, Assistant Director
5. Ms. Sania Munir, Assistant Director (presently on study leave)
6. Dr. Waqas, Superintendent
7. Mr. Pazir Muhammad, System Support Engineer

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 Directorate is directly monitored by Quality Assurance Agency (QAA) of HEC on the basis of assigned targets/criteria.

Impact of Quality Assurance in the University

Quality Assurance Agency of the HEC annually assesses the performance of the QECs of Higher Education Institutes against defined parameters including Institutional Performance Evaluation, Programs Self-Assessment, Accreditation of various degree programmes, Postgraduate Review, functioning of Quality Assurance Directorate and implementation of HEC policies and criteria.

The Quality Assurance Directorate has developed a culture of quality education and research in the University. Most of the degree programs offered by teaching departments of the University in Agricultural and allied Sciences have been accredited by the relevant Councils. Teachers' Evaluation Analysis Reports help the teachers to improve their teaching skills.

Importantly, strict implementation of 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. The authenticity of research journals is now verified by this directorate helping faculty and students to publish their work in good quality journals rather than substandard journals.

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), and the Talloires Network.

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.

The Accreditation Inspection Committee (AIC) of the National Agriculture Education Accreditation Council (NAEAC) team visited the University during September 29-30, 2022 for accreditation of B.Sc. (Hons) programs of the following disciplines:

- i. Institute of Biotechnology and Genetic Engineering (IBGE)
- ii. Horticulture
- iii. Plant Pathology
- iv. Agriculture Chemistry and Biochemistry
- v. Human Nutrition
- vi. Entomology

Self-Postgraduate Program Review

In order to ensure the minimum criteria set by the Higher Education Commission (HEC), a review of postgraduate programs (Ph.D., M.S, M.Sc(Hons), M.Phil and equivalent) is one of the significant annual activities of the Directorate of Quality Assurance (DQA). For this purpose, the following committee was constituted to thoroughly review and verify the record maintained by the Departments/Institutes in line with the prescribed rules and regulations of the University and check list of the HEC.

- | | |
|--|------------------|
| 1. Director Quality Assurance | Team Leader |
| 2. Director Advance Studies & Research | Member |
| 3. Additional Director QA | Member |
| 4. Deputy Director QA | Member |
| 5. Deputy Registrar S-I | Member |
| 6. Assistant Director-I QA | Member/Secretary |

The committee held a series of meetings with all Chairpersons of Departments, Directors of institutes and HoDs along with relevant focal persons (F P) in the presence of the concerned Dean of Faculty during May 22-26, 2023.



Self-Institutional Performance Evaluation (IPE)

To review the University Portfolio Report (UPR) and evaluate the performance of institution against the set criteria/standards of Higher Education Commission (HEC) for the year 2021-2022, the following Self Institutional Performance Evaluation (SIPE) committee was constituted.

i. Director, Quality Assurance (QA)	Team Leader
ii. Prof. Dr. Farman Ullah, Director QEC University of Agriculture, Swat	External Member
iii. Director P&D	Member
iv. Additional Director QA	Member
v. Deputy Registrar (Services-I)	Member
vi. Deputy Director QA	Member
vii. Assistant Director-I, QA	Member/Secretary

The committee conducted two days comprehensive activity during March 16-17, 2023. On Day-I, the SIPE committee held series of meetings to review of University Portfolio Report, authentication of relevant evidences and evaluation of Institution's Performance against set criteria. The committee also visited various institutional infrastructures including main library, laboratories of various departments, class rooms, examination halls, students' hostels, etc. to review the facilities. On Day-II, the SIPE committee held a series of meetings with the Administrative Heads, Chairpersons of Departments/ Directors of Institutes/ HoDs, groups of professors, Associate professors, Assistant professors, Lecturers and students of both genders at Bachelor/Master/Ph.D level.

The issues, available facilities at the institution and standard of education were discussed in detail. The participants actively participated in discussions and exchanged their point of view for the improvement of the University. Most of the participants commended the standard of education and laboratory facilities while some of them raised the issues being faced by the students.





Training workshops organized

The Directorate of Quality Assurance organized the following trainings workshops for the Chairpersons and Focal Persons.

S.No.	Title	Resource Person	Date
1.	Institutional Performance Evaluation Standards	Dr. Syeda Asiya Bukhari Director QEC, Khyber Medical University, Peshawar	Dec 22, 2022
2.	Self Assesment Report of Academic Programs	Mr. Zahoor Ahmad Director QEC, University of Peshawar	December 27, 2022



Chapter 5

UNIVERSITY INFRASTRUCTURE DEVELOPMENT PROJECTS

PROJECT BRIEF

Establishment of Technology Development Center (TDC), The University of Agriculture, Peshawar

The project “Establishment of Technology Development Centre at The University of Agriculture, Peshawar” was approved by the CDWP in its meeting held on 29 March 2018 at the capital cost of Rs.1676.911 and FEC Rs.25.602 million, initially for a time period of 48 months. Moreover, the project received 1st time extension till June 30, 2023 and 2nd time extension, allowing the project to continue until June 30, 2024.

PROJECT OBJECTIVES:

- R&D infrastructure facilities measuring 186127 sft i.e. including construction of Academic Blocks for Faculty of Animal Husbandry, Department of Horticulture, Climate Change Center, Farm Block facility for Department of Horticulture (Germ Plasm Unit, Green House, Lath House), Farm Block facilities for Faculty of Animal Husbandry Business Incubation Center
- Construction of external development works including security guard rooms, general car parking, and access control room and tree plantation.
- In Climate Change Center 03 scholars are planned to be sent abroad for PhD Degree program as per PC-I provision
- Development of 26 number of indigenous technologies in the sector of Horticulture, Livestock and Climate Change.
- Arrangement and conduction for outreach program promotion of technology development initiative in HRD including 25 Farmer Field Days, 10 seminars/ workshops and 10 exhibitions.
- Rehabilitation and strengthening of existing ICT and Networking infrastructure.
- Procurement of 04 number of Hiace Commuter Van for Horticulture, FAHVS, Climate Change Center and P&D Directorate.
- Procurement of Local and Exotic breed of animals for research purpose.

FINANCIAL PROGRESS

Rs. in million				
Financial Year	Phasing as per PC-I	PSDP Allocation	Actual Releases	Actual Utilization
2017-18	448.121	-	-	-
2018-19	284.676	250.000	30.000	17.00
2019-20	525.694	150.000	150.000	6.270
2020-21	418.421	70.000	70.000	79.000
2021-22	-	200.000	159.986	178.620
2022-23	-	82.000	82.000	208.574
2023-24	-	400.000	-	-
Total	1676.911	1152.000	491.986	489.464

PHYSICAL PROGRESS:

The overall Physical Progress of the project is **40%**.

Sr.No	Activity	Unit	Remarks
01.	Human Resource Development	Number	01. The Syndicate in its 114 th meeting held on Oct 20, 2022 approved one scholar who has secured his admission in the University of Bonn (Germany); the scholar departed on July 3 rd 2023 to Germany. 02. One of the approved scholars by the Syndicate in its 112 th meeting has received acceptance for Ph.D admission from the University of Antwerp, Belgium, and is awaited for visa approval. 03. Field day activities/exhibitions/ seminars have been conducted by the Departments of Animal Husbandry & Veterinary Sciences & Horticulture.
02.	Lab. equipment	Number	01. Supply orders for amounting Rs. 34.180 million have been placed for purchase of Lab/Farm Equipment.. 2. Tender of Lab/Farm equipment's chemical and glassware for Livestock Management Department of amounting Rs. 28.320 has been placed and supply order to the successful vendor shall be made accordingly.
03.	R&D Infrastructure	Sq.Ft	The contract for execution of the component has been awarded in March, 2021 and planned completion period for the civil work modules are 18 months and an extension has been granted till June 30 2023. In addition to that the project has managed to achieve a physical progress of 40% till date.
04.	Furniture & Fixture	Number	01. An order for the procurement of furniture and fixtures has been placed with Pak-German, wood Co? Peshawar for the following departments: Animal Husbandry Veterinary Sciences, Horticulture, Climate Change Sciences, and Business Incubation Centre. 02. Tablet chairs, speaker rostrums, and side racks for the Department of Animal Husbandry Veterinary Sciences have been purchased from Pak-German Wood Working. 03. Furniture has been procured for the Office of CNEP under TDC project. 04. Procurement of remaining furniture and fixture will be made after completion of civil work.

05.	Teaching Aids	Number	Procurement of the remaining items will be initiated after completion of civil work
06.	ICT & Networking	Number	01. Work order for procurement of ICT & Networking component amounting Rs. 35.00 million has been issued. 02. Tender of IT Equipment's and RFID under ICT & Networking equipment of amounting Rs.11.00 M has been placed. 03. Procurement of remaining items will be initiated after completion of civil work.
07.	Operational Vehicles	Number	-
08.	Project Staff Salary	Number	Both the positions of Project Director and the Sub-Engineer (Electrical) have been re-advertised due to resignation. The hiring process for these positions will be initiated soon.
09.	BIC Staff salary	Number	An advertisement has been initiated for the hiring of a Director, Accountant, and Office Assistant. The recruitment process is currently underway, and the hiring will be conducted accordingly.
10.	Purchase of Animals	Number	After construction of required infrastructure i.e. sheds, the process for purchase of animals will be initiated

SUPPORT VALUE CHAIN IN AGRICULTURE PRODUCTS THROUGH PRIVATE ENTERPRISE DEVELOPMENT

PROJECT BRIEF

The project was approved by DDWP in its meeting held on Feb 03 2019 with a total cost of Rs. 51.565 million for the period of 36 months; The major components of the projects are Capacity Building/ Skills development which include Baseline study of all 07 NMDs, trainings, Seminars and Field Days, procurement of equipment and hiring of project staff i-e. interns under Khyber Pakhtunkhwa Internship Policy 2018.

PROJECT OBJECTIVES:

The following key objectives are mentioned below:

1. To create an enabling environment for the value chain actors;
2. To enhance capacities of value chain actors to ensure productive and profitable supply chains of the identified product lines;
3. To support and create backward and forward linkages among the value chain actors;
4. To establish agriculture processing Models in each Merged District

FINANCIAL PROGRESS

Rs. in million

Year	Allocation	Releases	Utilization
2020-21	3.0	3.0	3.0
2021-22	18.268	18.268	8.017
2022-23	33.311	8.327	1.028
2023-24	1.093	1.093	Waiting for FS Authentication by Finance Khyber Pakhtunkhwa

PHYSICAL PROGRESS

- Over all 60% progress achieved.

In order to implement the approved project activities, Project Technical Advisory Committee was constituted. Moreover, for conducting baseline study EOI was floated in national dailies along with RFP dated 26-09-2020 wherein firms/ organization were invited for submission of technical and financial proposals. Based on technical and financial scoring Consultancy for conducting baseline study was awarded to M/S Market Development Solution, Islamabad.

Similarly, 01 laptop, 01 photocopier, 01 scanner and 01 GPS are procured under the project. In first batch 07 Interns were hired under KP Internship Policy, 2018. Similarly, in second batch 06 interns were hired. As per KP Internship Policy Internship slot were posted on KP Internship Portal for registration of applicants.

Development of Onion & Tomato Pocket Area in Bajaur and Mohmand Districts PROJECT BRIEF

The project was approved by DDWP in its meeting held on Feb 03, 2019 with a total cost of Rs. 24.732 Million for the period of 36 months. The major components of the projects are Outreach which includes Baseline study in Bajaur and Mohmand, Farmer Field Days, establishment of Farmer Field Schools, procurement of equipment, development of Mobile App and hiring of project staff i.e. interns under Khyber Pakhtunkhwa Internship Policy 2018.

PROJECT OBJECTIVES:

The following key objectives are mentioned below:

1. To create an enabling environment where farmers are given complete technology package to successfully grow onion in the area.
2. To ensure quality of the crop.
3. To provide required marketing channels for enhanced outcome.
4. To facilitate the farmers in arranging financial resources in accordance with the norms of the areas.
5. To ensure maximum benefits to the farming community.

FINANCIAL PROGRESS

Rs. in million			
Year	Allocation	Releases	Utilization
2020-21	4.0	4.0	4.0
2021-22	17.415	17.415	9.441
2022-23	7.742	3.871	2.504
2023-24	0.314	0.314	Waiting for FS Authentication by Finance KP

PHYSICAL PROGRESS

- Over all 80% progress achieved.

In order to implement the approved project activities, Project Technical Advisory Committee was constituted. Moreover, for conducting baseline study EOI was floated in national dailies along with RFP on Sept 26, 2020 wherein firms/ organization were invited for submission of technical and financial proposals. Based on technical and financial scoring Consultancy for conducting baseline study was awarded to M/S Market Development Solution, Islamabad.

Similarly, 01 laptop, 01 photocopier, 01 printer and 01 GPS are procured under the project. In first batch 06 Interns were hired under KP Internship Policy, 2018. Similarly, in second batch 06 interns were hired. As per KP Internship Policy Internship slot were posted on KP Internship Portal for registration of applicants. A Mobile App has also been developed which provide information to farmers like various diseases of onion and tomato, identification of pest, soil and water requirement etc.

(Package-A)

Construction of Academic Block and Allied Facilities / Farm Block Facilities / Germ Plasm Unit (Horticulture Department) and Construction of Climate Change Centre.



Academic Block and Allied Facilities at Horticulture Department



Germ Plasm Unit of Horticulture department



Farm Block Facilities (Field Laboratory) Unit of Horticulture department



Climate Change Centre

(Package-B)
Construction of Academic Block and Research Facility for Faculty of Animal Husbandry & Veterinary Sciences (FAHVS) and Construction of Farm Block Facility (FAHVS)



Academic Block of Faculty of Animal Husbandry & Veterinary Sciences (FAHVS)



Department of Animal Nutrition at FAHVS



Department of Animal Health at FAHVS

(Package-C)

Construction of Business Incubation & Technology Centre.



Business Incubation & Technology Centre

Chapter -6**COMPUTERIZATION & NETWORK ENHANCEMENT
PROGRAMME**

Information & Communication Technology (ICT) is the most dynamic, ever changing and abruptly growing technology of the modern day world. Due to rapid technological changes, modern ICTs subject to becoming outdated quickly. Modern ICTs pose several challenges including implied costs, keeping up-to-date with ever-changing technology and availability of high skilled professionals. Likewise, an organizational ICT investment and recurring expenditure rely on the financial status and condition of the organization. Heavy investment in IT is not always a wise approach or equally productive and sometimes becomes white elephant. Improper investment without Cost-Benefit Analysis and Social Impact Assessment may simply be wastage of resources to the organization.

The visionary Vice Chancellor of the University, Prof. Dr. Jehan Bakht with the Director IT, Prof. Dr. Zafar Mehmood and Director P&D, Dr. Rizwan Ahmad in team hard work has put the University to a futuristic track where one of the comparatively less developed students at national paradigm would have new conducive environment and opportunities to acquire maximum access to present day modern ICT resources for their education. Prof. Dr. Jehan Bakht, the Worthy Vice Chancellor, while paving the road towards a long term sustainable and yielding education system has felt that without the presence of a smart Information and Communication Technology (ICT) infrastructure, the dream would merely come true.

BACKGROUND:

CNEP (Computerization and Network Enhancement Program) was established in 2005 through an HEC funded project, where computerization & networking in the University was carried for the 1st time. Since its inception, CNEP has been always productive and played a vital role in delivery of quality ICT services to the University system. However, with the passage of time and due to volatile nature of the ICT, till 2016 the core design have become obsolete. Nearly 70% of the applied technology have become either obsolete or out of service that resulted a low yield system. Redesign of the existing system was planned and successful implantation was made possible in collaboration with the Planning Commission of Pakistan and Higher Education Commission of Pakistan through the project, titled “Establishment of Technology Development Center (ETDC)”. The core idea behind the redesign was implementation of the concept of “Smart Education”.

Implementing the concept of “Smart Education”:

Prioritized national and provincial ICT policies have been the core foundation for the implementation of “Smart Education” technologies at the University of Agriculture Peshawar. Internal available ICT resources have been enthusiastically incorporated for the cause, however, the transformation is primarily made possible through the PSDP funded project “Establishment of Technology Development Centre (ETDC) at the University of Agriculture, Peshawar”. A considerable amount of fund i.e. PKR 82 Million is being spent through the ETDC project to re-design, overhaul, upgrade and extend the existing obsolete ICT infrastructure of the University.

The old internet network has been upgraded and a state of the art Wi-Fi Local Area Network (Unified Wifi System) has been established at the campus by spending 40 Million rupees that will provide internet facility to all students, faculty, admin staff and visitors in offices, lecture rooms, labs, libraries corridors, sidewalks and lawns. Such initiative will provide a futuristic foundation for the application of the projected IT plans.

The re-design, upgradation and extension work carried out during 2022-2023 is a multilayer process which enfold salient features as follows:

1. Deployment of Unified Wifi system and extension/upgradation of the existing wired Network.
2. Enhancement of internet Bandwidth and allied services through the PERN (PAKISTAN Education and Research Network).
3. Development & implementation of centralized smart database and Student Life Cycle, i.e. "Campus Management System".
4. Development and implementation of new dynamic website and associated technologies.
5. Technical Trainings.

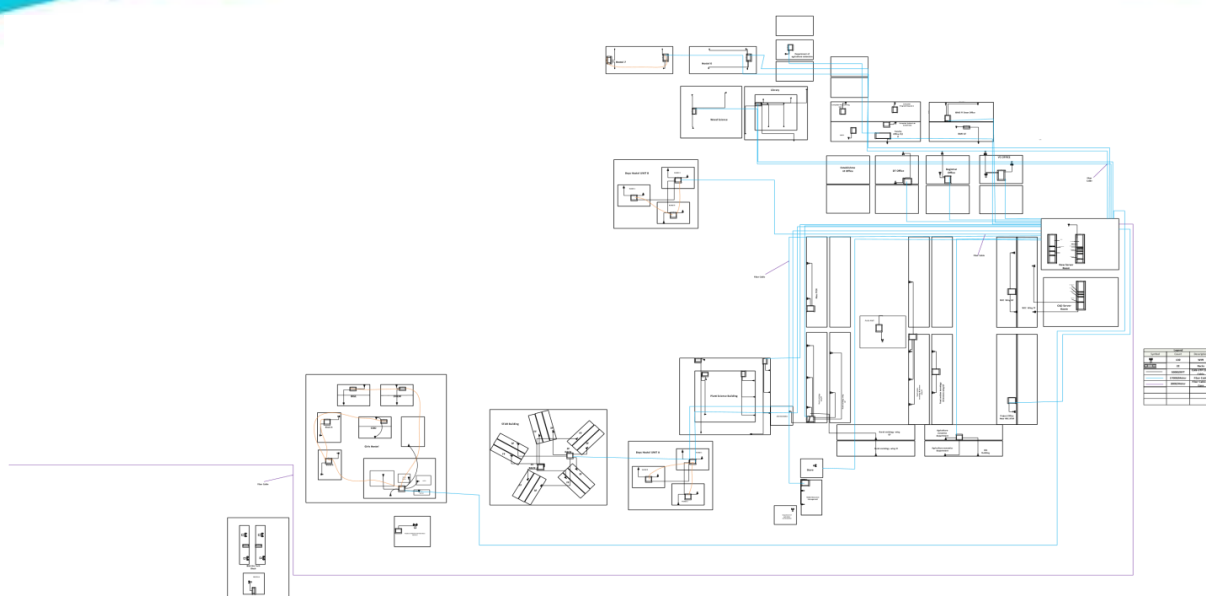
Deployment of Unified Wifi system and extension/upgradation of the existing wired Network:

The University of Agriculture Peshawar has recently upgraded and extended its networking infrastructure and services through the PSDP funded ETDC project by spending a substantial amount of PKR 40 Million. The said work has enabled the deprived students, faculty and other stakeholders to access internet facilities and relevant network resources which were previously not available to them.

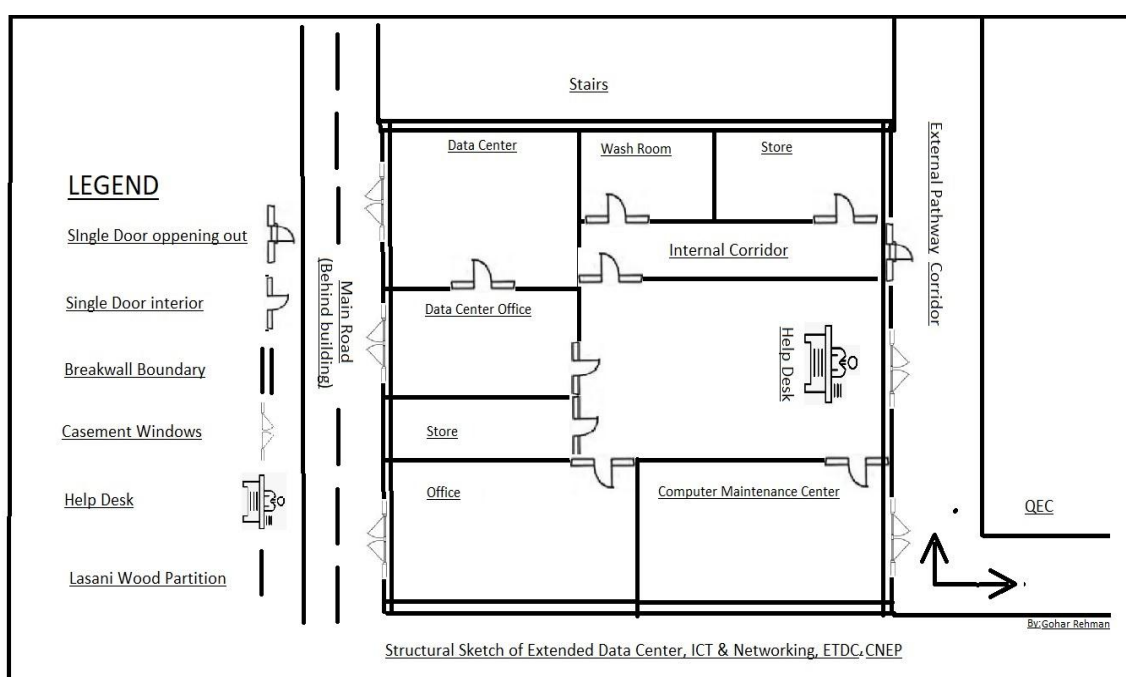


Consequently, a 400% increase in access to the internet resources has been observed, since:

1. A new centralized Unified Wifi network of 135 Access Points has been established increasing the wireless coverage by 200% at the main campus.
2. More Than 10 Girls, Boys and staff hostels have been provided with Wifi internet coverage.
3. Class rooms, Labs, Offices, Lawns, corridors, conference rooms and social concentration points have been provided with Wifi internet service.
4. Existing old wired network have been overhauled, revitalized and extended.
5. 20 Kilometers of Fiber Optic Cable and 50,000 feet UTP cable have been newly injected in to the system.
6. 500 wired internet points have been restored/added to the system.
7. The newly established network covers approximately 3 square kilometer of area and supports more than 10,000 users.
8. Users' Authentication, Authorization and Accounting (AAA) mechanism have been implemented for access control and Logs maintenance.
9. IT office facilities including Video Conference Room have been renovated.
10. The existing Network Operations Center (NOC) has been extended and upgraded into a new Data Center.



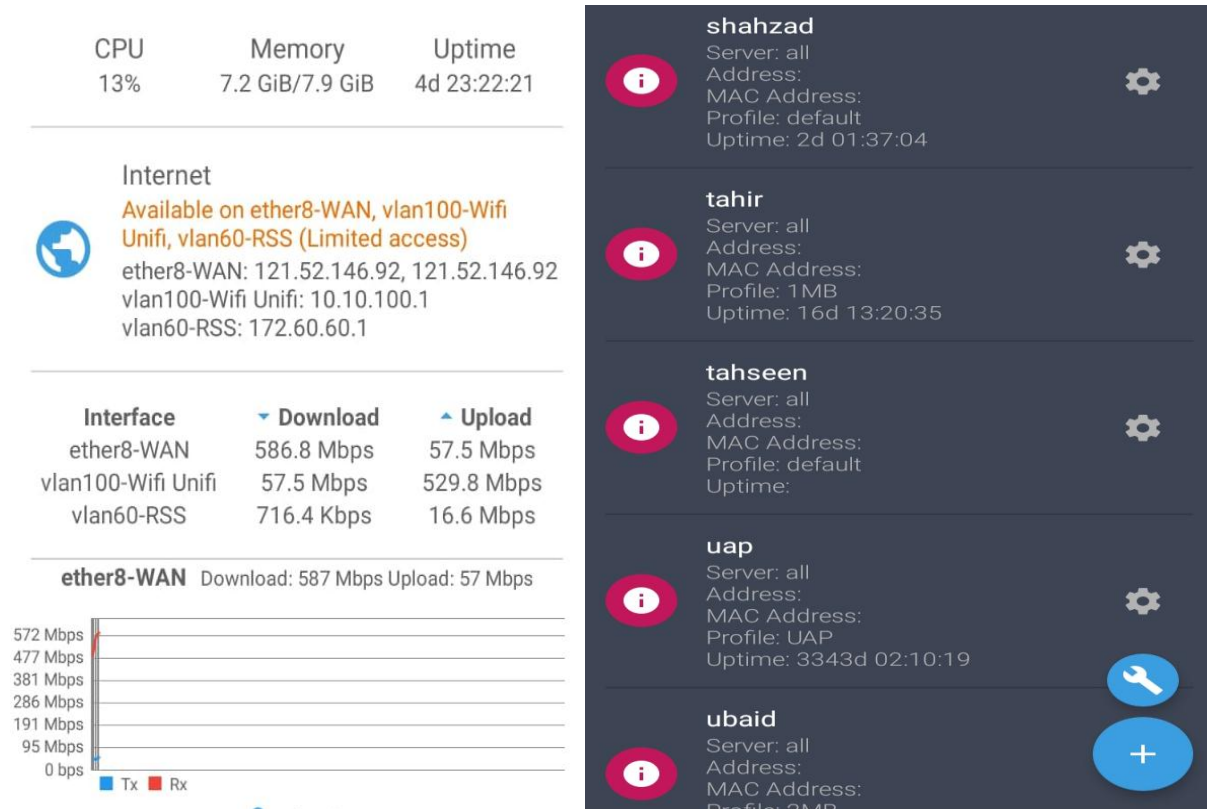
Overall Aerial View design of the new Fiber Optic Network



The new system supports cellular mobile phones, PDAs, Tablet PCs, Desktop PCs and Laptops with freedom of navigation.

1. Enhancement of internet Bandwidth and allied services through the PERN (Pakistan Education and Research Network):

The University of Agriculture Peshawar is amongst the pioneer public sector universities to join PERN and has actively participated through years.



Since, the University was receiving 100MBPS of CIR Bandwidth from PERN in Package 1 (P1), however, due to large scale upgradation and extension in the network services has virtually enabled every stakeholder at the campus to access internet resources. Such scenario has resulted in dead slow browsing and internet surfing. The matter was taken with the Pakistan Education and Research Network (PERN, HEC) authorities, thereby, successfully upgrading the package to P3 and increasing the bandwidth from 100 MBPS to 600 MBPS of CIR bandwidth in April, 2023. This has been a proven milestone as the internet speed was increased by 600% for the 1st time in the history of the University.

2. Development & implementation of centralized smart database(ERP) system and Student Life Cycle (SLC), i.e. “Campus Management System”:

Since, the University is in the process of upgradation of IT facilities and services, whereby, recently has upgraded and extended IT physical infrastructure in terms of networking and other relevant equipment. Therefore, it was important to implement a centralized smart database system and Student Life Cycle in order to automate and facilitate the University’s processes and research work.

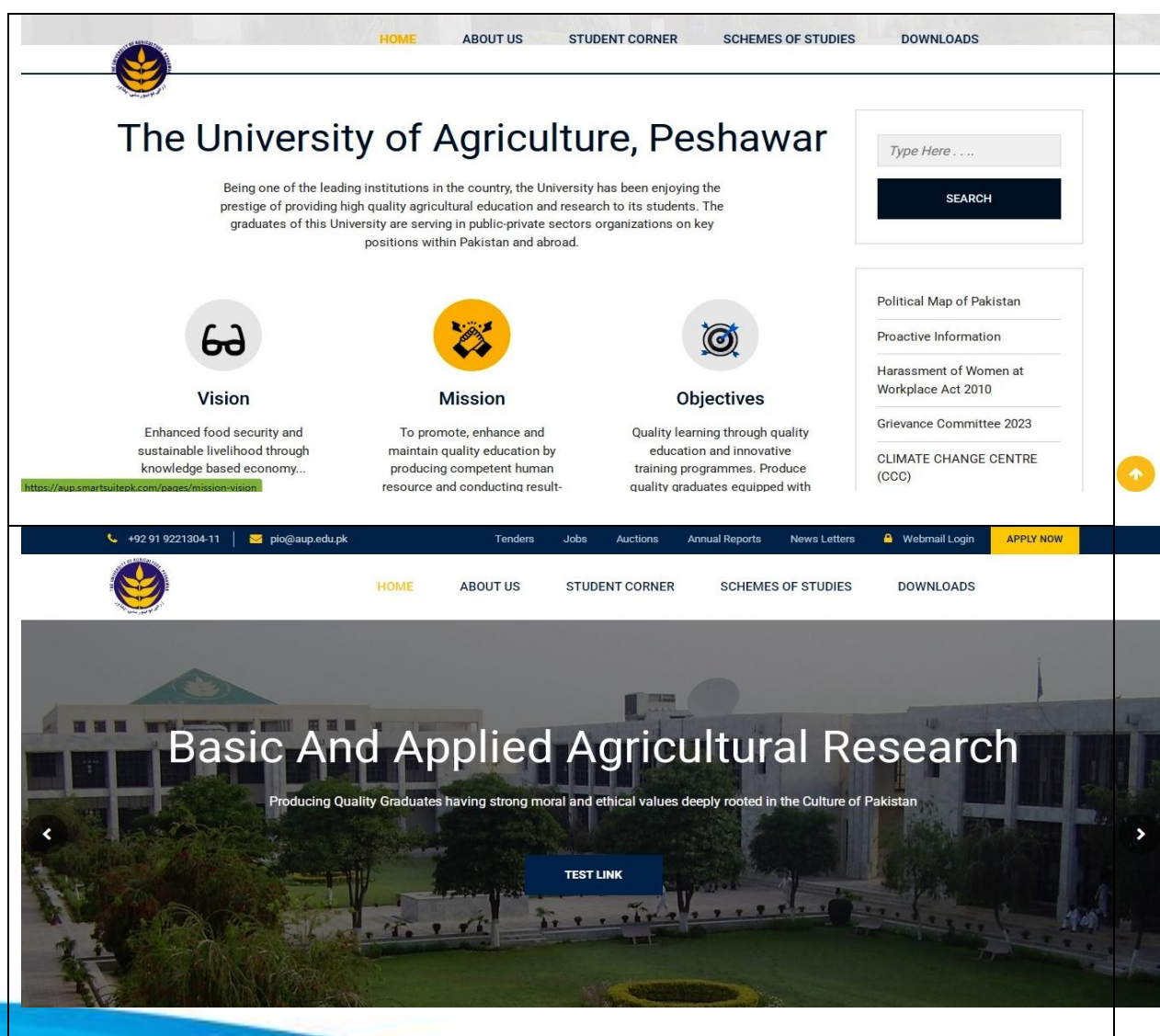
In this regard, a committee of relevant technical experts from the University was constituted to scrutinize the needs in detail and develop a tailor-made centralized smart database as per

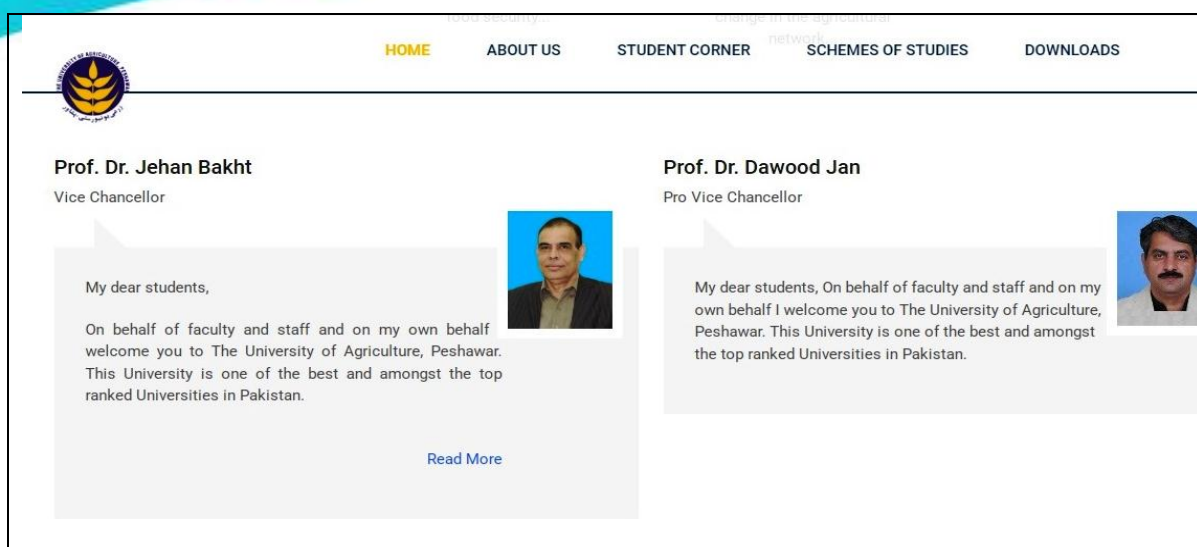
requirements of the University. For the very purpose, the technical committee after tiresome efforts has successfully developed and implemented a new Campus Management System with the following modules:

1. Admission and renewal processes (developed)
2. Establishment/Registrar office (under development)
3. Finance (near to completion)
4. Examination (developed)
5. Student Life Cycle (near to completion)
6. Inventory (under development)

3. Development and implementation of new dynamic website and associated technologies:

A state of the art new dynamic website has been recently developed with the inclusion of every aspect of the University and is under testing phase.



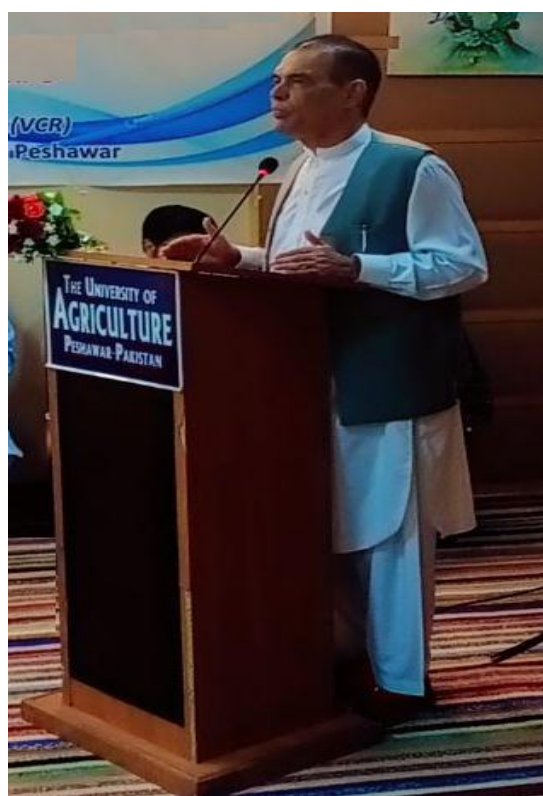


The new website along with associated online portals and emailing service (comprised of 50000 emails) will be launched very soon and readily available.

4. Technical Trainings:

A schedule of series of periodic trainings has been announced and started by CNEP (IT) in order to train the University staff regarding the newly developed networking system and Campus Management system. In the first phase, a comprehensive series of networking and database trainings have been provided up to August, 2023 to the staff of the following departments:

1. Technical staff of CNEP related to the new networking system.
2. Faculty of Management & Computer Science related to database.
3. Directorate of Advance Studies and Research related to database.
4. Directorate of Teaching related to database.
5. Directorate of Finance related to database.
6. Institute of Business & Management Science related to database.
7. Institute of Computer Science related to database.



Likewise, another 45 million rupees has been allocated for the procurement of IT equipment, Audio Visualization of Main Auditorium hall, installation of Vehicular E-Tag system (where vehicles entering and leaving the University will be digitally registered). IT trainings and awareness campaigns to the faculty, students and staff are also part of the project.

Recent redesign and upgradation of the ICT setup envisions to assist the University for Increased Efficiency at exponential rate. Current initiatives and development work in ICT at the University will surface the way to decrease cost of research and increase productivity.

Chapter -7**SPORT ACTIVITIES****Activities Conducted during 2022-23**

Name of Activity	Topic	Dates Held	Organizer
Sports Gala	Food Science Sports Gala	January 2022	Directorate of Sports, UAP
Sports Gala	1 st Ever Female Sports Gala	March 2022	Directorate of Sports, UAP
KP- Intervarsity Sports Gala 2022	Participated in Cricket (Semi-finalist), Volleyball (Semi Final), Foot Ball, Female Badminton (Quarter final), Female Cricket (Semi-finalist)	October 2022	KP Sports, Directorate
KP- Intervarsity Sports 2022	Volleyball Championship	October 2022	Directorate of Sports UAP and KP Sports Directorate
Sports Gala	IBGE Sports Gala	November 2022	Directorate of Sports, UAP
Sports Gala	DVM Sports Gala	December 2022	Directorate of Sports, UAP
Intervarsity Sports 2022- 23	Participated in Cricket, Volleyball, Foot Ball, Badminton and Hockey	2022-23	HEC
Grand Sports Gala 2023	Participated in Cricket, Volleyball, Foot Ball, Badminton, Tug of War.	2023	Directorate of Sports, UAP

Winner of Badminton (Men), Cricket (Male), and Tug of War (Female) of the Grand Sports Gala at Greater Campus

Glimpse of Activities



DVM Sports Gala 2022 Hon VC UAP at the closing ceremony



1st Ever Female Sports Gala 2022



UAP Squad during KP-Intervarsity Games 2022.



VC UAP with the winner of KP-Intervarsity Volleyball Championship 2022 hosted by Directorate of Sports, UAP.



Opening ceremony of Annual Sports Gala 2022 Faculty of Animal Husbandry & Veterinary Sciences at GM Khattak Sports Complex.



Hon VC UAP is welcoming the Honorable Governor KP Haji Ghulam Ali at the inaugural ceremony of Grand Sport Gala at GM Khattak Sports Complex, UAP.



Governor KP Haji Ghulam Ali at inaugural ceremony of Grand Sport Gala at GM Khattak Sports Complex, UAP



VC AUP with staff and students at the closing ceremony of Grand Sports Gala 2023.

PICTORIAL GLIMPSES



VC Afghanistan International Islamic University, Dr. Rafi Ullah Ata, Dean, Faculty of Agriculture, Dr. Nisar Ahmad Zahid, Dean Faculty of Engineering, Dr. Abdul Hai Rewan and representative of HEC Jehanzeb Khan on the occasion.



Honourable Vice Chancellor Prof. Dr. Jehan Bakht is presenting Shield to the Director Afghan Foreign Affairs, Dr. Nazar Muhammad Irfan. Emarat e Islami Afghanistan Delegation Visit to UAP on Oct 13, 2023



Vice Chacellor Prof. Dr. Jehan Bakht is presiding the 53rd Academic Council meeting of the University of Agriculture, Peshawar.



The Vice Chancellor Prof. Dr. Jehan Bakht is presiding the 53rd Academic Council Meeting (Oct 26 2023)



Worthy Vice Chancellor Prof. Dr. Jehan Bakht, Registrar Dr. Rizwan Ahmad and other are addressing the Anti Drugs Awareness Conference held at the Auditorium hall of the University



Dr Najeeb assistant Professor IBGE, attending a conference at Khyber Medical University.



Dr Najeeb Assistant Professor organized a poster competition at IBGE



Cancer Genetics event at IBGE, Prof Dr Jehan Bakht and Prof Dr Zahoor Ahmad

Swati attended the event



Award distribution ceremony of the training workshop held at IBGE



Award distribution ceremony of the training workshop held at IBGE



Dr Quahir Sohail (Assistant Professor at IBGE), attending a conference at Muhammad VI Polytechnic University Morroco



Dr Quahir Sohail (Assistant Professor at IBGE) with his group members during his postodctorate fellowship at Muhammad VI Polytechnic University, Morocco

MAJOR ACTIVITIES OF THE DIRECTORATE OF FAD

S.NO	Activities	Total Rs.
01	1. HEC Need Based Scholarship	23374387
	2. HEC USAID Scholarship	5691291
	3. Student Welfare Endowment Fund	5916000
	4. PEF Scholarship	2215930
	5. Benin Country Scholarship under OIC Project	2108500
	6. Allama Iqbal Scholarship for Afghan National Student	5788500
	7. Indian Occupied Kashmiri Students Scholarship	23796000
	8. BISP Undergraduate Scholarship Programs	72562174
	9. OPF Scholarship	52620
	10. CMEEF Scholarship	135420
	11. Pakistan Baitulmal Scholarship	29282
	12. FATA DVM	3188000
	13. HEC-FATA & Bal. Scholarship	411551
	14. MORA Scholarship	448200
	15. NBP Loan	233910
	Total amount has been disbursed	145951765
02	In FY-2022-23, interview were conducted of the students through Institutional Scholarship Award Committee for the award of the following scholarships. 1. HEC Need Based Scholarship 2. SWEF Scholarship 3. PEF Scholarship 4. Scottish Scholarship	
03	The cheque distribution ceremony was arranged under the chairmanship of Honorable Vice Chancellor, University of Agriculture, Peshawar for the following scholarships 1. HEC USAID Need Based Scholarship 2. SWEF Scholarship	
04	The FAD office gave a brief presentation in the Management Training Course for the officers.	

MAJOR ACTIVITIES OF ORIC DIRECTORATE

S#	Dated	Academic/Research/ other Achievements	Venue
1.	02-11-2022	One day training workshop titled, "Pakistan Science Foundation (Natural Sciences Linkages Program) Concept Paper Submission"	VCR, UAP
2.	16-11-2022	An Industry Visit to Silkway Nutraceutical & Therapeutic Food, Peshawar and signed MoU.	Hayatabad, Peshawar
3.	17-11-2022	Collaborative Meeting on Production of Bio Fertilizers in ARI-Tarnab.	ARI, Tarnab
4.	01-12-2022	Two days seminar on Teaching Methodology for Young Faculty.	VCR, UAP
5.	29-12-2022	Meeting with DG Research on TDF Consortium	DG Research Office

DIRECTORATE OF STUDENT COUNSELING, PLACEMENT & HUMAN RESOURCES DEVELOPMENT

S. No.	Title of Activity	Date of Conduction
2022 Activities		
1	Kashmir Solidarity Day	Feb 8, 2022
2	Youn e Pakistan (23 rd March)	March 21, 2022
3	Drug Awareness Lecture	July 6, 2022
4	National Round of Debate (PUDC) at HEC, Islamabad	May 06, 2022
5	Minority Youth Exposure Program (MYEAP)	September 2022
6	Qaumi Seerat Conference	October 27, 2022
7	Essay Writing Competition (Urdu, English)	July 11, 2022
2023 Activities		
8	One day Seminar for Islamic Banking with Islamiyat Department	February 01, 2023
9	Kashmir Solidarity Day	February 07, 2023
10	Turkiye Syria Donation Camp	March 6, 10, 2023
11	Blood Camp	March 14, 2023
12	Campaign Awareness against Drugs	June 12, 2023
13	Walk Against Drugs Addiction	June 21, 2023
14	Climate Change Awareness Symposium	June 6, 2023

TRAINING WORKSHOP



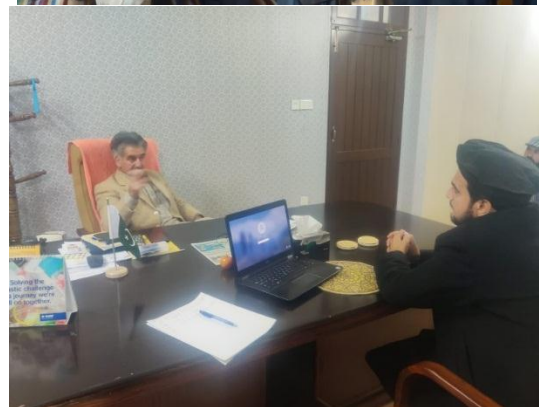
A visit to Industry Silkway Nutraceutical & Therapeutic Food, Peshawar and signed MoU.



Collaborative Meeting on Production of Bio Fertilizers in ARI, Tarnab.



Two days seminar on Teaching Methodology for Young Faculty.



Meeting with DG Research on TDF Consortium



Conference Pictures



1st International Conference on Computing Technologies, Tools and Applications (ICTAPP-23)

09th—11th May, 2023

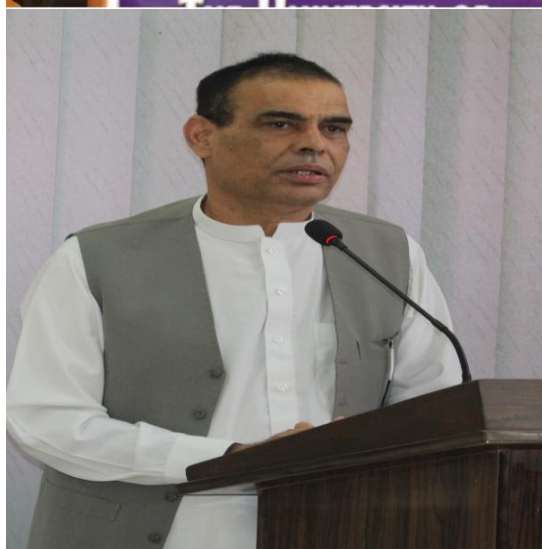
Organized by:
Institute of Computer Sciences and IT (ICS/IT)
The University of Agriculture Peshawar

1st International Conference on Computing Technologies, Tools and Applications (ICTAPP-23) hosted by Institute of Computer Sciences & Information Technology (ICS/IT), The University of Agriculture, Peshawar, Pakistan. It was held May 9-11, 2023 in Peshawar in hybrid mode (both physical as well as online). Total Eight Two (82) research papers were submitted to ICTAPP-23. All the articles went through a complete blind review process. Based on the comments and suggestions received by the reviewers Sixty (60) research papers were accepted and all the republished in Proceedings of 1st International Conference on Computing Technologies, Tools and Applications (Available at: <https://ictapp.org.pk/Proceeding.html>). Paper acceptance rate is about 73.2% while the rejection rate is about 26.8%.



Opening Ceremony







Kashmir Day 2022



Pakistan University Debate Competition 2021-2022 (HEC Islamabad)



National Qaumi Seerat Conference (Main Auditorium) 2022



Kashmir Solidarity Day 2023



Donation Camp for Turkiye & Syria 2023



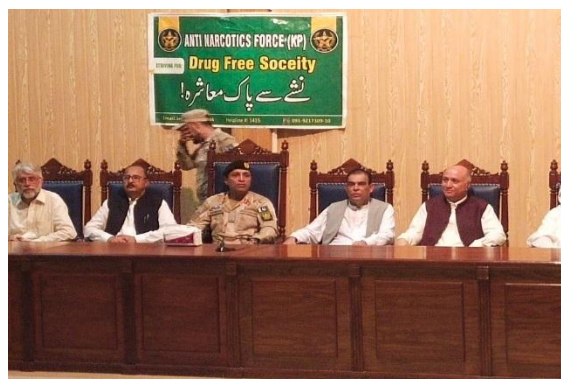
Blood Camp 2023



One Day Anti-Drug Seminar 2023



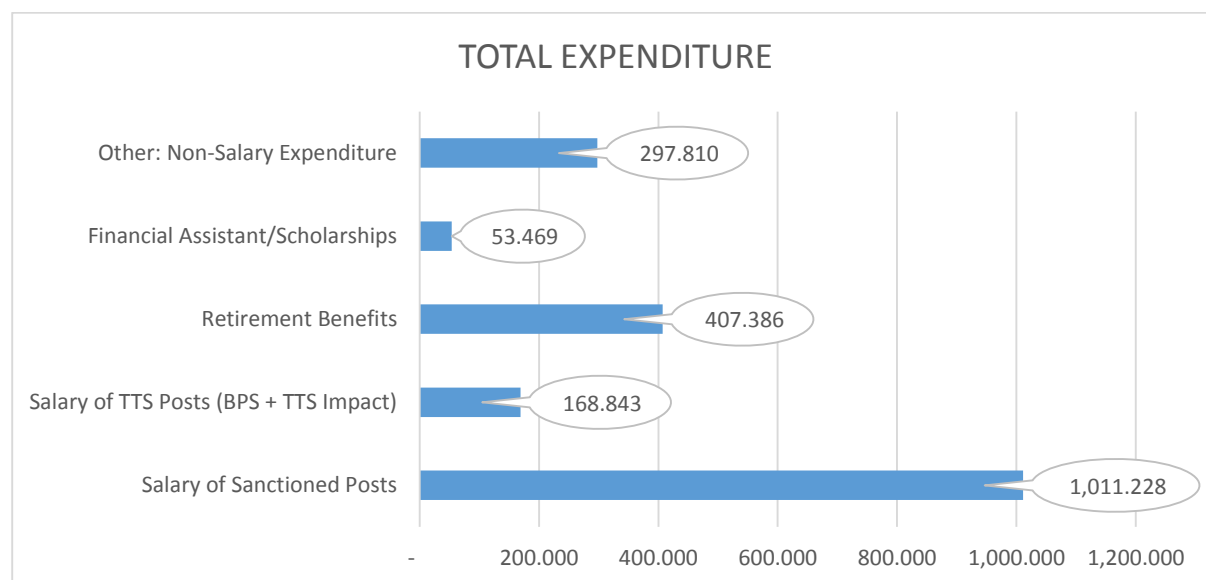
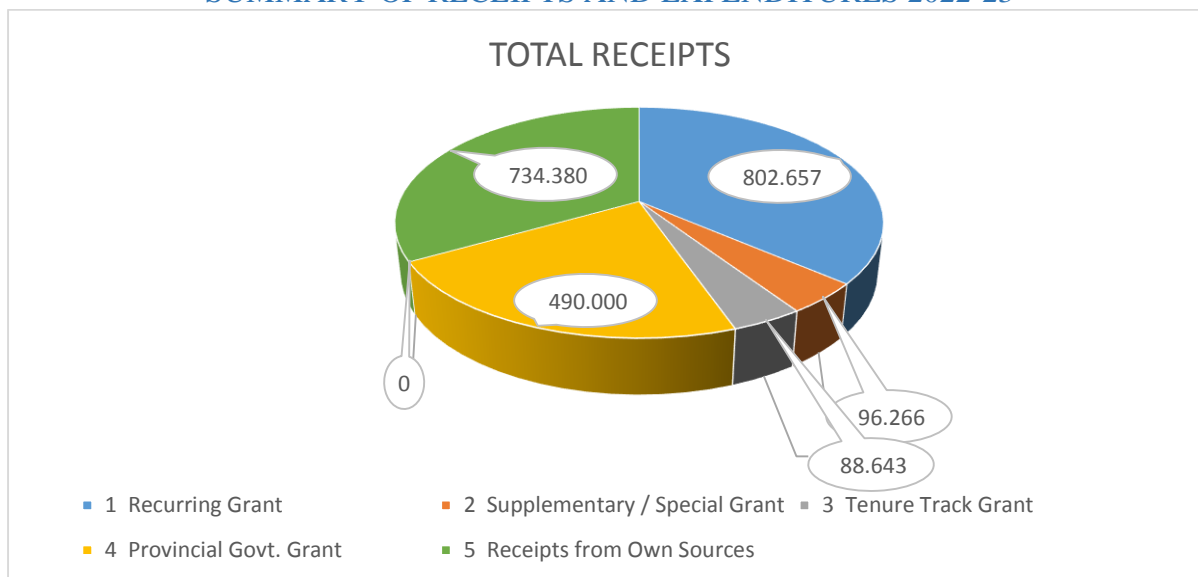
Anti- Drug Walk



Chapter -8

FINANCE

SUMMARY OF RECEIPTS AND EXPENDITURES 2022-23



SUMMARISED BUDGET PROFILE

Actual FY 2022-23 & Budget Estimates FY 2023-24

The University of Agriculture, Peshawar

[Million Rs.]

Particulars		2022-23 (Actual)	2023-24 (Budget Estimates)
1. Opening Balance:		15.970	(255.223)
2. Total Grants & Donations [a - g]		1,374.751	993.730
a.	Federal Govt. General Budgetary Support including ORIC,QEC,FAD	808.983	835.706
b.	Federal Government Grant for Need Based Scholarship	38.120	35.000
c.	Ceiling for Tenure Track Faculty	96.176	123.024
Total Recurring Grant		943.279	993.730
d.	Federal Govt. Supplementary / Additional Grant in Aid	10.000	-
Overall Federal Govt. Grant		953.279	993.730
e.	Provincial Govt. Grant	421.472	-
f.	Donations	-	-
g.	Grant for Enhancement of Revenue	-	-
3 (i) Students Related Income [3(i) a - 3(i) e]		828.768	932.397
Tuition Fees		473.772	531.208
All Other Fees		251.084	292.612
Hostel / User Charges, etc.		101.888	106.452
a.	On Campus Students (sub-total)	826.744	930.272
b.	Affiliated College/Institutions' Students	2.024	2.125
3 (ii) Other Venues of Income [3(ii) a - 3(ii) f]		229.059	187.577
a.	Income from Collaborative and Contract Research	0.300	0.315
b.	Income from Consultancy & Testing	0.500	0.525
c.	Income from Intellectual Property	-	-
d.	Income from Regeneration & Development Programs	-	-
e.	Income from UDO fund investment	3.500	
f.	Any Other Income	224.759	186.737

3 (iii) Receipts from UDO Endowment Fund		-	8.000
3. Total Own Resources		1,057.827	1,127.974
A. Total Available Resources [1+2+3]		2,448.548	1,866.481
4. Expenditure Break-up:		2,279.760	2,505.217
a.	Faculty Salary	622.119	661.097
b.	TTS Faculty Salary/ Gratuity	199.157	234.421
c.	Salary of Officers & Staff -Teaching Departments	214.786	228.243
d.	Salary of Officers & staff -All Non-Teaching Department	310.336	329.780
e.	Other Establishment Charges	74.947	91.606
f.	Non Salary Expenses / Other Charges	393.820	409.320
g.	Pension Expenditure	408.695	550.500
h.	Research	-	0.250
i.	Library Expenses	2.000	2.000
	Investment of UDO Fund	53.900	-
5. Total Establishment Charges [4 a to e]		1,421.345	1,545.147
6. Total Non Salary Expenses [4 f to h]		858.415	962.070
B. Total Expenditures [5 + 6]		2,279.760	2,507.217
1	Pension Related Liabilities	500.000	-
C. Surplus / Deficit [A - B]		(331.212)	(640.736)

HEAD-WISE DETAIL OF SELF-GENERATED REVENUES

The University of Agriculture, Peshawar

In Rupees

Code No.	Budget Heads	2022-23 Actual	2023-24 Budget Estimates
C02813	Education General Fees [301 - 390]	724,856,000	823,820,000
C0281301	Admission Fee	25,500,000	36,655,000
C0281306	Tuition Fee - Regular Fee Structure	90,500,000	124,596,000
C0281311	Tuition Fee - Self-Support Scheme	383,272,000	406,612,000
C0281316	Tuition Fee - Self-Financing Scheme	-	-
C0281322	Registration Fee - University Students Only	14,500,000	21,035,000
C0281323	Registration Fee -Affiliated Colleges Students only	-	-
C0281326	Registration Fee - Private / External Students	-	-
C0281332	Examination Fee-University on Campus Students	23,230,000	28,636,000
C0281341	Library Fee	4,500,000	7,289,000
C0281346	Degree / Transcript Fee etc.	23,500,000	29,407,000
C0281381	Course Fee - 'Diploma Courses - Others'	11,673,000	13,096,000
C0281382	Course Fee - 'Special / Short Courses'	-	-
C0281390	Other Misc. Fees from Students	148,181,000	156,494,000
C02812	Hostel Fees / User Charges [201 - 226]	101,888,010	106,452,000
C0281201	Hostel Admission Fees	45,751,896	60,500,000
C0281206	Hostel Room Rent	9,656,241	2,512,000
C0281211	Hostel Utility Charges	-	-
C0281216	Hostel Service Charges	5,004,914	3,000,000
C0281221	Income from Transport / Buses	2,548,479	4,210,000
C0281226	Other Misc. Charges	38,926,480	36,230,000
C02810	Receipts from UDO Endowment Fund	3,500,000	8,000,000
C02815	Income from Services Rendered [501 - 531]	300,000	315,000
C0281501	Income from Collaborative Research - Domestic	300,000	315,000

C02815	Income from Consultancy & Testing [536 - 561]	500,000	525,000
C0281536	Income from Consultancy	500,000	525,000
C02815	Income from Regeneration & Development Programs [566 - 572]	-	-
C02815-6	Income from Intellectual Property [575 - 610]	-	-
C02818	Others [809 - 870]	226,783,481	188,862,000
C0281809	Affiliation Fees Received from Other Institutions	2,024,000	2,125,000
C0281820	Sale of Publications	-	-
C0281830	Sale of Prospectus / Forms	12,986,530	8,520,000
C0281840	Rent / Lease of University Buildings / Shops etc.	26,241,000	40,120,000
C0281850	Income from Farm Products / Livestock etc.	67,015,382	95,004,000
C0281860	Interest on Investments / Cash Balances etc.	26,208,162	3,450,000
C0281870	Other Misc. Receipts	37,308,407	38,643,000
C0281871	Loan Recovery from Employees	55,000,000	1,000,000
	Total Own Resources	1,057,827,491	1,127,974,000

Establishment Charges

(In Rupees)

Sr. No.	Head	Actual 2022-23	Budget Estimates 2023-24
Total Pay of Faculty / Officers		574,819,780	756,762,000
A01101	Basic Pay	369,824,217	514,977,000
A01105	Qualification Pay	-	-
A0110501	Special Pay	5,710,429	2,564,000
A01106	Pay of Contract Faculty/Officers	128,506	4,500,000
A0110602	Tenure Track Pay	199,156,628	234,721,000
Total Pay of Staff / Others		335,081,745	301,563,000
A01151	Basic Pay	335,081,745	301,563,000
A01156	Pay of Contract Staff	-	-
Total Pay (Pay of Officers + Pay of Staff)		909,901,525	1,058,325,000
Total Regular Allowances		289,294,756	235,198,000
A01201	Senior Post Allowance/Special Pay	1,493,047	1,378,000
A01202	House Rent Allowance	23,325,296	37,750,000
A01203	Conveyance Allowance	48,452,683	52,709,000
A012031	Special Conveyance Allowance	-	-
A01207	Washing Allowance	12,606,573	1,791,000
A01208	Dress Allowance	12,120,719	2,006,000
A0124410	Adhoc Relief Allowance 2016-10%	11,359,449	-
A0124411	Adhoc. R Allowance 2017 -10%	17,317,984	-
A0124412	Adhoc Relief Allowance 2018 -10%	17,317,984	-
A0124413	Adhoc Relief Allowance 2019 - 5/10%	9,688,206	-
A0124414	Adhoc Relief Allowance 2021 - 10%	17,581,062	-
A024415	Adhoc Relief Allowance 2022- 15%	-	75,791,000
A024416	Teaching Allowance @ 20% (BS-17 & above)	95,209,974	46,867,000
A024417	Special Allowance-2021 (BS-8 to BS16) @ Rs.3500/-	15,393,530	15,827,000
A024418	Washing, Dressing and Integrated Allowance	-	-

A024419	Integrated Allowance	7,352,486	980,000
A0129904	Gun Allowance	75,763	99,000
Other Regular Allowances - A01211 - 70		147,202,239	160,018,000
A01216	Qualification/PhD/Special S&T Allowance/M. Phil Allowance	21,124,778	21,498,000
A01217	Medical Allowance	106,240,981	120,796,000
A01224	Entertainment Allowance	1,104,830	1,105,000
A01226	Computer Allowance	-	-
A01228	Orderly Allowance	15,431,732	14,560,000
A01236	Deputation Allowance	-	-
A01238	Charge Allowance - Deanship /Chairmanship/ Headship Allowance	2,064,371	952,000
A01267	Provost / Warden / Boarding Allowance	238,623	228,000
A01270	Others: (Compensation and Notional increment etc.)	996,924	879,000
Total Regular Allowances (Regular+ Others)		436,496,995	395,216,000
Other Allowances (A01271 - 99)		74,946,945	91,606,000
A01271	Overtime Allowance to Drivers/Second Shift Allowance	1,613,062	2,000,000
A01272	Night Duty Allowance	11,550	200,000
A01231	Special Computer Allowance	-	350,000
A01273	Honorarium	1,989,383	2,500,000
A01274	Medical Charges - Hospitalization etc.	1,349,050	3,000,000
A01277	Contingent Paid Staff / Daily Wages	70,540,129	80,000,000
A0127801	Leave Salary / Pension Contribution (Deputationists)	-	300,000
A0127802	Group Insurance	(556,229)	3,256,000
Total Establishment Charges		1,421,345,465	1,545,147,000

Non-Salary Expenditure

(In Rupees)

Sr. No.	Head	Actual 2021-22	Budget Estimates 2023-24
A031	Fees (Total)	-	2,060,000
A03101	Bank Fee	-	50,000
A03102	Legal Fee	-	10,000
A03103	Children Fee Subsidy	-	2,000,000
A032	Communication (Total)	3,899,838	4,555,000
A03201	Postage and Telegraph	173,388	120,000
A03202	Telephone & Trunk Calls	1,615,410	420,000
A0320401	Electronic Communication	-	-
A0320402	PERN	2,111,040	4,000,000
A0320403	Internet Charges	-	-
A03205	Courier and Pilot Services	-	15,000
A033	Utilities (Total)	164,825,078	130,740,000
A03301	Gas	23,642,681	10,530,000
A03302	Water	-	-
A03303	Electricity	141,182,397	120,210,000
A03304	Hot & Cold Weather Charges	-	-
A034	Occupancy Costs (Total)	97,236,164	96,100,000
A03402	Rent for Office Building	-	-
A03403	Rent for Residential Buildings (Housing Subsidy/Requisition)	95,364,491	96,000,000
A03404	Rent for other Buildings - Hostels etc.	-	-
A03407	Rate and Taxes	242,673	-
A03410	Security Charges	1,629,000	100,000
A03470	Other Occupancy Cost	-	-
A036	Motor Vehicles (Total)	118,180	250,000
A03602	Insurance	-	-
A03603	Registration / Token Tax	118,180	250,000
A037	Consultancy & Contractual Work (Total)	-	150,000
A03770	Others (Studies / Consultancies)	-	150,000
A038	Travel & Transportation	28,685,986	24,845,000
A03801	Training - Domestic	-	1,000,000
A03802	Training - International	-	10,000
A03805	Travelling Allowance - TA/DA	521,730	1,200,000
A03806	Transportation of Goods	11,925	100,000
A03807	P.O.L. Charges	28,152,331	22,000,000
A03808	Conveyance Charges - for late sitting	-	10,000
A03809	CNG Charges	-	15,000

A03810	Study Tours	-	500,000
A03820	Others	-	10,000
A039	General Operating Expenses (Total)	53,661,832	71,390,000
A03901	Stationery	4,347,903	4,000,000
A03902	Printing and Publications	229,010	600,000
A03903	Conferences / Seminars / Workshops / Symposia	600,000	300,000
A0397006	Convocation Expenses	936,760	1,000,000
A03904	Hire of Vehicles	-	10,000
A03905	Newspapers Periodicals and Books	1,425,150	2,000,000
A03906	Uniforms and Protective Clothing	14,290	200,000
A03907	Advertising & Publicity	590,039	1,600,000
A03912	Expenditure on Pakistani Delegations to Foreign Countries	-	-
A03913	Contribution & Subscription (CCC etc)	68,000	800,000
	a) CCC	-	-
	b) Associations	-	-
	c) Others	-	-
A03915	Payment to Govt. Department for Services Rendered	-	10,000
A03916	Essay Writing & Copyrights	-	-
A03917	Law Charges	4,367,283	7,500,000
A03918	Exhibitions Fairs & Other National Celebrations	-	100,000
A03919	Payment to Other Services rendered	-	200,000
A03927	Purchase of Drugs and Medicines	98,500	500,000
A03933	Service Charges	900	10,000
A03936	Foreign / Inland Training Course Fee	-	-
A03940	Unforeseen Expenditure / Contingencies	1,112,140	2,500,000
A03942	Cost of other stores:	-	-
A03959	Chemicals / Glassware	327,523	4,000,000
A0394203	Generic Consumable	-	500,000
A0394204	Specific Consumable	-	500,000
A03959	Stipends Incentives etc.	-	-
A03979	Others	-	-
A0397002	Operational Cost- Office of Research Innovation & Commercialization (ORIC)	-	20,000
A0397003	Operational Cost of Quality Enhancement Cell (QEC)	-	20,000
A0397004	Operational Cost of Financial Aid Development Office (FAD)	-	20,000
A0397005	Conduct of Examinations	6,048,000	8,000,000
A0397006	Sports Activities	19,589	500,000
A0397007	Remuneration to Thesis Supervisors	2,400,000	6,500,000
A0397008	Remuneration to Part-time Teachers / Visiting Faculty	31,076,745	30,000,000
A03	Total Operating Expenses	348,427,078	330,090,000
A04	Employees Retirement Benefits (Total)	408,729,021	550,500,000

A04101	Pension	408,695,281	500,000,000
A04102	Restoration of Commuted Value/Commutation	-	40,000,000
A04105	Gratuity where pension is not mature	-	-
A04104	Other Pension - e.g. Family Pension	-	-
A04106	Reimbursement of Medical Charges to Pensioners	33,740	500,000
A04110	Payment of Pension Contribution to other Organizations	-	-
A04114	Encashment of LPR	-	5,000,000
A04170	Assistance Package for Families of Employees Died in Service	-	5,000,000
A04171	Pension Related Liability	-	-
A13	Repair and Maintenance (Total)	4,406,506	13,300,000
A13001	Transport	1,645,005	6,000,000
A13101	Machinery & Equipment	771,083	1,500,000
A13201	Furniture & Fixture	69,680	500,000
A13301	Office Buildings	804,319	2,000,000
A13302	Residential Buildings	855,902	2,000,000
A13304	Structures (Hostels, mosques etc)	30,883	150,000
A13701	Hardware	34,504	150,000
A13702	Software	-	150,000
A13703	I.T. Equipment	9,600	350,000
A13801	Maintenance of Gardens	-	250,000
A13901	Lines & Wires - Repair	185,530	150,000
A13920	Others - Repair	-	100,000
A021	Feasibility Studies	-	-
A02101	Feasibility Studies	-	-
A02102	Consultant-based Feasibility Studies	-	-
A022	Research Survey & Exploratory Operations (Total)	15,000	250,000
A02201	Research and Survey	15,000	250,000
A02203	Consultant Based Research & Survey	-	-
A061	HEC Need based Scholarships (Total)	26,379,693	40,000,000
A0610102	Need Based Scholarships	26,379,693	40,000,000
A0610104	Gold Medals & Scholarships	-	-
A06102	Other Scholarships	-	-
A06103	Cash Awards - for Meritorious Services	-	-
A062	Technical Assistance (Total)	-	20,000
A06202	Contribution to International Agencies	-	-
A06270	Others	-	20,000
A063	Entertainments and Gifts (Total)	1,074,783	2,600,000
A06301	Entertainments	847,758	2,500,000
A06302	Gifts	227,025	100,000
A064	Other Transfer Payments (Total)	53,900,000	10,000

A0640201	Contributions / Transfer to reserve funds	-	-
A0640202	Contribution / Transfers to Pension Fund	-	-
A0640203	Contributory Provident Fund (University Share) C.P.Fund	-	10,000
A0640204	Contribution / Transfers to Benevolent Fund	-	-
A0640205	University linkage Programme	-	-
A0640301	Renewals & Replacements	-	-
A0647001	Investment of Fund Allocated for Enhancement of Fund	53,900,000	-
A09	Expenditure on Acquiring of Physical Assets (Total)	15,289,093	25,000,000
A09201	Hardware (Computers, Printers etc)	295,361	500,000
A09202	Software	259,000	500,000
A09203	Purchase of I.T. Equipment	61,976	500,000
A09501	Purchase of Transport	-	-
A09601	Purchase of Plant & Machinery	1,062,947	1,500,000
A09701	Purchase of Furniture & Fixture	1,078,311	1,500,000
A09801	Purchase of Livestock	-	500,000
A09470	Others (Seed, Feed, Fertilizer etc)	12,531,498	20,000,000
A124	Civil Works - Buildings & Structures (Total)	193,444	300,000
A12405	Electrification Plumbing and Other Infrastructure	166,775	150,000
A12470	Others - Civil Works	26,669	150,000
	Total Non-Salary Expenses	858,414,618	962,070,000

Chapter -9

LITIGATION CASES

The University Law Section of the Registrar Setup is looking after legal court cases of the University. Below is detail about the University pending cases pursued by the Legal Section in various court of the Country.

Pending Court Cases from 2022 to 2023

Supreme Court of Pakistan Cases	
Year	Number of Cases
2022	08
2023	07
Total	15
Peshawar High Court Cases	
Year	Number of Cases
2022	11
2023	6
Total	17
District/Lower Court Cases	
Year	Number of Cases
2022	13
2023	03
Total	16

Decided Court Cases from 2022 to 2023

Supreme Court of Pakistan Cases	
Year	Number of Cases
2022	82
2023	01
Total	83
Peshawar High Court Cases	
Year	Number of Cases
2022	36
2023	25
Total	61
District/Lower Court Cases	
Year	Number of Cases
2022	02
2023	05
Total	07

SUPREME COURT PENDING CASES FOR THE YEAR 2022-2023

S#	Case Title	CPLA#	Counsel	Prayer
1.	UAP Vs Habibullah Tariq and others	CP No. 3811/2022	Naveed Akhtar	Regularization from Anti date
2.	UAP Vs Zeeshan Ali Shah	CP No. 3812/2022	Naveed Akhtar	Regularization from Anti date
3.	UAP Agri Vs Abdul Qadeer	CP No. 3813/2022	Naveed Akhtar	Regularization from Anti date
4.	Prof. Arif Vs UAP	CPLA/2022	Naveed Akhtar	Against the Judgment of PHC Dated 23.12.2021
5.	UAP Vs Muhammad Arshad	CP No. 811/2022	Naveed Akhtar	Against the Written Test for Junior Clerks / Against the Judgment of PHC Dated
6.	UAP Vs Prof. Dr. Sohail Akhtar	CP No. 2054/2022	Naveed Akhtar	Milk Inquiry Case / Syndicate Decision / Against the Judgment of PHC dated 24.3.2022
7.	UAP Vs Farhat Ullah	CP No. 2055/2022	Naveed Akhtar	Against the decision of PHC judgment dated 24.3.2022 /Syndicate Decision
8.	UAP Vs Shehzad Khan	CP No. 2291/2022	Naveed Akhtar	Regularization from Anti date / Disposed of on May 10, 2022
9.	UAP Vs Muhammad Nazir and others	CP No. 2782/2022	Naveed Akhtar	IBMS Lecturers / Regularization from Ante Date
10.	UAP Vs Waqas Ahmad	CP No. /2023	Naveed Akhtar	Allowed by PHC on 28.4.2023 in W.P No. 4939-P/2022 / Appointment as Junior Lab Assistant under Deceased Son's Quota
11.	UAP Vs Qamar-ud-Din	CP No. /2023	Naveed Akhtar	Allowed by PHC on 28.4.2023 in W.P No. 356-P/2023 / Appointment as Junior Clerk under Deceased Son's Quota
12.	UAP Vs MS Liaqat Ullah	CP No. /2023	Naveed Akhtar	Escalation Charges Dismissed on 29.5.2023 (Against University) CR No. 794-P/2021
13.	UAP Vs Ahmadullah & Co	CP No. /2023	Naveed Akhtar	Escalation case Dismissed on 29.5.2023 (Against University) CR 539-P/2022
14.	Fahad Khalil Vs UAP	CP No. /2023	Naveed Akhtar	Appointment under deceased son quota (Disposed of on 7.6.2023) (Against University)
15.	Roid Khan Vs UAP	CP No. /2023	Naveed Akhtar	Appointment under deceased son quota (Disposed of on 7.6.2023) (Against University)
16.	Syed Aftab Ahmad & other Vs UAP	CP No. /2023	Naveed Akhtar	Promotion from Office Assistant to Supdt

PESHAWAR HIGH COURT PENDING CASES FOR THE YEAR 2022-2023

S#	Case Title	W.P / COC #	Counsel	Prayer
1.	Prof. Dr. Shah Alam	87-P/2022	Zafar Tahir Kheli	Deduction / Recovery of Tax Issue
2.	Prof. Dr. Bashir Ahmad and others	COC No. 518-P/2022	Naveed Akhtar	Tax Deduction
3.	Dr. Muhammad Irshad	552-P/2022	Naveed Akhtar	Appointment as Assistant Professor (BPS-19) under 2% Disable Quota
4.	Dr. Muhammad Nazeer	942-P/2022	Naveed Akhtar	Regularization as Lecturer BPS-18 in the Deptt of Water Resources and Management
5.	Dr. Shamsher Ali	1020-P/2022	Naveed Akhtar	Appointment as Associate Professor
6.	Dr. Mussawair Shah	2227-P/2022	Naveed Akhtar	Pay Revision Fixation
7.	Dr. Muhammad Hanif and others	2921-P/2022	Naveed Akhtar	Declared illegal the impugned minutes of 112 th Syndicate
8.	Muhammad Hanif and others	COC No. 373-P/2022 in W.P No. 2921-P/2022	Naveed Akhtar	Declared illegal the impugned minutes of 112 th Syndicate
9.	Noor ul Hadi Vs UAP	3958-P/2022	Zafar Tahir Kheli	Service Statutory Promotion / Personal Grade to BPS-20
10.	Muhammad Nazir	COC No. 548-P/2022 No. 1561-P/2021	Naveed Akhtar	IBMS Contract Lecturers (For Compliance of PHC Order dated 1.6.2022)
11.	Ishtiaq Ahmad	CM No. _____ of 2022 for restoration of COC No. 23-P/2021 in COC No. 280/2020 in W.P No. 5893-P/2018	Naveed Akhtar	Restoration of COC Regularization Case Dismissed for non-prosecution on 30.11.2022
12.	UAP Vs Wajid and others	Civil Revision Petition 170 & 33-P/2023	Naveed Akhtar	Against the Judgment, Decree and Order dated 10.12.2022 of Additional District Judge-V / Allotment of Shops Case
13.	Fazl-e-Mabood	380-P/2023	Naveed Akhtar	Against removal from Service as Junior Clerk
14.	Muhammad Atif	1570-P/2023	Naveed Akhtar	Antedate Regularization (Contract Lecturer AMK Campus Mardan / Asstt Director Teaching)
15.	Waqas Ahmad	COC No. 327-P/2023	Naveed Akhtar	Appointment under Deceased Sons Quota / Implementation of PHC Judgment
16.	Fahad Khalil	COC No. 414-P/2023	Naveed Akhtar	Appointment under Deceased Sons Quota / Implementation of PHC Judgment

DISTRICT/LOWER COURT PENDING CASES FOR THE YEAR 2022-2023

S#	Case Title	Court	Counsel	Prayer
1.	Mst. Shahida	Civil Court No.24	M. Shakib	Date of Birth
2.	Syed Iftikhar Hussain	Civil Court No.24	M. Shakib	Recovery / Syndicate decision
3.	Muhammad Riaz	Civil Court. No.25 Ms.Tarana (C.J)	M. Shakib	Student case / Extension
4.	Muhammad Jahanzaib	Civil Court. No.33	M. Shakib	DVM degree
5.	Basit Ali and others	Civil Court No. Zainab Batool (C.J)	M. Shakib	Students case / Extension
6.	Muhammad Adnan	Civil Court No. 35 Hamid sajjad (C.J)	M. Shakib	Student case / Extension
7.	Muhammad Haroon	Civil Court No.	M. Shakib	House Requisition
8.	UAP Vs..Zeeshan Durrani	Civil Court No.43	M. Shakib	Recovery Suit
9.	Raza Khan	Civil Court No	M. Shakib	Shop No. 38
10.	Umair Khan	A.D.J / Appeal	M. Shakib	Students cases for Examination
11.	Muhammad Adnan	Civil Court No.	M. Shakib	DASAR office / DVM seat on self finance rate / refund of Rs.100,000/- (One Lac)
12.	UAP Vs Dr. Ikram Ullah	Civil Court No.	M. Shakib	Recovery Suit
13.	UAP Vs Fazli e Mabood etc	Civil Court No.	M. Shakib	Recovery Suit
14.	Ahmad Ullah	Civil Court No.	M. Shakib	Arbitration
15.	Rehmat Gul	Civil Court No.	M. Shakib	Pension Benefits / House Accommodation
16.	M/s Muhammad Shafiq and Sons	Civil Court No.	M. Shakib	Arbitration

The University of Agriculture, Peshawar - Pakistan

ANNUAL WORK PLAN FOR FY 2023-24

S. #	Description	Key Performance Indicators (KPIs)	Achievement (2022-2023)	Targets (2023-24)	Remarks
	A	B	C	D	E
1	University Governance	i. Senate Meetings ii. Syndicate Meetings iii. Academic Council Meetings iv. Finance & Planning Committee Meetings v. Board of Advanced Studies & Research meetings	i. Two ii. Two iii. Five iv. Three v. Seven	i. Two ii. Four iii. Four iv. Two v. Eight	-
2	Finance (Rs. in million)	i. Receipts ii. Expenditure iii. Net Closing	i. Rs. 2424.093 mn ii. Rs. 2404.119 mn iii. Rs. 19.974 mn	i. Rs.2553.000 mn ii. Rs. 2528.717 mn iii. Rs. 24.283 mn	-
3	Strengthening Physical Infrastructure (P&D)	i. Implementation of PSDP Projects ii. Implementation of ADP Projects	<ul style="list-style-type: none"> Implementation of TDC project activities procurement & installation of Lab. Equipment, up-gradation of existing ICT Infrastructure and execution of HRD component, Procurement of Furniture & fixture etc. 	<ul style="list-style-type: none"> Implementation of TDC project activities. Procurement and installation of Lab equipment, solarisation of newly constructed buildings, Provision of ICT and networking to the newly constructed building etc. and procurement of Furniture. 	Timely release of funds

S. #	Description	Key Performance Indicators (KPIs)	Achievement (2022-2023)	Targets (2023-24)	Remarks
	A	B	C	D	E
		iii. New Developmental Schemes/ Projects(PSDP/ADP)	<ul style="list-style-type: none"> Completion of projects activities including procurement of food processing units, conducting trainings, seminars and farmer field days (subject to availability of funds) 04 ADP New schemes submitted for approval. 01 PSDP new scheme submitted for approval to HEC. 	<ul style="list-style-type: none"> 04 ADP & 01 PSDP schemes to be submitted to the relevant bodies for consideration and approval 	<ul style="list-style-type: none"> In current financial year 2022-23 due to financial crunch the funds were freeze by the Provincial Govt. Khyber Pakhtunkhwa and 50% of the project activities were still to be completed including procurement of food processing units, conducting trainings, seminars and farmer field days.
4	Research and Development	i. Academic improvement & Activities	<ul style="list-style-type: none"> PhDs produced = 43 MS/MPhil/MSc (Hons) = 431 BSc (Hons)/DVM /BS = 1540 	<ul style="list-style-type: none"> PhDs produced = 50 MS/MPhil/MSc (Hons) = 500 BSc (Hons)/DVM/ BS = 1600 New = 35 	

S. #	Description	Key Performance Indicators (KPIs)	Achievement (2022-2023)	Targets (2023-24)	Remarks
	A	B	C	D	E
		ii. Research projects iii. Academic Linkages (MoUs/Joint Initiatives/Contracts) iv. Publications (Books/Chapters etc.) v. New Academic Programmes	<ul style="list-style-type: none"> On-going = 54 02 21 04 	<ul style="list-style-type: none"> 04 10 06 	-
5	Access to Higher Education	i. Enrolment undergraduate ii. Enrolment postgraduate iii. Enrolment postgraduate – PhD iv. Diploma	<ul style="list-style-type: none"> 9551 1495 295 333 	<ul style="list-style-type: none"> 10000 1600 350 250 	-
6	Faculty and Staff Development	i. Faculty & staff pursuing PhDs/Post Docs. ii. Faculty/Staff returned on completion of PhDs/Spilt programme	<ul style="list-style-type: none"> 6 3 	<ul style="list-style-type: none"> 10 10 10 	-

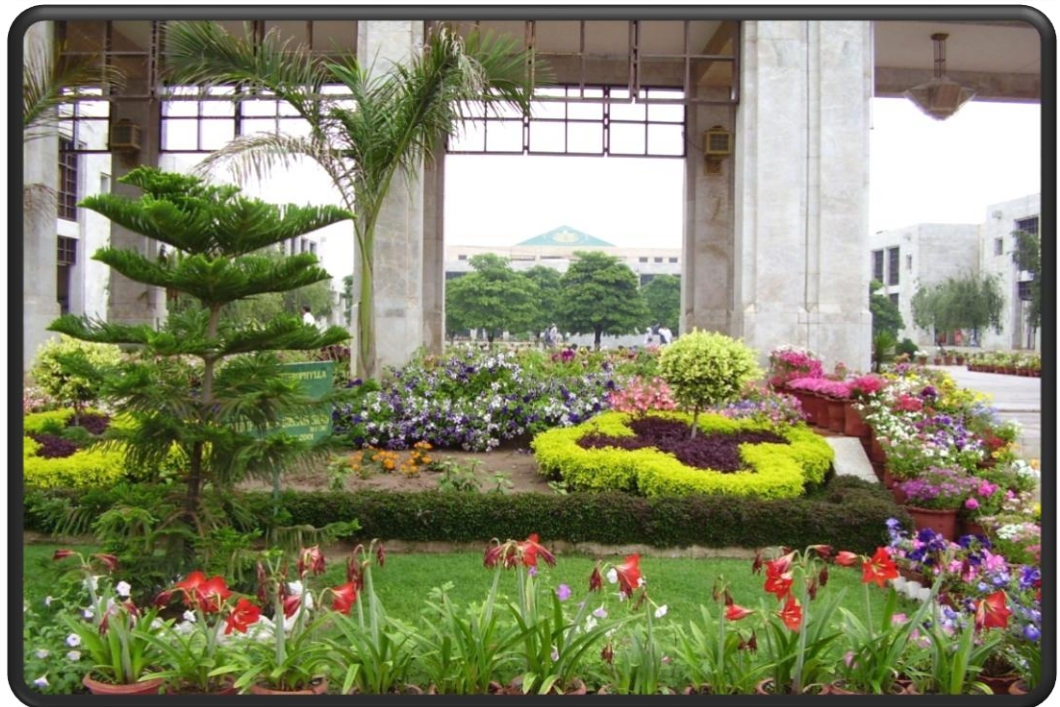
S. #	Description	Key Performance Indicators (KPIs)	Achievement (2022-2023)	Targets (2023-24)	Remarks
	A	B	C	D	E
		iii. Staff training	<ul style="list-style-type: none"> 3 - 		
7	Quality Assurance	i. Accreditation of academic programmes ii. Post Graduate Degree Review iii. Self-Assessment Reports of the academic programmes iv. NOCs etc. for New Programmes v. Plagiarism Reports (Postgraduate)	<ul style="list-style-type: none"> 06 56 06 14 710 	<ul style="list-style-type: none"> 08 70 08 Need based 750 	-
8	R&D Endowment Fund (Agriculture University Peshawar)	No. of Research Projects Funded <ul style="list-style-type: none"> On-going Completed 	<ul style="list-style-type: none"> 05 05 	<ul style="list-style-type: none"> 05 05 	-
9	Students Financial Assistance & Scholarships	i. No. of Scholarships ii. No. of student Beneficiaries iii. Amount awarded in Assistance	<ul style="list-style-type: none"> 23 1958 Rs. 897.100 Mn 	<ul style="list-style-type: none"> 23 1700 Rs. 976.050 Mn 	-
10	Sports and Co-curricular Activities	Sports Events	<ul style="list-style-type: none"> 15 	<ul style="list-style-type: none"> 18 	-
11	Strengthening Technological Infrastructure	i. Access to online HEC Journals/Databases	<ul style="list-style-type: none"> 06 Basic resources of HEC Digital Library accessed 	<ul style="list-style-type: none"> 07 Basic resources of HEC Digital Library will be accessed 	

S. #	Description	Key Performance Indicators (KPIs)	Achievement (2022-2023)	Targets (2023-24)	Remarks
	A	B	C	D	E
		(Library) ii. Events in Video Conference Room iii. University Management Systems development	<ul style="list-style-type: none"> 75000 number of electronic contents accessed 44 07 (i.e. Director Teaching Office, UAP Job Portal, Personnel Information, University Admissions, Controller of Examination, Tests, Budget & Classification& University Admissions tests) 	<ul style="list-style-type: none"> 80000 number of electronic contents accessed 50 02 (Registrar Setup and Salary Section) 	-
12	University Building Communities and Economy through Technology Transfer	Outreach Activities	<ul style="list-style-type: none"> 30 120 	<ul style="list-style-type: none"> 39 13 	This includes outreach Seminars/ Workshops Farmer Field days and trainings under ADP Projects.

Source: Concerned Departments/ Directorates

Prepared by: Directorate of P&D, the University of Agriculture, Peshawar

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**THE UNIVERSITY OF
AGRICULTURE
PESHAWAR, PAKISTAN**

