



Among the top 100 Universities of the World

University of Agriculture

Faisalabad, Pakistan

Sustainable Agriculture Through **Learning**
Discovery
Outreach

www.uaf.edu.pk



vision
2030

Vision 2030

Professor Dr Iqrar Ahmad Khan (SI)
Vice Chancellor

University of Agriculture, Faisalabad
The top ranked degree awarding institution in Pakistan during 2013
by
Pakistan Council for Science and Technology (PCST)



ISBN 9789698237677

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Printed by: University Press, University of Agriculture, Faisalabad-Pakistan

The University of Agriculture, Faisalabad (UAF) is charting a course for its future. It is determined to lead the change, the change that can revolutionize its learning, discovery and outreach in order to bring sustainability in agriculture and promote rural development by advocating agrarian reforms through research based agriculture policy and technology transfer. We have set high goals for ourselves keeping in view the future needs of the country. As a team, we think and move forward.



PREAMBLE

As a public university, UAF prepares the next generation of workers, managers and leaders through its academic programs in agricultural and allied sciences. It generates new knowledge through innovative research and transfers research-based information to the people to ensure a sustainable and abundant agriculture, livestock, forestry and fisheries within a healthy environment. The Flagship University of the Province of Punjab stands second amongst all public and private institutions of higher education in Pakistan according to HEC Ranking 2012 and 98th and 139th in the world (20th and 25th in Asia) in agricultural sciences on the basis of current NTU and QS rankings, respectively. UAF translates the latest research into practical applications (goods and services) that ensure food security, improve people's lives and drive the economy of Pakistan. UAF creates and disseminates knowledge and skills to thrive in the fast-changing, multicultural environment of the 21st century. Thus, UAF emerges as a leader of the change process towards a prosperous and resilient nation of Pakistan.



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UAF vision 2030



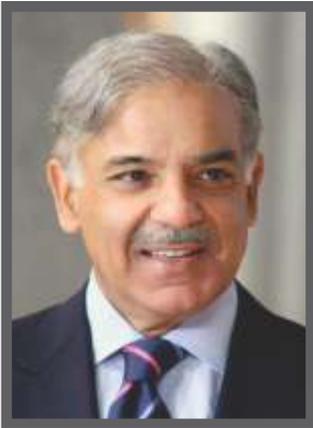


Message from the Governor Punjab Chaudhry Muhammad Sarwar

University of Agriculture, Faisalabad is well known for its work and research in agricultural disciplines. In any country, the education system requires both minor adjustments and paradigm changes on a regular basis in order to address changes in academic and educational needs. Such change process presents a number of challenges that point to strategic review and update of the policy framework to guide decisions in the higher education.

The Government is committed to support agriculture sector and finding strategies and solutions that are both cost-effective and responsive. We realize that the Vision-2030 sets out a roadmap for the future of Pakistan's agriculture sector as a highly productive, innovative and financially sustainable sector and an important pillar of economy. I sincerely believe that by pursuing the directions and commitments set out in the vision – 2030, we can meaningfully contribute towards development of agriculture sector and consequently national development. I am confident that University of Agriculture, Faisalabad will go from strength to strength through untiring hard work, dedication and commitment.



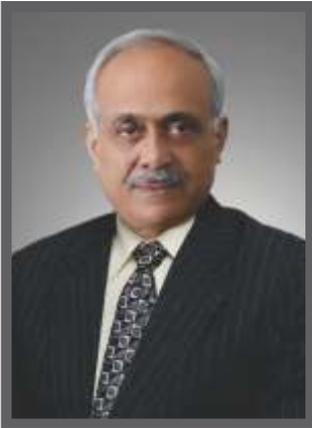


Message from the Chief Minister Punjab Mian Muhammad Shahbaz Sharif

I firmly believe that a sustained investment in the agriculture sector to increase productivity and create greater employment opportunities is the way forward. This investment should be directed towards key areas of development like livestock, horticulture, oilseeds, mechanization, advancements in technology and innovation, irrigation, value addition, marketing and education of small farmers. Our political manifesto clearly admits the desire to revamp agriculture research organizations to ensure that there is sustained increase in productivity to meet the demands of a growing population and that the benefits of research actually reach the farmers. The University of Agriculture, Faisalabad has played an outstanding role in agricultural research and human resource development. The Vision 2030 is a progressive step. I endorse this vision document and offer support towards achieving the goals defined in this vision.



FOREWORD



As a result of an external review we were obliged to undertake and document strategic planning. Vision 2030 is an outcome of the said exercise. It is a difficult task to portray the vision for any research and academic institution in terms of predictable scientific and technological advancements. Pakistan faces challenges to combat adversaries due to climate change, the rise in population, water-shortage and limited natural resources. Despite a severe financial crunch, the university will not compromise on quality education and research centered on agricultural and rural development. The emphasis has been to produce competent human resource through innovative learning and skill development processes by judiciously utilizing the available resources.

The vision 2030 is a SWOT based document focused on the future problems and opportunities. In addition to the newly crafted vision and mission statements, the plan includes a list of values, emphasis areas, and four major goals with a number of strategies and high priority action items. Some of our targets will be established during the implementation of the plan, while other measures will be tracked over time. This plan was developed over the course of many months with input and feedback from faculty, staff, students, administrators, and our external stakeholders. I value and appreciate everyone who contributed to this important exercise, and look forward to seeing the boost of agriculture sector in Pakistan, with a blossoming national economy.

I wish to record my gratitude to all faculty and personnel who have worked in the compilation of this document with a special mention for Dr. Sultan Habibullah Khan.

Iqrar Ahmad Khan
January, 2014

LOOKING TO 2030

The foundation stone of UAF was laid in 1906 with the name of Punjab Agricultural College and Research Institute, Lyallpur which was upgraded as the West Pakistan Agricultural University, Lyallpur in 1961 and now the University of Agriculture, Faisalabad since 1973. In the 21st century, UAF will push across the frontiers of knowledge to create, in service to the public, unique interdisciplinary programs of teaching, research, and outreach essential for agricultural and rural development. UAF will become an exemplar of a university that prepares citizens as work force and for leadership in a diverse, global and technology-driven environment.



About Vision 2030

For a knowledge-based economy, the university becomes a key element of innovation systems both as a creator of new knowledge and ideas based on research, and as a provider of human capital. The purpose of the Vision 2030 Strategic Framework is to articulate an action plan that defines a path to elevate UAF's position as one of the internationally recognized research universities and a gateway to knowledge for agricultural and rural development in Pakistan. It provides the overarching themes for more detailed plans that will be based on imperatives current for the time and that will shape strategic thinking during the respective planning cycles in the future years. Likewise, for UAF to emerge and stay among the top 100 universities of the world in agricultural sciences by 2030 will require innovative renewal in its approach to core and support functions to build up its strengths, exploit its competitive advantages and focus on those dimensions that will provide us with the distinctive edge that sets us apart from others.

UAF Introduction and Achievements

More than a century old, UAF is a learner-centered institution in which every individual is inspired by a rich campus life and challenged enough to pursue and celebrate knowledge, creativity and public service.



Introduction

The economy of Pakistan largely depends on agriculture which contributes 21.4% of GDP and 80% of the foreign earnings through the export of agro-based products in addition to employing more than 45% of the workforce directly. The hub of agriculture is the Punjab province where the major crops of the country such as wheat, rice, cotton, maize and sugarcane are cultivated in addition to fruit crops like citrus and mango, and major vegetables including melons and potato. Agro forestry, livestock farming and poultry production are also centered here.

Wheat, sugarcane, cotton, and rice account for more than 75% of the total crop production. According to FAO, Pakistan is the 7th largest producer of wheat, the 5th largest producer of sugarcane and the 4th largest producer of cotton in the world. Pakistan is the major producer of Basmati rice which is famous for its distinct aroma. Livestock is the proliferating sector which contributes to more than half of the country's agricultural GDP. Milk, meat and poultry products are playing a vital role in the rural economy.

Despite all these magnificent figures about the country's crops and livestock

sector, we still import edible oil and legumes (pulses). The trends in wheat production are marginally satisfactory. According to an estimate, the population of Pakistan will touch the figure of 242 million people by 2030 and the demand for food supply and other basic necessities of life of this rapidly expanding population will increase accordingly (Fig. 1). The extent of abiotic stresses such as drought, salinity and heat has increased due to unpredictable weather patterns/ climate change. Lowering down of under-ground water table, loss of genetic diversity, emergence of new pests and diseases, poor weed and crop residue management, deteriorating water quality, accumulation of toxic residues in agricultural commodities, shrinking land holdings due to fragmented ownership, increasing labor costs, energy crisis and inadequate post-harvest/marketing support are making the problems more intricate. That could render our fertile cropping systems risky and unsustainable. The productivity level of livestock sector is also stagnant. These issues deserve short and long term strategies and plans to ensure food security for masses and employment

growth in the industrial sector. The University of Agriculture, Faisalabad (UAF) was established in 1961 by upgrading the Punjab Agricultural College and Research Institute, Lyallpur which was founded in 1906. UAF comprises of six faculties, nine institutes, three centers and thirty departments (Table. 1). Due to regional demands, UAF has also established sub-campuses at Dera Ghazi Khan, Toba Tek Singh and Burewala. Two more sub campuses are under active consideration, one each at Depalpur and in Thal. Recently, UAF has established a Community College at its PARS campus to reinstate its dormant FSc Pre-Agriculture program. The Community College has also launched two year Associate Degrees and other options of flexible continuing education.

UAF channelizes its impact through high quality manpower produced to provide skill and leadership in positions

of responsibility. Knowledge is generated, disseminated and applied to advance the cause of science and promote progress and prosperity of the farmers and rural households. Its faculty currently comprises 84 professors, 42 associate professors, 213 assistant professors, 223 lecturers and 25 research staff. About 64% of the existing faculty are PhD while the non-PhD faculty are continuously facilitated to attain the apex qualification. Despite financial constraints, the university has achieved remarkable success. In recognition of their services, a number of faculty members have been decorated with prestigious presidential and civil awards like Izaz-e-Fazilat, Presidential Medal in Science and Technology, Pride of Performance, Tamgha-e-Imtiaz and Sitara-e-Imtiaz.

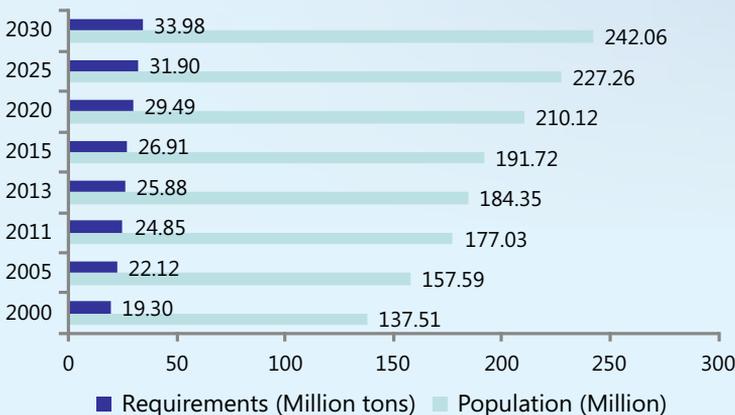


Fig. 1. Projected cereal requirements (Pakistan)

UAF Achievements

UAF has its roots in early days of canal colonies which played a significant role to ensure food security in a country facing repeated famines. It has been providing leadership since the days of Green Revolution. UAF graduates created poultry industry which is second largest sector of country's economy since 1970s and revolutionized cotton cultivation which has based the top segment of Pakistan's economy, the textiles industry since 1980s. The Higher Education Commission (HEC) has ranked UAF as the top university in agriculture sector. Among all universities of Pakistan, UAF scored second position in terms of research papers published in ISI indexed journals. The Islamic Development Bank (IDB) awarded UAF with the S&T prize 2012. The selection of UAF to establish the Center for Advanced Studies in Food Security/Agriculture by USAID and HEC is a vivid example of its competence and excellence. UAF achieved the NTU ranking in 2013 and The QS Top Universities Ranking in 2014 in the subject category (agriculture and forestry). To date, the university has produced 1049 PhD, 1829 MPhil/MS, 27283 MSc

(Hons.)/MSc/MBA, and 26008 BSc (Hons.)/DVM. The university has 636 on-going research projects including PhD projects worth 2002.5 million rupees while 729 research projects worth 9414 million rupees have been submitted to various funding agencies. UAF has signed 90 international, 27 national and 41 private MoUs to uplift the research culture and to promote faculty and student exchange programs.

UAF has achieved a number of milestones in its research programs and transfer of knowledge and technology to the stakeholders. Salient achievements include: introduction and development of new varieties and hybrids of citrus (Kinnow Mandarin from California USA, and Feutral's Early from Australia), vegetables (PARS-70 of potato), wheat (LU-26, SARC-1, SARC-5, 9272, 9476), cotton (LSS, PB-38), chickpea (AUG-209), mungbean (yellow Mosaic virus resistant 56-2), lentil (Strain AUL 18-10), maize (synthetic UM-1), Brassica (UAF-11), sunflower (elite lines, G-2, G-5, G-68, G-72), sorghum (elite lines, PBG-Sorg-I and PBG-Sorg-II) and chicken breeds (Lyalpur Silver Black and UniGold). In addition to the above crop varieties and



animal breeds, the scientists at UAF have developed a number of technologies (farm implements and vaccines) for improved production, protection and commercialization of agricultural products and commodities. Some of the technologies include commercial rose oil production, in situ mango grafting and murcott layering in litchi, lime wash desapping, technology for mangoes, auger hole technology to reclaim dense saline-sodic soils, rice biofert and rhizogold biofertilizers, allelopathy based sorghab for weed management, triple row sowing and pit plantation methodology for sugarcane, commercial rearing of *Bracon hebetor* and *Chrysoperla carnea*, seed priming, in vitro micropropagation and regeneration of sheesham, sugarcane and wheat, transformation of

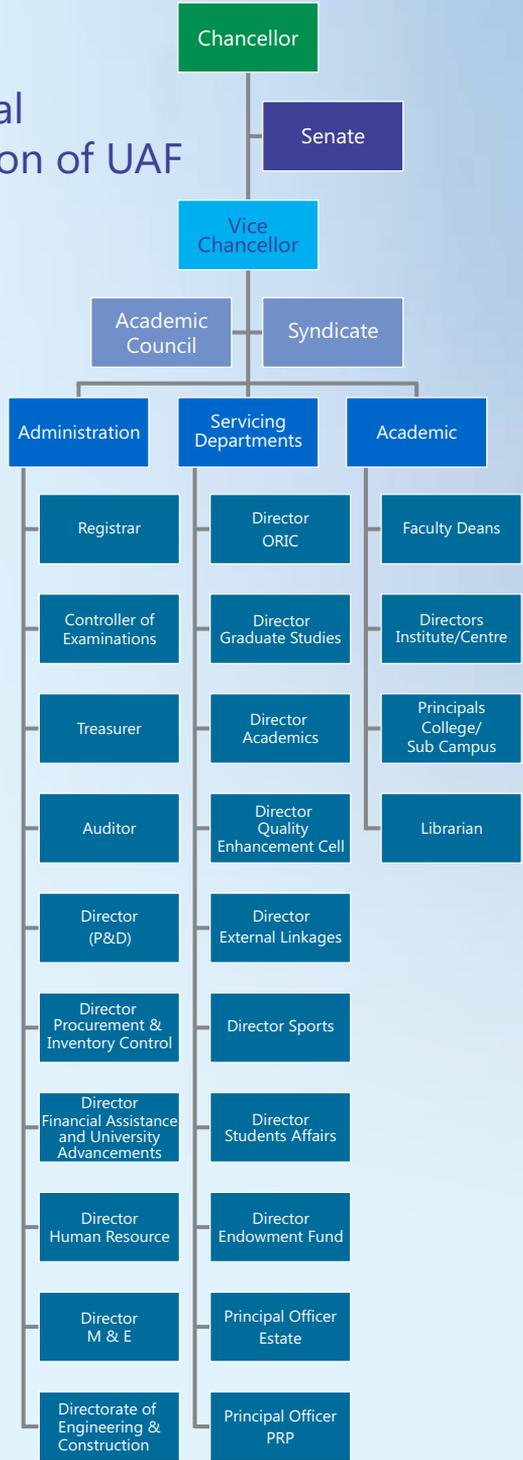
sugarcane genome with antifungal genes, mango mealybug control using a funnel type slippery trap, pizza flour for UNO Chicago Grill and Pizza Hut, production of texturized vegetable protein (TVP) and floating fish feed through extrusion technology, methods for fodder preservation and nitrogen fixation, ground water recovery and recharge technology, furrow-bed planter, solar biogas energy for tube well operation, and electronic devices for environmental controlled houses (ECH), special technologies for land and water management, surf test for early diagnosis of mastitis, mastitis vaccines, egg adopted vaccines, bed planters and spray equipment. The social sciences faculty has made significant contribution towards shaping the agricultural policy in the country.

Table 1

Academic Units of UAF

Faculty	Institute/Department/Center
Faculty of Agriculture	Institute of Horticultural Sciences Institute of Soil and Environmental Sciences Centre of Agricultural Biochemistry and Biotechnology (CABB) Department of Agronomy Department of Crop Physiology Department of Forestry, Range Management and Wild Life Department of Entomology Department of Plant Breeding and Genetics Department of Plant Pathology Saline Agriculture Research Centre Plant Tissue Culture Cell
Faculty of Agricultural Engineering and Technology	National Institute of Food Science and Technology Institute of Rural Home Economics Department of Farm Machinery and Power Department of Fiber and Textile Technology Department of Food Engineering Department of Irrigation and Drainage Department of Structures and Environmental Engineering Water Management Research Centre (WMRC) Energy Cell
Faculty of Animal Husbandry	Institute of Animal Nutrition and Feed Technology Department of Animal Breeding and Genetics Department of Livestock Management Department of Poultry Science
Faculty of Sciences	Department of Botany Department of Computer Science Department of Chemistry and Biochemistry Department of Islamic Studies Department of Mathematics and Statistics Department of Physics Department of Social Sciences and Humanities Department of Zoology and Fisheries
Faculty of Social Sciences	Institute of Agricultural and Resource Economics Institute of Agricultural Extension and Rural Development Institute of Business Management Sciences Department of Continuing Education Department of Rural Sociology
Faculty of Veterinary Science	Institute of Microbiology Institute of Physiology, Pharmacology and Pharmacy Department of Anatomy Department of Clinical Medicine and Surgery Department of Pathology Department of Parasitology Department of Theriogenology
Colleges and Sub Campuses	College of Agriculture, DG Khan UAF Community College UAF Sub Campus, Toba Tek Singh UAF Sub Campus, Burewala/Vehari

Institutional Organization of UAF



Opportunities in Agricultural and Rural Development



As the state of play continues to change, Pakistan will be facing a new set of challenges and opportunities with implications on the competitiveness of agriculture, livestock, food and marketing. UAF shall partner with leaders of change across the world to enhance competitiveness.



Opportunities in Agricultural and Rural Development

Agriculture Policy and Agrarian Reforms

Meeting diverse challenges to agriculture require a long-term commitment from decision makers which is responsive to the specific needs of a wide range of stakeholders. Development of a strong linkage between agricultural researchers and the decision makers would have a great potential to improve agricultural productivity, trade and food security. UAF shall work towards evolving a priority framework for holistic agricultural and rural development for successful agrarian reforms.

Food Security and Nutrition

The food security in the country is largely gauged by the availability of sufficient wheat flour. Rampant nutritional imbalances in our diets are leading to stunted growth and wasted children.

Land, Water and Environment

Climate change and its consequences are one of the greatest challenges faced by the global community in the 21st century. We need to combat the

climate change impacts on land, water and environment by developing mitigation, adaptation and resilience strategies for effective management of soil and crop zones, rangelands, watersheds and forests. The country needs serious reforms and strategic research on land and water uses.

Water and Energy

Water and energy crises have become a major threat for agricultural and human development. Sustainable management of surface and ground water resources is vital for ecosystem dynamics. However, energy crisis is adding severity to this issue. High efficiency irrigation systems and metered tube well abstraction with alternative energy sources (e.g., solar/wind/biomass) will offer reliable solutions. Extensive research and outreach efforts will be made in this area.

Mechanization and Precision Agriculture

There is a tremendous potential of precision farming for economic and environmental benefits like

economizing the use of water, fertilizers, pesticides, and herbicides besides the farm energy requirement. We will promote an integrated approach to develop the best management practices based on precise application of inputs for increasing farm yields.

Seed and Fertilizer

After water, seed and fertilizer are the two input items which are restricting the farmers' ability to achieve yield potential. The seed industry in Pakistan has failed to evolve. The fertilizer industry is only nitrogen focused, leading to a gross imbalance in fertilizer use.

Sustainable Crop Production

One of the most urgent challenges is to increase crop productivity through technological innovation, but in a sustainable and inclusive manner. The needs of small-scale farms in diverse ecosystems where the potential to improve productivity is low, must be addressed to create realistic opportunities for their development.

Biotech Crops and Products

Appropriate use must be made of

technological innovation based on biotechnology, such as the new genetically-improved varieties, organic fertilizers and biological control methods of diseases, weeds and pests, and development of vaccines for livestock.

New Crops

It is important to capitalize on new crops that are native or exotic to specific agro-ecological regions. New crops with high yield potential, improved tolerance to environmental stresses and climate change, and better nutritional benefits must be developed through plant introduction and domestication.

Livestock

Major opportunities include: genetic conservation, rangeland management and health coverage of large and small ruminants, and development of vaccines for the control of threatening diseases. Our animals are underfed and fodder research is wanting.

Poultry

While sustaining the tremendous progress of commercial poultry, there is a challenge to produce vaccines and to

conserve and promote the diversity of domestic and indigenous poultry birds. Revival of rural poultry can dent the poverty.

Inland/Freshwater Fisheries

Fresh water fish has emerged as an alternative crop which is healthy and free of diseases, insects and toxicants. This sector permits use of brackish water that can potentially replace those crops which are declining in profitability.

Supply Chain, Value Addition and Entrepreneurship

Agricultural markets are rapidly globalizing generating new consumption patterns and new production and distribution systems and offer opportunities to farmers and agribusiness entrepreneurs along agricultural value chains to transform commodities into higher value products. Multidisciplinary research in entrepreneurship can play an important role in job creation and poverty alleviation.

Marketing and International Trade

Harnessing and globalizing the power of markets, in directing what, how, when, and where to produce, is essential to meet the demands for agricultural output in the rapidly changing national and international food demands regional trade is likely to drive our production patterns. There is also an opportunity to promote regional languages, culture and customs.

Competitive Agro Industries

There is an urgent need to improve the competitiveness of agro industries, given the increasingly important role they play in the development of value chains. Innovative management practices are essential that will lead to new ways of operating successful agribusinesses.

Biodiversity

The flora and fauna are depleting fast as a result of agricultural expansions and because of promotion of monocultures in the commercial agriculture. Diversification of agriculture must be promoted.

Organic Farming

Excessive use of chemicals in agriculture is deteriorating our environment and ecosystem. Crop production without the use of hazardous substances will be a great step in producing organic foods (where possible) for healthier society together with conserving the environment.

Information and Communication Technologies (ICT)

Information technology has revolutionized the communication. The benefits of IT to our farming sector have yet to arrive. The university has a responsibility to integrate knowledge and technology to a level that is acceptable to the farmers.

Outreach and Social Mobilization

It is essential that thousands of poor small farmers be incorporated into innovation processes, in which they can

draw on their own knowledge and culture and take advantage of the diversity of their native culture and products while benefitting from the modern researches.

Access of Stakeholders to the University's Innovations

It is highly critical that our farmers have firsthand access to all the innovations/ achievements/ technologies developed by UAF faculty. For this, various outreach options including eExtension systems will be exploited.

Intellectual Property Rights

Innovation can be accelerated by creating appropriate IP regime in the country. IP also promotes private investment into research and development.

Promoting Investment in Agriculture

Growth in agriculture follows improvements in infrastructure, research and development, production practices and markets. That requires public and private investments. The private investment becomes possible through easy access for credit.

Internationalization

Exposing our faculty and students to the diversity of the human experience and to the geographical and cultural complexity of the world is crucial to drive a positive change in learning and public service thereafter. Through

collaborative agreements with renowned international institutions, UAF will offer faculty and students the opportunities to interact with researchers from around the world.

Gender Mainstreaming

Gender mainstreaming is the current international approach for advancing the equality of life, equity in society and population control/demography.

Population Planning and Migration

The population growth in the country is excessive. That has literally diminished the benefits of productivity and economic growth. Agriculture sector is also a victim of migration due to lack of optimum employment opportunities in the rural sector.

Rural Development

Agrarian reformers must be devised wholistically where agricultural productivity and rural development are treated as simultaneous elements. Investing in yield enhancement programs alone shall be unsustainable. That should be supported by skill development, alternate employment opportunities, empowerment for conflict resolutions and governance by institutional reforms. Education, health and communication facilities are essentials of life which are a right of rural masses.

Vision, Mission and Core Values



While remembering and preserving traditional knowledge and strengths that make us distinctive, we must also respond to a competitive and changing world in order to sustain a key role in nation's capacity building for agricultural development.

Vice Chancellors' Forum 2013

Universities in the Islamic World:
Challenges of Internationalization

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VISION

To lead the change through outstanding achievements in learning, discovery, innovation and community service with a clear focus on programs of significance to agricultural and rural development

MISSION

In order to make Pakistan a prosperous, food-secure and resilient nation, UAF aims at the following goals

- To advance knowledge through basic and applied research
- To revamp human resource development by transforming the pedagogic process from teaching to learning
- To facilitate lifelong learning by providing agriculturally focused academic programs
- To promote agrarian reforms through research based agricultural policy
- To disseminate knowledge to the community through extension and outreach
- To promote sustainable farming and food systems, from production through consumption

CORE VALUES

- Focused in Direction and Execution - delivering programs that address the diverse needs of farming community, allied industries and the economy of country.
- Comprehensive - providing learning opportunities for inter- and cross disciplinary areas encompassing the whole science of agriculture from basic and engineering sciences to growing crop plants and rearing livestock and from rural sociology to agricultural business and marketing.
- Excellence in Teaching - promoting learning, research and creative activity that fuels discovery process, advance knowledge, and enlightened service that builds citizenship
- Success through Collaboration - working cooperatively at all stakeholders levels, domestically and internationally, on strategic issues of national and global importance.
- Accountability - ensuring that the performance of all employees is measured against the achievement of the strategic goals set by UAF.
- Professionalism - building and maintaining a highly skilled, diverse, and motivated workforce.
- Results Orientation - measuring performance and making management decisions that direct resources to priority areas.



UAF CORE ACADEMIC GOALS

UAF offers an array of academic and professional programs focusing agricultural and allied sciences of different specializations and durations and specific learning outcomes in different programs will differ accordingly. However, UAF aspires the following core learning goals for all graduates:

Learning

- To acquire a comprehensive knowledge of their subject area, discipline, or profession
- To understand how their subject area may intersect with related disciplines
- To utilize and apply their knowledge with skill judgment and prudence

Discovery

- To apply logical, critical and creative thinking to problems, including analysis, synthesis, and evaluation.
- To be adept to think, conceive and excel independently, experientially, and in teams
- To possess intellectual flexibility, ability to manage change, and a zest for life-long scientific endeavors
- To engage in translational research to find indigenous solutions and get international recognition

Integrity

- To exercise intellectual integrity and ethical behavior
- To recognize and think through moral and ethical issues in a variety of contexts
- To recognize the limits to their knowledge and act accordingly

Skills

- To communicate clearly, substantively, and persuasively
- To be able to locate and use information effectively, ethically, and legally
- To be technologically literate, and able to apply appropriate skills of research and inquiry for solutions

Service

- To value diversity and the positive contributions this will bring to society
- To share knowledge and exercise leadership for community building
- To contribute to society, locally, nationally, and globally
- To develop effective outreach mechanisms for dissemination of knowledge and technology transfer
- To pledge the fidelity of staff and students to the institution and the region
- To bring highest standards of leadership, governance, academic autonomy, integrity and lucidity



UAF ACADEMIC COMMITMENT

Achieving the aspired vision and goals requires an active commitment of the students, the faculty, and the institution, and depends on each party fulfilling its role as a team. The commitments and responsibilities we identify are best conceived as attached to each member of the university community as they serve their student, instructor, or institutional roles.



Student Commitment

No learning can take place without active engagement by the learner in learning process. To optimize their learning experiences, students need to make the following commitments:

- Actively engage in the learning process independently, experientially, and collaboratively with other students, as appropriate to their learning objectives
- Think broadly to develop theories, ideas, beliefs, and approaches to problems and solutions
- Accomplish the competence for independent critical thinking and self-directed life-long learning in all disciplines
- Act ethically in accordance with principles of academic integrity
- Engage in a respectful way with members of the university community including other students, instructors and staff
- Strictly avoid the behavior that may constitute plagiarism, misconduct, harassment, bullying or discrimination
- Understand the changing demography and gender mainstreaming process on the campus

Instructor Commitment

A firm commitment of the teaching community responsible for providing learning opportunities is crucial to optimizing the students' learning experience. To do so, university instructors (including faculty, sessional lecturers, graduate teaching assistants, and other instructors) need to make the following commitments:

- Define and communicate clearly the learning objectives and outcomes of the courses
- Teach effectively by maintaining a high level of subject matter knowledge, and ensuring that course contents are current, accurate, relevant to course objectives, and appropriate to the position of the course within the program of studies in which it is embedded
- Create a learning context which values and facilitates active learning, demonstrate broad thinking, act according to ethical principles, and create an environment conducive for learning where all participants can engage respectfully
- Maintain a professional relationship with students and avoid conflicts of interest
- Be aware of the range of instructional methods or strategies appropriate to conveying the course content, and that they select and utilize methods of instruction and technology that are effective in helping students achieve the learning objectives of the course
- Believe in teamwork and collaborative opportunities by supervising project based learning
- Provide students with opportunity to give candid feedback on their learning experience, and make them exquisite without concerns of repercussions



Institutional Commitment

UAF serves as a catalyst and context for learning and scholarship in agricultural sciences. It brings together learners and other members of the educational community in an environment conducive to learning and discovery. The institution plays a critical role in ensuring the quality and quantity of learning opportunities available to students, and in providing the teaching and learning resources that will optimize the student learning experience. To fulfil its institutional role, the University of Agriculture (including its academic, administrative, and support units, as well as its governing bodies) needs to make the following commitments:

- Develop and ground programs and curricula in ways that are socially relevant, adaptive, and responsive, and that will facilitate engagement with the relevant community
- Recognize that the students learning experience can be enhanced by appropriate interactions with various learning partners outside the university, and that the university strives to both facilitate these interactions and ensure that they occur in a way beneficial to all parties
- Provide opportunities for instructors to enhance their teaching skills, and considers teaching performance an important factor within all hiring and review processes
- Offer opportunities appropriate to the nature of their programs and learn (and create new knowledge) through research and discovery
- Provide a safe, secure and inclusive environment for all members of the university community
- Provide appropriate academic and other supports to students who experience various challenges to their learning, including challenges of a cultural, social, psychological, financial and physical nature
- Provide students with the opportunity to give candid feedback on their learning experience without concerns of possible repercussions
- Promote economic growth, regional collaboration and integration for sustainable economy of the country

TURNING VISION INTO ACTION

The Action Plan provides the university community a roadmap for the next fifteen years set forth to ensure excellence in learning, discovery, innovation and outreach.





1.

A WORLD CLASS UNIVERSITY

Goal

To enhance its national and global recognition as a comprehensive agricultural institution of the first rank, known for the excellence of its research, teaching and outreach

STRATEGIES

I. UAF will strengthen its international profile and visibility.

ACTIONS

- a. Increase number of active international research partnerships
- b. Increase number of peer review publications and citations
- c. Increase number of international students at postgraduate levels
- d. Revamp postgraduate admission and research and evaluation process
- e. Initiate recruitment of postdoctoral fellows
- f. Launch split and double degree programs
- g. Develop international centers/satellites

II. UAF will recruit, develop and retain nationally and internationally distinguished and exceptionally competent faculty.

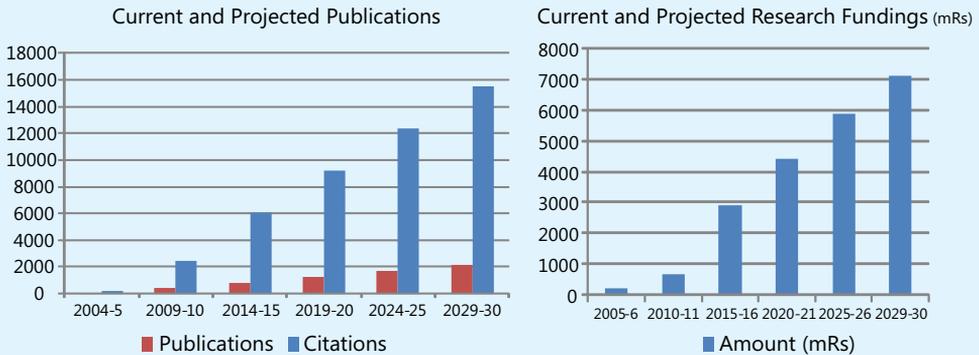
ACTIONS

- a. Selectively and opportunistically allocate resources to identify, recruit and support exceptionally innovative faculty who bring elevated recognition and leadership to targeted programs
- b. Incentives will be employed for high performing faculty.
- c. Develop and improve strategies for professional development and mentoring of new faculty

III. UAF will further develop plans for expanding and enhancing the physical infrastructure needed to sustain the growth and advancements.

ACTIONS

- a. In 2015, UAF review will be conducted as a “focused” review emphasizing Infrastructure and capacity for growth.
- b. Seek increased resources and funding for high-quality laboratory, teaching and field facilities
- c. Promote new areas of research that are consistent with our mission and have the potential to achieve international standing



- I. UAF will strengthen its international profile and visibility.

ACTIONS

 - a. Increase number of active international research partnerships
 - b. Increase number of peer review publications and citations
 - c. Increase number of international students at postgraduate levels
 - d. Revamp postgraduate admission and research and evaluation process
 - e. Initiate recruitment of postdoctoral fellows
 - f. Launch split and double degree programs
 - g. Develop international centers/satellites

- II. UAF will recruit, develop and retain nationally and internationally distinguished and exceptionally competent faculty.

ACTIONS

 - a. Selectively and opportunistically allocate resources to identify, recruit and support exceptionally innovative faculty who bring elevated recognition and leadership to targeted programs
 - b. Incentives will be employed for high performing faculty.
 - c. Develop and improve strategies for professional development and mentoring of new faculty

- III. UAF will further develop plans for expanding and enhancing the physical infrastructure needed to sustain the growth and advancements.

ACTIONS

 - a. In 2015, UAF review will be conducted as a “focused” review emphasizing Infrastructure and capacity for growth.
 - b. Seek increased resources and funding for high-quality laboratory, teaching and field facilities
 - c. Promote new areas of research that are consistent with our mission and have the potential to achieve international standing

- IV. To enhance the quality of support for all programs, UAF will improve recruitment, retention and remuneration of technical, administrative and professional staff

KEY PERFORMANCE INDICATORS

- Documented that UAF ranks among the top 100 world ranking in agriculture
- Five programs ranked in the top 10 or the top quartile of public research universities in Pakistan
- Increased its endowment to PKR 5 billion
- Widely accepted metrics to document that UAF Extension and Outreach Service stands on top in the nation
- Established an independent human resource wing in the administration
- Increased the number of faculty receiving national awards and honors per year
- Increased the number of active and emeritus faculty
- Emerge as a leader for public policy and advocacy
- Established international research, language and cultural centres

Creating Linkages

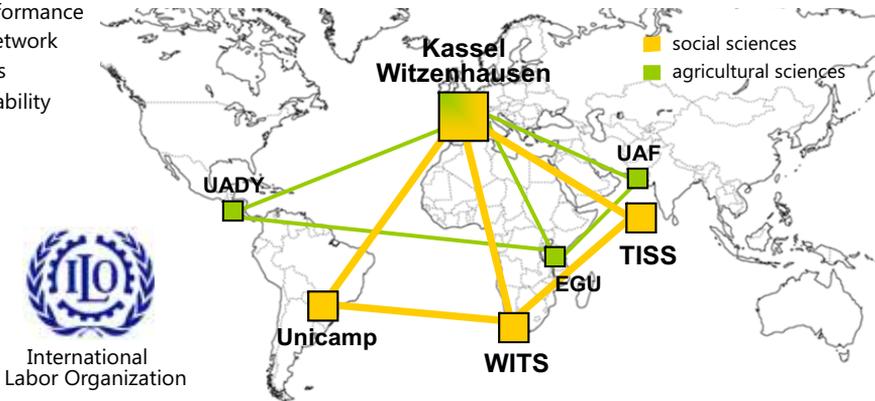
Decent Work & Development

Past Performance

ICDD Network

Activities

Susta inability



Unicamp: Universidade Estadual de Campinas (BRA)
 WITS: University of Witwatersrand (RSA)
 TISS: Tata Institute of Social Science (IN)

UADY: Universidad Autónoma de Yucatán (MEX)
 EGU: Egerton University (KE)
 UAF: University of Agriculture Faisalabad (PAK)



Civil society partners:
 FES, HBS, DGB, COSATU,
 CUT, SEWA, ITUC,
 WIEGO, RESPECT et al.



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OTHER

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2. STUDENTS PREPARED FOR A CHANGING WORLD



Goal

To prepare the next generation of scientists, business leaders, community leaders, and policymakers through exemplary teaching, mentoring, broadening experiences, and enhanced partnerships with public and private organizations

STRATEGIES

- I. Pursue targeted enrollment strategies to meet industry and community needs for workers and managers that are well prepared to engage in a global and diverse work environment

ACTIONS

- a. Balance enrollment growth by department and discipline to meet industry needs in the existing and emerging sciences
- b. Build greater diversity in student population
- c. Strengthen partnerships with community college programs
- d. Develop more opportunities for students at the university and in the community to learn about food, agriculture, energy, and the environment

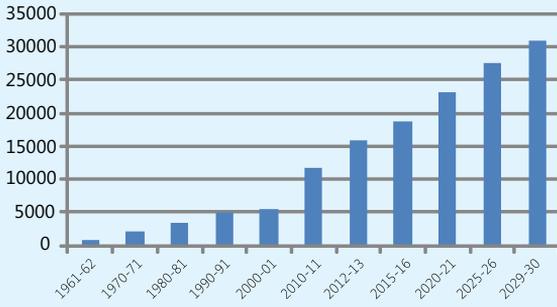
- II. Provide leadership in instructions on agriculture and allied sciences nationally and internationally in subject areas of excellence

ACTIONS

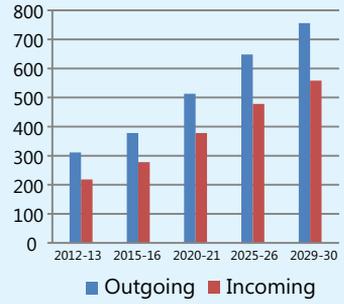
- a. Expand and enhance instructional delivery methods, including distance education
- b. Establish regional and national leadership and collaboration in selected academic disciplines
- c. Increase international collaborations in instruction and training.
- d. Engage more undergraduate students in research by providing on campus jobs
- e. Enhance professional development opportunities and experiential learning opportunities
- f. Promote opportunities for study abroad experiences
- g. Provide a tent hook project (online and hardcopies)

- III. Start and strengthen innovative and interdisciplinary programs of study

Current and Projected Students Enrollment



Current and future faculty exchange



- I. Pursue targeted enrollment strategies to meet industry and community needs for workers and managers that are well prepared to engage in a global and diverse work environment

ACTIONS

- a. Balance enrollment growth by department and discipline to meet industry needs in the existing and emerging sciences
- b. Build greater diversity in student population
- c. Strengthen partnerships with community college programs
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ACTIONS

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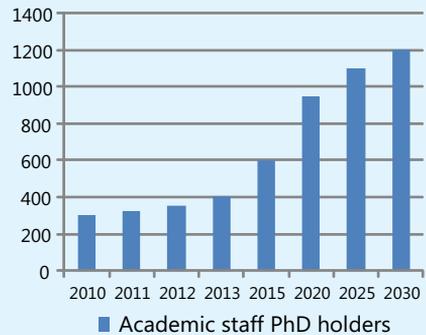
KEY PERFORMANCE INDICATORS

- Established a full fledged admission office capable of marketing and facilitating admissions to attract top candidates
- Demonstrated improvement on indicators of quality undergraduate education
- Enhanced financial assistance programs and increased scholarship funding awarded by the university
- Increased diversity of degree programs
- Increased online and distance learning courses
- Increased double and split degree program
- Increased on-campus sports facilities
- Created a coaching and mentorship mechanism among and between campuses to enhance experiential learning
- Established an internship center for students
- Established an alumni centre



3.

DISCOVERY AND INNOVATION TO SUCCESSFULLY ADDRESS LOCAL AND GLOBAL NEEDS



Goal

Foster a culture of research, discovery, creativity, and best agricultural practices in support of sustainable and profitable agricultural enterprises in Pakistan and the world, and to train the next generation of agricultural scientists to meet society's most important challenges

STRATEGIES

- I. Advance areas of excellence both within and across departments, taking advantage of historical strengths, existing competencies, and geographical advantages to meet societal needs

ACTIONS

- a. Support formation of centers and faculty groups in emerging areas like bioenergy, climate change, agriculture policy, precision agriculture, biotechnology, agribusiness and entrepreneurship
- b. Targeted hiring in emerging areas of excellence
- c. Promote faculty development opportunities
- d. Enhance graduate programs in areas of excellence
- II. UAF will increase research capacity, capability, productivity, and quality to address regional, national and global challenges.

ACTIONS

- a. Increase extramural funding
- b. Establish the Center for Advanced Studies in Food security/Agriculture (CAS)
- c. Retain and recruit the most productive faculty
- d. Provide grantsmanship training, and facilitate large and complex grant preparations
- e. Encourage high-quality publications, patent applications and technology transfer
- f. Support professional panel services, editorial services, national awards and other professional recognitions
- g. Initiate split degrees and graduate research at regional centers

- I. Advance areas of excellence both within and across departments, taking advantage of historical strengths, existing competencies, and geographical advantages to meet societal needs

ACTIONS

- a. Support formation of centers and faculty groups in emerging areas like bioenergy, climate change, agriculture policy, precision agriculture, biotechnology, agribusiness and entrepreneurship
 - b. Targeted hiring in emerging areas of excellence
 - c. Promote faculty development opportunities
 - d. Enhance graduate programs in areas of excellence
- II. UAF will increase research capacity, capability, productivity, and quality to address regional, national and global challenges.

ACTIONS

KEY PERFORMANCE INDICATORS

- Increased competitive grant awards up to 8 billion PKR
- Secured resources to renovate research and service facilities or to construct new buildings for research activity
- Increased the number of postdoctoral scholars
- Increased external awards
- Increased the number of doctoral students by 10% annually
- Established centers of seed, fertilizer, feed and vaccines
- CAS to emerge as a regional leader for food security by 2030
- ISO certified labs
- Established centre for women in agriculture



4. AN ENGAGED, CONNECTED AND IMPACTIVE OUTREACH

Goal

To provide integrated research, teaching, extension and outreach programs that meet the needs of stakeholders to enhance the quality of life

STRATEGIES

- I. UAF will foster the development of integrated agricultural research, teaching, extension and outreach programs through proactive partnerships with the provincial and federal extension system, regional universities, and other institutions and civil society organizations that meet the needs of stakeholders. These extension and outreach efforts will engage faculty, staff, and students with stakeholders all over the country.

ACTIONS

- a. UAF agricultural policy research shall complement the decision process at provincial, national, and international levels.
 - b. Develop joint field days, stakeholder educational programs, commodity meetings, exhibitions and festivals
 - c. Provide leadership and support for youth educational programs
 - d. Increase the international engagement of undergraduate and graduate students, and faculty members
- II. Promote a system approach to address stakeholder needs related to complex agricultural and food issues. The solutions offered through these efforts will enhance economic prosperity, social welfare, and environmental sustainability.

ACTIONS

- a. Seek more opportunities for integrated research and extension/outreach activities
 - b. Extend outreach to a broader clientele
 - c. Increase faculty activity in service of international agricultural development, food security, and export of Pakistani products
- III. Throughout the university, enhance delivery of extension and outreach programs through the increased use of volunteers, public and private partnerships, and innovative technology to create opportunities for new audiences



- I. UAF will foster the development of integrated agricultural research, teaching, extension and outreach programs through proactive partnerships with the provincial and federal extension system, regional universities, and other institutions and civil society organizations that meet the needs of stakeholders. These extension and outreach efforts will engage faculty, staff, and students with stakeholders all over the country.

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- II. Promote a system approach to address stakeholder needs related to complex agricultural and food issues. The solutions offered through these efforts will enhance economic prosperity, social welfare, and environmental sustainability.

ACTIONS

- a. Seek more opportunities for integrated research and

KEY PERFORMANCE INDICATORS

- Established an independent outreach office
- Developed or expanded at least ten major outreach partnerships as indicated by formal agreements and/or new or enhanced outcome measures related to joint programming
- Increased annual extension or outreach related grant support by 30 percent
- Enhanced, accessible and easily understood database of extension outcomes, including such measures as: the adoption of new practices by producers; the adoption of recommended health, nutrition, or safety practices by individuals or families; and the acquisition of new or improved skills in communication, problem-solving, or group processes by individuals or families
- Increased knowledge of extension programs, as indicated by a 5% increase in familiarity measures in statewide surveys
- Increased by 10 percent the number of patents filed by faculty, and established three new start-up companies every year based on UAF research
- Established eExtension in the form of FM radio, TV channel and websites
- Established an internship center for students to promote outreach capabilities in young graduates
- Creation of new regional centers/campuses (Nankana, Gujranwala, Lahore)
- Introduced regional/client specific crops/livestock
- Established a university farm services center with satellites at sub campuses

SUMMARY

Development of the vision 2030 and the action plan has been centered on “agrarian reforms”. UAF leadership will continue to shape and reshape actions and activities in order to achieve the set goals. The implementation of this ambitious plan, and its ultimate success will depend on a strong linkage between partners, which recognize the importance of agriculture to the economic development of the country. In this regard, planning, collaboration and coordination among UAF stakeholders and the decision makers will be essential. To encourage and assess implementation, a comprehensive review of achievements, strategies and activities will be conducted every five years starting from 2015 to share the progress with the policymakers and agricultural community along with recommendations for additional strategies needed.

A plan is only as successful as its implementation. Every Pakistani has a stake in the sustainability and future of agriculture. UAF encourages all citizens to support this Plan's goals and implement the strategies necessary to realize a vision that reflects the importance and need of a steady and sustainable progress in agriculture and rural development.





UI Green Metric World
University Ranking
declares **UAF** the 35th best
University of the World

vision 2030

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