



## **AIC Report**

**Prof. Dr. Fayyaz-ul-Hassan**

**March 20, 2014**

**Department of Agronomy**  
**University of Haripur**

## Table of Contents

<b>S.No</b>	<b>Particulars</b>	<b>Page</b>
1.	Executive Summary	3
2.	Introduction	4
3.	Criteria Wise Analysis	4
4.	SWOT Analysis	6
5.	Actionable Recommendations	7
6.	Annexures	8-13

## **Executive Summary**

The committee members along with NAEAC officials were welcomed by the University Senior Faculty. Thereafter, Head of Department (Dr. Sami Ullah Khan) briefed about the department. Agriculture was the one of major departments when Campus of Hazara University started back in 2008. Scope with the name of “Department of Agriculture” having six sections have been limited, it needs to be re-named as “Faculty of Agriculture or Institute of Agriculture” or any other suitable name covering the future needs of the area and the university itself. The courses for degree programs offered by the section are those developed by the HEC constituted committee (NCRC) and adopted by the section, hence are in harmony with other institutions. The objectives of curriculum are well clear and in accordance with the HEC guidelines. Although, there are five faculty members in the section under discussion, out of these five, four hold PhD degrees yet pyramid as per recommendation (1:1:2:2) is incomplete which needs to be filled as early as possible. Cross section working of faculty has been observed, it should be discouraged and faculty member be allowed to work in their respective specialization. Cross section supervision of PhD students have been noticed which should be discouraged to ensure quality. Moreover, availability of class rooms as per number of students, labs and offices is still needed. Admission twice a year in B.Sc(Hons) is contrary to rest of similar institutions. Number of enrolled students particularly in MSc/PhD far exceeds than the capacity of faculty and available research facilities. Facilities like laptop provision to students and scholarship/financial aid from different resources need to be streamlined with regular office/focal person in the university.

## **Introduction**

AIC team visited University of Haripur on 20-03-2014 in the Conveniership of Dean FCFS, along with Secretary NAEAC. Committee was formulated by the National Agriculture Education Accreditation Council (NAEAC) for on site visit of Agriculture Department, University of Haripur. The committee members along with NAEAC officials were welcomed by the University Senior Faculty. Thereafter, Head of Department (Dr. Sami Ullah Khan) briefed about the department. Detailed interviews and discussions were held with respective section heads. All committee members were taken around to available facilities of library, laboratories, class rooms and research farm.

Agriculture was the one of major department when Campus of Harzara University started back in 2008. Scope with the name of "Department of Agriculture" having six sections has been made limited, its needs to be re-named as "Faculty of Agriculture or Institute of Agriculture" or any other suitable name covering the future needs of the area and university itself. Since its inception, Agronomy has been known as the parent section in the Department of Agriculture. Agronomy section is actively involved in teaching, some research and outreach activities. The section offers specialized courses leading to Bachelor's, Master's and Doctorate degrees in Agronomy.

## **CRITERION ANALYSIS**

### **Criteria I: Strength and quality of Faculty**

Faculty is using modern teaching tools like multimedia and projectors for teaching in class room. Although there are five faculty members in the section under discussion, out of these five, four hold PhD degrees yet pyramid as per recommendation (1:1:2:2) is incomplete. Sooner it is completed better it will be. Range of experience of faculty members; vary from 3-24 years. Publication by faculty members needs special focus. Moreover, it has been noticed that some faculty members are working in other sections and even supervising PhD students of two different sections (one agronomy and one soil science section student is being supervised by one faculty member). This should be discouraged as it leads to low quality thesis at the end. Although some faculty members have research projects yet there is room for improvement.

## **Criteria II: Curriculum Design and Development**

The courses for various degree programs are those developed by the HEC constituted committee and adopted by the section. The objectives of curriculum are well clear and in accordance with the HEC guidelines. Admission to B.Sc(Hons) program being done twice a year which is contrary to rest of the Institutions offering the same degree, moreover, this practice brings weaker students during fall students which ultimately leads to higher drop out rate. For the time being enrollment in M.Sc/PhD may be halted till some research facilities are strengthen in the form of research labs and research farm.

## **Criteria III: Infrastructure and Learning Resources**

Quite visible improvement has been noticed during last year or so in infrastrcutre, however, its strengthening should be top priority. Moreover, availability of class rooms as per number of students, labs and offices is still needed. Review of available staff, infrastructure facilities, library, labororities, research farm area and student research still need improvement. Although library facility is cattering needs of whole university yet its upgradations in terms of available books, journals and space should be focused.

## **Criteria IV: Students Support and Progression**

Number of enrolled students particularly in MSc/PhD far exceeds than the capacity of faculty and available research facilities. Scholarship to the students are available on merit and need basis, however, these are insufficient. Students are availing scholarships oopportunities from different sources or donor agencies. Beneficiaries of merit scholarships out of 102 students are 8 in number similarly beneficiaries of need-based scholarships out of 102 students are still in process. There is need to establish a regular office or focal person for financial aid to studnets and extend guidance to have such facilities from other resources. Hostel accommodation for boys is not available. Transport facility is adequate with 2 coasters (32 seats) and 4 buses (55 seats) but limited sports facilities are available. Some medical facilities are available. There is need of improvement in computing facilliteis for all students. There is a good atmosphere for co-curricular activities. Student attendance is taken regularly and there is restriction for presence of 75 % to sit in examination.

## **SWOT Analysis**

### **Strengths of Degree Programs**

1. Existence of section in diversified and multiple cropping zone.
2. Students' preference for admission in the section.
3. Highly motivated and friendly environment for teaching and learning.
4. Close proximity of internationally accredited organizations.

### **Weaknesses of Degree Programs**

1. Insufficient qualified staff, office, lecturing and laboratory space with qualified lab. staff.
2. Lack of co-curriculum, recreational and refreshment facilities.
3. Lack of field research area.
4. Lack of exposure of students to other Universities, research institutions of the country.

### **Opportunities for Degree Programme:**

1. Potential is there for carrying out problem orientated research.
2. Qualified and experienced faculty can provide consultancy services to national and international NGOs/donor agencies for sustainable development in the area.
3. Trainings for capacity building of professionals and farmers would be possible in future.

### **Threats to Degree Programme:**

1. Security is a big threat to staff and students under present circumstances.
2. Lack of resources for running departmental matters independently.
3. Lack and disconnect of university bodies

### **Actionable Recommendations**

- Completion of faculty pyramid i.e. Appointment of Professor/Associate Professor as soon as possible as per recommended ration of 1:1:2:2.
- Faculty strength should be harmonized with student strength.
- Working of faculty should strictly be in their respective discipline.
- For funding of research projects, ORIC office should provide guidance to faculty.
- High achiever amongst faculty should be recognized and rewarded.
- Admission in B.Sc(Hons) should be made only once in a year not in each semester.
- Allotment of “major” after 4<sup>th</sup> semester should be more or less equal in all disciplines and as per student choice and merit. Guidance and counselling to students should be provided in this regards by senior faculty.
- Admission to M.Sc(Hons) and PhD should be halted till the strengthening of research facilities like labs., field area and provision of funds.
- Provision of scholarship facilities should be advertised at prominent places for information of students.
- Rules/regulations related to admission till the completion of degree should be available to students either in the form of catalogue.
- Enrolment of extra courses in 7<sup>th</sup> and 8<sup>th</sup> semester facility be provided to students for timely completion of degree.
- Field visits should be made part of practical as university does not have proper research farm.
- Infrastructure strengthening and upgradation should be focused along with availability of books, labs and farm research area.

Prof. Dr. Fayyaz-ul-Hassan

**Name, Qualification and experience of faculty and support staff:**

**Faculty:**

<b>S.#</b>	<b>Name</b>	<b>Qualification</b>	<b>Teaching Experience</b>	<b>Field of Specialization</b>
1	Dr. Sami Ullah Khan	Ph.D	12 Years	Agronomy
2	Dr. Abdul Qayyum	Ph.D	2 years	Agronomy
3	Dr. Ayub Khan	Ph.D	22 Years	Agronomy
4	Dr. Khalid Naveed	Ph.D	1 year	Agronomy
S. #				
1.	Mr. Muhammad Niaz	B.Sc.	5 years	Asstt. Electro. Eng.
2.	Mr. Malik Abid	F.Sc	1 year	Lab. Asstt.
3.	Mr. Hammad Khan	F.Sc	1	N/Q
4.	Mr. Saeed –ur-Rehman	B. A	5	Office Asstt.
5.	Mr. Alam Zeb	M.A	5	Office Asstt

Aprat from above there are five persons are helping the office and field work.  
Three are three teaching Assistants in Section having M.Sc(Hons) qualification.



**LIST OF BOOKS PERTAINING TO THE SUBJECT OF AGRONOMY**

<b>BOOK NAME</b>	<b>AUTHOR</b>	<b>YEAR</b>
FERTILISER MANAGEMENT: BALANCE, EFFICIENCY, PROFITABILITY	DR TANDON H	2012
COMPOST HANDBOOK: RESEARCH PRODUCTION APPLICATION	DR TANDON H	2012
SOIL MANAGEMENT AND ORGANIC FARMING (IND/ED)	PANDA S C	2011
PLANT PHYSIOLOGY UNDER CHANGING ENVIRONMENT (IND/ED)	HEMANTARANJAN A	2011
SPICES AND AROMATIC PLANTS: STATUS AND IMPROVEMENT (IND/ED)	SASTRY E V D	2011
PLANT PHYSIOLOGY: FUNDAMENTALS AND APPLICATIONS 2ND/ED (IND/ED)	KUMAR A	2011
GREENHOUSE MANAGEMENT FOR HORTICULTURE CROPS 2ND/ED (IND/ED )	PRASAD S	2012
TEXTBOOK OF PLANT ECOLOGY 15TH/ED (IND/ED)	AMBASHT R S	2011
RAINWATER HARVESTING FOR AGRICULTURE IN THE DRY AREAS	OWEIS T Y	2012
PRINCIPLES OF CROP PRODUCTION: THEORY, TECHNIQUES AND TECHNOLOGY 2ND/ED	ACQUAAH G	2011
BOTANY: AN INTRODUCTION TO PLANT BIOLOGY 5TH/ED (INCLUDES ONLINE ACCESS)	MAUETH J D	2014
SUSTAINABLE CROP PRODUCTION UNDER STRESS ENVIRONMENTS	MALOO SR	2010
CROP MANAGEMENT IN PAKISTAN: WITH FOCUS ON SOIL AND WATER	SARDAR RIAZ KHA	2012
HANDBOOK OF ORGANIC FARMING	SHARMA A K	2011
SOIL FERTILITY (IND/ED)	MILLAR C E	2011
PRINCIPLES OF AGRONOMY (IND/ED)	REDDY S R	2012
HANDBOOK OF AGRICULTURAL SCIENCE (IND/ED)	SINGH S S	2013
FERTILIZERS AND CROP PRODUCTION (IND/ED)	SLYKE L L	2012
AGRONOMY AT A GLANCE (IND/ED)	MIRIMUTHU S	2010
PLANT PHYSIOLOGY: WITH REFERENCE TO THE GREEN PLANT 2ND/ED (3 VOLS SET)	MILLER E C	2005
CROP MANAGEMENT (IND/ED)	SINGH S S	2011
PRINCIPLES AND PRACTICES OF POST HARVEST TECHNOLOGY (IND/ED)	PANDEY P H	2011
FERTILIZERS: A TEXTBOOK 3RD/ED (IND/ED)	BASAK K R	2012
COMPREHENSIVE AGROMETEOROLOGY (IND/ED)	MAHI G S	2013
EXPERIMENTAL DESIGNS 2ND/ED (IND/ED)	COCHRAN W G	2006
WEED MANAGEMENT (IND/ED)	WALIA U S	2010
FARM MANAGEMENT AND AGRICULTURAL MARKETING (IND/ED)	PANDA S C	2011

SCIENTIFIC CULTIVATION OF VEGETABLES (IND/ED)	RANA M K	2008
POST HARVEST PHYSIOLOGY AND QUALITY MANAGEMENT OF FRUITS AND VEGETABLES (IND/E)	KUMAR P S	2009
HANDBOOK OF AROMATIC AND ESSENTIAL OIL PLANTS: CULTIVATION, CHEMISTRY,	TANUJA B	2008
ORGANIC FARMING: THEORY AND PRACTICE (IND/ED)	PALANIAPPAN S P	2010
ORGANIC FARMING: COMPONENTS AND MANAGEMENT	GEHLOT D	2010
TEXTBOOK OF PLANT PHYSIOLOGY: THEORY AND OBJECTIVES (IND/ED)	DAS S M	2011
SOIL MICROBIOLOGY (IND/ED)	SINGH T	2010
SEED SCIENCE AND TECHNOLOGY (IND/ED)	SEN S	2010
TEXTBOOK OF SOIL PHYSICS: THEORY AND PRACTICES (IND/ED)	SAVALIA S G	2009
AGRONOMY: THEORY AND DIGEST (IND/ED)	CHEEMA S S	2010
DICTIONARY OF BOTANY (IND/ED)	TANDON R K	2011
UNDERSTANDING OF PLANT AND CROP PHYSIOLOGY (IND/ED)	CHANDOLIYA C S	2011
APPLIED NANOTECHNOLOGY IN AGRICULTURE (IND/ED)	CHOUDHARY S	2011
BIOFERTILISER HANDBOOK: RESEARCH-PRODUCTION-APPLICATION	DR TANDON H	2012
SOIL, PLANT, WATER AND FERTILIZER ANALYSIS 2ND/ED (IND/ED)	GUPTA P K	2013
ORGANIC FARMING FOR SUSTAINABLE AGRICULTURE (IND/ED)	DAHAMA A K	2012
PLANT NUTRITION AND SOIL FERTILITY MANUAL 2ND/ED	JONES J B	2012
MODELING PHYSIOLOGY OF CROP DEVELOPMENT, GROWTH AND YIELD	SOLTANI A	2012
SOIL FERTILITY AND NUTRIENT MANAGEMENT 3RD/ED (IND/ED)	SINGH S S	2013
PRINCIPLES AND PRACTICES OF AGRONOMY (IND/ED)	SINGH S S	2013
SOIL FERTILITY MANAGEMENT (IND/ED)	SIVAMURGAN A P	2011
PRINCIPLES OF CROP PRODUCTION 4TH/ED (IND/ED)	REDDY S R	2012
MICRONUTRIENTS THEIR BEHAVIOUR IN SOIL AND PLANTS 2ND/ED (IND/ED)	DAS D K	2007
GIS AND REMOTE SENSING ANALYSIS FOR CROPPING SYSTEMS (IND/ED)	SIDDIQUI M H	2013
SEED PRODUCTION OF AGRICULTURAL CROPS (IND/ED)	KELLY A F	2013
PRINCIPLES OF SEED TECHNOLOGY (IND/ED)	SINGH P	2013
NATURE AND PROPERTIES OF SOIL 14TH/ ED (IND/ED)	BRADY N C	2014



**LIST OF EQUIPMENTS AVAILABLE IN THE LABS To be used in AGRONOMY AND  
SOIL SCIENCE**

<b>S. No.</b>	<b>Name</b>	<b>Remarks</b>
1.	Infra-Red Gas Analyzer (IRGA) with Accessories	In working condition
2.	Flame Photometer with Accessories	In working condition
3.	Soxhlet Extractor with Accessories	In working condition
4.	Rotary Evaporator	In working condition
5.	Spectrophotometer	In working condition
6.	Safety cabinet	In working condition
7.	Oven	In working condition
8.	Autoclave	In working condition
9.	Autoclave	In working condition
10.	pH meter	In working condition
11.	conductivity Meter	In working condition
12.	Water bath 4 holes	In working condition
13.	3 Beam Analytical Balance	In working condition
14.	Magnetic stirrer with hot plate	In working condition
15.	Centrifuge 80-2	In working condition
16.	Analytical Balance 1g-6kg	In working condition
17.	Distillation Plant	In working condition
18.	Incubator	In working condition
19.	pH Meter (Bench Type)	In working condition
20.	Conductivity Meter (Bench type)	In working condition
21.	Digital Balance 0.001 g-210g	In working condition
22.	Muffle furnace	In working condition
23.	vertex MiXer	In working condition
24.	Micro pipettes 2-20ul	In working condition
25.	Micro pipettes 5-50ul	In working condition
26.	Micro pipette 10-100ul	In working condition
27.	Micro pipette 100-1000ul	In working condition
28.	Thermometer 110 c	In working condition
29.	Thermometer 360 c	In working condition
30.	Thermometer zeal 110 c	In working condition
31.	Thermometer zeal 360 c	In working condition
32.	Stop watch china	In working condition

**FACULTY PUBLICATIONS, BOOKS, SEMINAR/CONFERENCES AND  
AWARDS**

Name of faculty	Total Publications	IF Journals	HEC Journals
Dr. Sami Ullah Khan	8	8	Nil
Dr. Abdul Qayyum	9	8	1
Dr. Ayub Khan	3	3	3
Dr. Khalid Naveed	4	3	1
Total	24	21	5

**PROJECTS COMPLETED OR IN HAND**

Funded Research Projects	Number	Duration	Amount
i. On-going Res. Project	--03-----	--3-4 years---	---2.9 m-----
ii. Underway Res. Project	--01-----	---01 year---	----1.0 m-----
Total	--04-----	-----4 years-----	---3.9 m-----

Islamabad

**Subject:** Comments on Draft Reports of Six Disciplines of Department of Agriculture

Please refer to your email and telephonic conversation on the subject matter, find attached comments on draft reports of our six disciplines for onward submission to the experts.

**Agronomy:** Cordial thanks are extended to Prof. Dr. Fayyaz- ul- Hassan for such encouraging and positive remarks about accreditation of B.Sc (Hons) Agriculture degree program at the University of Haripur.

It is requested to the subject expert of Agronomy to please revise his view on the continuation of M.Sc (Hons) Agriculture degree program in Agronomy.

**Horticulture:** Kindly refer to the draft AIC accreditation report, received through email. The report is highly encouraging and we may jointly struggle and ensure that the deficiencies/weaknesses pointed out by the AIC program experts are addressed and rectified accordingly to achieve the required standards. Furthermore, it is submitted that Horticulture is the strongest department in terms of students enrollment and experienced faculty and it has a great potential to flourish in future. The AIC expert in Horticulture may be requested to reconsider the final recommendation in connivance to the recommendations given by experts of other Departments like Entomology, PBG, and Agronomy etc.

**Soil Science:** Comments and suggestion by the HEC experts are very much encouraging and hope that section of Soil and Environmental sciences will improve in the light of recommendation made. It is mentioned in the report that currently no lab facility is available, however there is a central lab with good space to accommodate current students and has all basic equipments to conduct routine soil tests. Therefore it is requested modify this part of the statement.

In SWOT analysis, section **THREATS** it is mentioned that irrelevant faculty (i.e. one is Agri. Engineer & second is Water Engineer out of total four faculty members) has been hired. In fact, when the university of Haripur was a campus of Hazara University the nomenclature was as “Soil & Environmental Science and Water Management” and appointments were made on this basis. Since the inception of University of Haripur, the nomenclature was pruned to Soil and Environmental Sciences only. So it is requested to omit the statement from the report.

Kindly categorical recommend the B.Sc (Hons) and M.Sc (Hons) program for accreditation please.

**Plant Breeding Genetics:** The report of PBG is ok except the respected expert should recommend B.Sc (Hons) degree Program for accreditation please.

**Food Science:** The section of Food Science & Technology should be recommended for up gradation in to a Department of Food Science & Technology. Associate Professor/full professor should be recruited to meet minimum HEC criteria.

**Entomology:** The report of Entomology is ok and encouraging. Many thanks to subject experts

**Dr. Sami Ullah Khan**  
HoD, Agriculture