



## **AIC Report**

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**Department of Soil & Environmental Sciences  
UAP, AMK Campus Mardan**

## **ACKNOWLEDGMENT**

The support and cooperation of the Director The Amir Muhammad Khan Campus, Head of the Department, Faculty Members, Students and Supporting Staff of the Department of Soil Science is highly acknowledged. The guidance, support and facilities provided by the of members of the accreditation council including Mr. Naseer Alam Khan (Secretary) and Raja Mehtab Yasin (Admin/Finance Officer) is also highly appreciated.

Accreditation Inspection Committee (AIC), NAEAC

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## **1. EXECUTIVE SUMMARY/ ABSTRACT**

The Amir Muhammad Khan Campus is a newly established campus of the University of Agriculture, Peshawar. The geographical nature of the area and the land on the surroundings of the campus justify the need of a well-established Agricultural academic and Research Institute in this area. The B.Sc. (Hons) Agriculture degree program in this campus was first commenced in 2009, and the Department of Soil & Environmental Sciences started functioning as one of the pioneer departments of the AMK Campus. The Department has highly qualified faculty holding Ph.D degrees in Soil & Environmental Sciences and they are fully capable of imparting education at graduate level. However, being newly established entity, the Department lacks adequate laboratory facilities, books and journals which need to be strengthened on urgent basis. Similarly, HEC-digital library facility does not exist at the campus, which also needs immediate attention. In addition to these, provision of skilled laboratory and field staff to boost up research activities in the Department is highly desirable. Above all, the Campus is housed in a temporary building and so is the Department, therefore funds are required for the construction of the permanent campus building.

## **2. DEPARTMENT HISTORY AND MAIN FEATURES**

The Amir Muhammad Khan Campus, Mardan of the KPK Agricultural University Peshawar was established in 2009. The classes of B.Sc (Hons) Agriculture in Soil & Environmental Sciences major were started in 2010. Since then, twelve students have graduated from the Department, while 16 are currently enrolled. The Department is housed in an old hostel building of a training institute, and has strength of four faculty members including one Lecturer, two Assistant Professors and one Associate Professor. All the faculty members hold Ph.D. degrees, and possess sufficient teaching/ research experience to teach at the graduate level. The Associate Professor/Head of Department has an independent office, while the other faculty members have shared offices equipped with desktop computers. There are two lecture rooms in the Department, while there is a common laboratory shared with other departments of the Campus. Overall, the laboratory facilities available to the students at the campus are insufficient and need urgent improvement. There is a common library at the Campus comprising of about 8000 books, however books related to Soil are few in number and highly insufficient. At present, the Department is offering only B.Sc (Hons) Agriculture degree program with Soil & Environmental Sciences as the major subject.

### **3. CRITERION ANALYSIS**

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

The total faculty members of the Department are 4, all of which are full time employed, hold Ph.D degrees, and possess sufficient teaching and research experience. They are fully capable of teaching B.Sc (Hons)Agric.-Soil & Environmental Sciences degree courses and training the students to carry out quality research. Most of the faculty members are young and have good publications record. The student teacher ratio is 4:1, which is exceptionally good. The evaluation committee met Associate Professor/ HOD, and other faculty members of the Department one by one to discuss their academic background, areas of interest, and perceptions about academic programs, opportunities for professional growth and job satisfaction. The committee also discussed about their current research activities, involvement in research projects, and teaching load. It was done by visiting the faculty offices and holding frank and free discussions with them in isolation assuring them that the objective of this visit was solely the improvement rather than criticism on their degree program. The following is the conclusion of these individual meetings/ discussions:

1. All the faculty members were happy and satisfied with the facilities, support and their job environment. They all seemed enthusiastic and committed to their profession, which is a positive sign.
2. The involvement of faculty members in writing and submission of research projects to different funding agencies seemed insufficient, probably due to absence of research laboratory at the campus, which needs due attention.

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

The Curriculum is the backbone of teaching-learning process, and plays a pivotal role in the training of manpower. The evaluation committee was informed by the Head of Department that the curriculum followed at the AMK campus is the same developed by HEC through its Curriculum Review Committees (CRCs), and adopted/ approved by the Academic Council of the University of Agriculture Peshawar. There is regular review and update of the curriculum as per HEC-CRCs recommendations. However being a newly established campus, there is no separate book bank of the Department. There is a central library at the Campus which has a collection of about 8000 books and local research journals, of which only few books/ journals are related to Soil & Environmental Sciences. Therefore, there is deficiency of text and reference books for the Department at the campus, which is partly met through the books available at the Main Library of the University of Agriculture, Peshawar. Although internet facility exists in the Department, but it is not linked to HEC digital library service. Thus, there is an urgent need for the establishment/ up-gradation library facility in the Department. As far teaching load of the faculty is concerned, the

credit hours and contact hours are justified for the existing staff, and student teacher ratio is admirable. Course files are properly maintained for each course. The Evaluation Committee met with the students of the Department separately and asked them different questions to judge their quality of education, and the Committee was fully satisfied with the knowledge of students regarding the courses taught to them.

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

Presently, the Department along with the whole AMK Campus is housed in a temporary building of a provincial training institute and lacks its own building. The Campus has purchased 2000 kanal piece of land for its building but so far funds have not been allocated for the construction work, and this piece of land is presently being used as an agricultural farm. In the temporary arrangement, the Department has two class rooms of sufficient size, but no independent laboratory. One central laboratory exists which is commonly shared by different departments. Only few basic laboratory equipment such as pH meter, EC meter, oven, shaker and stirrer exist in the central laboratory, which are insufficient to carry class practical. However, this deficiency is met by taking the students to the laboratories of the Department of Soil & Environmental Sciences at the University of Agriculture Peshawar for carrying out practical once/ twice in a semester (as reported to the committee). This arrangement is not sufficient, and students while meeting with them also pointed out about the deficiency of practical facilities at the Campus. Hence, there is need of a fully equipped laboratory in the Department and practical training of the students need to address on priority basis.

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

Currently, 16 students are enrolled in the Department, which are provided with course split schedule, handouts, and lecture material for the given class and the semester. Scholarship to the students are available on merit and need basis however, these are insufficient. Hostel accommodation for boys is not available. Transport facility although exists, but according to students it is not properly made available to them. Sports facilities available at the campus are also limited. Field visits and study tours are arranged once or twice in a semester. Student attendance is taken regularly and there is restriction for 80 % presence to sit in exams. Record of attendance has been verified by the AIC as course files. Medical facilities are also inadequate. There is an excellent computer center/ lab. at the Campus but it also needs improvement in providing state of the art internet facility and access to HEC digital library. In general, internal arrangements for students i.e. class attendance, course file were fine but the outside facilities i.e. laboratory training, transport facilities, co-curriculum activities were not satisfactory.

#### 4. SWOT ANALYSIS OF THE DEPT DEGREE PROGRAMS

##### MAJOR STRENGTHS

- Qualified faculty holding Ph.D in different areas of Soil & Environmental Sciences
- Located in a truly agriculture representative area of Mardan
- Land holding of 2000 kanal for campus building and research farm

##### MAJOR WEAKNESSES

- Lack of own campus building therefore insufficient space for class rooms, laboratories, green houses etc.
- Inadequate laboratory facilities; Equipment almost negligible
- No access to HEC digital library and international journals
- Shortage of relevant course books
- Limited supporting staff in the Department
- Lack of boys and girls hostel
- Lack of departmental library and internet facilities
- No departmental budget
- No research projects with teaching staff
- Insufficient post doc or other regular training opportunities to faculty
- No visible international collaboration
- Limited number of national and international seminars organized
- Limited extension packages prepared
- No visible collaboration and coordination with industry
- Limited transport facility

#### 5. ACTIONABLE RECOMENDATIONS

Some of the immediate actionable points emerged from the evaluation are as under:

- Financial grants for the construction of new permanent campus
- Strengthening of laboratory and research facilities in the Department
- Recruitment of experienced/ trained laboratory and field staff
- Strengthening of existing Library facilities by purchase of books and Journals
- Establishment of Seminar room and Departmental library with computer/ internet facilities
- Provision of Departmental budget for chemicals, glassware and contingencies
- Installation of Green houses at the campus research area
- Provision of more scholarships and financial aids to the students
- Research grants to the faculty for initiation of laboratory and field research

## 6. ANNEXURES

### Annexure I. NAEAC Inspection Committee

The approved committee of NAEAC which visited the Department of Soil & Environmental Sciences, Amir Muhammad Khan Campus, Mardan comprised of:

1. Prof. Dr. M. Kaleem Abbasi  
Dean, Faculty of Basic & Applied Sciences  
The University of Poonch, Rawalakot Azad Jammu & Kashmir
2. Dr. Khalid Saifullah Khan  
Associate Professor, Dept. of Soil Science,  
PMAS-Arid Agriculture University Rawalpindi

### Annexure II. List of Books and Laboratory Equipment Available

#### List of Books

List of books available in the Department and Campus Library are as under:

S.No	Title of Book	Author/ Publisher
1.	Soil Science	National Book Found., Isb
2.	Fundamentals of Soil Physics	Hillel
3.	Water in Relation to Soil and Plants	Gupta
4.	Water Quality Monitoring	Bertram and Balance
5.	Irrigation Theory and Practices	Michal
6.	Elements of the Nature and Properties of Soil	Brady and Weil

#### List of Lab. Equipment

List of laboratory equipment available in the Campus Laboratory are as under:

S. No	Name of Equipment
1.	pH Meter
2.	Electrical Conductivity Meter
3.	Magnetic Stirrer
4.	Balance
5.	Oven
6.	Microscope
7.	Titration Equipment
8.	Binder
9.	Glassware and some chemicals

**Annexure III : List of Faculty Members**

S. No	Name	Designation	Qualification	Experience
1.	Dr. Wasiullah Malik	Associate Professor/ HOD	Ph.D	Teaching: 18 month Research: 23 year
2.	Dr. Shamsher Ali	Assistant Professor	Ph.D	Teaching: 30 month Research: 03 year
3.	Dr. Maria Mussarat	Assistant Professor	Ph.D	Teaching: 18 month
4.	Dr. Wiqar Ahmad	Lecturer	Ph.D	Teaching: 30 month Research: 03 year

**Final Recommendations of Accreditation rating**

Keeping in view the qualification of the teaching staff, their dedication and enthusiasm with the Department and the Institute, the Accreditation Inspection Committee unanimously recommends Accreditation of the Degree Programs of Department of Soil & Environmental Science Amir Muhammad Khan Campus Mardan in the “Y1” category of National Agriculture Education Accreditation Council/HEC with scope for up-gradation to category “W” after appropriate improvements in due course of time.

## 4.4 Signatures of AIC Members

<u>Name and Designation</u>		<u>Signatures</u>
<p><b>Dr. M. Kaleem Abbasi</b>            Professor Soil &amp; Environmental Sciences/Dean Faculty of Basic &amp; Applied Sciences, The University of Poonch, Rawalakot Azad Jammu &amp; Kashmir</p>	(Convener)	
<p><b>Dr. Khalid Saifullah Khan</b>            Associate Professor            Department of Soil Science and SWC.            PMAS, University of Arid Agriculture,            Rawalpindi</p>	(Member)	
Dated: June 14, 2014		