

Confidential**National Agriculture Education Accreditation Council**

47

**Report of the
Accreditation Inspection Committee
(AIC)**

**Prof. Dr. Muhammad Abid
Dr. Moazzam Jameel**

**Department of Soil Science,
Sindh Agriculture University, Tandojam**

**The Chairman
NAEAC Secretariat
Room # 2, Old Comsats Building
HEC Sector H-8/1, Islamabad**

Tel: 051-90802681

E-mail: info@naeac.com

**Subject: Accreditation Inspection Committee's (AIC) Report
(Department of Soil Science, Sindh Agriculture University, Tando
Jam)**

Dear Sir:

This is in response to your office letter No. 696/NAEAC/HEC-2011 dated 21-02-2012, the Accreditation Inspection Committee (AIC) visited the Department of Soil Science, Sindh Agriculture University, Tandojam and conducted the accreditation processes through review meetings, interviews, individual meetings, group consultations and visits, etc. as per schedule given.

The Undersigned and Dr. Muazam Jamil, Principal/Chairman, University College of Agriculture and Environmental Sciences/Department of Soil Science, Islamia University Bahawalpur, along with your office team spent two days (05-06, 2012) there for accreditation and evaluation of the degree programs offered by the Department of Soil Science as per necessary guidelines and the toolkit. The draft report prepared unanimously is annexed herewith for your kind information and further perusal please. Please do not hesitate to contact the undersigned for any information if required.

Prof. Dr. Muhammad Abid
Convener of the AIC
0300-7343316

TABLE OF CONTENTS

S. No.	Particulars	Page #
	<i>Covering letter</i>	1
	<i>Table of Contents</i>	2
1	INTRODUCTION	3
	Letter of TOR	3
2	DEPT. OF SOIL SCIENCE, SAU, TANDO JAM	3
	Dept. History and Main Features	3
	Degree Programs Offered	3
3	CRITERION ANALYSIS	4
	Criterion I Strength and Quality of Faculty	4
	Criterion II Curriculum Design and Development	4
	Criteria III Infrastructure and Learning Resources	5
	Criterion IV Students Support and Progression	5
	Criteria V Research and Consultancy Activities	6
	Criteria VI Governance and Leadership	6
	Criteria VII Recent Innovations and Best Practices	6
4	SWOT ANALYSIS OF THE DEPT. DEGREE PROGRAMS	7
5	ACTIONABLE RECOMMENDATIONS	8
6	LIST OF ANNEXURES	8
	Annexure # 1	8

1. INTRODUCTION

The Composition of the Accreditation Inspection Committee (AIC) and the TOR were given as below:

- | | | |
|----|--|----------|
| i | Prof. Dr. Muhammad Abid
Chairman, Department of Soil Science
Univ. College of Agriculture, B.Z. Univ., Multan | Convener |
| ii | Dr. Muazam Jamil
Principal, University College of Agriculture and
Environmental Sciences, Islamia University
Bahawalpur. | Member |

2. The Accreditation Inspection Committee shall have the following **TORs**:

- To validate the self-assessment report (SAR) of the degree programs (B.Sc. (Hons.), M.Sc (Hons), Ph.D) prepared by the Department of Soil Science
 - To carryout external evaluation of the degree programs in a transparent, neutral, holistic and participatory manner for accreditation and rating **based on seven (7) evaluation criteria given in the Evaluation Manual.**
 - To submit a synthesized and concise analytical report (7-8 pages only) consisting of SWOT analysis and actionable recommendations based on the interactions with the Dean, Chairman, Faculty Members, Students and Support Staff and Alumni as well as detail visit of physical infrastructure, facilities and other teaching-learning resources available for the degree programs.
 - To submit clear, specific and justified degree programs accreditation and rating recommendations to the Chairman-NAEAC.
3. The AIC shall carry out the accreditation process **from March 05-06, 2012**. The draft report may be submitted to Secretary NAEAC within a period of two weeks of the on-site visit. The Experts/Program Evaluators shall be offered an honorarium of Rs.5, 000/- per day during the on-site accreditation visit of the degree programs besides TA/DA as per HEC rules.

2. DEPARTMENT OF SOIL SCIENCE, SAU, TANDO JAM

- **DEPARTMENT HISTORY & MAIN FEATURES**

The Department of Soil Science was established in 1977. The Department offers B.Sc. (Hons.) and M.Sc. (Hons.) Agriculture in Soil Science. The said department is also offering Ph.D. degree program in Soil Science. Total number of graduates produced so far 473; M.Sc. 301 and Ph.D. 04.

- **DEGREE PROGRAMS OFFERED**

- B.Sc. (Hons.) Soil Science Since 1977
- M.Sc. (Hons.) Soil Science Since 1977
- Ph. D. Soil Science Since 1977

3. CRITERION ANALYSIS

Criteria I: Strength and Quality of Faculty

The total faculty of the department of Soil Science is 11. Nine are full time and permanent, whereas two are visiting faculty members. The student teacher ratio is 1:10. The evaluation committee met individually with faculty members of Soil Science to discuss their academic background, areas of interest, and their perceptions about the academic programs, students and peers opportunities for professional growth besides research opportunities, facilities available, teacher-student relationship, teaching load and strengths and weaknesses of the program. It was accomplished by calling the faculty staff of various levels and holding frank and free discussions assuring them that the objective of this visit was only to effect improvements rather than a criticism of their programs. This helped us to clear any misunderstanding that could arise during the meeting. Following points were made during discussion:

1. Most of the faculty members were happy and satisfied with the facilities provided, support and the teaching environment in the department. They, in fact, seemed enthusiastic and committed to their profession, which augurs well and is a happy sign of teaching in any institution.
2. The space in the laboratory was enough, which is considered as a good sign for a good quality education.
3. Number of projects funded by different organizations is running very smoothly by various faculty members. The teachers are enthusiastic to write more projects for funding in future also.
4. The committee enquired some teachers if their research findings were written as general information/extension bulletins? The answer was yes. Time constraints is conceded on the part of faculty members due to their heavy teaching load, nevertheless, writing the results for general information is the need of the hour.

Criteria II: Curriculum Design and Development

The curriculum is a reflection, how far it is supportive in achieving learning objectives and student learning outcomes. The AIC team members were informed that degree level curriculum 2010 developed by HEC through its Curriculum Review Committees (CRCs) has been adopted. The members of the curriculum review committee (CRC) of the department are senior professors of BOS. A uniform curriculum approved by HEC has been adopted by all the Agricultural Universities/Colleges. Generally, maximum weightage is given to final exams (60 per cent), followed by mid term (30 per cent) and assignments/quizzes, etc. (10 per cent). In parallel to semester system, the SAU has also adopted term system with same curriculum. The students were appreciating this system and are performing well in acquiring knowledge. To keep abreast of the latest knowledge in the concerned discipline, it is imperative to have a regular review and update of the curriculum. In the recent years, feedback mechanism is considered extremely useful for participatory and

objective decision making. The Quality Enhancement Cell (QEC) of SAU has made positive efforts to develop this mechanism on regular basis for continuous improvement of teaching learning quality. This mechanism has to be further streamlined to improve the quality of education on the basis of the feedback from all the stakeholders such as employers, alumni, students, peer academicians and parents. This criterion was assessed in the light of evidence whether the department is functioning under a set of well-defined and known objectives yielding expected learning outcomes, which support program objectives. Also programs are redesigned and reviewed from the feedback. The AIC committee is of the view that the department has developed a set of worthwhile curriculum design according to the needs of the students using interdisciplinary and multidisciplinary approaches. However, it was noted that curriculum revision exercise by the board of studies is carried out regularly.

Criteria III: Infrastructure and Learning Resources

Classrooms: There were two (02) classrooms for classes. There is a slight shortage of classrooms. Increasing number of students may result in the congestion of classrooms, which may affect the quality of teaching and learning.

Laboratories: There are 03 teaching laboratories and 04 research laboratories. The laboratory equipment in these laboratories is sufficient to meet the requirement for the students. Moreover, the department is continuously improving the strength of instruments through various research and development projects.

Library: There is a well-furnished departmental library, which contains sufficient relevant books, journals, etc. The library is linked with digital library developed by the Higher Education Commission of Pakistan, where, over 809 books. Keeping in view the large number of students the number of computers with printers and internet facilities are required to be increased at the departmental level.

Experimental farms: The Department is provided with a 20 acres experimental area. On-farm research and demonstrations are carried out for research projects and thesis research. All the farm equipment and machinery is University - owned and is available as and when required.

Criteria IV: Students Support and Progression

The AIC evaluation committee was apprised that students are provided handouts in the class and/or a folder containing topics wise data and lecture material for the given class and semester, which are placed in the library. The teachers provide handouts of lectures along with presentation on multimedia. Students were of the opinion that the number of assignments should be increased and more quizzes should be conducted to keep the students fully involved in the semester system as well as term system. In addition to the regular mid term and final examination in a given semester, the Soil Science has a unique system of arranging a

comprehensive paper covering major core subjects for the B.Sc. (Hons.) final year students. It is a useful and very effective method of revision of the important topics, which will help the students in practical life. Because of very high enrollment in the general courses offered during first four semesters, the students felt congested in the practical classes and the teachers are overloaded. This may affect the quality of teaching. Internship, which is a pre-requisite for the award of Bachelor degree, is regularly conducted in a systematic manner. Most of the students are sent to various research institutes throughout the province and abroad (particularly USA) where they acquire practical training and submit a formal report. A few internship reports were checked and found of good quality. Internship and practical training might be a regular feature with a view to develop a strong and effective program.

Criteria V: Research and Consultancy Activities

There seems to be adequate research and consultancy activity in the department. The AIC committee was briefed that it was mandatory for the teaching faculty to devote 70 per cent time to teaching and 30 per cent to research.

Criteria VI: Governance and Leadership

The highest administrative governance authority is the Vice Chancellor, followed by the Pro-Vice Chancellor, Registrar, Treasurer and Controller of Examinations. The part of the organizational setup of the department is controlled by the Chairman, who is responsible to report to the Dean of the faculty of Crop Production. The Vice Chancellor is the overall controlling authority. Important bodies of the university include the Syndicate, the Senate, Academic Councils, Advanced Study & Research Board, Finance & Planning Committees, Selection Board, Boards of Studies, Directorate of Students' Affairs and Deputy Provost. The rules, policies and procedures of the university are well organized and documented. All bodies of the university function within the framework of well defined rules and procedures. To further improve leadership in research and teaching, an exchange with other universities, local and abroad, will be of great help.

Criteria VII: Recent Innovations and Best Practices

Construction of green-houses and establishment of Center for Bio-saline Agriculture and completion of installation of composting unit for the department will help to boost up the research potential for degree programs being offered by the department.

4. SWOT ANALYSIS OF THE DEPT DEGREE PROGRAMS

Overall analysis

Major strengths

1. Provision of a good departmental library with essential and latest books, relevant journals besides being equipped with sophisticated audiovisual system.
2. Existence of research and experimentation facilities likes experimental field, greenhouses and wire house.
3. A sound and qualified teaching and research faculty; majority of them have Ph.D. degrees.

Major weaknesses

1. Lack of the in position Professor in the department.
2. A limited number of trained supporting staff, i.e. laboratory technician/assistants.
3. Lack of equipment repair engineer.
4. Limited and relatively small space for lecture rooms.
5. Lack of trained faculty in Soil Physics.
6. Lack of international professional teachers' training programs.

Major opportunities

1. Increasing the number of grants from the national and international donors.
2. Provision of training to staff of research and extension departments.

Major Threats.

1. Rising of budget for the department.
2. Improvement of out-reach programs.
3. Strengthening of linkages between faculty and stakeholders.
4. Generating financial resources.
5. Adding to the laboratories space in view of increasing number of students in soil science.

Recommendation

The department is a need of the Sindh and Baluchistan provinces and an emerging department in the future. However, there is always a room for improvements to match the national as well as international standards and to meet the market challenges. The AIC committees also recommend completing the faculty composition by appointing full time Professor. Thus, Soil Science major needs to focus on some grey areas and weaknesses discussed in this report. Obviously, it requires more funding for providing the requisite facilities. In view of these considerations, the committee recommends that the department may be up-graded to the level of Institute.

5. ACTIONABLE RECOMENDATIONS

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

- More classrooms and stores.
- Periodicals and journals for faculty and students.
- More computer/internet facilities for all.
- Ample budget for increasing Dept. facilities
- More HEC opportunities, scholarships and financial aids
- Provision of more High-Tech equipment.

6. FINAL RECOMMENDATIONS

On the basis of the inspection/evaluation, the team recommends accreditation/rating of the degree programs of Department of Soil Science, Sindh Agriculture University, Tandojam, Pakistan in the Middle band (71%) of “X” category of National Agriculture Education Accreditation Council/HEC.

7. LIST OF ANNEXURES

1. Evaluation Criteria and Program Ratings
2. TOR of the Committee

AIC Draft Report Visit on March 5-6, 2012

8. Evaluation Criteria for Agricultural Degree Programs

Sr. No	Criteria	Points Assigned	Points Awarded
Major Criteria			
1	Strength and Quality of Faculty	250	200
2	Curriculum Design and Development	150	110
3	Infrastructure and Learning Resources	200	143
4	Students Support and Progression	100	80
Sub-Total (a):		700	533
Minor Criteria			
5	Research and Consultancy Activities	150	98
6	Governance and Leadership	100	70
7	Recent Innovations and Best Practices	50	10
Sub-Total (b):		300	178
Grand Total (a+b):		1000	711

- | | |
|--|-----------------|
| <p>1. Prof. Dr. Muhammad Abid
Chairman, Department of Soil Science
University College of Agriculture
B.Z. University, Multan.</p> | <p>Convener</p> |
| <p>2. Dr. Muazam Jamil
Principal, University College of Agriculture
and Environmental Sciences,
Islamia University Bahawalpur.</p> | <p>Member</p> |