



AIC Report

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March 31, 2014

Department of Soil Science
Shaheed Z. A. Bhutto Agricultural College Dokri, Larkana

Table of Contents

S.No	Particulars	Page
1.	Executive Summary	1
2.	Introduction	1
	i. Sindh Agriculture University	1
	ii. Shaheed Zulfiqar Ali Bhutto Agricultural College campus, Dokri,	1
3.	Criteria Wise Analysis	2
	i. Strength and Quality of Faculty	2
	ii. Infrastructure and Learning Resources	2
4.	Participatory SWOT Analysis	3
	Challenges	
5.	Actionable Recommendations	3
	Threats	
6.	Final Recommendations	3
7.	Annexure. I NAEAC Inspection Team	4
8.	Annexure. II Name, Qualification and Experience of Faculty and Support Staff	5
9.	Annexure. III List of Books related to Soil Science and Lab. Instruments	6
10.	Annexure. IV Funded Research Projects	8

Executive Summary

Accreditation Inspection Committees (AICs) visited Shaheed Zulfiqar Ali Butto Agricultural College (SZABAC), Dokri on March 31, 2014. The SZABAC established in 1991 and so far has produced 592 graduates. Presently, college is offering graduate degree programs in crop production and crop protection fields including Soil Science. There seems to be serious shortage of faculty members in the department for teaching to general and major classes. Lack of financial provision for conducting practical work in the laboratories and field was also evident. The existing faculty member is only one in department of Soil Science, qualified and holding Master degree in the respective field. Teacher student ratio in the department is 1:13. Lecture rooms (02) and laboratories (02) are very much spacious and adequate enough. However, there was shortage of teaching audiovisual aids. Load shedding of electricity is making environment non conducive to work as major especially in peak summer and winter season. Teachers and students are satisfied with working environment and academic program and extra-curricular activities. Limited field and study trips are arranged for the classes.

Library needs to contain sufficient HEC recommended text books, reference books and research journals including, e-journals. The existing computing facility does not meet the requirement of students and faculty members. Farm needs to be developed and properly managed. More, farm machinery and tillage operation tools and equipment are required for cultivation of field crops and practical demonstration.

In the current scenario, it is recommended that at present the accreditation of Soil Science degree offered by the college may be considered and the administration of SZABAC Dokri should be advised to take efforts for further improvement, particularly by appointing the teaching faculty members in the department.

Introduction

i. Sindh Agriculture University (SAU)

Agriculture College Tandojam was established in 1955, after commissioning of Sukkur Barrage. The college became full-fledged university on March 1, 1977, named as Sindh Agriculture University Tandojam under government act 1977. Presently, university has more than 35 departments/institutes/centres/colleges. The University has also established campuses at Dokri and Khairpur Mirs, to provide agriculture education facility at the doorsteps of the people in upper Sindh as part of the policy of the Government.

ii. Shaheed Zulfiqar Ali Bhutto Agriculture College (SZABAC) Dokri

Knowing the importance of agricultural education for the people of upper Sindh, this college was established in 1991 at Rice Research Institute (RRI), Dokri. The college started functioning in September, 1991, when some old buildings of RRI were renovated and handed over to SAU, Tandojam. The SZABAC is constituent college of SAU, Tandojam. It offers only undergraduate degree programs of B.Sc (Hons) of duration of eight semesters. The college is spread over an area of 100 acres and recently has been provided a boundary wall. It has an Academic Block, Administration Block, Hostel and 50

residences mostly unoccupied. No full time Senior Professor as Principal is appointed in college. The college is without; Tuckshop and Cafeteria, Mosques (under construction for the last 15 years) that needs the attention of SAU, Tandojam. The college lacks playground, medical facility, generator, well equipped class rooms and faculty offices, recreation rooms, auditorium/seminar hall etc. The SZABAC, Dokri was visited by the AICs on March 31, 2014. The report - detail is presented below:

Criteria wise Analysis

Strength and Quality of Faculty

The existing faculty is junior without higher qualification (PhD), consisting of Assistant Professors and co-operative teacher. Out of total faculty only one assistant professor is PhD in the whole college. More than 590 students have been awarded Bachelor's degree, out of which 115 students have got degrees in Soil Science discipline. Presently no post graduate program in Soil Science is being offered on the campus. There is only one Assistant Professor holding Master's degree in Soil Science, teaching all the courses and conducting practical work against the sanction strength of the department as per PC-I (Associate Professor=1, Assistant Professors=2 and Lecturers=2). This suggests that the more qualified (PhD) faculty members should be appointed on urgent basis against all the vacant positions. The students are satisfied with teaching tact of the faculty. The teacher student ratio is 1:13. The department needs more faculty development program.

Infrastructure and learning resources

The class rooms and laboratories are enough in Soil Science.

This facility is sufficient for the running graduate degree program in Soil Science as well as for starting the post graduate degree program.

Although there are more than 4000 books in the College library, but only 20 books are related to Soil Science discipline. There is serious shortage of HEC recommended books for teaching the developed curriculum adopted by the university. The College library also needs to be connected with digital online access facility. Subscription of regular journals, periodicals and reports in the form of hard copy is required.

Course files and practical note books needs to be properly maintained. Course coverage by the teachers is satisfactory.

Sufficient hostel accommodation is available but improper poorly managed for male and female students. No proper play grounds are available; it needs to be developed, upgraded and regular properly maintained to meet the standards. Transport facility is available but insufficient to manage for the students during field visit.

Faculty is satisfied with the working conditions and environment. Students seem contented with the quality of lectures, but poorly satisfied with transport, sports facilities and hostel accommodation.

Agriculture field is available but needs improvement, management and reclamation for practical and research work.

Participatory SWOT Analysis:

Strengths:

Faculty and students seem satisfied with working environment.

Weaknesses

- There is serious shortage of senior qualified faculty on permanent basis or on TTS / contract.
- Teachers, technical and support staff is insufficient.
- Budget provision for various heads needs to be revised and raised for smooth running of the department.
- In addition to available lab equipment, there is need of equipment, like forced draft oven, drying cabinet, desiccator.
- Library facility is not sufficient with even containing some old books, reference material, latest editions of text books and research journals are not available.
- The faculty offices as well as classrooms and laboratories lack internet facility and multimedia teaching aids for offering major discipline.

Actionable Recommendations

- Required number of faculty members may be appointed immediately on permanent basis or on TTS.
- The analytical instruments like Atomic Absorption Spectrophotometer should be installed without any delay and shifted to concerned department, otherwise half-life of Hollow Cathode Lamp (HCL), will be expired.
- More HEC recommended text books and research journals should be purchased to meet the minimum criteria degree program.
- Access to digital library and internet facility should be made available to staff and students.
- Faculty development program should be initiated for new faculty members.
- Transport facility should be improved for visits of faculty and students to field site visit.
- Accreditation to the Soil Science degree program should be considered. Administration should be advised to meet criteria of the faculty strength and quality and infrastructure and learning resources.

Final Recommendation

The team unanimously declared that B.Sc (Hons) Agri. Soil Science degree program at the SZABAC, Campus, Dorki may be considered in Y1 category for accreditation. The administration of SZABAC is advised to upgrade the faculty and support staff as well. They should meet criteria of the Faculty Strength and Quality and Infrastructure and Learning Resources.

Annexure-1 NAEAC Inspection Team

The Chairman, NAEAC approved an Accreditation Inspection Committee (AIC) for evaluation of the Department of Soil Science, Shaheed Zuliqar Ali Bhutto agricultural College, Dokri. The committee comprised of the following members who undertook a visit to the said institution on March 31, 2014.

- 1. Dr. Nizamuddin Depar, (Convener)**
Senior Scientist,
Soil Science Division,
Nuclear Institute of Agriculture, Tandojam

The Accreditation Inspection Committee had the following TORs:

- To validate the self-assessment report (SAR) of the degree program B.Sc (Hons) Prepared by the Department of Soil Science, SZABAC Dokri
- To carry out external evaluation of the degree program 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 (3-4 pages only) consisting of SWOT Analysis and actionable recommendations based on the interactions with the Principal, Chairman, Faculty members, Students and Support Staff and alumni as well as detailed visit of physical infrastructure, facilities and other teaching-learning resources available for the degree program.
- To submit clear, specific and justified degree program accreditation and rating recommendations to the Chairman NAEAC.

Annexure-II Name, Qualification and experience of faculty and support staff

Faculty Members:

Name	Designation	Qualification	Experience	Status
Abdul Hameed Memon	Assistant Professor	M. Sc (Agrc.) Hons.	7 Years	Regular

Technical Staff:

Mumtaz Ali Odhano	Lab. Assistant	B. Sc Chemistry	18 years	Regular
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Annexure-III List of Books related to Soil Science and Lab. Equipments

S. No	Author	Year	Title
1.	Miller, RW	1990	An Introduction to Soils and Plant Growth
2.	Brady, NC	1990	The Nature and Properties of Soils.
3.	Bohn, HL	1979	Soil Chemistry
4.	Bashir, E	1996	Soil Science text Book, NBF
5.	Tisdale, SL	2013	Soil fertility and fertilizer (Indian Edition)
6.	Mengak, K	1978	Principles of Plant Nutrition
7.	Charman & Murphy	2007	Soils, Their Properties and Management
8.	Dueby, CR	2000	Text book of Microbiology.
9.			Geography Made Simple
10	Kumar, R.	2012	Soil Testing and recommendations
11.	Pansu G.	2007	Hand book of Soil Analysis
12.	Miller,	1979	Soil Fertility
13.	Krishna, J.		Research in Agriculture
14.	Singh, M.	2000	Analysis of soil Physical Properties
15.	Marschner,	1995	Mineral nutrition of Higher Plants
16.	Sylvie,	2004	Principles and Application of Soil Microbiology
17.	Choukar,	1995	Halophytes and Biosaline Agriculture
18.	Swapra,	2002	Soil Erosion and Environmental Problems
19.	Kim, H	2010	Principles of Soil Chemistry
20.	Singh, RA,	2001	Soil Physical Analysis

List of Laboratory Equipment

1. Kjeldhal system	1
2. Spectrophotometer	1
3. Centrifuge Machine	1
4. EC meter	1
5. pH meter	2
6. Mechanical Shaker	1
7. Stirrer Machine	1
8. Mechanical mixture	1
9. Digital Balance	2
10. Top loaded balance	1
11. Flame photometer	1
12. Atomic Absorption Spectrophotometer	1
13. Hot plate	1
14. Distillation unit	1
15. Water bath	1

Annesure-IV. Funded Research Projects Nil