

The Secretary  
National Agriculture Education Accreditation Council (NAEAC)  
NAEAC Secretariat  
Islamabad

January 24, 2014

**Subject: Report of Accreditation Inspection Committee for Accreditation of Degree Programs of Pakistan Forest Institute, Peshawar**

Reference: HEC letter No. 853-NAEAC/HEC/2013 dated February 11, 2013

The Accreditation Inspection Committee (AIC) constituted by the Chairman NAEAC consisted of the following:

1. Prof. Dr. Sarwat N. Mirza      **(Convener)**
2. Dr. Muhammad Afzal      **(Member)**

The AIC carried out two days visit to the Pakistan Forest Institute (PFI), Peshawar from December 16-17, 2013. The AIC conducted evaluation of the degree program of B.Sc. Forestry and M.Sc. Forestry being offered by Pakistan Forest Institute, Peshawar. The AIC also carried out detailed visits to the infrastructure (faculty offices, teaching classrooms, laboratories, Library, Field area, nursery, hostels etc.) being employed for various teaching, research and extra-curricular activities of the Institute. Based on the findings/evaluation, report is being submitted to NAEAC as per approved TORs of AIC.



(Prof. Dr. Sarwat N. Mirza)  
Convener AIC

(Dr. Muhammad Afzal)  
Director PFRI/Member AIC

Distribution:

The Director General/DFE, Pakistan Forest Institute, Peshawar

## EXECUTIVE SUMMARY

### **Report of Accreditation Inspection Committee for Accreditation of B.Sc. and M.Sc. Forestry Degrees offered by Pakistan Forest Institute, Peshawar**

The AIC comprised of Dr. Sarwat N. Mirza, Professor/Convener and Dr. Muhammad Afzal, Director, Punjab Forestry Institute, Gatwala, Faisalabad carried out two days visit to Pakistan Forest Institute, Peshawar from December 16-17, 2013 to conduct evaluation of the degree program of **B.Sc. & M.Sc. Forestry** being offered by the Pakistan Forest Institute, Peshawar. Pakistan Forest Institute (PFI) was established in 1947 and formally inaugurated by the then Field Marshal Muhammad Ayub Khan in 1966. The Institute remained as attached department with the Federal Government till 2011 and devolved to KPK Government as a result of 18<sup>th</sup> Amendment in the constitution of Pakistan. The University of Peshawar is awarding degrees to the Forestry graduates of Pakistan Forest Institute, Peshawar. Pakistan Forest Institute is headed by Director General with four Divisions namely, Director (Forestry Research), Director (Forest Education), Director (Forest Products), Director (Biological Sciences) and a Coordinator (Sericulture). Each directorate has its own technical staff and research program. The Forestry Education Division of PFI is awarding B.Sc. and M.Sc. degrees in Forestry.

Pakistan Forest Institute is strategically located in Peshawar valley surrounded by pristine natural forests extending towards north and north east. This makes PFI an ideal educational and training facility in the field of forestry and allied disciplines like Rangelands and Watersheds. PFI being the mother institution in Forestry education and training can play a leading role in fostering forestry education by extending its training facilities to other departments and universities involved in higher education in forestry sector. After devolution, PFI needs to put more focus on reaching out and establishing closer ties with federal and provincial forestry setup and extending its services and facilities for joint education, research and outreach programs in Forestry.

The specific recommendations for the improvement of degree program include: a) the curriculum of B.Sc. and M.Sc. Forestry degree programs should be up dated as per guidelines contained in National Curriculum Revision Committee (NCRC) of HEC by updating the existing scheme of studies and also addition of new courses/contents/topics on emerging issues in the field of forestry like integrated natural resource management, climate change impacts, mitigation and adaptation and biodiversity conservation, etc. b) addition of new and latest edition of recommended text books, periodicals and journals in the main library, c) more interaction with forestry research institutions, universities and NGOs involved in forestry education and research across the country, d) to improve the quality of education, faculty should be provided ample opportunities for short and long term in service training, e) hiring of qualified and experienced faculty and promotion/up-gradation of existing faculty would further improve the quality of education in Pakistan Forest Institute, f) PFI fulfills the criteria for up-gradation of its academic status to a full-fledged Degree Awarding Institution (DAI) in forestry education after meeting recommended improvements especially, faculty strength and curriculum revision.

In view of the above narrated findings, AIC unanimously recommends that the Degree program of B.Sc and M.Sc. in Forestry offered by Pakistan Forest Institute, Peshawar be graded as “X” category i.e., the classification of degree program with **minor** shortfalls expected to meet the criteria as set by the Council for Accreditation with scope for up-gradation to category “W” after recommended appropriate improvement in due course of time.

**EXTERNAL ASSESSMENT AND EVALUATION REPORT OF  
ACCREDITATION INSPECTION COMMITTEE (AIC) FOR ACCREDITATION  
OF B.Sc. AND M.Sc. DEGREE PROGRAMS OF PAKISTAN FOREST  
INSTITUTE, PESHAWAR**

**(December 16-17, 2013)**

**SECTION-1 Introduction, Mission and Objectives**

**1. Terms of Reference of the Committee**

The team visited Pakistan Forest Institute, Peshawar for external assessment and evaluation of B.Sc. Forestry and M.Sc. Forestry degree programs from December 16-17, 2013 with the following mission:

1. To validate the self-assessment report of B.Sc. and M.Sc. degree programs in Forestry prepared by Pakistan Forest Institute, Peshawar.
2. To bring external evaluation of the academic programs of the Institute for rating and accreditation.
3. To prepare consolidated report about the degree programs after meeting with Director General/Director Forest Education Division of the Institute, faculty members, students and visit to infrastructure, classrooms, laboratories, library, etc.
4. To submit recommendations about the degree programs to NAEAC Chairman.

**1.2. Introduction of Department/Degree Program**

Dr. Mamoona Wali Muhammad, Coordinator and Focal Person of the Institute briefed the Accreditation Committee through presentation about the Department history, faculty, students, courses curriculum, examination/evaluation system, classrooms, laboratories, major equipment, students strength, enrollment and degree completion, research projects completed and on-going, etc. Pakistan Forest Institute (PFI) was established in 1947 and formally inaugurated by the then Field Marshal Muhammad Ayub Khan in 1966. The Institute remained as attached department with the Federal Government till 2011 and devolved to Khyber Pukhtunkhwa Government as a result of 18<sup>th</sup> Amendment in the constitution of Pakistan. Currently, the Institute is serving as an attached department with the Ministry of Environment, Government of Khyber Pukhtunkhwa. For academic purposes, the University of Peshawar is awarding degrees to the Forestry graduates of Pakistan Forest Institute, Peshawar.

Pakistan Forest Institute is headed by Director General with four Divisions namely, Director (Forestry Research), Director (Forest Education), Director (Forest Products), Director

(Biological Sciences) and a Coordinator (Sericulture). Each directorate has its own technical staff and research program. The Forestry Education Division of PFI is awarding B.Sc. and M.Sc. degrees in Forestry.

### **1.3 Mission of the program**

The mission of Pakistan Forest Institute (PFI) is to impart and promote education, training and research on the conservation, enhancement and sustainable management of Forest, Range and Wildlife resources in the country.

### **1.4. Program Objectives**

- Catering for educational, training and research needs in Forestry and Allied Disciplines
- Contribute to ecological economic and social services
- Establish national and international linkages in creation and dissemination of knowledge
- Provide advisory services to different stakeholders

## **Section-2 Criterion Wise Analysis**

### **2.1 Curriculum Design and Development**

Pakistan Forest Institute through its Forestry Education Division is following academic program and course curriculum of B.Sc. and M.Sc. forestry degrees prepared in 1974 by its own experts keeping in view the needs of the provincial forest departments as they nominate the students for these degree programs after selecting the candidates through public service commission. Though the academic experts from PFI regularly participate in the meetings of the HEC Curriculum Revision Committee meetings, they have maintained and defended their scheme of studies and curriculum and are following the minimum criteria of credit hours and other degree program requirements of B.Sc Forestry and M.Sc. Forestry degree programs. The Board of Studies of PFI has defended their scheme of studies in the HEC curriculum revision committee meetings and following their own scheme of studies to the satisfaction of members of the NCRC of HEC. All the courses are available in approved handbook of HEC National Curriculum for Forestry and syllabus showing the semester/term wise scheme of studies with credit hours.

### **Current Enrollment of Students during the last two years**

<b>Degree Name</b>	<b>Year</b>	<b>Students intake</b>
B.Sc. Forestry	2012	41
	2013	32
M.Sc. Forestry	2012	85
	2013	48

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### **Total Students Graduated at PFI, Peshawar**

<b>Degree Name</b>	<b>Students Graduated</b>
B.Sc. Forestry	1440 (62 foreigners/60 females)
M.Sc. Forestry	1015 (60 foreigners/59 female)

### **2.2 Strength and Quality of Faculty**

Pakistan Forest Institute, Peshawar has one Director Forest Education, four Assistant Professors and three Lecturers on its faculty strength, however, 26 technical Officers working in various allied divisions all having Master degree holders in Forestry and Basic Sciences are also engaged in teaching various course to B.Sc. and M.Sc. students in addition to regular faculty members. There is no faculty position available at the level of Associate Professor and Professor. The evaluation committee met with each faculty of the Department to know about their qualification, professional background, research field, teaching workload, research supervision, record of course, students attendance, examination result, papers setting, grading systems, opportunities for trainings, facilities available, facilities required, strengths & weakness, existing problems in the degree programs of the Department, etc. The teaching faculty was found to be well trained and highly skilled in various specializations of Forestry. The feedback of the meeting with faculty is evaluated/marked in the evaluation manual (toolkit).

### **2.3 Students Feedback regarding Degree Program**

The AIC members also met with a group of students pursuing their degree in B.Sc. and M.Sc. Forestry. The Students showed their satisfaction regarding various components of degree programs including scheme of studies, course material, practical work, etc. The students especially mentioned the teaching methods including power point lecture presentations, case studies, field tours, etc. The students however, suggested updating scheme of studies with inclusion of multi-disciplinary courses and new courses on emerging issues in Forestry like climate change and biodiversity conservation, etc. An important feedback emerged was that of provision of internet facilities at the campus and hostels to enable students access on-line literature, e. library and improve knowledge base through improving interaction with other national and international institutions.

## **Section-3 Overall Analysis of the Degree Program (SWOT Analysis)**

### **3.1 Major Strengths**

#### **(A) Admission Criteria and Curriculum**

- B.Sc. Forestry admission in 1<sup>st</sup> term- Annual Intake after F.Sc. The degree is spanned over five terms and students in their last and fifth term undertake term paper and forest management scheme assignments.
- M.Sc. Forestry admission in 1<sup>st</sup> term- Annual Intake after B.Sc Forestry. The degree is spanned over five terms and students in their last and fifth term undertake thesis and Forest management Plan.
- Admission and Withdrawals are governed by already approved statutes of the University of Peshawar for the award of B.Sc and M.Sc. Forestry degrees.
- Curriculum designed by the Board of Studies of PFI and included in HEC curriculum guidelines (NCRC).

#### **(B) Faculty, Lab & Office staff**

- The department has on its strength the services of seven regular faculty members including two Ph.D faculty members. Among them four Assistant Professors and three Lecturers. The teaching staff is well versed and trained in their respective field of studies. In addition, there is 26 other technical staff serving in various research divisions/wings of PFI having Masters Degrees in Forestry & allied disciplines are also engaged in teaching and training of the students.

#### **(C) Infrastructure**

- PFI has the largest infrastructure (233 acres) exclusively established for the promotion and advancement of forestry education and training in the country. The Forestry Institute has the facilities of spacious Auditorium & Conference Hall, Natural History Museum, residential houses, students and trainees' hostels, research gardens and nurseries, ten field stations, dispensary and mosque, guest house, officers and staff club, etc. The institute has classrooms equipped with multimedia projectors and screens, fully equipped research/teaching laboratories, computer laboratories having 30 computers, seventy two faculty and Admn. Staff offices, a central library with 30 thousand books containing required number of text and reference books and 10 periodicals and journals.
- The Institute has fully established divisions of Forest Education, Forestry Research, Forest Products, Biological Sciences and Sericulture. Each division has fully equipped research laboratories including wood anatomy, wood seasoning and preservation, composite wood laboratory, pulp and paper laboratory, forest chemistry laboratory, medicinal plant laboratory, sericulture, entomology and seed testing laboratory.

- The extensive practical training and touring to pristine forest areas across the country is one of the major strength of Pakistan Forest Institute which is unmatched with any other educational institution offering Forestry education in the country.
- Each faculty member has official computer with printer with internet facility. There is fully equipped GIS computer lab for students containing 30 computers linked with internet facility.

#### **(D) Library, Books & Research Journals:**

Pakistan Forest Institute has a central library where the students and faculty has access to a large number of books and journals. The central library contains about 30,000 books and a separate section of books for the subject of forestry containing over 180 text and reference books related to all sections/sub disciplines of forestry including forest management, Range Management, Agro-forestry, Watershed Management, etc. There is ample budgetary provision for the purchase of books and periodicals. The Forest Institute is regularly publishing a quarterly journal “**Pakistan Journal of Forestry**” from 1980’s and covers broader area of scientific literature related to Forestry. The senior Faculty and researchers have published a number of research publications, books/monographs related to their specialization.

### **3.2 Major Weaknesses**

- Pakistan Forest Institute (PFI) is short of required number of regular faculty positions especially senior level faculty of the level of Associate Professors and Professors. The Institute has recently started BS Four years degree program in Forestry which further necessitates hiring senior and qualified faculty in the institute.
- Though the curriculum of PFI for the degrees of B.Sc Forestry & M.Sc. Forestry is well designed and contains all essential courses, practical and field tours but these courses have not been revised or up dated for the last many years. There is a need to update the existing scheme of studies and also addition of new courses/contents/topics on emerging issues in the field of forestry like integrated natural resource management, climate change impact, mitigation and adaptation and biodiversity conservation, etc. Similarly, the text and reference books needs to be updated with latest editions.
- Because of lack of Wi-Fi internet connection in the GIS & Computer laboratories, the faculty and students cannot efficiently utilize HEC digital library for research and linkages development with other institutions.

### **3.3 Major Opportunities**

Pakistan Forest Institute is strategically located in Peshawar valley surrounded by a range pristine natural forests extending towards north and north east. This makes PFI an ideal educational and training facility in the field of forestry and allied disciplines like Rangelands

and Watersheds. There is a huge potential for research and development oriented activities in forestry sector, be it in mountain belt or scope of agro-forestry in valley basins. PFI being the mother institution in Forestry education and training and already enjoying closer ties with all provincial forest departments can play a leading role in fostering forestry education by extending its training and research facilities to other departments and universities involved in higher education in forestry sector. The Institute can make a significant headway in developing a strong regional cooperation network by involving national and international organizations to address challenges of land degradation and issues like climate change mitigation and adaptation.

Pakistan Forest Institute has a huge research area under its control to establish quality nurseries of both forest and rangeland species and become a source for seed and seedling supply to other organizations involved in the efforts of conservation and rehabilitation of natural resources.

### **3.4 Major Challenges**

One of the major challenges, Pakistan Forest Institute is likely to face after devolution to the province of Khyber Pukhtunkhwa as a result of 18<sup>th</sup> constitutional amendment is to maintain its national and international stature and image as a leading educational and training institution in forestry. The Institute needs to put more focus on reaching out and establishing closer ties with federal and provincial forestry setup and extending its services and facilities for joint education, research and outreach programs in Forestry.

## **Section-4 Recommendations**

### **4.1 General Recommendations**

- The curriculum of B.Sc. and M.Sc. Forestry degree programs should be up dated as per guidelines contained in National Curriculum Revision Committee (NCRC) of HEC by updating the existing scheme of studies and also addition of new courses/contents/topics on emerging issues in the field of forestry like integrated natural resource management, climate change impacts, mitigation and adaptation and biodiversity conservation, etc.
- Addition of new and latest edition of recommended text books, periodicals and journals in the main library.
- More interaction be established with forestry research institutions, universities and NGOs involved in forestry education and research across the country. Co-curricular activities including sports should be organized in collaboration with other educational institutions to promote cross cultural and healthy competition.
- To improve the quality of education, faculty should be provided ample opportunities for short and long term training in international organizations/institutions.



- The present faculty strength includes a fairly large number of support staff from research wings of the Institute, efforts are needed to rationalize increase regular faculty strength. The present post of Director General, PFI be upgraded to BS-21 and be designated as DG/Professor. Hiring of qualified and experienced faculty and promotion/up-gradation of existing faculty would further improve the quality of education in the Forest Institute.
- Pakistan Forest Institute fulfills the criteria for up-gradation of its academic status to a full fledged degree awarding institution (DAI) in forestry education after meeting recommended improvements in faculty strength and curriculum.

#### **4.2 Rating Recommendations for Accreditation**

In view of the above narrated findings, AIC unanimously recommends that the Degree program of B.Sc and M.Sc. in Forestry offered by Pakistan Forest Institute, Peshawar be graded as “X” category of National Agriculture Education Accreditation Council/Higher Education Commission i.e., the classification of degree program with **minor** shortfalls expected to meet the criteria as set by the Council for Accreditation with scope for up-gradation to category “W” after recommended appropriate improvement in due course of time.