

SIIL-Polder Scholarships

Project Overview

Building the capacity of the next generation of agricultural production system scientists is an important objective of a new USAID-funded project in the coastal zone of Bangladesh, under its Sustainable Intensification Innovation Lab (SIIL) initiative. The project is jointly implemented by Kansas State University (KSU) and International Rice Research Institute (IRRI) in Polder 30, Khulna, Bangladesh. The project invites a partnership with universities in Bangladesh through the provision of scholarships for postgraduate students in exchange for work in the project, and through the joint development of course/training materials, with particular emphasis on coastal zone agricultural production systems and water management.

Project Background

The coastal region of Southern Bangladesh is home to some of the world's poorest, most food-insecure, malnourished, and socioeconomically challenged people. Despite significant investment on the region's development, extremely low farm productivity is a persistent obstacle in improving food and nutrition security and the livelihood of about one million farming families living within the "polders" constructed by the Bangladeshi government 50–60 years back. The goal of this project is to increase farm income and nutrition security by intensifying polder farming systems through the implementation of economically viable, socially inclusive, and environmentally sustainable practices. The main challenges encountered by polder communities for intensification of production systems are ineffective water management and inadequate drainage infrastructure inside the polders. These have invariably resulted in the use of low-yielding traditional rice varieties and minimal rabi (dry season) crop production. This project aims to work with the farming community in a pilot sub-polder (approx. 600 ha), i.e., Polder 30, to develop and adapt cropping system options for sustainable intensification, together with improved drainage management. Specifically, the project will advocate improved high-yielding and stress-tolerant rice varieties (including rice with high grain Zn), improve the productivity of rice + fish cultivation, and introduce high value rabi crops to significantly increase farm income and improve household nutrition. Furthermore, new opportunities for income generation for women will arise by introducing new management technologies and rabi crops. Options to improve household nutrition and feed for livestock will be enhanced through the introduction of pulses, maize, and oilseed crops in the rabi season. Farmers' lack of knowledge on polder water management and improved farming practices, the increasing scarcity of farm labor, poor access to markets and extension services, and extreme environments are critical factors that constrain the cultivation of high-value crops in the dry season. Hence, increasing cropping intensity and diversification requires a holistic approach involving multidisciplinary teams that work closely with the target stakeholders.

Capacity building at all levels is a key component of the project, which includes training farming communities, extension workers, and future agricultural scientists in the region. An integrated research platform will be developed, in which students from different disciplines in the local universities will be engaged in identifying opportunities and devising solutions for water

resources management and cropping intensification and diversification toward improving human nutrition and farm income in the polders.

Implementation Guidelines

Scholarship Awards

All scholarships will be awarded on a competitive basis for qualified continuing MS and PhD students from Bangladesh. For this program, IRRI has developed an innovative, theme-focused capacity-building approach to address long-term food security and sustainability in Bangladesh. The grant will have five strategic themes (Annex 1).

A. Types of scholarship (for research component only)

1. Up to 2 years for sandwich PhD program
2. Up to 1 year for sandwich MS degree program

B. Eligibility requirements

All applicants must:

- be from Bangladesh and must be enrolled in a university in Bangladesh.
- be involved in the field of rice science and related systems research.
- be willing to work on any of the identified research areas for MS or PhD studies.
- be highly qualified, well-rounded rice scientists from the public or private sector in Bangladesh.
- have finished all MS or PhD coursework requirements, if any.
- be endorsed by his/her university supervisor.
- possess adequate proficiency in English.

C. Scholarship benefits

- Monthly scholarship and allowance: For the PhD program, the **scholarship will provide BDT 25,000/month as per local/government standard rate defined by the Bangladesh Agricultural Research Council (BARC)**. For the MS degree program, the scholarship will provide BDT 15,000/month. In addition, a lumpsum of BDT 5,000 per month for both MS and PhD scholars will be given as contingency to cover the medical and accident insurance premium, local travel, and accommodation. The scholarship will not cover any benefits relating to research administrative charges and university/tuition fees.
- Research costs: The student will conduct research within the project area (Polder 30, Khulna). All agreed research cost will be covered through the project and will be managed by the project team. Scholars need to obtain approval prior to making any additional expenses on research.

- Certificate: Upon the successful completion of the fellowship and submission of the final report, a certificate marking the participation and completion of fellowship will be issued to the scholar.

D. Application procedure

1. Interested applicants should submit an application online on or before the deadline together with the following:

- Application letter;
- Updated curriculum vitae (CV);
- Scanned official transcript of records (BS, MS), as applicable. If applicable, a copy of grades for PhD or MS coursework should also be submitted;
- Letters of assessment/recommendation letters from two experts working in the same research area; and
- Endorsement from the participating university where the student is currently enrolled.

Only complete application documents will be processed.

After the closing date, the applications will be reviewed and evaluated. This step will include scientists who may be supervising the scholar when accepted.

- The process of selection may involve communications between the supervising scientist, the university, and the scholar in terms of thesis research area. The thesis research must be in line with any of the identified thematic areas for research.
- For a person applying from national agricultural research and extension systems (NARES, public or private or civil society), it will be essential to indicate that the applicant is engaged in rice-based farming systems research and will contribute to rice research upon return to their institution or company.

Applicants will be informed of the status of their applications.

Contact Details

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We provide a gender-sensitive environment and strongly encourage women applicants.

E. Allocation of slots

A total of 12 MS and 5 PhD students will be identified to work under the themes. These students will be part of an existing research team supervised by senior IRRI and KSU scientists and mentors from the participating universities. This will contribute to building a strong network in Bangladesh around resource management and food security. The number of slots and themes can be changed based on the availability of project funds.

Important notes:

The IRRI supervisor will serve as a member of the student's supervisory committee.

All Intellectual Property that will be generated will be vested under the SIIL Project.

D. Awarding of scholarship slots

1. As soon as the committee approves the proposed list from each program committee, conditional scholarship award letters will be sent to successful candidates.
2. Candidates will communicate with their proposed supervisors to confirm their interest in the proposed topic.
3. Candidates will inform the IRRI Training Center about their acceptance of the scholarship.
4. If a chosen candidate declines the offer, the next ranked candidate will be contacted until the proposed slot is filled.
5. If none of the two (2) ranked candidates per research topic accepts the scholarship, one of the additional topics (and candidates listed for that) may be chosen next or the committee may choose to re-announce the opportunity.
6. After all slots are filled and confirmed, unsuccessful candidates will also be informed by the IRRI Training Center.

D. Commencement of scholarship (may vary for each individual scholar)

1. All successful candidates will be expected to commence study as soon as possible.

Please note that the IRRI Training Center will be available throughout the process to answer queries.

General Terms of Awards

A. Termination of Scholarships

Scholarships may be terminated upon the recommendation of the university and the host supervisor at any time for failure to make satisfactory progress, failure to comply with the laws of the country (location of IRRI and the participating university), misconduct, or breaches of the conditions of the scholarship.

B. Replacement of scholars who have withdrawn from the program

1. Replacement of scholars who have withdrawn from the program will be left to the discretion of the Thematic Leader and concerned supervisor. However, replacement should be duly approved by the Selection Committee.

Annex-1: Research Themes

Theme 1: Agronomy/water management

- Technologies for intensification and diversification of agricultural production systems
- Water management (supplementary irrigation; drainage; models of water management)
- Climate and cropping system modelling

Theme 2: Human nutrition

- Baseline situation—status, gaps, awareness
- Devising solutions to improve nutrition of households, with particular emphasis on children and women
- Quantifying the impacts of project interventions on nutrition

Theme 3: Socioeconomics/economics

- Adoption of improved technologies—quantifying adoption, perceptions, and the impacts of adoption on rural livelihoods
- Investment on infrastructure
- Community cooperation and coordination—enabling conditions

Theme 4: Gender in Agriculture

- Quantifying the impacts of project interventions on women, youth, and other marginalized groups
- Models to attract youth to Agriculture

Theme 5: Environment

- Soil fertility dynamics with improved production system
- Salinity