

**Proceedings of the participatory workshop  
on  
Technology Identification and Recommendation for  
FoSHoL Project  
(Jamalpur district)**

**24 February 2005**



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**RARS, BARI, Jamalpur**

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## Glossary

AAS	=	Agricultural Advisory Society
BARI	=	Bangladesh Agriculture Research Institute
BAKB	=	Bangladesh Agricultural Knowledge Bank
BRDB	=	Bangladesh Rural Development Board
BRRRI	=	Bangladesh Rice Research Institute
CARE	=	Cooperative Assistance for Relief Everywhere
DAE	=	Department of Agriculture Extension
DC	=	Deputy Commissioner
DD	=	Deputy Director
DFID	=	Department for International Development
DFO	=	District Fisheries Officer
DLS	=	Department of Livestock Services
DoF	=	Department of Fisheries
DTO	=	District Training Officer
EC	=	European Commission
ED	=	Executive Director
FGD	=	Focus Group Discussion
FoSHoL	=	Food Security for Sustainable Household Livelihoods
GOs	=	Government Organizations
IRRI	=	International Rice Research Institute
ITDG	=	Intermediate Technology Development Group
NGOs	=	Non Government Organizations
PETRRA	=	Poverty Elimination Through Rice Research Assistance
PM	=	Project Manager
PNGO	=	Partner Non Government Organization
RARS	=	Regional Agriculture Research Station
RDO	=	Rural Development Officer
SLO	=	Senior Livestock Officer
SSO	=	Senior Scientific Officer
UAO	=	Upazila Agriculture Officer
UFO	=	Upazila Fisheries Officer
ULO	=	Upazila Livestock Officer
URDO	=	Upazila Rural Development Officer
US	=	Unnayan Sangha
USG	=	Urea Super Granular
VRNRM	=	Vulnerability Reduction and Natural Resource Management

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## Introduction

The FoSHoL (Food Security for Sustainable Household Livelihoods) project is a 54-month project; the objective of which is to promote food security and livelihood improvement of the food insecure, small and marginal farmers through the dissemination of sustainable agricultural technologies. To achieve the objectives of FoSHoL project, EC has selected four NGOs (ActionAid Bangladesh, CARE Bangladesh, ITDG Bangladesh, and Proshika) as dissemination agencies. The four disseminating NGOs have been selected for their potential to contribute to the overall improvement of food security among the target farmers. They will identify, adapt and disseminate the selected technologies among the target farmers. This will strengthen farming system efficiency and will consequently improve farm-household food security and livelihood. Moreover, EC has selected IRRI to provide the mandated coordination and thus ensure that the four NGOs carryout their interventions in a coherent, consistent, effective and efficient manner, using appropriate technologies selected from their own experiences; PETRRA experiences; also from IRRI and elsewhere. The coordinating agency, IRRI, will work with disseminating NGOs to deliver technologies that will improve farming practices and the utilization of farm resources. Through these interventions, the target farmers will increase the quality and quantity of their farm output and thus enhance their own food security.

Location specific technology identification for the targeted food insecure, small and marginal farmers is one of the major activities of IRRI in FoSHoL project. IRRI has assigned Agricultural Advisory Society (AAS) to explore, identify and document technologies from sources throughout the country; giving particular emphasis in the districts where the FoSHoL project is operating. The selected technologies will be documented in the Bangladesh Agricultural Knowledge Bank (BAKB). The BAKB documentation will guide the efforts of the four disseminating NGOs as they undertake to identify the most suitable technologies that are appropriate to the sub-ecosystems of their respective target areas. This derived documentation is intended to be a roadmap for carrying out the process of identifying suitable agricultural technologies and their sources; and storing these in Bangladesh Agricultural Knowledge Bank and implementing them as appropriate among their constituents within their designated FoSHoL project areas. The Bangladesh Agricultural Knowledge Bank resources will help, guide and harmonize the efforts of the four disseminating NGOs as they undertake to identify the most suitable technologies for non-rice, rice, fisheries and livestock production; technologies that are appropriate to the sub-ecosystems of the target areas designated by each of the participating NGOs.

Several workshops have been scheduled in the FoSHoL project areas in collaboration with the four disseminating NGOs. These are being conducted by Agricultural Advisory Society (AAS) under the supervision of the coordinating agency, IRRI. The intention of the workshops is to identify, select and disseminate specific agro based technologies for rice, non-rice, fisheries, livestock and non-farm activities that could be act as a catalyst for disseminating NGOs the selected technologies among the targeted farmers of FoSHoL project.

In this regard, a workshop was conducted on 24 February 2005 at RARS, BARI, Jamalpur from 9.00 am to 4.00 pm in collaboration with the disseminating NGO- Intermediate Technology Development Group- Bangladesh (ITDG Bangladesh).

## **Purpose**

The workshop was convened for the purpose of selecting (identifying) the most potential agro based technologies for rice, non-rice, fisheries, livestock and non-farm activities for targeted farmers of FoSHoL project for charland and mainland of Jamalpur districts.

## **Facilitators**

In technical session, the participating farmers and stakeholders were divided into two groups (mainland and charland) since the scenario of mainland and charland are quite different. Two facilitation teams conducted the group work. For mainland Mr. Harun-Ar-Rashid, ED, AAS and Consultant, FoSHoL project, IRRI was the team leader of the facilitator's team. Mr. Deb Kumar Nath, Irrigation Engineer, AAS; Asraf Uddin, Senior Agriculture Officer, NRSP-project, ITDG Bangladesh, Jamalpur; Jitendra Nath Haldar, Project Officer, ITDG Bangladesh, Jamalpur and Sikha Saha, ED, SMS, Mukundabari, Jamalpur acted as facilitators for the group of mainland. On the other hand, for charland Ahmad Salahuddin, Manager Coordination and Capacity Building, FoSHoL project, IRRI was the team leader of the facilitator's team. Md. Sazzad Hossain Miah, Senior Livestock Officer, Food production Programme, ITDG Bangladesh, Faridpur; A. K. M. Ferdous, Agronomist, AAS; Salma Begum, Research Assistant, ITDG Bangladesh, Jamalpur; M.S. Mamun, Research Assistant, ITDG Bangladesh, Jamalpur, Nurul Islam, Programme Organizer, Unnayan Sangha, Jamalpur; Shams Uddin Babar, ED, Danika, Jamalpur acted as facilitators for the group of charland.

## **Participants**

A total of 76 participants attended in the workshop, of which 32 were farmers and 44 participants were from different secondary stakeholders of Jamalpur districts. Among the 32 farmers, 4 (13%) were female and 28 were male. On the other hand, among the 44 participants attended from relevant GOs and NGOs, 4 (9%) were female and the rest 40 were male. The distinguished secondary stakeholders were Department of Agricultural Extension (DAE), Department of Livestock Services (DLS), Department of Fisheries (DoF), Regional Agriculture Research Station (RARS), Bangladesh Agriculture Research Institute (BARI), International Rice Research Institute (IRRI), Seed Companies, Journalists and NGOs including ITDG Bangladesh and Agricultural Advisory Society (AAS). List of the workshop participants are provided in Annex-IV.a and IV.b.

## **Methodology**

The facilitators undertook participatory focus group discussions (FGD) with farmers at village level; discussion with the stakeholders at district level (Jamalpur) and district level participatory workshop with participating farmers and secondary stakeholders of Jamalpur district. These were conducted during 12-24 February 2005. Details of FGDs, discussion meeting with district level relevant stakeholders and participatory district workshop are given below:

### **FGD at community level**

In order to identify the farmers' demand-led technologies, two FGDs were conducted at community level. A total of 97 farmers including 33 female farmers (34%) participated in the FGDs. Out of the two FGDs, one FGD was conducted at Zoka madrasa of Zoka village in Sadar upazila of Jamalpur district on 12 February, 2005, where a total of 50

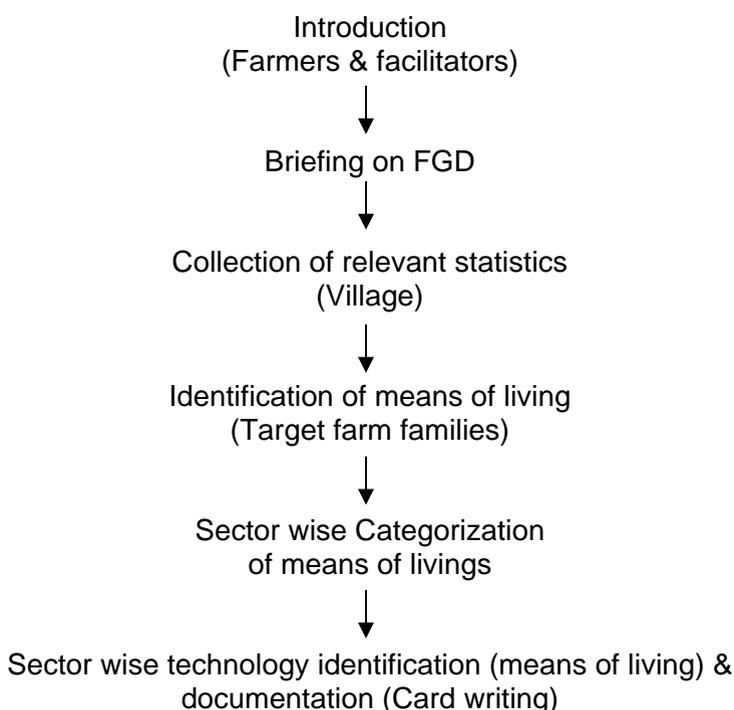
farmers including 6 female farmers (12%) participated, another one FGD was conducted at Char Jamira village in Sarishabari upazila of Jamalpur district on 13 February where a total of 47 farmers including 27 female farmers (57%) participated. In Jamalpur sadar the



FGD was conducted with the cooperation of Unnayan Sangha (US). In Sarishabari, the FGD was conducted with the cooperation of Rural Development and Social Mobilization (RDSM). RDSM and US are the two-partner NGOs of ITDG Bangladesh. Mr. Harun-Ar-Rashid, ED, AAS and Consultant, FoSHoL project, IRRI, Mr. A.K.M Ferdous, Agronomist and Mr. Deb Kumar Nath, Irrigation Engineer of AAS conducted the FGDs in the above upazilas of Jamalpur district. FGDs were conducted with the overall

support of Md. Ashrafuddin, Senior Agriculture Officer, ITDG Bangladesh, Md. Sazzad Hossain Miah, Senior Livestock Officer, ITDG Bangladesh; Mr. Jitendra Nath Haldar, Project Officer, ITDG Bangladesh; Md. Golam Kabir Nipu, PO, RDSM; Md. Golam Kibria, ED, RDSM and Md. Nurul Islam, PO, Unnayan Sangha (US). These half-day long FGDs were conducted through open discussion and in a participatory manner. During open discussion farmers demand were crucially identified covering all sectors of rice, non-rice, livestock, fisheries and non-farm activities. ITDG documented technologies were displayed among the participants with an illustration by the facilitators. The following process was followed at the time of conducting FGDs at each community.

### **Process**



Output of these FGDs at farmer's level was documented through card writing for the purpose of presentation, selection and prioritization of the technologies in the technical session of the district workshop.

The facilitators of the workshop presented the farmer's 'community level' technology selections. After presentation of each technology the floor was open for all participants of the district workshop to discuss the merits of each technology under discussion and then the recommended technologies were prioritized according to the process.

### **Discussion at district level stakeholders**

Discussion with district level stakeholders was conducted to identify sustainable technologies for mainland and charland of Jamalpur district. Md. Harun-Ar-Rashid, ED, AAS and consultant, FoSHoL Project, IRRI; Mr. A.K.M. Ferdous, Agronomist and Mr. Deb Kumar Nath, Irrigation Engineer of AAS along with Md. Ashrafuddin, Senior Agriculture Officer, ITDG Bangladesh and Md. Kamal Hossain Senior Fisheries Officer of ITDG Bangladesh conducted the district level discussion meetings. The "candidate technologies" were identified from the Department of Agriculture Extension (DAE), Department of Livestock Services (DLS) and Department of Fisheries (DoF) during the district level discussion meeting. The views of participants in the district level discussion meetings were duly recorded by the facilitators on cards. These cards represented the primary documentation of the district level discussion meetings.

### **District workshop**

After conducting the FGDs with the targeted farmers at community level and the discussion meeting at secondary stakeholder level; a district level workshop was conducted with the representative of farmers from Sarishabari, Madarganj and Sadar upazilas of Jamalpur districts and with the distinguished representatives of relevant secondary stakeholders from Jamalpur district. A participatory approach was followed through out the workshop. The workshop was divided into three sessions i.e., inaugural session, technical session and concluding session. The workshop was proceeded on as per Schedule (Annex-V).

#### **a) Inaugural session:**

The purpose of inaugural session of the district level workshop was to give a focus about FoSHoL project as well as about the workshop. The workshop was presided over by Md. Basir Uddin, DD, DAE of Jamalpur district. Md. Humayun Kabir, DC of Jamalpur was the chief guest and inaugurated the workshop. Md. Ashrafuddin, Senior Agriculture Officer, ITDG-Bangladesh, delivered welcome address in the workshop. Ahmad Salahuddin, Manager Coordination and Capacity Building, FoSHoL project, IRRI spoke on FoSHoL project. Md. Harun-Ar-Rashid, ED, AAS and Consultant FoSHoL project, IRRI also spoke on FoSHoL project and over view and the process of the technical session of the workshop. Md. Sazzad Hossain Miah, Senior Livestock Officer, ITDG Bangladesh gave a briefing on FoSHoL project in ITDG point of view. Md. Nurul Islam, PO, US, Jamalpur spoke in the session on behalf of PNGOs of ITDG-Bangladesh. Md. Manjur Ahmad, SSO, Agronomy Division, RARS, BARI, Jamalpur spoke on the activity of BARI and their contribution in agriculture. Md. Abdul Mannan, DFO, Jamalpur spoke on the importance of technology identification workshop and the activity of ITDG Bangladesh in Jamalpur district especially with the fisheries sector.

## **b) Technical session:**

The main purpose of the technical session was to select the potential technologies for the targeted farmers of mainland and charland in 7 upazilas of Jamalpur district. At the beginning of the technical session, Mr. Harun-Ar-Rashid, ED, AAS gave a briefing on the process of the technical session. After briefing the attendees on the process of the technical session, the following steps were amplified: group formation (charland and mainland), identification of technologies, presentation of identified technologies, selection of potential technologies, prioritization of potential technologies and presentation of prioritized technologies according to the presented process of the technical session of the workshop.

**Group formation:** In order to identify the area specific technologies particularly for mainland and charland of Jamalpur district, two groups were formed. Participating male and female farmers of the workshop were divided into two groups according to their land configuration. On the other hand, participating secondary stakeholders of both GOs and NGOs were divided according to their close association with the farmers of charland or mainland. As a whole each group of mainland and charland contained representative of farmers, GOs and NGOs and had a balanced strength for technology identification, selection, recommendation and prioritization.

**Identification of technologies:** Small and marginal farmers demand led technologies were identified through group discussion among the farmers and stakeholders of Jamalpur district in the workshop, which were documented by the facilitators on cards. The technologies were identified on the basis of five major sectors of livelihood, i.e., rice, non-rice, livestock, fisheries and non-farm activities.

**Presentation of identified technologies:** Farmer's suggested technologies, district level stakeholder's suggested technologies and district workshop participant's suggested technologies were recorded on cards and presented by the facilitators among the participants of the workshop.

**Selection of potential technologies:** After the presentation of farmer's suggested technologies, district level stakeholder's suggested technologies and district workshop participant's suggested technologies, the floor was opened for discussion to select the potential technologies for the targeted farmers of FoSHoL project in charland and mainland of Jamalpur district. The technologies were selected under several sectors including rice, non-rice, livestock, fisheries and non-farm activities by the participants of the workshop through discussion and necessary modification at plenary.

**Prioritization of technologies:** During the "prioritization of technology" process, first of all the five major sectors rice, non-rice, livestock, fisheries and non-farm activities were prioritized according to the farmer's demand. The potential technologies, which were suggested and recommended by the district workshop participants, were prioritized by the combined effort of farmers and secondary stakeholders giving more emphasis of farmer's opinion.

**Presentation of prioritized technologies:** After the prioritization of the selected potential technologies, Md. Abdul Mannan Miah, DFO, Jamalpur, the group leader of mainland on behalf of mainland group and Md. Abdur Rahman, General Secretary, CBO, Char Nandina on behalf of charland group presented their output among the all participants of the workshop and all participants accepted the technologies as their real demand for the locality.

### **c) Concluding session:**

Concluding session was over with the closing speech of farmers, AAS and ITDG representatives.

## **Inaugural Session (Output)**

At the very beginning of the inaugural session Md. Ashrafuddin, Senior Agriculture Officer, ITDG Bangladesh delivered his welcome speech in the workshop. In his speech, he thanked all of the participants of the workshop. He said all of you are well aware about ITDG, the international organization that is working specially in seven developing countries such as Bangladesh, Kenya, Nepal, Sri Lanka, Peru, Sudan and Zimbabwe. From the mid 60s of the last century ITDG started working with low-cost sustainable technologies, which were helpful for the poor farmers to eliminate their poverty. ITDG believes that, through suitable technologies and with the highest utilization of the resources of small and marginal farmers it is possible to improve their livelihood status. In this regard, since 2002, ITDG Bangladesh has been working at two char villages in Sarishabari and Madarganj upazilas of Jamalpur district with the technological development, food processing and marketing of on-farm and non-farm activities. In Jamalpur ITDG is working with 550 farm families as a result a remarkable change has taken place with the farm families. For example he mentioned several successful technologies that were implemented in the char areas. Among the technologies-natural resource management with mutual consensus, quality seed production and storage at farmers level, vegetable farming at homestead, use of organic fertilizer for soil fertility development, use organic pesticide for chilli cultivation, vegetable cultivation in charland with pit method, successful maize cultivation at char areas, goat rearing with semi-intensive method, Improved breeding-buck (for goat) production, beef fattening in charland, fish culture in big water body, pond and ditches (kum), indigenous fish culture, and its conservation, all of these are implemented as successful technologies, he added. He said that, ITDG is hopeful to work in the food in secure remote upazilas of Jamalpur district with its own technologies as well as with IRRI provided technologies. He mentioned that, in this connection, Agricultural Advisory Society (AAS) had already conducted several FGDs at grass root level. The output of the FGDs will be presented in the technical session of the workshop. He also mentioned ITDG believes that, through this workshop invited farmers and secondary stakeholders would be able to identify the appropriate technologies for the small and marginal farmers for their livelihood improvement. He told that with the coordination of IRRI and funding support of EC, ITDG is going to implement the FoSHoL project in Jamalpur district with sharing the experience of previous implementing project that included Participatory Technology Development (PTD), Rural Community Extensionist (RCE), Participatory Action Plan Development (PAPD) and Community Based Organization (CBO) approaches. He expressed his great hope mentioning that with the cordial cooperation of DC, Jamalpur and GOs and NGOs of Jamalpur district, ITDG Bangladesh will be able to reduce the poverty from Jamalpur through taking initiative of livelihood status development for the target farmers. He was grateful to DC of Jamalpur for his kind participation in the workshop. He thanked all the participating farmers and stakeholders of relevant GOs and NGOs for participating in the workshop.

Ahmad Salahuddin, Manager Coordination and Capacity Building, FoSHoL project, IRRI said IRRI has been working with rice-based research since 1960s. Recently, IRRI has successfully completed a project PETRRA. PETRRA means poverty elimination through

rice research assistance. But now we are looking for not only rice-based research but also for all types of agricultural on-farm and non-farm activities through which small and marginal farmers can be benefited and improve their livelihood status. Now target farmer's demand will be identified and then it will be supplied to them regarding their prioritization. He mentioned that the activity of four disseminating NGOs of FoSHoL project has not been started yet. It will be started as soon as possible. The project now is in preliminary stage, he added. Through the workshop we will try to identify the technologies for Jamalpur district and these technologies will be used at the time of implementation of the project. The technologies, which will be identified as effective, will be disseminated among the small and marginal farmers for improving their livelihood status. He mentioned that innovative technologies of one place would be transferred to another place. Not only the target farmers of the project but also the surrounding farmers will be benefited by the technologies. In Jamalpur, probably two upazilas will be selected for FoSHoL project, but we will disseminate the achieving result across the Jamalpur district as well as all over the country. As a whole, we will try to work for the all food insecure farm families and disseminate the successful technologies all over the country. That's why we will take proper initiative to change policies of the project if necessary. We will use mass media for disseminating the technologies. Radio, TV, Newspapers can be used as media through which technology based write up and drama will be broadcasted. At the end of his speech he further mentioned that the project is only for the small and marginal farmers who are really food insecure.

Md. Harun-Ar-Rashid, ED, AAS and Consultant FoSHoL project, IRRI thanked all of the participants of the workshop. He gave a short briefing on FoSHoL project and about the workshop with his quick presentation. He mentioned that FoSHoL means Food Security for Sustainable Household Livelihoods. In Jamalpur, seven upazilas such as Sadar, Sarishabari, Madarganj, Melandah, Islampur, Dewanganj and Baksiganj are selected for the FoSHoL project where small and marginal farmers will be benefited by the project, he added. He said the project will run for 4-5 years and work for giving food security to the food insecure farm families. Mentioning the names he said four disseminating NGOs will work with the project where IRRI is acting as a coordinating agency and AAS is doing short time consultancy. Mentioning the expectation of the workshop he said that today we will try to identify the agro based specific means of living of the resource poor farmers of the seven upazilas of Jamalpur districts. He clearly presented the four steps of the process of the technical session for identification, selection, prioritization and recommendation of the technologies (driven from the means of living) for Jamalpur districts. He was hopeful for the successful technical session.

Md Sazzad Hossain Miah, Senior Livestock Officer, Food Production Programme, ITDG-Bangladesh, Faridpur said that small is beautiful, referring the prolific economist Sumekar. He mentioned that out of 28 districts of EC funded FoSHoL project, ITDG Bangladesh will work in five districts those are Faridpur, Rajbari, Madaripur, Shariyapur and Jamalpur. He pointed out that in Jamalpur district out of seven upazilas, four upazilas are very high food insecure area and the other upazilas are high food insecure area. Mentioning the previous experience of ITDG he said ITDG has been working in Africa as well as in Asia with the food insecure farmers. In Faridpur, ITDG Bangladesh has a vast activity with the small and marginal farmers. We will implement the FoSHoL project with the previous experience of ITDG. We will work with 7500 farm families where community level extensionists will be developed and through them extension services will be provided to the small and marginal farmers. He pointed out that in Jamalpur within two areas participatory action and plan development work has been done and we will use the outputs of that work into FoSHoL project.

Md. Nurul Islam, Programme Officer, Unnayan Sangha, Jamalpur said we believe that if we will be able to identify the problems of small and marginal farmers and if proper implementation of the identified problem is taken place then there will be no difficulties. He mentioned that so far several projects have been implemented in Jamalpur district. Though we have no exact statistics, it is notable that more or less small and marginal farmers were benefited through the previously implemented projects. He pointed out that small and marginal farmers are always fighting for achieving their means of living and they are surrounded by lot of problems and limitations. Giving more emphasis on the farmer's demand he said that today which technologies were identified through the workshop, we would try to work with those for improving the livelihood status of the poor farmers.

Md. Manjur Ahmad, SSO, Agronomy division, RARS, BARI, Jamalpur said Bangladesh Agriculture Research Institute (BARI) has developed more than 500 agriculture technologies. Though the technologies doesn't include rice, sugarcane and tea because in those sector there are individual research institutions. He mentioned that BARI developed technologies are mainly disseminating through the Department of Agriculture Extension (DAE). Field days, farmers rallies, agriculture fair are also conducted to disseminate the technologies. He was hopeful mentioning that through the FoSHoL project several BARI developed technologies will be disseminated among the poor farmers for improving their livelihood status. He thanked everybody at the end of his speech.

Md. Abdul Mannan Miah, DFO, Jamalpur said that the workshop is very important for the small and marginal farmers of Jamalpur district. Mentioning the fisheries activities of ITDG Bangladesh in Char Nandina he said that they have taken many proper initiative for the char dwellers. He said not only with fisheries activities but also with the crops, forestry, livestock and other non-farm activities with FoSHoL project it will be easy to bring quick change in livelihood status of the food insecure small and marginal farmers. Mentioning the necessity of fish culture he said it would be better for us to establish a fish nursery at least in union level. Giving emphasis on fish culture he said we have to provide proper initiative to the farmers for enhancing fish culture to small ponds, canals and rivers. We can introduce prawn culture in ponds with carps, he added. He gave more emphasis on fish farmer group formation. Because of the Jamuna river's flow diversion, in Jamalpur several pockets for fish culture were already created. Such community based fish farmers groups can culture fish in that pockets as well as in ponds and open water bodies. We have to encourage them, he added. He thanked everybody for participating in the workshop.

Md. Humayun Kabir, DC, Jamalpur and chief guest of the inaugural session appreciated the initiative of technology identification and recommendation workshop at the beginning stage of the EC funded and IRRI coordinated FoSHoL project. He clarified that he was very much pleased with the bottom up approach of technology identification process. He mentioned that most of the policies are the product of the high officials of the government and that are pushed over the farmers. He further said that he was very much happy because through this project primarily farmer's opinion is justified. He also mentioned that the farmers have field experience and they know every thing but they cannot mention. He requested the facilitators to search out the technologies from the farmers mind. He mentioned that Jamalpur is one of the poorer districts of Bangladesh where most of the farmers are struggling for their livelihood. We can provide them relief but the main thing is that with the help of relief better result cannot be achieved. He gave

a simple example that when he was a student of primary school at that time books were not provided from the school as free cost. One set of books can be used for at least three years. Now the government provides books as free for the children but unfortunately most of the cases one set of books is hardly used for one year. What's wrong? Obviously the relief; where is relief there is corruption, he added. He mentioned that there is a DFID funded project on char livelihood, which is also implementing in Jamalpur district. Mentioning the activities of char livelihood project he said that there must not be any conflicting issue between DFID funded char livelihood project and EC funded FoSHoL project. He said we have to implement such activities, which will be helpful for small and marginal farmers. He inaugurated the workshop with a great pleasure.

Md. Basiruddin, DD, DAE, Jamalpur and Chairman of the inaugural session said that the workshop would be very much effective for the small and marginal farmers of Jamalpur districts. We know the technologies more or less, as we are producing the crops, but we have to know the improved technologies effectively for getting more production. He mentioned that in cereal crops and vegetables we have made remarkable progress but in other sectors of agriculture we are still living somewhat behind. We need improved varieties, balanced fertilizer and other management practices, he added. With deep grief he said most of the people of Bangladesh are poor. Per head we have only about 14 decimals land. For Jamalpur districts, the inhabitants of Jamalpur have not more 16 decimals of land per head, he pointed out. With this small land what can be cultivated by the farmers he simply raised a question. He said we couldn't produce spices. He mentioned that we have topographical problems. Flood and poverty is our everyday life companion. Mentioning the effectiveness of the workshop he pointed out that if this bottom up approach would be done effectively then farmers would be benefited. He said if we are able to understand the farmers that what we want to identify, they will be able to give their opinion properly. He gave more emphasis on sustainable technologies. He pointed out that the summer onion is now a promising technology. But there is a scarcity of its seed. We have to make available the inputs for the farmers. Mentioning another promising technology he said maize is cultivating recently in Jamalpur. Though there is a marketing problem of maize in previous days but now there is no problem of maize marketing. Giving emphasis on food habit, he suggested that we could change our food habit for our own interest. He thanked all of the participants of the workshop for their patient hearing.

## **Technical session**

### **Findings:**

The great Jamuna and the old Brahmaputra rivers flows beside the Jamalpur district, that's why the lands of the district are divided into two categories i.e., mainland and charland. The means of living of the inhabitant of charland and mainland are found notably different. For this reason the technologies were identified, selected, prioritized and recommended separately for mainland and charland for the farmers of Jamalpur district with the cooperation of farmers and secondary stakeholders for the working areas of ITDG-Bangladesh and its partner NGOs through FGDs, district level meetings with stakeholders and district workshop.

#### **1. Target people for the FoSHoL project**

In general, small and marginal farmers are said to be the target farmers of the FoSHoL project. But by definition of small and marginal farmers it is difficult to identify the target farmers both for charland and mainland as we are looking for food insecure resource poor farmers. For example, in char area a farmer has 3 acres land but he might be food insecure. On the other hand, in main land though a farmer has 1 acre land, he might be food secure. The land holding size based farmers categorization (small and marginal) is not applicable for such kind of land configuration (mainland and charland). That's why in technical session during group work, participants were asked about the criteria of target farmers of the FoSHoL project. Participants of the char group suggested that for the farmers of char land, one to three acres landholding will also be accepted where only 10 decimals to one acre of land is cultivable. On the other hand, for the mainland group, not more than one-acre landholding was accepted by the participants of the mainland group as criteria for selecting the target farmers for the FoSHoL project.

#### **2. Technologies of mainland**

Ninety-seven technologies were suggested by the mainland group of district workshop participants for the small and marginal farmers of mainland during the group work in the workshop. Among the 97 technologies 7, 34, 20, 18 and another 18 technologies were classified as rice, non-rice, livestock, fisheries and non-farm technologies respectively and then the sector-wise prioritization of the technologies were done by the participating stakeholders. These prioritized technologies of mainland are provided in Annex-I.

#### **3. Technologies of charland**

Eighty-five technologies were suggested by the charland group of district workshop participants for the small and marginal farmers of charland during the group work in the workshop. Among the 85 technologies 8, 37, 18, 17 and 5 technologies were classified as rice, non-rice, livestock, fisheries and non-farm technologies respectively and then the sector-wise prioritization of the technologies were done by the participants of the workshop. These prioritized technologies of charland are provided in Annex-II.

#### **4. Prioritized major means of living**

All identified technologies were classified into 5 categories such as rice, non-rice, livestock, fisheries and non-farm activities. Participants of the both mainland and charland groups prioritized the five means of living as alike. Rice is the best means of living followed in order by non-rice crops, livestock, fisheries and non-farm activities for the farmers of Jamalpur district irrespective of land configuration.

**Table 1. Prioritization of the major means of living categories for mainland and charland of Jamalpur district**

Major means of living categories	Prioritizing the means of living categories	
	Mainland (Rank)	Charland (Rank)
Rice	1	1
Non-rice crops	2	2
Livestock	3	3
Fisheries	4	4
Non-farm activities	5	5

## 5. Accepted ITDG documented technologies

During FGD at community out of 107 ITDG documented technologies, the farmers of both mainland and charland accepted near about 70 technologies, which are provided in Annex-III. Especially the women showed their keen interest on the documented agro based non-farm activities, which mostly include the food processing and preservation techniques.

## Concluding session

One of the participating farmers Md. Khalilur Rahman said in char area flood is a great problem. When flood comes, char inhabitant is to face lot of troubles especially with livestock. At that time, food crisis is severe for the cattle. Different type of diseases is also observed. Since the livestock resources are big issue for the people of charland for their livelihood development, an initiative should be taken for the poor farmers of charland. He also said that there was a programme in charland through which goats and cows were distributed among the farmers. It was a great help for the farmers of charland. He pointed out that there was no guideline for the livelihood status development of poor and marginal farmers. Through this project if any effective initiative can be taken for them, they will be lucky, he added.

A participating female farmer Khahinur Begum said that this is her first participation in such kind of workshop. ITDG is very well known to her, that's why she came. She expressed her happiness and was hopeful. She also said that we are looking for the next activities of FoSHoL project as soon as possible through which we will be benefited.

Md. Harun-Ar-Rashid, ED, AAS and consultant FoSHoL project, IRRI thanked all of the participating farmers and secondary stakeholders on behalf of AAS and IRRI. He appreciated the group leaders and the facilitators of both charland and mainland groups for providing high quality facilitation in identification, selection and prioritization of the technologies. He also thanked staffs of ITDG, AAS, RARS, BARI, Jamalpur and Jamalpur Seeds for providing the logistic support for the successful workshop.

Md. Ashrafuddin, Senior Agriculture Officer, ITDG Bangladesh said he was very happy as the workshop is going to be end successfully. He also thanked everybody on behalf of ITDG Bangladesh and concluded the session with hopeful mind.

**Annex-I. Identified and prioritized suitable technologies for mainland of Jamalpur district by the participants of the district workshop**

<b>SI #</b>	<b>Sector</b>	<b>Identified technologies</b>	<b>Ranking</b>
1.	Rice	Quality rice seed production	1
		Extension of BRR1 dhan29 and 28	2
		High yielding new rice varieties for T. Aman season	3
		Disease and insect management	4
		Fertilizers and their management in rice cultivation	5
		Knowledge and use of weedicide	6
		Production of fine, aromatic and glutinous rice	7
2.	Non-rice	Commercial 'Jam alu' production	1
		Insect and disease management of potato	2
		Introduction of early tomato variety	3
		Introduction of HYV papaya and its dissemination	4
		Teasle gourd dissemination	5
		Pointed gourd dissemination	6
		HYV radish dissemination	7
		Amaranth (data) cultivation as short duration vegetable	8
		Early okra cultivation	9
		Hybrid cauliflower and cabbage cultivation	10
		HYV brinjal cultivation	11
		Dissemination of white gourd and sweet gourd cultivation	12
		Introducing and dissemination of ridge gourd, snake gourd and cucumber	13
		Improved cultivation method of HYV Indian spinach	14
		Bottle gourd cultivation for vine production	15
		Eco-friendly vegetable cultivation method	16
		Soil type based cropping pattern	17
		Proper fertilizer management in vegetable cultivation	18
		Compost and vermi-compost preparation technique	19
		Soil test based fertilizer recommendation	20
		Development of cost effective and profitable marketing system for agricultural products	21
		Introduction of short duration HYV mustard	22
		Introduction of soybean cultivation	23
		Introduction of HYV sesame	24
		Dissemination of sunflower cultivation	25
		Improve fruit cultivation method (Banana, mango, citrus, jujube, Litchi, olive, guava)	26
		Nursery establishment and management for fruit and wood trees	27
		Improved onion cultivation method	28
		Improved method of HYV chilli cultivation	29
		Dissemination of turmeric, garlic and zinger cultivation	30
		Cultivation of HYV coriander for green leaf	31
		Ensuring quality jute seed supply and its production	32
		Introduction of HYV wheat (higher yielding than Kanchan)	33
		Dissemination of black gram cultivation	34
3.	Fisheries	Improved fish culture and management	1
		Fish seed hatchery establishment in every union	2
		Quality fish fingerling (production and distribution)	3
		Carp polyculture in pond	4
		Short term polyculture of fishes in seasonal pond	5
		Silver carp culture with pangas	6

		Prawn culture with carp	7
		Rice-fish culture	8
		Fish feed preparation technique at farmers level	9
		Monosex telapia culture in seasonal pond	10
		Fish feed management in the pond	11
		Telapia culture with golsha, tengra, pabda, deshi puti, sharputi	12
		Sharputi culture with gulsha, pabda and tengra	13
		Pangas monoculture	14
		Fish culture within 'Bana' (enclosure)	15
		Improved technique of drying fish	16
		Prawn nursery/hatchery development	17
		Fish disease management	18
		Shing and magur culture	19
		Oyster cultivation	20
4.	Livestock	Local and improved milking cow rearing	1
		Beef fattening	2
		Goat rearing	3
		Non-castrated and she goat rearing	4
		Layer and broiler of chicken rearing	5
		Improved duck rearing for egg production	6
		Pigeon rearing	7
		Duck fish culture	8
		Ox rearing for improved breed	9
		Maize cultivation as fodder	10
		Female calf rearing	11
		Cattle and poultry feed seller development	12
		Cattle, poultry and duck disease management	13
		Rabbit rearing	14
		Chicks rearing	15
		Cattle and poultry vaccination	16
		Meat seller development	17
		Napier and para grass cultivation technique	18
5.	Non-farm	Different handicrafts	1
		Nakshi katha	2
		Tailoring	3
		Block, butik and screen print technique	4
		Chira, puffed rice, murki marketing	5
		Chanachur marketing	6
		Pottery	7
		Jam, jelly, sauce and pickle preparation technique	8
		Potato chips preparation technique	9
		Candle preparation technique	10
		Coconut and beetlenut business	11
		Egg, milk and meat marketing	12
		Butter and ghee preparation technique and their marketing	13
		Improved honey production technique	14
		Dry fish sale	15
		Pie (Pitha) preparation and sale	16
		Bamboo and cane made handicrafts preparation technique	17
		Homemade food supply to different occasions	18

**Annex-II. Identified and prioritized suitable technologies for charland of Jamalpur district by the participants of the district workshop**

SI #	Sector	Identified technology	Ranking
1.	Rice	Ensure quality seed supply and its production technique	1
		Improved method of rice cultivation	2
		Rice seed treatment	3
		Insects & diseases identification and their management	4
		Fertilizers and their management in rice cultivation	5
		Improved technique of seed storage	6
		Improved technique of rice seed drying	7
		Introducing of weeder	8
2.	Non-rice	Ensure quality seed supply of non-rice crops	1
		Based soil test fertilizer management	2
		Improved technical knowledge on crop production	3
		Seed treatment	4
		Control measure of pests	5
		Improved cultivation method of onion and garlic	6
		Credit based onion and garlic cultivation	7
		Organic fertilizer preparation and use technique	8
		Participatory fertilizer management	9
		Quality jute seed production technique	10
		Improved seed storage technique	11
		Dissemination of early variety of hybrid tomato	12
		Introducing of HYV chilli variety and dissemination of balijhuri chilli cultivation (winter season)	13
		Chilli processing and marketing	14
		Dissemination of 'Faridpuri onion'	15
		Improved production technique of zinger, turmeric and 'mouri'	16
		Introducing of maize cultivation	17
		Short duration high yielding improved variety of mustard cultivation	18
		Crop diversification knowledge	19
		Improved cultivation method of sugarcane	20
		Ensure quality seed supply of modern potato variety and its improved cultivation method	21
		Dissemination of 'Jam alu' cultivation	22
		Improved cultivation method of sweet potato	23
		Dissemination of groundnut cultivation and its quality seed	24
		Introduction of HYV groundnut and its improved cultivation technique	25
		Improved storage technique of table potato at community	26
		Dissemination of HYV wheat cultivation	27
		Irrigated hybrid maize cultivation	28
		Technique of multipurpose use of maize	29
		HYV pulses and oil crops cultivation	30
		Dissemination of hybrid cabbage and cauliflower cultivation	31
		Hybrid radish cultivation	32
		Improved cultivation method of indian spinach	33
		Dissemination of Islampuri and shingnath brinjal varieties	34
		Improved cultivation method of white gourd, field cucumber (khira), sweet gourd, bottle gourd	35
Jute cultivation as leafy vegetable	36		
Coriander cultivation as relay crop	37		

3.	Fisheries	Community based fish culture in seasonal ditch (Kula)	1
		Fish seed nursery at community	2
		Improved fish culture technique in the pond	3
		Pond excavation and pond management	4
		Credit system for fish culture	5
		Fish protection technique in the pond during flood	6
		Telapia monoculture in seasonal pond	7
		Fish polyculture in seasonal pond	8
		Fish diseases and their management	9
		Gulsha, pabda, tengra fish culture with sharputi	10
		Fish feed preparation technique	11
		Fish feed management technique in pond	12
		Fish culture in enclosure (bana)	13
		Rui, katla and other carps fish culture with local fish	14
		Barrier technique of pond for natural fish during flood	15
		Cage fish culture	16
		Introduction of prawn culture in pond	17
		Fry culture in small pond	18
4.	Livestock	Milking cow rearing	1
		Beef fattening	2
		Goat rearing	3
		Livestock and poultry disease management	4
		Semi intensive goat rearing through small farm	5
		Fodder crop production technique	6
		Quality noncastrated goat rearing	7
		Development skill extension agent on vaccination and disease management of poultry and livestock	8
		Ensuring of medicine availability of livestock and poultry at community	9
		Cattle feed management	10
		Development of credit system for cattle rearing	11
		Maize cultivation as fodder crop	12
		Introducing of improved layers of Duck and chicken	13
		Food processing technique of cattle feed	14
		Milk increase technique for local cow	15
		Milk processing technique	16
		Profitable pigeon rearing technique	17
5.	Non-farm	Making uncultivable land as cultivable	1
		Training on handicrafts technology	2
		Community based fish culture by the day labour	3
		Development of communication	4
		Food processing of locally produced crops	5

**Annex-III. ITDG documented technologies accepted by the farmers for mainland and charland in Jamalpur district**

Sl. Nr.	ITDG documented technologies	Suitable area	
		Mainland	Charland
1.	Tomato sauce preparation	✓	✓
2.	Tamarind, olive and hog plum chatni preparation	✓	✓
3.	Garlic, green chilli and dry jujube pickle preparation	✓	✓
4.	Chanachur and papor prepration	✓	✓
5.	Mixed jujube-tamarind pickle preparation	✓	✓
6.	Zilapi preparation	✓	✓
7.	Mobile rice milling business	✓	✓
8.	Wood block preparation and business	✓	-
9.	Candle and agorbati preparation	✓	✓
10.	Green mango sour pickle preparation	✓	✓
11.	Banana chips business	✓	✓
12.	Chapati preparation	✓	✓
13.	Poultry feed preparation & business	✓	✓
14.	Olive sour-sweet-hot pickle preparation	✓	✓
15.	Amsatta preparation	✓	-
16.	Hog plum morabba preparation	✓	-
17.	Green mango chatni preparation	✓	✓
18.	Hog plum hot pickle preparation	✓	✓
19.	Milk business	✓	✓
20.	Sugar-molases khaza preparation	✓	✓
21.	Puffed rice (muri) preparation	✓	✓
22.	White gourd morabba preparation	✓	-
23.	Organic fertilizer preparation	✓	✓
24.	Fish drying	✓	✓
25.	Poultry rearing	✓	✓
26.	Banana chips preparation	✓	-
27.	Improved furnace (chula) preparation	✓	✓
28.	Goat rearing	✓	✓
29.	Beef fattening	✓	✓
30.	Coconut fibre made household materials preparation	✓	-
31.	Soap preparation	✓	✓
32.	Small (mudi) shop	-	✓
33.	Duck egg incubation business using Chinese method	✓	✓
34.	Milking cow rearing	✓	✓
35.	Apiculture	✓	✓
36.	Semai preparation	✓	✓
37.	Nursery	✓	✓
38.	Sewing	✓	-
39.	Commercial bamboo cultivation	✓	✓
40.	Shon papri preparatiion	✓	✓
41.	Packaging business	✓	✓
42.	Tea stall	-	✓
43.	Gunny bag preparation and its business	✓	✓
44.	Power tiller business for land preparation	✓	✓
45.	Mat preparation	✓	✓
46.	Jhuri and batasha (sweet) preparation	✓	-
47.	Organic fertilizer preparation from waste	✓	✓
48.	Murali preparation and business	✓	✓
49.	Charcoal preparation and business	✓	-
50.	Seed business	✓	✓
51.	Medicinal plant nursery	✓	✓
52.	Block printing	✓	✓
53.	Rice thresher manufacturing & business	✓	-
54.	Grinded spices business	✓	✓
55.	Bamboo handicrafts preparation and its business	✓	✓
56.	Earth worm compost preparation and its business	✓	✓
57.	Agri-implements repairing business	✓	✓
58.	Pigeon rearing and business	✓	✓
59.	Singara and bundia preparation and business	✓	✓
60.	Mango morabba preparation	✓	✓

**Annex-IV.a. List of participants of the district workshop in Jamalpur  
(Farmers)**

<b>Sl. No.</b>	<b>Name</b>	<b>Village</b>	<b>Upazila</b>	<b>District</b>
1.	Md. Milon	Char Nandina	Sarishabari	Jamalpur
2.	Md. Kalam	Nandina	Sarishabari	Jamalpur
3.	Mst. Kohinur Begum	Nandina	Sarishabari	Jamalpur
4.	Mst. Dulal	Nandina	Sarishabari	Jamalpur
5.	Md. Bajlur Rahman	Nandina	Sarishabari	Jamalpur
6.	Md. Tafil Uddin	Nandina	Sarishabari	Jamalpur
7.	Md. Sahidul Islam	Aram Nagar	Sarishabari	Jamalpur
8.	Md. Abdul Khaleque	Chakpara	Sarishabari	Jamalpur
9.	Md. Manjurul Haque	Char Nadagari	Madarganj	Jamalpur
10.	Jahidul Islam	Char Nadagari	Madarganj	Jamalpur
11.	Mariyam	Nandina	Sarishabari	Jamalpur
12.	Nekjan	Nandina	Sarishabari	Jamalpur
13.	Kamala	Nandina	Sarishabari	Jamalpur
14.	Md. Khalilur Rahman	Char Nadagari	Madarganj	Jamalpur
15.	Md. Tara Miah	-	Madarganj	Jamalpur
16.	Golap Hossain	-	Madarganj	Jamalpur
17.	Dipak Kumar Gosh	Chaparkona	Sarishabari	Jamalpur
18.	Md. Abdur Rashid	Puthiyar Para	Sarishabari	Jamalpur
19.	Md. Moniruzzaman	Chaparkona	Sarishabari	Jamalpur
20.	Md. Saiduzzam	Puthiyar Para	Sarishabari	Jamalpur
21.	Dr. Md. Habibullah	Zoka	Jamalpur	Jamalpur
22.	Md. Mofizul Haque	Zoka	Jamalpur	Jamalpur
23.	Md. Akram Hossain	Zoka	Jamalpur	Jamalpur
24.	Md. Aman Ullah	Zoka	Jamalpur	Jamalpur
25.	Md. Moyezuddin	Zoka	Jamalpur	Jamalpur
26.	Md. Khalil	Zoka	Jamalpur	Jamalpur
27.	Md. Abdul Hakim	Zoka	Jamalpur	Jamalpur
28.	Md. Mazibur Rahman	Zoka	Jamalpur	Jamalpur
29.	Md. Abdur Rahman	Char Nandina	Sarishabari	Jamalpur
30.	Md. Afjal Hossain	Char Nandina	Sarishabari	Jamalpur
31.	Md. Abdur Rahim	Char Jamira	Sarishabari	Jamalpur
32.	Md. Abdul Baten	Char Jamira	Sarishabari	Jamalpur

**Annex-IV.b List of participants of the district workshop in Jamalpur  
(Secondary Stakeholders)**

Sl. Nr.	Name	Designation	Organization	Address
1.	Abdul Wadud	SSO	SRDI	Jamalpur
2.	Md. Solaiman	RM	Palli Dariddra Bimochan Foundation	RS, Jamalpur
3.	Md. Abdul Mannan Miah	DFO	DoF	Jamalpur
4.	Shikha Shaha	ED	SMS	Mukundabari, Jamalpur
5.	Md. Nasir Uddin	UFO	DOF	Madarganj
6.	Shamsuddin Babar	ED	Danika	Jamalpur
7.	Md. Helal Miah	ED	JGKS	Rajapur, Jamalpur
8.	Mofazzal Haque Alam	ED	RAP	Bakshiganj
9.	Md. Harun-Ar-Rashid	ED	AAS	Dhaka
10.	Dr. Md. Abdul Rejjak	ULO	DLS	Madarganj
11.	Md. Mokhlechhur Rahman	FC	RDSM	Sarishabari, Jamalpur
12.	Md. Golam Kibria	ED	RDSM	Sarishabari, Jamalpur
13.	Jitendra Nath Haldar	Project Officer	ITDG-B	Jamalpur
14.	Md. Golam Kabir Nipu	US	RDSM	Sarishabari
15.	Md. Anif Hossain Jahir	-	-	Jamalpur
16.	Md. Shahidul Islam	-	ITDG-B	Jamalpur
17.	Satma Begum	Research Assistant	ITDG-B	Jamalpur
18.	Md. Ashrafuddin	Sr. A.O	ITDG-B	Jamalpur
19.	Irin Aktar	S.S	ITDG-B	Jamalpur
20.	Md. Lal Miah	Electritian	RARS	Jamalpur
21.	Manjur Ahmed	SSO	RARS	Jamalpur
22.	A.K.M. Mosharraf Hossain	Journalist	Ittefaq	Jamalpur
23.	Jahangir Selim	Journalist	Dainik Pollir Alo	Jamalpur
24.	Md. Abdul Hai	ED	-	Madarganj
25.	Kandakar Md. Saifullah	UAO	DAE	Sarishabari
26.	Khorsheda Mollik	TO	US	Jamalpur
27.	Sazzad Hossain Mian	SLO	ITDG-B	Faridpur
28.	Nurul Islam	DP	US	Jamalpur
29.	Md. Abdul Jalil	Imam	RARS	Jamalpur
30.	Md. Jakir Hossain	Teacher	SIRI	Nayapara, Jamalpur
31.	Ahmad Salahuddin	Manager Coordinator	IRRI	Banani, Dhaka
32.	MS Mamun	Research Assistant	ITDG-B	Sardarpara, Jamalpur
33.	A.K.M. Ferdous	Agronomist	AAS	Dhaka
34.	Kazi Mahbubul Haque	UFO	DoF	Sarishabari
35.	Md. Firoj Khan	Chief Coordinator	Progress	Dewanpara, Jamalpur
36.	Faruk Hossain	Staff	ITDG-B	Sardarpara, Jamalpur
37.	Md. Basir Uddin	DD	DAE	Khamarbari, Jamalpur
38.	L.K. Pandit	DTO	DAE	Khamarbari, Jamalpur
39.	Hirendra Chandra Sarkar	SUFO	DoF	Sadar, Jamalpur
40.	Md. Asaduzzam	VFA	DLS	Sadar, Jamalpur
41.	Md. Sekandar Ali	-	-	Dewanpara
42.	Deb Kumar Nath	Irrigation Engg.	AAS	Lalmatia, Dhaka
43.	Md. Humayun Kabir	DC	DC office	Jamalpur
44.	Md. Tajibur Rahman	Seed dealer	Jamalpur Seed House	Jamalpur

**Annex-V**  
**Participatory workshop**  
**Technology Identification and Recommendation for FoSHoL project**  
**Schedule**

**Date:** 24 February 2005

**Place:** RARS, BARI, Jamalpur

**Funded by:** EC

**Time:** 9.00 am- 4.00 pm

**Implemented by:** ITDG & AAS

**Coordinated by:** IRRI

Time	Subject	Method	Presenter/Facilitators
9.00-10.00 am	Registration	-	Salma/ Lucky
	<b>Inaugural Session:</b>		
10.00-10.05 am	Recitation from holy Quaran	-	Md. Abdul Jalil, Imam, Jame Mosque, RARS, BARI
10.05-10.10 am	✓ Welcome address	-	Md. Ashrafuddin, SAO, ITDG-Bangladesh
10.10-10.20 am	✓ Short briefing from IRRI on FoSHoL project	-	Ahmad Salahuddin, Manager Coordination, FoSHoL-IRRI
10.20-10.30 am	✓ Short briefing from AAS on FoSHoL project & workshop	-	Md. Harun-Ar-Rashid, ED, AAS and consultant, FoSHoL project, IRRI
10.30-10.35 am	✓ Short briefing from ITDG on FoSHoL project	-	Md. Sazzad Hossain Miah, SLO, ITDG-Bangladesh
10.35-10.50 am	✓ Short brief on FoSHoL project		Md. Manjur Ahmad, SSO, RARS, BARI; Md. Mannan Miah, DFO, Jamalpur; Md. Nurul Islam, PO, US
10.50-11.00 am	✓ Inaugural Speech of chief guest and opening of the workshop	-	Md. Humayun Kabir, DC, Jamalpur
11.00-11.10 am	✓ Inaugural speech of the session Chairman	-	Md. Basir Uddin, DD, DAE, Jamalpur
11.10-11.30 am	Tea break	-	-
	<b>Technical session:</b>		
11.30-1.00 pm	✓ Process of technology identification	Presentation & Group formation	-Harun-Ar-Rashid -Ahmad Salahuddin
	✓ Technology Identification and selection (Group-1: Mainland)	Card writing and Plenary	Harun/ Ashraf/ Deb Kumar/ Jiten/ Shikha/ Belal
	✓ Technology Identification and selection (Group-2: Charland)	DO	Salahuddin/ Mamun/ Ferdous/ Salma/ Nurul Islam/ Babor
1.00-2.00 pm	Break for prayer and lunch	-	-
2.00-3.30 pm	✓ Prioritization of the selected technologies (Group-1& 2)	Plenary	Harun/ Salahuddin/Ashraf/ Sazzad/ Ferdous/ Deb Kumar/ Salma/ Nurul Islam
	✓ Presentation of the prioritized technologies	Presentation	Group leaders: -A. mannan Miah -M.A. Rahman
3.30-4.00 pm	<b>Concluding session:</b> ✓ Representative of farmers ✓ Representative of AAS ✓ Representative of ITDG	-	-Md. Khalil & Kohinur Begum - Md. Harun-Ar-Rashid, ED - Md. Ashrafuddin, SAO