

Completion Report
on
**Strengthening FARMSEED (farmer to farmer seed exchange
System) Extension Method**
(SP # 0500)



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- ✓ 16 NGOs
- ✓ 15 CBOs

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PI, Strengthening FARMSEED Extension Method

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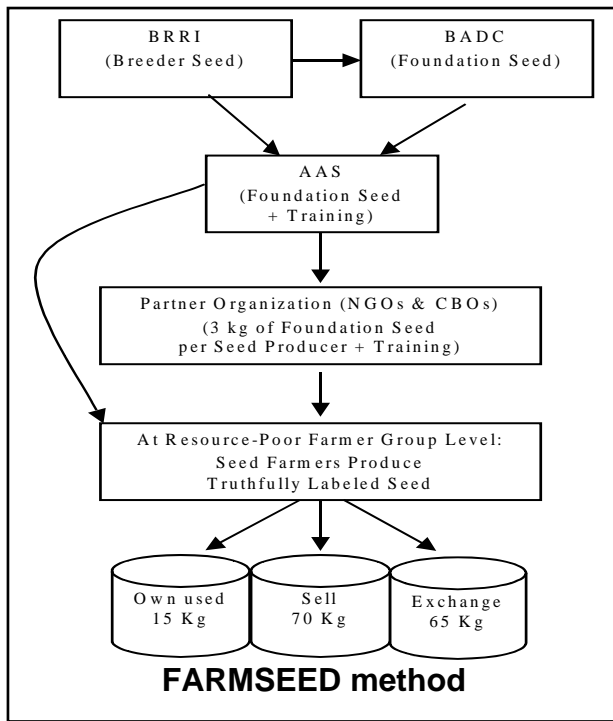
Glossary

AAS	=	Agricultural Advisory Society
ABC	=	Akota Bhandhu Club
AC	=	Area Coordinator
BADC	=	Bangladesh Agricultural Development Corporation
Boro	=	Winter rice season
BRAC	=	Bangladesh Rural Advancement Committee
CBOs	=	Community Based Organizations
CS	=	Certified Seed
DAE	=	Department of Agricultural Extension
EOP	=	End of the project
F	=	Female
FAMPAT	=	Farmers Participatory Training
FC	=	Field Coordinator
FGD	=	Focus Group Discussion
FS	=	Foundation Seed
KG	=	Kilogram
M	=	Male
Max	=	Maximum
Min	=	Minimum
MOU	=	Memorandum of Understanding
MT	=	Metric Ton
MVs	=	Modern Varieties
NGOs	=	Non Government Organizations
PETRRRA	=	Poverty Elimination Through Rice Research Assistance
PI	=	Principle Investigator
POs	=	Partner Organizations
RPA	=	Rice Provision ability
RPFFGs	=	Resource Poor Female Farmers Groups
RPFFs	=	Resource Poor Female Farmers
RPFGs	=	Resource Poor Farmers Groups
RPFs	=	Resource Poor Farmers
T. Aman	=	Transplanting Aman: Late summer rice season
T. Aus	=	Transplanting Aus: Early summer rice season
TLS	=	Truthfully Labeled seed

Sub-project Communication Brief

Scenario of quality rice seeds in Bangladesh:

Seed is the vital element of crop production. Irrespective of variety, quality seed alone can increase production to a greatest extent, many claim at least to 15%. At present, Bangladesh requires a total of 4,00,000 MT of rice seed, against which only about 12,348 MT (2000-1) could be supplied as improved seeds through formal seed system mostly by BADC. This is only 5% of the total rice seed requirement. The rest of the nation's seed requirement, often of indifferent quality, comes from farmer's own retained and farmer-to-farmer seed exchange. Therefore, the scarcity of quality rice seed is considered the priority constraint of rice production in the country.



What is FARMSEED?

FARMSEED (farmer to farmer seed exchange system) is a method of quality seed production and distribution by the farmers themselves in the community. Under the FARMSEED exchange system, skilled farmers are provided training to produce quality rice seed. After training, they are given foundation seeds from which they produce and distribute quality seeds among their fellow farmers on cost and exchange basis. In this way, quality rice seed is readily available to all the resource poor farmers in the communities. The skilled resource poor seed farmers can obtain the foundation seed from reliable sources (e.g. AAS, BADC).

How to Set Up a FARMSEED Method?

Build partnerships and train trainers:

Usually, at the initial stage AAS contacts local partner organizations, mostly NGOs that are active in community work. As most of their staffs do not have strong agricultural expertise, training is considered as an important first step in building their skills and confidence. For these staff AAS organizes special training on seed production, storage and distribution.

Build resource-poor farmer groups:

Although farmer credit groups have been set up by many of NGOs in Bangladesh, an important difference of the FARMSEED method is that it has uncoupled this traditional linkage between supply of credit and inputs. New groups are formed and the community selects its members. Only those who are truly resource-poor farmers are allowed to be in the group. Farmers are then asked about their interest in becoming trained as a community seed producer. As women are traditionally engaged in post-harvest activities, while men do the fieldwork, both male and female groups are formed with an average of

25-28 members per group. Each group selects a coordinator who is not necessarily the same person as the one of the credit group. The group coordinator enjoys an enhanced social status. Achieving this is his incentive to carry the program forward.

Assess suitable varieties and validate technologies:

Foundation seed provides the fuel for the FARMSEED engine to run. Farmers need to judge for themselves which varieties suit their needs best by monitoring a wide menu of variety options throughout the season. Through on-farm variety demonstrations, farmers select the most promising and suitable varieties. At the initial stage of getting resource-poor farmers motivated, seed and fertilizer are provided by the project.

Ensure access to foundation seed:

Ensuring timely access to foundation seed is one of the most important requirements to make the FARMSEED method work. Foundation seed can be procured from several sources. Currently, BADC is one of these. Some large NGOs (e.g. BRAC) produce their own for use within their own seed production/ distribution system. Smaller NGOs with a strong agricultural agenda can also purchase breeder seed from BIRRI with MOU and start producing their own foundation seed. So there are many options for meeting the rice seed needs of resource poor farmers.

Conduct group training activities:

Later farmers are trained to become seed producers. They establish demonstration plots with the foundation seeds given earlier in their own farms. Prior to the harvest of seeds, the seed producer groups, AAS staff and other members of the community assess the seed quality during a field day. It needs to be mentioned here that about half of the 4,000 farmers trained by AAS as seed producers have been enlisted as reliable producers of Truthfully Labeled Seed (TLS) with AAS.

Monitor regularly:

Monitoring the entire process of seed production and distribution is strongly enhanced by working closely and regularly together with the network of partner organizations. Feedback from the resource-poor farmers and their wives on activities and issues arising is made easier as there is hardly any communication gap between the partner organizations and the resource-poor farmers, especially with the CBOs. They are all part of the same community and live and work together day in and day out.



Let it roll, but keep eyes on the ball:

Depending on the variety and local conditions, farmers usually assign between 30-70% of their field to seed production. This gives an indication of the flexibility of the system and is an important consideration for resource-poor farmers in times of distress. Of the total amount of seed produced, about 10-20% is kept a farmers own use. The rest is sold or exchanged within the community. From its inception to 2003, seed exchange in the project area has increased from 5% to more than 30%.

Executive Summary

1. The scarcity of quality rice seed is the top most problem of crop production in the country. At present only around 5% of available rice seed could be considered as "quality seed". Quality rice seed is, almost wholly, supplied through BADC with only small volumes coming from other private or public sources. Substantially all of the remaining 95% of Bangladesh's rice seed requirement, much of which is not of good quality, comes through farmers retained and/or farmer to farmer exchanged seed. The project, therefore, aimed to introduce a FARMSEED extension method through which farmers can produce and exchange quality seeds among themselves. The sub-project has been implemented in 246 villages of Kishoreganj, Habiganj, and Moulvibazar districts of Bangladesh in collaboration with 31 partner organizations (NGOs/CBOs).

Project methodologies involved participatory research with the selected skilled farmer's groups of partner organizations, through a series of stages. This has been actually carried over from phase-I & II of the project. At the initial stages the results and findings of the previous phases were shared with the selected farmer groups and partner organizations. The selected skilled farmers established demonstration plots, where the project organized field days, workshops and motivational tours. These activities facilitated close interactions between skilled and non-skilled farmers and promoted a high degree of awareness about the needs and capacities of each. Subsequently, these interactions turned into an informal seed exchange process among the skilled and non-skilled farmers in the communities.

2. The primary purpose of the FARMSEED extension method was to facilitate the production and distribution of quality rice seed. About 90% of participating RPFs/RPFFs were able to achieve this purpose; having been able to produce and distribute quality seeds of their-accepted modern rice varieties (BR11, BRR1 dhan28 and 29). This has enabled about 59% of the farm families within the target communities to increase their access and use of quality seeds. 100% of the participating RPFs/RPFFs recognized FARMSEED as a highly effective extension method for promoting the production and distribution of quality rice seed and thus recommended FARMSEED as a suitable new standard of extension.

More than 95% trained RPFs/RPFFs recommended FARMSEED as a method for supply of quality seed of rice MVs among the RPFs/RPFFs at the community. The overall rate of quality seed of rice MVs has increased from about 4.5% in the year 2000 T. Aman season; to more than 30% in 2003 Boro season. FARMSEED seed cost is at least 50% lower than formal rice seed of both public and private sources. But FARMSEED seed cost is about 14% higher than traditional farmer's saved seed in the project areas. Airtight plastic drums with naphthalene (1 tablet/Kg of seed) have been introduced and accepted by the RPFFs in the project areas.

3. To ensure such outputs and to develop the skills of the different levels of stakeholders, the project organized a series of trainings, workshops and field days, where farmers both male (4641) and female (3296) of 330 resource poor farmer groups including 84 female farmer groups participated these events. There were 31 POs (15 NGOs & 16 CBOs) of which 4 were women-led.

4. As mentioned earlier the uptake method of the project was evolved based on the phase I-II experiences of the project. During phase III the method has been further standardized with solid participation and substantial feedback from the participating farmers and partner organizations. The participating farm families finalized the FARMSEED extension method according to their own needs and capacities during phase III. They renamed it **Chashi Bij** (Farmer Seed).

5. During phase III, the project has made tremendous progress in achieving its avowed purposes and targeted results. Given the short duration of the project, the adoption of the FARMSEED (Chashi Bij) extension method among the farm families in the project areas is remarkable. The participating farmers (both male and female) have made significant achievements in terms of improving their small plot rice yield by as much as 35% on average. This indicates that the adoption rate of improved rice production practices along with quality seed is very high among the farmers (RPFs/RPFFs) in the project areas. Moreover, rice provision ability (RPA) increased about 18% from about 9 months to 11 months, for the participating farm families. On the other hand average income of the resource poor farm families has increased significantly (about 34%). The increased income was used for 15 different purposes; according to the choice and need of each farm family.

Nevertheless, based on the initial responses of the resource poor farmers, AAS accepts FARMSEED as the preferred standard extension method and is strongly committed to scaling-up the method to a nation wide level. AAS is implementing the FARMSEED strategy in Natore, Pabna and Sirajganj districts, in about 50 communities, with its own resources. AAS has also taken initiative of producing foundation rice seed since last 2002-3 Boro season. AAS receives Breeder seed from BRRI and distributes among the skilled resource poor farmers for foundation seed production.

Chapter 1: An Overview of the Sub-Project

1.1 . Background of the Sub-project

At present, the country requires a total of 4,00,000 MT of rice seeds, against which only about 12,348 MT (2000-1) is supplied as improved seeds through formal seed system mostly by BADC. BADC's contribution is only 5% of the nation's total rice seed requirement. The rest of the seeds, which often are not good, come through farmer's own retained and farmer to farmer seed exchanged system. Therefore, there is a tremendous scope to improve the quality of farmer's seed and enhancing the farmer to farmer seed exchange system (FARMSEED). The quality of rice seed can be further enhanced through developing rice-seed-technology skills of resource poor farmers and their female members.

A stakeholder analysis conducted in northeast Bangladesh in 2000 funded by PETRRA found that the scarcity of quality rice seed is the top most problem of rice production in the country. The stakeholder analysis further identified collaborative adaptive research with farmers, extension workers and service providers as having the best potential to mitigate the "top most" problem.

FARMSEED extension methods have actually been evolved over two years of farmer's participatory research during this current project. These methods were developed to ensure quality rice seed supply among the nation's truly resource poor farm families (RPFs) at the community level. The FARMSEED sub-project was implemented by AAS with funding from PETRRA.

The objective of the sub-project's third phase:

- ✓ To increase rice production, income and employment of resource poor farm families (RPFs);
- ✓ To establish FARMSEED extension methods for ensuring the supply of quality rice seed among the RPFs;
- ✓ To develop quality rice seed production, processing, preservation and distribution skills of participating RPFs & RPFs;
- ✓ To Improve the knowledge and capacity of RPFs/RPFs on FARMSEED strategy; and
- ✓ To develop mechanisms for foundation seed production and distribution.

1.2 . Sub-project Locations and Partners

The FARMSEED sub-project was implemented in 50 Villages in Sadar, Pakundia, Hossainpur, Kotiadi and Bajitpur upazilas of **Kishoreganj district**, in 91 villages in Sadar, Bahubol, Chunarughat and Madhobpur upazilas of **Habiganj district** and in 105 Villages in Sadar, Srimangal, and Kamalganj upazilas of **Moulvibazar district** in North-east Bangladesh. The project locations are shown in map (Annex A.1).

The three project districts have similar agro-ecological conditions with little difference between Moulvibazar and Habiganj districts. The differences between Kishoreganj district and Moulvibazar & Habiganj are considered to be moderate. The districts were selected for the FARMSEED extension method for the following reasons:

- (a) PETRRA conducted a stakeholder analysis in Habiganj district, where scarcity of quality rice seed was identified as the top most problem for North-east region of Bangladesh;
- (b) In the same areas A FARMSEED network with 2000 trained rice seed farmers was already developed by the earlier FARMSEED sub-project, which was also funded by PETRRA.
- (c) The farmers in the northeast Bangladesh found the FARMSEED strategy to be attractive.

A total of 3764 resource poor farm families of 31 partner organizations actively participated in participatory research on FARMSEED extension method. Resource poor farmers, those having less than 100 decimals cultivable land and not more than 8 months rice provision ability (RPA), were involved in the sub-project. Farmer's selection criteria were determined during FGD in the community and participatory workshop with chief executives, staffs and farmers of involved POs during phase-II of the project.

The partner organizations were composed of NGOs and CBOs (community Based Organizations). The involved NGOs operated at the national, regional, local levels. 31 Partner organizations were selected from among the 64 pre tested POs during the two year FARMSEED project. Among the 31 POs (NGOs/CBOs) 15 were in Kishoreganj 11 in Habiganj and 5 in Moulvibazar districts. Out of 31 POs, four were women-led. Three are NGOs and one is a CBO. The sub-project has established 246 resource poor farmer groups (RPFs), of which 50 RPFs are in Kishoreganj, 91 RPFs in Habiganj and 105 RPFs in Moulvibazar districts. Similarly, the sub-project has established 84 resource poor female farmer groups (RPFFs) of which 59 RPFFs are in Kishoreganj and 25 RPFFs in Habiganj districts.

Total of 4214 Resource poor farmers (1786 female members) were selected for conducting research on the FARMSEED extension method with the help of coordinators of RPFs/RPFFs and their respective POs in 3 districts of Northeast Bangladesh. Farmer's selection was finalized during group meetings at the community level in presence of project staff and field staff of POs.

1.3. Methodology of the Research

The main project methodology is "participatory research". Phase III's participatory research was conducted in several stages as discussed below.

Stage-I: Documenting of phase-I & II and developing a phase III research proposal

- ✓ Findings and lessons learned from two years FARMSEED sub-project (Phase-I & II) were reviewed and documented by the project staffs
- ✓ Phase III of the FARMSEED sub-project was planned through a participatory workshop
- ✓ The Phase III FARMSEED Research proposal was approved by PETRRA.

Stage-II: Strengthening partnership network

- ✓ Partnership network was further expanded with selected, pre-tested POs
- ✓ Participating village selection, farmer selection and group formation was done by the skilled partner organizations (NGOs/CBOs)
- ✓ Conducted group meetings at community (both men & women)
- ✓ Conducted farmers training at community (both men & women)
- ✓ Conducted participatory workshop for coordinators of RPFs on FARMSEED strategy

Stage-III: Establishing FAMPAR and seed supply system

- ✓ Established farmers demand-led rice seed production demonstration plots at community
- ✓ Conducted trial on rice seed storage method (Plastic drum with Naphthalene) with RPF
- ✓ Supplied plastic drums on cost basis for rice seed storage
- ✓ Developed foundation seed system for distributing 3 kg packets of accepted rice MVs
- ✓ Conducted regular monitoring

Stage-IV: Planning future FARMSEED expansion

- ✓ Motivational activities (field day etc)
- ✓ Participatory workshop on future strategic plan on FARMSEED extension method
- ✓ Linkages with public/private sector players (MOU with BRRRI, plastic drum supplier, ABC)

Stage-V: Conducting evaluation and preparing case study

- ✓ Conducted final evaluation through FGD and farmer's opinion survey
- ✓ Conducted case study (draft)
- ✓ Prepared draft report on final field evaluation

Stage-VI: Report preparation

- ✓ Report preparation on case study is at final stage
- ✓ Completion report (draft & final) preparation

The sub-project has introduced the FARMSEED approach among resource poor farm families for the purpose of ensuring the supply of quality seed of accepted rice MVs. For this purpose, the sub-project staff prepared a final report on phase I & II of the FARMSEED sub-project. At the beginning of phase III of the sub-project the staff had prepared a guideline on the FARMSEED extension method for ensuring the production of quality rice seed. The demand-led the seed quality was ascertained through farmer's response using a set of criteria during phase-II of the FARMSEED sub-project.

In phase III, the sub-project selected 31 POs (NGOs & CBOs) from among the 64 POs of phase I & II for implementing the FARMSEED extension method project. The project developed the capability of RPFs/RPFFs and staff of POs through participatory training and motivational activities. The sub-project was further strengthened by inter-partner working relationships with participating RPFs of concerned POs (NGOs/CBOs), public sector players (BRRRI, BADC, DAE), input suppliers and output buyers.

The trained staff of POs and project staff selected project villages and farmer researchers for implementing the research project in the project areas. They also conducted group meeting and farmer trainings at participating communities. The sub-project conducted a series of participatory workshops on FARMSEED strategy and FARMSEED extension methods for ensuring the supply of quality rice seed to target communities.

During phase III, the sub-project established seed production demonstration plots on the basis of farmer's demand. The project trained resource poor seed farmers on its established seed production demonstrations. Each demo plot was used for the

motivation of fellow farmers to use quality seed on their small plots. The sub-project conducted participatory trials on rice seed storage methods (Air-tight plastic drums with

Naphthalene @ 1 tablet/Kg seed). Trials were conducted under the leadership of resource poor female farmer groups (RPFFGs) at each community. Thus, on the basis of demand from RPFFGs about 600 plastic drums were distributed on cost basis among the trained RPFFs in three project districts for quality rice seed storage. The project has taken initiatives for developing linkages between plastic drum suppliers and RPFFGs through respective skilled POs.

Besides, the supply of foundation seed from public sector BADC, AAS has been developing a foundation seed production system, within its working areas with the technical support from BIRRI. For this purpose a draft MOU was prepared and submitted to BIRRI for signing and implementation. The sub-project has implemented participatory field monitoring systems in each project area.

For the purpose of motivating large numbers of farmers at each community, the sub-project has been conducting field days/field visits at seed production demo. sites. These field based motivational approaches were found to be very encouraging for surrounding farmers to avail themselves of quality seed. The Phase III sub-project conducted participatory workshops on future strategic plan of FARMSEED extension method. The sub-project further developed linkages with BIRRI as an active partner in the establishment of a sustainable, farmer-owned rice seed production and distribution network. The phase III sub-project also developed linkages with the private sector for the production, processing, storage and packaging of accepted MV foundation seed.

Finally, the phase III sub-project has prepared a case study (draft) in collaboration with Dr. Paul Van Mele, Extension Method Demonstration consultant, PETRRA. Final case study report on FARMSEED extension method will be published in a book of CABI Bioscience, UK. Final evaluation has been conducted and it's finding incorporated in this completion report of strengthening FARMSEED extension method.

Chapter 2: Phase III Sub-project Achievements in Relation to the Logical Framework

2.1. Achievement of Purpose

Sub-project Purpose	Indicators	Achievements
Purpose: Established FARMSEED (farmer to farmer seed exchange system) extension method among the resource poor farm families.	P.1 At least 50% of the participating farmers practiced improved modern rice varieties as accepted by the RPFs by the EOP.	More than 89% of participating farmers (2428 RPFs & 1786 RPFFs) practiced for the rice production & seed production of their accepted rice MVs (BR-11, BRRi dhan 28 & 29) in the project areas. The sub-project earlier reported that resource poor farmers widely accepted BRRi dhan 29 for Boro season, BRRi dhan 28 for Boro and T. Aus seasons and BR 11 for T. Aman season (Ref: Evaluation reports 2004, Annual report, Case study, Completion report of FARMSEED, August 2002, Quarterly reports, field observation).
	P.2 Use of quality rice MVs seed by RPFs in the project areas increased at least 25% due to the adoption of FARMSEED extension method by the EOP.	Quality seed use of the accepted rice MVs has increased by RPFs/RPFFs at least 59% as compared with benchmark information (5.82%) in the project areas due to adoption of FARMSEED extension method (Ref: Evaluation report 2004, Annual report, Case study, completion report of FARMSEED, August 2002, Quarterly reports, Benchmark survey report, Evaluation report 2002 and Field observation).
	P.3 At least 75% of the sample of participating farmers recommended about the FARMSEED as their preferred extension method of receiving suitable rice MVs seed.	About 100% of participating farmers (RPFs/RPFFs) recommended the sub-project developed FARMSEED method for producing and distributing quality rice seed of the accepted rice MVs in the project areas. (Ref: Evaluation reports 2004, Annual report, Case study, Completion report of FARMSEED, August 2002, Quarterly reports, Evaluation report 2002 and field observation).
	P.4 FARMSEED extension method followed and practiced by at least 25% RPFs in the project area.	More than 36% RPFs (trained, motivated and neighbor) used the FARMSEED extension method in the project areas. (Ref: Evaluation reports 2004, Annual report, Case study, Completion report of FARMSEED, August 2002 Quarterly reports, Evaluation report 2002 and Field observation).

2.2. Achievement of Outputs

Sub-project Outputs	Planned indicators as in logical framework (OVIs)	Achievements against indicators with evidence
Output 1: Findings and lessons of phase I&II documented and transformed into FARMSEED extension method.	1.1 At least 80% skilled RPFs and their trained RPFs recommended FARMSEED as a method for supply of quality rice MVs seed at the community level by the phase-III.	About 96% skilled RPFs & about 100% of their trained members (RPFs/RPFFs) recommended FARMSEED as a method for supply of quality seed of rice MVs among the RPFs at the community (Ref: Evaluation report 2004, Annual report, Completion report of FARMSEED, August 2002, Quarterly reports, Field observation).
	1.2 At least 60% of the trained seed farmers (RPFs) are involved in seed production and distribution under FARMSEED extension method at community level by the phase-III.	More than 72% trained seed farmers (RPFs/RPFFs) are produced and distributed quality rice seed at the community level in the project areas (Ref: Evaluation report 2004, Annual report, Quarterly report, Completion report of FARMSEED, August 2002, Workshop, Field observation).
	1.3 At least 80% of the RPFs of skilled POs participated in FARMSEED method development process during the sub-project period.	About 84% RPFs of skilled POs participated in FARMSEED method development process during the last 38 months project cycle (Ref: Evaluation report 2004, Annual report, completion report of FARMSEED August 02, Workshop reports, Quarterly reports, Field observation).
	1.4 At least 25% of motivated farmers are involved in FARMSEED in the project areas.	More than 54% motivated farmers (RPFs/RPFFs) are involved and getting benefit from FARMSEED extension method in the project areas (Ref: Evaluation report 2004, Annual report, Quarterly reports).
Output 2: FARMSEED extension method validated, fine-tuned and documented	2.1 At least 80% of the skilled RPFs and their trained RPFs participated in validation and fine-tuning process of FARMSEED extension method.	More than 87% skilled RPFs/RPFFs and 74% trained RPFs/RPFFs participated in validation and fine-tuning process of FARMSEED extension method (Ref: Evaluation report 2004, Completion Report of FARMSEED, August 2002, Quarterly reports, workshop reports, Field observation etc.).
	2.2 Per capita cost of rice seed to reach a farmer through the FARMSEED extension method is at least 25% lower compare to other formal seed supply systems.	FARMSEED seed (TLS standard) cost is about 14% higher than traditional farmer's saved seed (Tk. 6.25/Kg). On the other hand FARMSEED seed cost is at least 50% lower than formal seed (CS/TLS) from both public and private source (at least Tk. 18/Kg). (Ref: Evaluation report 2004, Case study, Annual report, Completion report of FARMSEED, August 2002, Quarterly report, field observation).
	2.3 FARMSEED extension method for quality rice seed accepted by at least 60% of the trained RPFs through documentation, validation and fine-tuning in the project areas.	More than 82% of the trained RPFs/RPFFs accepted the FARMSEED extension method to make quality rice seed availability at community level validation, documentation and fine-tuning process in the project areas (Ref: Evaluation report 2004, Annual report, Workshop reports, quarterly reports, Field observation).

2.3. Major findings of the Phase III sub-project

- ✓ Resource poor farmers enthusiastically accepted BRR I dhan 29 for Boro season, BRR I dhan 28 for Boro and T. Aus seasons and BR 11 for T. Aman season.
- ✓ The overall rate of FARMSEED extension in the sub-project area has steadily increased quality seed used from about 4.5% in the year 2000 T. Aman season; to more than 30% in 2003 Boro season. The increase is a verifiable output, directly attributed to the sub-project.
- ✓ More than 20,000 resource poor farmers and 100 staff of 64 partner organizations, and AAS were trained and motivated on farmer demand-led rice MVs seed production and distribution using FARMSEED extension methods and the uptake-pathway process.
- ✓ About 2,000 resource poor farmers from 246 villages have been trained and enlisted as authorized, “Truthfully Labeled seed producers” by the FARMSEED network. This was accomplished in the context of the BRR I sponsored seed network umbrella.
- ✓ 246 resource poor farmer groups including 84 female farmer groups have been established.
- ✓ High levels of resource poor female farmer participation in the processing, preservation and quality controlling of rice seed has been clearly documented at each of the project villages.
- ✓ The participation of resource-poor female farmers in field operations, as one would suspect, was found to be minimum. In one case, however their participation in field operations was found to be more widespread. This was in Madhobpur upazila of Habiganj district.
- ✓ FARMSEED is now a sustainable seed exchange network made up of authorized seed producers, participating resource poor FARMSEED users, resource poor farmer groups, selected Partner Organizations, Private Sector Input/Output Traders, Public Extension Agencies (DAE) and recognized research institutes.
- ✓ A total of 3296 resource poor female farmers have received training on improved post harvest rice-handling practices and community based rice seed technology.
- ✓ The MOU has been submitted to BRR I for signing and implementation.
- ✓ The supply system of foundation seed of farmers accepted rice MVs (e.g. BRR I dhan 28, 29 & BR 11) has been arranged for production and distribution of Truthfully Labeled Seed (TLS) in Kishoreganj, Habiganj and Moulvibazar districts.
- ✓ Distributed 5000 Kg of Foundation Seed (BR 11, BRR I dhan 30, 31, 32 & 33) during 2002 T. Aman Season, 10,000 Kg of Foundation Seed (BRR I dhan 28, 29 & BR 14)

during 2002-03 Boro Season, 5000 Kg of Foundation Seed (BR 11 & BRR1 dhan 32) during 2003 T. Aman season and 7050 Kg of foundation seed during 2002-3 Boro season on cost basis among the trained RPFs/RPFFs in the project areas.

- ✓ The AAS implemented, FARMSEED, sub-project is a farmer-led seed exchange system. Moreover, AAS has developed practical linkages with BRR1 for ensuring the supply of foundation seed among the participating groups within and outside of the project areas.
- ✓ Women-led female farmer groups have endorsed a low-cost rice seed storage method; i.e., Air tight plastic drum with naphthalene. About 600 plastic drums have been distributed on cost basis under the leadership of resource poor female farmer groups (RPFGs).
- ✓ Improved the skills and understanding of resource poor farmer families on an environmentally sound basis; resulting in improved rice production and a more sustainable rice eco-system.

Chapter 3: Capacity Building

3.1. Training, Workshop and field days Participants

Training:

The information relating to training courses such as starting date, course title, number of participants by the type and sex, total number of participants and duration are provided in the following table 1.

Table 1. Training details of farmers, staff and chief executives

Star-ting date (day/ month /year)	Title of the course	Venue (Institution, country)	Number of participants by type and sex						Total		Duration (days)
			Farmers		Researcher*		Field Staff**		M	F	
			M	F	M	F	M	F			
4 & 8 March' 03 (2 days)	Participatory training on improved rice seed storage method (plastic drum) (Kishoregani)	Community	-	40	-	-	-	-	-	40	Half day
1,2 & 31 Dec'02 (3 days)	Participatory training on improved rice seed storage method (plastic drum) (Habiganj & Moulvibazar)	Community	-	53	-	-	-	-	-	53	Half day
2-11 March'03 13- 24, 27 & 28 Apr'03 3 & 24 May 03 (25 days)	FAMPAT on rice knowledge (seed to seed) (Habiganj & Moulvibazar)	Community	-	920	-	-	-	-	-	920	Half day
22 & 27 Apr'03 1,3, 5-7, 10-14 May'03 (14 days)	FAMPAT on rice seed drying and storage technology (Moulvibazar & Habiganj district)	Community	-	320	-	-	-	-	-	320	Half day
1-25, 29 & 30 Sept.02 1-8, 12,13,17-29 Oct'02 3 & 15 Mar'03 (52 days)	FAMPAT on rice seed technology and its management at community level (Moulvibazar & Habiganj district)	Community	1820	-	-	-	-	-	1820		Half day
27.3.03 to 19.5.03 (46 days)	FAMPAT on rice knowledge (seed to seed (Kishoregani)	Community	-	920	-	-	-	-	-	920	Half day

Star-ting date (day/ month /year)	Title of the course	Venue (Institution, country)	Number of participants by type and sex						Total		Duration (days)
			Farmers		Researcher*		Field Staff**		M	F	
			M	F	M	F	M	F			
1 July 03 to 28 July 03 (38 days)	Farmers participatory training on rice seed technology and post harvest practices (Habiganj & Moulvibazar)	Community	1085	111	-	-	-	-	1085	111	Half day
July – September July- Septembe'03 (19 days)	Farmers participatory training on rice seed technology and post harvest practices (Kishoreganj)	Community	-	356	-	-	-	-	-	356	Half day
22 October to 22 November'03 (32 days)	Farmers participatory training on rice seed technology and post harvest practices (Habiganj & Moulvibazar)	Community	1667	212	-	-	-	-	1667	212	Half day
October to December'03 (10 days)	Farmers participatory training on rice seed technology and post harvest practices (Kishoreganj)	Community	-	208	-	-	-	-	-	208	Half day
6.10.03,8.10.03,10.11.03, 18.12.03 (4 days)	Farmers participatory training on rice seed technology and post harvest practices (Sirajganj & Natore)	Community	51	-	-	-	-	-	51	-	Half day
November to December'03 (11 days)	FAMPAT on Plastic drum use for rice seed storage (Kishoreganj)	Community	-	150	-	-	-	-	-	150	Half day
12.12.2003	FAMPAT on improved onion seed production (Natore)	Community	18	6	-	-	-	-	18	6	Half day
Total			4641	3296	-	-	-	-	4641	3296	-

* Researcher includes coordinator, PI, team leader, research partner and scientists

** Field staff includes research assistant, office supporting staff

M= Male participants; F = Female participants

Workshop:

Information relating to participatory workshop such as date, workshop title, number of participants by type & sex, total number of participants and duration are provided in the following table 2.

Table 2. Details of participatory workshop participants

Date	Title of Workshop	Venue	Number of participants by type and sex						Total		Duration
			Farmers		Researcher		Field staff		M	F	
			M	F	M	F	M	F			
11-16 March 2002 (5 days)	Future FARMSEED Extension plan	Training Room, Area office, AAS, Pakundia, Kishoreganj	128 (Coordinators, RPFs of 22 POs)	-	-	-	-	-	128	-	1 day
3-7 March & 7,9,11 April 2002 (8 days)	Future FARMSEED Extension plan	Training Room, Zonal office, AAS, Srimangal, Moulvibazar	153 (Coordinators , RPFs of 42 POs)	-	-	-	-	-	153	-	1 day
9 February, 4 & 18 March' 2003 (3 days)	Future FARMSEED Extension plan	Training Room, Zonal office, AAS, Srimangal, Moulvibazar	74 (Coordinators , RPFs of 12 POs)	-	-	-	-	-	74	-	1 day
5-7 April 2003 (3 days)	Future FARMSEED Extension plan	Training Room, Area office, AAS, Pakundia, Kishoreganj	48 (Coordinators , RPFs of 14 POs)	-	-	-	-	-	48	-	1 day
28-30 December 2003 (3 days)	Future FARMSEED Extension plan & use of Plastic drum for rice storage at community	Training Room, Area office, AAS, Pakundia, Kishoreganj	45	-	-	-	-	-	45	-	1 day
12-14 January 2004 (3 days)	Future FARMSEED Extension plan & use of Plastic drum for rice storage at community	Training Room, Area office, AAS, Pakundia, Kishoreganj	84	-	-	-	-	-	84	-	1 day
25 October 2003	Sustainable Rice Seed Network Planning Workshop	Conference Room, RS, BRRI, Habiganj	9	4	6	1	19	-	34	5	1 day
Total:			541	4	6	1	19	-	566	5	

Field days:

Information relating to field days such as number of participants, number of field days, number of villages in Kishoreganj, Habiganj and Moulvibazar districts are provided in the following table 3.

Table 3. Details of field days and participants

District	Upazila	Total Village (Nr)	Total field days (Nr)	Total number of participants (Farmers)
Kishoreganj	Pakundia, Sadar, Hossainpur, Bajitpur, Kotiadi	50	76	2812
Moulvibazar	Srimangal sadar Kamalganj	80	80	3225
Habiganj	Sadar Chunarughat Madhobpur Bahubol Banirachong	72	72	2889
Total	-	202	228	8925

3.2. Assessment of Sub-project Capacity Building

The principal capacity building aspect of the project was its development of essential skills among stakeholders vis-à-vis the FARMSEED extension system, particularly in quality rice seed production, processing, preservation and exchange at the community level. The importance of capacity building emerged during phase-I & II of the FARMSEED project and was based of the demand of resource poor farmers for such skills. The measure of this aspect of the sub-project was expressed best by the achievement of high levels of desired outputs by participating resource poor farm families.

Participatory training and motivational activities such as field day, field visit and participatory workshops contributed significantly to the acceptance of FARMSEED extension methods. The Partnership Network with public sector partners (BRRI, BADC), NGOs, CBOs and resource poor farmers groups were also an integral part of the sub-project's success in establishing the FARMSEED extension system. Members of the partnership network became involved in FARMSEED on the basis of very small incentives. Increased incentives, on the other hand, would further encourage them to play a larger role in the future extension of the FARMSEED system. This would ensure the long-term supply of quality seed and also ensure the long-term sustainability of the whole, elaborated system.

The following approaches and activities were the main areas of capacity building:

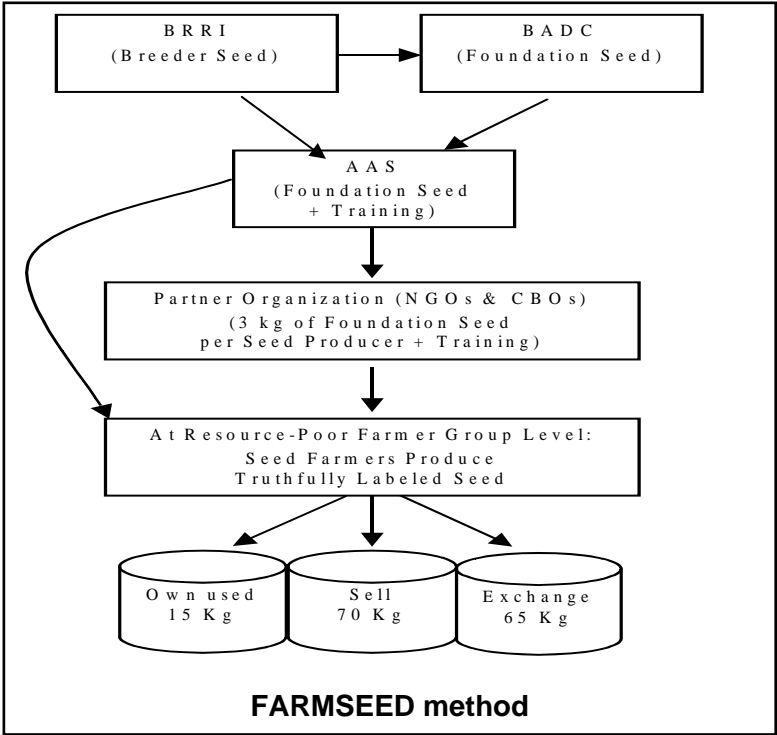
- (i) Establish a partnership network of POs, RPFs, public sector and private sector players
- (ii) Form resource poor farmers groups (both male & female) with group meeting & training
- (iii) Promote FARMSEED strategy/approach with participatory training of male/female farmers
- (iv) Participatory field demonstration plots of rice seed production (of the accepted rice MVs)
- (v) Participatory workshop for farmers, staffs, Chief Executives of POs
- (vi) Establish production of foundation seed supply system at community level
- (vii) Conduct women-led trial on improved seed drying and rice seed storage methods
- (viii) Develop incentive based linkages between RPFs, POs and plastic drum suppliers

Chapter 4: Uptake Method

4.1. Description of the Uptake Method

FARMSEED (farmer to farmer seed exchange system) is a method of quality rice seed production from foundation seed and distribution driven by the farmers themselves. Under FARMSEED, skilled farmers were provided training to produce quality rice seed from foundation seed following safe storage guidelines. The good quality seeds produced were later distributed among fellow farmers on cost and exchange basis. In such a way, quality rice seed became readily available to all the resource poor farmers in the project command area. The skilled resource poor seed farmers obtain the foundation seed from a contracted source (e.g. AAS, BADC, Private contract grower etc). Usually after storing their own requirements in naphthalene plastic drum, the rest of the seeds they exchange with other farmers or sell at a premium in the local market as high quality seed.

The FARMSEED extension method can be explained in following flow chart under AAS developed model.



FARMSEED method is a unique uptake method than largely used method for quality rice seed supply i.e. BADC, because of the following features:

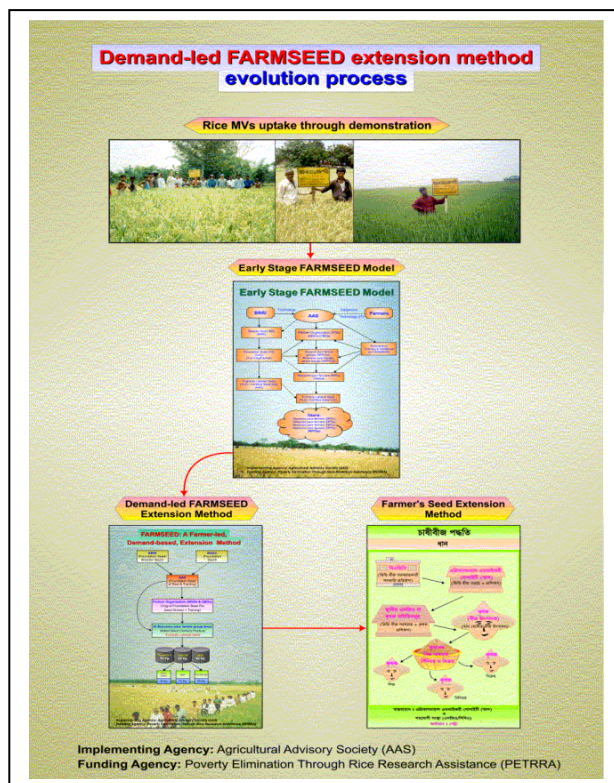
- ✓ FARMSEED is a demand-led community approach;
- ✓ BRR I linkage based foundation seed supply at the community;

- ✓ Quality rice seed production and distribution system through skilled seed producers at the community;
- ✓ Only 3 kg foundation seed supply per family for quality rice seed production, small scale storage and distribution at community;
- ✓ Seed from FARMSEED is high quality, trustable, low price and easily available at the community within shortage possible time and desire;
- ✓ Quality seed of right variety can be procured and exchanged without transportation cost at community;
- ✓ High confidence on seed will develop through judgment and assessment of its quality at the community.

Similar extension method can be used to produce and distribute any potential crop seeds particularly, onion, potato, radish wheat, banana (sucker), garlic, open pollinated vegetables, etc. Organizations that deal with agriculture and are engaged in extension services such as NGOs, both public and private organizations can integrate this method to ensure quality seeds in the targeted communities.

4.2. Evolution of Uptake Method and Testing

We owe a lot to historians as they help us to learn from the past to better understand the present, while preparing us to avoid making the same mistakes in the future. Archeologists deduct the evolution of a society by interpreting its relics. By excavating the past of FARMSEED, significant and necessary changes in the mindset and working philosophy of AAS can be traced. The process of evaluation of FARMSEED extension method is presented in the following flow chart:



In May 2000, AAS initiated its first PETRRA project (phase I) demonstrating modern rice varieties. The PETRRA Uptake Forum reminded the project management that the emphasis had to be on developing and testing new uptake methods, rather than merely conducting demonstrations. At the time, PETRRA had approved about ten different uptake projects and its main challenge was to get this new concept and philosophy across to the many and varied participating partners.

During field days organized at regular intervals, farmers evaluated different varieties. Just prior to harvest, resource-poor farmers clearly expressed their priorities. Out of the 18 varieties under evaluation, only three had made the final selection depending on season, soil fertility and elevation of their fields.

Thus, the early FARMSEED model (Phase II) was born. AAS now had a solid understanding of farmers' preferences of varieties and started distributing 10-kg bags of foundation seed, which they directly purchased from BADC. Along with the seed distribution, farmer training was initiated.

The amount of seed provided initially (10 kg.) was excessive: using one seedling per hill, half a hectare could be planted. As most fields of resource-poor farmers are by no means larger than this and they want to keep at least two thirds of it for food consumption, the remaining Truthful labeled seed was simply consumed. AAS could not accept the waste of resources. AS started to repackage the seed into three-kilogram bags and the FARMSEED method became increasingly recognized as a workable method by project staff and farmers alike. Now that the method has shown its strength and potential, AAS is looking into improving its packaging process.

The growing feeling of farmer ownership can be equally traced by looking at the latest poster developed by skilled farmers during experience sharing field visit in northeast Bangladesh during 30 August to 1 September 2003. A diagram representing the seed production and distribution system had been drawn by the farmers and replaced the one initially drawn by project staff. Naming something gives it a meaning in your personal frame of reference. Farmers from now on would call their method *Chasi Bij*, meaning Farmers' Seed.

The formal seed supply system in Bangladesh supplies only about 5% of farmer's total seed requirement. The challenge of FARMSEED extension method sub-project has been to identify and implement ways to improve the quality and efficiency with which farmers are able to supply the remaining 95% of their seed requirements on a farmer-to-farmer basis. Moreover, FARMSEED can ensure the supply quality rice seed in the hand of resource poor farmers. FARMSEED enables skilled resource poor farmers (RPFs) to produce quality rice seed (CS/TLS) from foundation seed on their own small plots. Such

skilled RPFs/RPFFs can store and distribute their produced quality rice seed among their neighboring farmers.

Farmer's knowledge on quality rice seed:

Project trained farmer's knowledge about quality rice seed was found remarkable during two focus group discussion (FGD) meetings of final field evaluation of FARMSEED. The farmer's knowledge about quality rice seed is compared with the accepted standards of the formal seed sector (eg. BADC) is illustrated in the following table 4.

Table 4. Comparative characteristics of quality rice seed

Characteristic of quality rice seed of FARMSEED (e.g. Chashi Bij) (Farmer's Perception)	Formal rice seed standard
✓ Good seed viability (germination capability at least 80%)	✓ Seed purity (Min) = 94.00%
✓ Seed colour must be bright	✓ Varietal mixture (Max) = 2.00%
✓ Grains should be well filled	✓ Other crop mixture (Min) = No
✓ Free from any varietal mixture	✓ Weed seed (Max) = 10 seeds/Kg
✓ Seed should be uniform in size	✓ Inert matter (Max) = 4.00%
✓ Seed should be free from inert matter	✓ Germination (Min) = 80.00%
✓ Seed should be free from insect damaged	✓ Moisture content (Max) = 12.00%
✓ Seed should be free from disease infection	✓ Insect and disease free
✓ Moisture content in the seed should be optimum (Not more than 12%)	✓ Normal colour
✓ Assurance for high yield	✓ Uniform size

Lessons learned during FARMSEED evolution Process:

- ✓ The project learned from farmer's opinions that involving the farmers in the entire selection/dissemination process is more effective than having project managers or scientists selecting the varieties (bottom up vs. top down). This important aspect of the project strategy made for a faster evolution of the entire FARMSEED process.
- ✓ In fact, resource poor farmers in all cases were eager to select the varieties based on their practical experience and preference.
- ✓ They were equally enthusiastic about producing and exchanging seeds among themselves on the basis of their mutual self-interest.
- ✓ Demand-led foundation Seed supply linkage with public sector (BADC) was helpful to popularize/materialize the "FARMSEED" seed exchange and storage strategy among

resource poor farmers. But sometimes, farmers are cautious about the quality of BADC seeds.

- ✓ Resource poor farmers have agreed that a 3 Kg foundation seed supply was the optimum amount of seed needed for meeting their own planting and seed exchange needs.
- ✓ The formation of resource poor farmers groups was a helpful tool in facilitating the project's overall objective; i.e., to popularize the FARMSEED seed exchange and storage strategy among the resource poor segment of society.
- ✓ The confidence building initiatives taken during training were also helpful.
- ✓ The “resource poor farmers group” training initiatives helped to implant the importance of informal farmer to farmer’s seed exchanges in the context of utilizing the available seed stocks of the most widely accepted rice MVs.
- ✓ Linkages with input-suppliers have played a vital role in the acceptance of the FARMSEED model and will play a critical role in scaling-up the project.
- ✓ The female farmers groups played an important role in achieving post harvest objectives.
 - Female farmers are traditionally and culturally responsible for most post harvest work.
 - They received special skill and capacity building training in rice post harvest practices; including cost-effective improvements in available rice seed storage facilities.
- ✓ Due to social and cultural limitations, resource-poor female farmers involvement in field level agricultural activities was found to have reached only minimum levels.
- ✓ Air-tight plastic drum with naphthalene (1 tablet/Kg rice seed) has been selected as the most effective rice seed storage method. Participating resource poor female farmers came to this conclusion on the basis of their own careful identification, systematic trial and validation of the option at the community level. This has been a small but vital aspect of the FARMSEED project.
- ✓ The FARMSEED seed supply strategy at community-level was found “highly acceptable” among participating farmers, especially in greater Sylhet district due to shortage of public sector seed supply during 2002-3 Boro season.
- ✓ The project learned that community based organizations are more effective than NGOs in facilitating the FARMSEED process. Similarly resource poor farmers group are more effective than CBOs.
- ✓ Thus the strength of FARMSEED lies in its ability to mobilize resource poor farmers.
- ✓ Greater incentives would encourage more resource poor farmers to embrace and thus expand the initiative; extending the FARMSEED model by replication, beyond its original project areas.

- ✓ The success of the FARMSEED extension method is due entirely to the feeling among participating farmers that the project and its resulting benefits belong to them; that they own the project and therefore are receiving benefits according to their efforts and needs.
- ✓ Trained resource poor farmers are substantially relying upon their own resources (land, labour, foundation seed and required working capital) to produce and exchange quality rice seed within their communities.
- ✓ The sub-project has been using PETRRA Funds to train and deploy AAS staff for the purpose of implementing a unique set of FARMSEED extension methodologies. The FARMSEED extension methods give emphasis to establishing a sustainable farmer-to-farmer seed exchange system and utilize a mixture of formal and informal seed distribution methods among the resource poor farmers.
- ✓ Farmer's participatory rice seed production, processing, preservation and distribution through the sub-project participants is shown to be the most cost-effective way to make quality rice seed available at the farmer/community level.

4.3. Comparative Advantages of the Recommended Uptake Method:

Comparative advantage of FARMSEED extension method over five rice seed supply sources is summarized in the following table 5.

Table 5. Comparative advantage of FARMSEED over five rice seed supply sources

Parameter	Source of seed					
	Farmer's saved	BADC	DAE Seed project	Private sector ¹	NGO ¹	FARMSEED (AAS)
A. Seed quality (1-5 scale)	1	4.5	3.5	3.5	3.5	5
B. Seed cost (Tk./Kg) ²	6.25	-	7.25	-	-	7.25
C. Seed availability (1-5 scale)	5	2	2	1.5	1.5	4
D. Seed reliability (1-5 scale)	1	3	2.5	2	2.5	5
E. Acceptability (1-5 scale)	1	4	2	1.5	1.5	5
F. MRP (Tk/Kg)	9.25	18.00	10.00	25-30	25-30	12.5

Note: ¹ Most of the participants have little knowledge about rice seed information of private sector and NGO

² Participants have no idea about the seed cost of BADC, private sector and NGO

The above table clearly indicates that the FARMSEED was found to be the best source of rice seed in terms of its quality, availability, reliability and acceptability among the farmers (RPFs/RPFFs). However, the difference in terms of acceptability between FARMSEED and BADC rice seed (CS/TLS) is very marginal and could be considered insignificant.

Comparative Advantages of FARMSEED Extension method and BADC as the best source of quality rice seed supply are summarized of the FGD meetings during 19-20 May 2004 in Northeast Bangladesh are illustrated in the following table 6.

Table 6. Comparative advantages between FARMSEED and BADC seed source

FARMSEED method (Chashi Bij) (Farmer's perception)	BADC (Farmer's perception)
<ul style="list-style-type: none"> ✓ Good quality seed ✓ Low price of seed ✓ Easily available at the community within shortage possible time and desire. ✓ Trust on seed is high ✓ No transportation cost at community ✓ Seed can be procured on credit ✓ Seed exchange opportunity exist at the community ✓ Right variety can be assured ✓ High confidence on seed and its quality ✓ It can be procured through judgment (seed plots, seed producer, seed quality test etc) ✓ Seed quality assessment is possible at community. ✓ Assurance of high yield 	<ul style="list-style-type: none"> ✓ Seed quality is good ✓ Seed price is reasonable ✓ Seed can be procured through assessment on the basis of information given on the tag label. ✓ Good packaging ✓ Right weight of seed in the bag ✓ Less price than seed co. and NGO ✓ Quality seed can be procured during shortage at the community ✓ Complain can make when the seed quality is below than the standard.

However, FARMSEED (Chashi Bij) has several extra practical advantages and benefits over BADC seed supply. Thus the FARMSEED (Chashi Bij) is found to have a tremendous scope and comparative strength as compared with the existing sources of seed from several formal and informal seed suppliers within the project areas. It is our strong belief that a similar level of acceptability of FARMSEED (Chashi Bij) at community level will be found across the country.

Cost and marketing:

The cost of seed from FARMSEED (Chashi Bij) is little above Tk. 7/Kg at community is far less than any formal seed sources. The cost for formal seed system should be at least Tk. 20/Kg upto the end user i.e farmers at community. For this reason it is difficult for seed Companies and NGO formal rice seed suppliers to sell their CS/TLS for less than Tk. 25/Kg. On the other hand BADC seed is a heavily subsidized public sector rice seed supplier. Its "maximum retail price" (MRP) is decided by public sector decision markers and not on the basis of actual costs and other commercial considerations. But in case of FARMSEED both seed producer and buyer can agree on a price based on practical considerations of cost, availability and other mutual considerations.

4.4. Participation of Resource Poor Farmers in Testing the Uptake Method

The value of resource poor farmer participation (RPFs) in testing the uptake method is shown in the following table 7.

Table 7. Trend of Participation of Resource Poor Farmers Over Time

Name of rice season (List from beginning to end of research)	Criteria used to select resource poor farmers and adjustment made by season	Total number of directly participating farmers		Number of resource poor farmers based on selected criteria		Percentage of resource poor farmers	
		Male	Female	Male	Female	Male	Female
2002 T. Aman	<ul style="list-style-type: none"> ✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months 	436	-	348	-	79.82	-
2002-3 Boro	<ul style="list-style-type: none"> ✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months 	751	61	699	60	93.10	98.36
2003 T. Aman	<ul style="list-style-type: none"> ✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months 	580	19	560	18	96.55	94.74
2003-04 Boro	<ul style="list-style-type: none"> ✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months 	1921	623	1840	582	95.78	93.42
Total		3688	703	3447	660	-	-

The selection criteria for resource poor farmers were that a farmer should not own more than 100 decimal cultivable land with 3-8 months rice provision ability. These selection criteria were jointly determined by AAS and its partner organizations, which were strongly endorsed by the resource poor farmer groups (RPFs). The project in its phase-I & II, however, worked with farmers having around one and half acres of land. This criterion changes over time in the third phase. The project farmers were selected by the partner organizations and project staff in collaboration with the coordinators of resource

poor farmer groups. The participation of resource poor farmers in the project was very consistent and encouraging since they were very eager to learn how they can improve rice production within their limited resources.

4.5. Management of Gender Equity and Environmental Impact

Table 8. Participation of Resource Poor Men and Women Farmers in Major Sub project Activities

Figures are in number

Major sub-project activities	Name of Rice Season (start to end of the sub-project)*							
	T. Aman-2002		Boro-2003		T. Aman 2003		Boro 2004	
	Male	Female	Male	Female	Male	Female	Male	Female
Project planning and designing	348	-	280	60	456	18	1590	558
Identification of technologies for testing the uptake method	348	-	699	60	560	18	1840	582
Testing the uptake method	348	-	699	60	560	18	1840	582
Assessing the uptake method (Field day, workshop)	348	-	699	60	560	18	1840	582
Assessing the effect of testing the uptake method on livelihoods	-	-	-	-	-	-	37	3
Total:	1044	-	2377	240	2136	72	7267	2307

Women participation in almost all the activities was fairly even. But in general, their participation, compared with men, was low. Overtime, however, this was seen to change. The participation of women in the last quarter of the project was significantly enhanced. Among the reasons in the last boro season, their participation was remarkable because, the subproject took a special initiative to encourage and motivate women farmers working in groups. The initiative was taken in the Madhobpur upazila of Habiganj district, where women are socially accustomed to work in the field. Moreover, PETRRA funded women-led group extension sub-project was implemented in the same area, which also influenced the participation of women.

Although it is too early to make any concrete judgment on the impact of environmental issues by the project, but there are higher assumptions and possibilities that the use of good quality seeds, would significantly reduce the application of fungicides and other chemical uses in the rice field. This would definitely improve the environmental conditions in the project area. Besides, the project worked with a large number of rice varieties in order to identify the best location specific variety of a particular area. This in one hand is contributing to enhance the bio diversity of the area and on the other hand is minimizing the use of external input as good varieties require lesser amount of chemicals.

"Case-study"



Mrs. Rupesa Begum is a middle-aged lead woman farmer scientist with a total landholding of 42 decimals at Mirnagar village of Madhobpur upazila in Habiganj district. She received several types of FARMSEED training from AAS. She is a coordinator of RPFGs of Mirnagar. She has been producing and distributing quality seed under FARMSEED method at her community since 2001-2 Boro season. She works in the rice field along with her husband. Their success and achievement is given below:

- ✓ **In 2001-2 Boro** she was given 5 Kg FS of BRRI dhan29 by AAS. From this she had been able to produce 640 Kg paddy on 28 decimals land. After harvest she stored 160 Kg as seed, exchanged 120 Kg among the neighbors and sold 360 Kg in the market at the prevailing food grain rate.
- ✓ **In 2002-3 Boro** she sold 120 Kg from her store as seed @ Tk. 16/Kg and planted the remaining 40 Kg for her own production. She sold seedlings at taka 1200 and transplanted 28 decimals for her own production. From this she again harvested 640 Kg paddy, of which 20 Kg was stored as seed and rest quantity was sold in the market immediately after harvest as food grain.
- ✓ **In 2003-4 Boro** she planted 25 Kg seed of BRRI dhan29, of which 20 Kg was from her own stored seed and 5 Kg was FS from AAS under the PIPNM trial programme. She sold seedlings valued at Tk. 500 and transplanted 49 decimals land, of which she maintained 21 decimals for seed production. She produced only 440 Kg paddy from her 21 decimals seed plot due to partial crop damaged by hailstorm and she stored 40 Kg for next season sowing in her newly procured plastic drums from AAS.

- ✓ She invested her increased income from rice into fish culture, land rent in, house repairing for her own and had been able to give some money (Tk. 970/-) to her daughter.

Chapter 5: Results of Testing the Uptake Method

5.1. Changes in Technology Adoption Rate Through the Recommended Uptake Method

Adoption of technology in Northeast:

The adoption of FARMSEED (Chashi Bij) among the farmers in the project is remarkable. In each of group discussion meetings of the final evaluation, farmers (coordinators of RPFGR/RPFGRs) were asked the present number of users of quality rice seed from FARMSEED and pre-project number of users of quality rice seed against total number of farm families of their villages. All representative farmers responded one by one at each of the group session. Computed average of the pre and post project quality rice seed users in Moulvibazar and Habiganj districts is given in the following table 9.

Table 9. Rate of adoption of rice seed users' in the project areas

District	Pre-Project (%)	Post-project (%)	Adoption rate (%)
Moulvibazar ¹	7.52	69.89	62.37
Habiganj ²	4.41	64.79	60.38
Average	5.97	67.34	61.38

¹ = Participants from 19 villages, ² = Participants from 17 villages

But from the computed average users which are made on the percent of quality rice seed users from FARMSEED method in Habiganj and Moulvibazar districts, it appears that quality seed use is more or less similar in Moulvibazar and Habiganj districts with unexpectedly at very average higher level of adoption (61.38 %).

5.2. Organizational Response and Sustainability of the Method

AAS has accepted FARMSEED to be a viable extension method and is strongly committed to scaling-up the method nation wide, particularly in its working area. Consequently, AAS has adopted FARMSEED strategy in Natore, Pabna and Sirajganj districts with about 50 communities with its own resources. AAS has also taken initiative of producing foundation rice seed since last 2002-3 Boro season. AAS receives Breeder seed from BIRRI and distributes among the highly skilled resource poor farmers.

In addition, AAS has been trying to use the FARMSEED approaches for onion seed production and distribution. Accordingly, AAS has trained 20 onion seed farmers in the winter season of 2004. They were given good quality onion seeds, (Variety: Taherpuri) for production in their own fields and later for distribution among other farmers in their communities in Natore district. Similar initiative will be undertaken with potato (Modern varieties) in northwest and southwest districts of the country from 2005, winter season. AAS will take initiative on FARMSEED extension method scaling-up further through

audio-video-multimedia presentation under its PETRRA funded sub-project on BRKB in north-east of Bangladesh on long term basis.

AAS is trying to mobilize funding support from donors for nationwide extension of the FARMSEED methods with 5 different potential crops on a long-term and sustainable basis.

5.3. Productivity Improvement

The productivity improvement of farm families is one key results of the FARMSEED method. During the focus group discussion meetings each participating farm family was asked how much their yield was before and how much it has increased after they became involved with FARMSEED. Farmers were also asked about the total cultivable land and land under rice cultivation. The increase in farmer's average yield is given in the following table 10.

Table 10. Increase in farmer's average rice yield

District	Rice yield (Kg/Acre)		(% Increase)
	Pre-Project	Post-Project	
Moulvibazar	1191	1521	27.71
Habiganj	1001	1429	42.76
Average	1096	1475	35.24

The above table clearly indicates that each trained and motivated farmer has made a significant achievement in terms of improving his rice yield. The farm families from Habiganj district achieved higher rice yield than farm families from Moulvibazar district. Such higher rice yield achievement by farm families in the project area was possible due to use of the improved package of rice production practices. This indicates that the adoption rate of improved rice production practices is very high and is perhaps due to the intervention of several PETRRA funded sub-projects in the same project areas.

5.4. Changes in Rice Provisioning Ability

The rice provisioning ability increased of farm families is a key result of the FARMSEED extension method sub-project in the project areas. The rice productivity improvement was estimated during focus group discussion meetings. Besides rice productivity improvement ability was before and how much has increased after they involved with FARMSEED strategy. The findings on the average increase of rice provisioning ability (RPA) of the farm families in Moulvibazar and Habiganj districts are given in the following table 11.

Table 11. Changes in rice provisioning ability of involved farmers

District	Rice provisioning Ability (RPA) in Months)		(% Increase
	Pre-Project	Post-Project	
Moulvibazar	8.84	10.84	22.62
Habiganj	10.10	11.50	13.86
Average	9.47	11.17	18.24

The above table clearly indicates that the RPA of trained and motivated farm families has increased from 9 months to about 11 months. Overall RPA has changed among the farm families about 18% in the project areas. Such RPA change was highest in Moulvibazar district (22.62%) followed by Habiganj district, which is about 14%.

"Case-study"



Mrs. Rohom Chan is an energetic middle aged woman farmer scientist. She has a total landholding of 45 decimals in Haria village of Madhobpur upazila in Habiganj district. She received several types of training including FARMSEED and she is a coordinator of RPFFGs of Haria. She has been directly involved with FARMSEED sub-project activities since 2001-2 Boro season. She works in the field along with his husband. Success and achievement story on FARMSEED strategy is given below:

- ✓ **In 2001-2 Boro** She received 3 Kg BRRI dhan 28 from AAS and produced 164 Kg paddy from 15 decimals land. After harvest she stored 46 Kg as seed, of which she sold 16 Kg seed @ Tk. 16/Kg, exchanged 10 Kg among her close neighbors and 20 Kg was planted during 2002-3 boro season. She exchanged 10 Kg among the neighbors immediately after harvest and consumed the balance 180 Kg.
- ✓ **In 2002-3 Boro** she transplanted 30 decimals land and sold seedlings valued at Tk. 200 from her 20 Kg rice seedbed. She stored 40 Kg as seed from her total production of 420 Kg paddy.
- ✓ **In 2003-4 Boro** she sold 13 Kg @ Tk. 15/Kg among the neighbors and she planted 17 Kg on her own land. She transplanted 15 decimals land and the rest seedlings were stolen from her seedbed. She harvested only 170 Kg of paddy due to hailstorm damaged, which caused higher percentage of un-filled grains. She stored 20 Kg as seed and rest 150 Kg will be consumed by her family.

She received 5 Kg FS seed of BRRI dhan 29 from AAS under PIPNM sub-project and harvested 280 Kg from 15 decimals of land. She stored 35 Kg as seed and rest 245 Kg will be consumed by her family.

- ✓ She bought 3 plastic drums from AAS. She stored rice seed in two drums. In the remaining drum she stored milled rice.
- ✓ Total rice production of Rohom chan increased about three mounds (40 Kg= 1 mound) from 12 mounds in 2001-2 boro season (about 25%).
- ✓ RPA of Rohom chan was 7 months in 2001-2. She increased her RPA to 9 months in 2002-3. She estimates that her RPA in 2004 will be about 10 months. It should have been more and in future will be more if, Inshallah, there are no hailstorms at the critical flowering stage during 2004-5 Boro season.

5.5. Observations on Livelihood Change

It is a little early to draw conclusions about the impact of FARMSEED on the livelihoods of participating resource poor farm families. Nevertheless, if one is to attribute an increase in rice yield and rice provisioning ability as a significant livelihood change; then under that circumstance there is solid evidence that more than 95% of the participating farm families have experienced a moderate to significant increase in their livelihood based on both higher rice yields and improved rice provisioning ability. Increased rice yield of course contributes to higher incomes and other opportunities for each of the farm family. Average farmer's income (Taka/family) from rice during pre and post project was estimated in focus group discussions and the finding on income from rice of farm families in Moulvibazar and Habiganj districts are given in the following table 12:

Table 12. Changes in average family income

District	Average income from rice (Tk/family)		(% Increase)
	Pre-Project	Post-Project	
Moulvibazar	20,727	28,541	37.70
Habiganj	24,848	32,492	30.76
Average	22,788	30,517	34.23

The above table clearly indicates that the average income from rice for each farm family in the various project areas has increased significantly (about 34% per farm family). The yield increase was found to be higher in Moulvibazar than Habiganj district.

Besides productivity improvement, rice provision ability (RPA) and income, the utilization of increased income from rice through the sub-project intervention was assessed during focus group discussion meetings. The utilization breakdown is given in the following table 13 and shows how the increased income from rice was spent:

Table 13. Increased income utilization type

Utilization type	Moulvibazar (Nr. of users)	Habiganj (Nr. of users)
1. Housing	2	3
2. Education (children)	2	5
3. Land purchase	1	2
4. Land rent	0	3
5. Shallow tube well	0	1
6. Vegetable cultivation	0	3
7. Poultry buying	1	0
8. Cattle buying	2	0
9. Family expenditure	2	5
10. Marriage	1	3
11. Business	1	0
12. Plantation	0	2
13. Security/Savings	0	1
14. Loan replacement	0	1
15. Agri-equipments procurement	0	1

The above table shows that the increase income from rice was utilized in 15 different applications in Moulvibazar and Habiganj districts.

These are also assumptions that increased production and yield of rice required more labor comparatively as intensive production practices are one of the most important reasons for increasing rice yields. A corresponding increase in labour has created employment opportunities in the communities. Besides the participation and learning of the members both men and women of the farm families have acquired new skills and knowledge on rice production. The FARMSEED strategy encouraged all partners to search out and establish new and sustainable linkages for gaining access to a range of inputs (e.g. foundation seed, plastic drum etc)

"Case-study"



Nikesh Gop is a 26 Years old, a farmer scientist with a land holding of 30 decimals. He is from uttar varaura village of Srimangal upazila in Moulvibazar district. He has been trained on several aspects of rice production technology including the FARMSEED strategy. He has been involved in all aspects of the FARMSEED project. He never says no, but he is not a diplomat, so he is a man behind the plough. Nikesh has been involved with the FARMSEED sub-project activities since 2001 T. Aman season. His success and achievements are given below:

managed to transplant 20 decimals land and produced 180Kg of rice seed. From his total

- ✓ **In 2001 T. Aman** he received 5 Kg foundation seed (FS) of BRRI dhan31 from AAS. He production of 280 Kg paddy, he stored 80 Kg as seed, of which he planted 20 Kg for his own use; selling the remaining 60 Kg to his neighbor farmers @ Tk. 12.5 Kg. He was happy to exchange 20 Kg as seed among the neighbor immediately after harvest. The rest 180 Kg was consumed by his family as food.
- ✓ **In 2001-2 Boro** he received 5 kG FS of BRRI dhan28 from AAS and transplanted 30 decimals of land, from which he produced 720 Kg paddy. He stored 360 Kg as seed, of which he sold 340 Kg seed (@ Tk. 15/Kg) and planted 20 Kg for his own use in the following season. He was encouraged to exchange 30 Kg as seed during harvest among neighbors and consumed 320 Kg by his family.
- ✓ **In 2002 T. Aman** he purchased 1Kg FS of BRRI dhan 39 from AAS and produced 40 Kg paddy from 5 decimals land. He exchanged 20 Kg as seed during harvest and stored 20 Kg as seed, of which he sold 5 Kg @ Tk. 10/Kg and used 15 Kg for his own planting during the following T. Aman season.
- ✓ **In 2002-3 Boro** he purchased 10 Kg FS of BRRI dhan28 @ Tk.16/Kg from AAS and transplanted 90 decimals land, of which he maintained 15 decimals as seed plot. He produced 240 Kg seed, of which he exchanged 140 Kg as seed during harvesting and stored 100 Kg. During the following Boro season he planted 5 Kg seed and found very minimum germination and then the rest 80 Kg seed consumed as food.
- ✓ **In 2003 T. Aus** he purchased 5 Kg FS of BRRI dhan28 @ Tk. 18 and produced 240 Kg paddy from 15 decimals land. He sold 100 kg as seed @ Tk. 15.5/Kg, exchanged 12 Kg as seed and stored 20 Kg for his own for the following 2003-4 Boro season.
- ✓ **In 2003-4 Boro** he received 1 Kg FS of BRRI dhan28, transplanted 20 decimals land under SRI trial and he has planned to keep seed for next Boro season transplanting.
 - ✓ Nikesh bought a plastic drum from AAS and stored 2003 T. Aman rice seed with his own initiative to popularize the improved storage method at community
 - ✓ Nikesh invested most his increased income in a small dairy farm to get daily income (at least Tk. 250/day) without any risk like sudden flash flood, hailstorm etc. which happens to rice crop in Sylhet region, said Nikesh.
 - ✓ Besides extra income, social respect is the foundation for my future incentive based rice seed distribution under FARMSEED strategy of AAS, said Nikesh.
 - ✓ He also added that the social recognition was a very valuable acquisition for him which he gained through FARMSEED strategy of AAS.

Chapter 6: Conclusion and Recommendations

Conclusion

FARMSEED is a breakthrough approach in farmer-to-farmer seed exchange. The formal seed supply system in Bangladesh supplies only about 5% of farmers' total seed requirement. The challenge of PETRRA's FARMSEED extension method sub-project has been to identify and implement ways to improve the efficiency with which farmers are able to supply the remaining 95% of their seed requirements on a farmer-to-farmer basis.

The project has evolved a stable, sustainable mechanism for producing and supplying Foundation rice seed to its participating, constituent farmers. This means that resource poor farmers in Bangladesh are, for the first time, able to control the flow and availability of quality-controlled foundation, Certified and Truthfully-Labelled-seed. The FARMSEED mechanism also gives scope to process, store and distribute quality farmer-to-farmer-exchanged seed products through the sub-project's resource poor farmer groups organised for this express purpose.

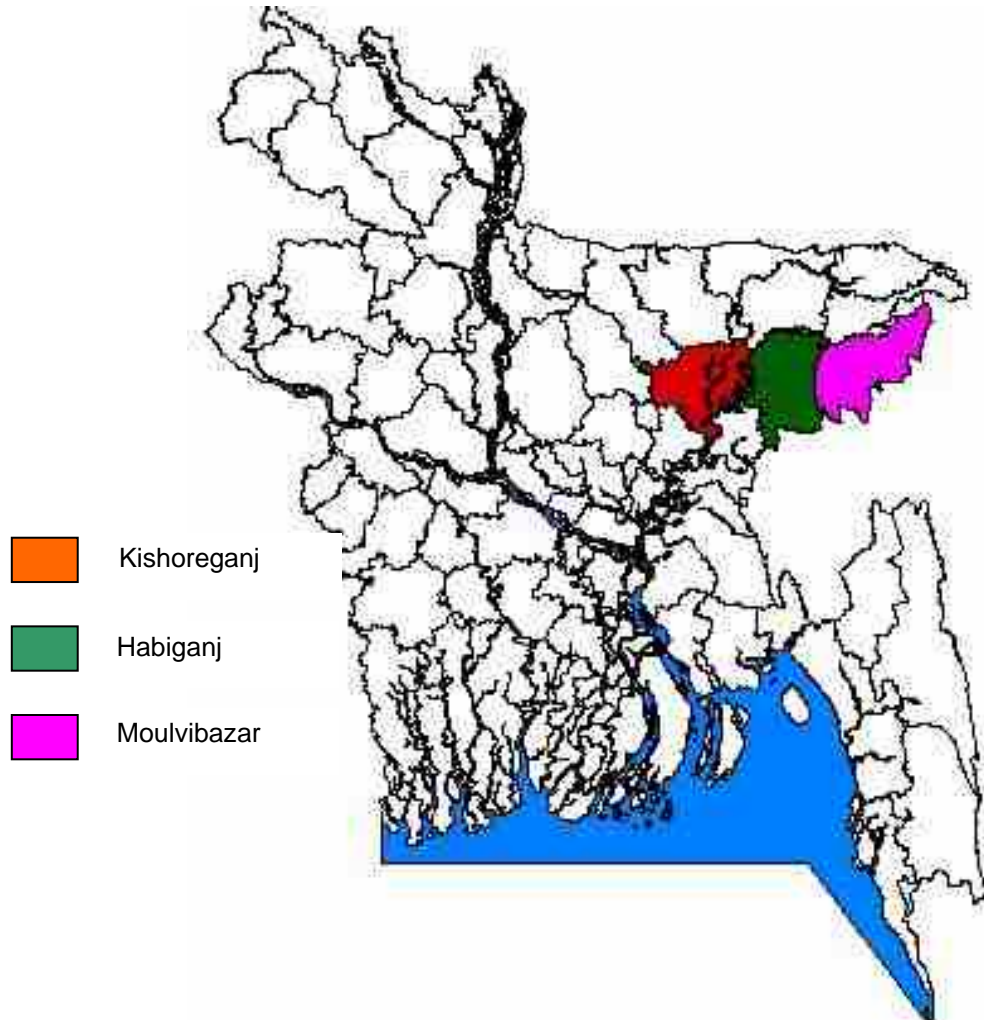
The AAS implemented, FARMSEED, sub-project is a farmer-led seed exchange system. Moreover, AAS has developed practical linkages with BRRI for ensuring the supply of foundation seed among the participating groups within and outside of the project areas. Over the past 3 years (2000-2003), the identification, testing and documenting of Rice MV uptake has been ensured through the operation of the FARMSEED model. By now there is ample evidence to justify the nationwide launching of a continuous and sustainable FARMSEED system; with the needs and capacities of resource poor farmers at its heart.

Recommendations

- Quality seed of rice MVs should be made available to all resource poor farmers by introducing a large scale FARMSEED extension method on a more or less nationwide basis.. Bangladesh meets 95% of it's total rice seed requirement through the informal seed production channel. Therefore, it is appropriate that the pilot FARMSEED program should be expanded to a national scale. Ensuring a sustainable supply of quality rice MV seeds through this Farmer-to-Farmer channel should, in the national interest, be a top priority.
- Nationwide replication of the project should be implemented by :
 - ✓ Ensuring the supply of Foundation Seed (FS) of the accepted rice MVs through establishing an nationwide, informal FARMSEED network;
 - ✓ Introducing a low-cost, scientifically sound storage system for rice seed at community;
 - ✓ By developing research partnerships with groups and organisations to develop knowledge, skill and awareness of recommended FARMSEED extension methods on a systematic, trial and error basis.
- Skilled resource poor farmer groups have become involved on the basis added incentives such as training, selling foundation seed and plastic drum among the trained seed farmers at community. These incentives have been a motivating factor and have encouraged participating farmers to continue extending the FARMSEED extension method. Increased incentives would encourage replication of the model on an even larger scale throughout the country. Therefore, effective mechanisms should be explored how the skilled farmers could be provided reasonable incentives.
- The AAS "Participatory Model" for popularizing the FARMSEED extension method should be disseminated more widely, cost effectively, on a nationwide basis through involvement and replication of the established FARMSEED Network under the umbrella of BRRI's seed network.

Appendices:

A.1. Maps of research locations



A.2. List of MS and Ph. D with title of the thesis and present status under the sub-project

Participant's name, designation, organization and mailing address	Type of degree (Give tick sign)		Title of the thesis	University/ Institution	Present status*
	MS	Ph.D			
1.	Not applicable				

*Present status can be classified as completed, continuing and dropped

A.3. Individual list of training, seminar and workshop participants by name, designation, organization, address and title of the course

Participants name, designation, organization and mailing address	Type of participants*	Sex (M/F)	Title of the training course/ Seminar/ Workshop	Venue (Institution, country)	Starting date (day/ month/ Year)	Duration (days)
1.	The lists are too big to be attached					

*Type of participants: coordinator, PI, team leader, research partner, scientist, research assistant, office supporting staff, farmer, etc.

A.4. List of publications and reports (In bibliographic format)

1. Sub-project Annual report (1 July 2002-2003)
2. Sub-project Completion report: Rice MVs uptake through FARMSEED. 15 August 2002
3. Review Report on Rice MVs uptake through farmer's to farmer's seed exchange system (FARMSEED). 25 February 2002
4. Proceedings: One day farmer's participatory training BRRRI dhan 33 based high value cropping pattern. 17 April 2002
5. Report on Benchmark Survey: Rice MVs uptake through FARMSEED (Habiganj, Moulvibazar, Sunamganj and Sylhet districts) 15 August 2002
6. Report on Benchmark Survey: Rice MVs uptake project (Kishoreganj): 15 July 2001
7. Proceeding of farmer' participatory training: Farmer's seed production, storage and distribution system. 8 November 2000. (Bengali)
8. Proceeding of farmer; participatory workshop future FARMSEED planning (Assessment of rice MVs, Seed demand, existing crop status assessment, field day and monitoring plan). 15-18 & 20 October 2001
9. Proceeding of farmer; participatory workshop: Future FARMSEED planning (Seed production rice MVs, storage method, rice MVs assessment and field day plan). 9 February, 4 & 18 March 2003. (Bengali)

10. Proceeding of farmer's participatory workshop: Future FARMSEED planning (Rice MVs, seed production and storage method, Rice MVs assessment, existing crop status assessment and field day plan). 3,4,5,7 & 7,9,11 April, 2002.
11. Proceeding of farmer's participatory workshop: Future FARMSEED planning (Rice MVs, assessment, seed demand, existing crop status assessment, field day and monitoring plan). 11-14 & 16 March, 2002. Bengali
12. Proceeding of Sustainable Rice Seed network planning workshop of North-east focal area forum. 25 October 2003.
13. Participatory evaluation on Rice MVs uptake through FARMSEED. 28 & 31 July and 3-4 August 2002.
14. A case study on FARMSEED: Putting farmers at the heart of the seed production and distribution system (draft).

A.5. List of communication materials produced by the sub-project

1. Folder Brochure on Strengthening FARMSEED (farmer to farmer seed exchange system) extension method
2. Folder Brochure on FARMSEED-farmer's expectation. (Bengali)
3. Poster on FARMSEED strategy (6 Nr)

A.6.1. List of directly participating farmers in the research project by name, father's name, village, union, upazila, district and rice provisioning ability at the beginning and end of the project.

Name of farmers	Father's name	Village	Union	Upazila	District	Rice provisioning ability (month)	
						Beginning	End
1.	The lists are too big to be attached& one set of the farmers list (Bengali) as spiral is submitted.						

A 6.2. Upazila wise and season wise list of directly participating farmers with strengthening FARMSEED extension method

Name of rice season (List from beginning to end of research)	Name of district covered	Name of upazila covered	Name of villages covered (Nr)	Total number of directly participating farmers			Number of resource poor farmers		Criteria used to select resource poor farmer and adjustment made by season
				Male	Female	Total	Male	Female	
2002 T. Aman	Kishoreganj	Pakundia	16	183	-	183	146	-	✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months
		Sadar	3	35	-	35	28	-	
		Hossainpur	7	80	-	80	64	-	
		Katiadi	3	28	-	28	22	-	
		Bajitpur	7	110	-	110	88	-	
2002-3 Boro	Habiganj	Chunuraghat	14	94	6	100	92	6	✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months
		Madhobpur	8	72	8	80	67	8	
		Sadar	4	39	39	78	35	38	
		Bahubal	4	40	-	40	38	-	
	Moulvibazar	Sadar	4	40	-	40	37	-	
		Srimangal	11	83	7	90	83	7	
		Kamalganj	3	2	1	3	3	1	
	Kishoreganj	Pakundia	15	194	-	194	175	-	
		Sadar	3	23	-	23	21	-	
		Hossainpur	7	30	-	30	27	-	
		Katiadi	6	43	-	43	39	-	
Bajitpur		14	91	-	91	82	-		
2003 T. Aman	Habiganj	Sadar	2	6	-	6	6	-	✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months
		Bahubal	5	18	-	18	16	-	
		Chunarughat	29	170	4	174	165	4	
		Madhobpur	10	40	-	40	37	-	
	Moulvibazar	Sadar	12	60	-	60	58	-	
		Srimangal	49	230	15	245	226	14	
2003-04 Boro	Habiganj	Sadar	4	40	-	40	37	-	✓ Own land: Not above 100 decimals ✓ RPA: Not above 8 months
		Bahubal	2	20	-	20	18	-	
		Chunarughat	19	200	10	210	184	9	
		Madhobpur	49	417	167	584	408	158	
	Moulvibazar	Sadar	38	424	16	440	418	15	
		Srimangal	58	595	30	625	563	28	
		Kamalganj	5	50	-	50	46	-	
	Kishoreganj	Pakundia	19	125	160	285	120	153	
		Sadar	2	-	80	80	-	74	
		Hossainpur	7	15	80	80	14	73	
		Bajitpur	8	35	80	115	32	72	

A.7. Sub-project Fund Request for last quarter of sub-project

Please see the attachment

A.8. List of Sub-project Equipment and Present Status

Please see the attachment

A.9. Number of RPFs & RPFs

Upazila wise number of RPFs & RPFs of Kishoreganj, Moulvibazar and Habiganj districts

District	Upazila	RPFs	RPFs	Total
Kishoreganj	Pakundia	22	28	50
	Sadar	6	7	13
	Hossainpur	10	12	22
	Bajitpur	8	12	20
	Kotiadi	4	-	4
Kishoreganj Total		50	59	109
Moulvibazar	Srimangal	69	-	69
	Sadar	19	-	19
	Kamalganj	18	-	18
Moulvibazar Total		106	-	106
Habiganj	Madhobpur	50	15	65
	Chunarughat	23	10	33
	Sadar	7	-	7
	Bahubol	11	-	11
Habiganj Total		91	25	116
Grand total		247	84	331

A.10.1. List of partner organizations (Kishoreganj)

List of Partner Organizations (NGOs & CBOs) for Kishoreganj District

- 1. Md. Hadiul Islam,**
Chairman
Agroduct Krishi Unnayan Samabai samity (AKUSS)
Vill: Aungiadi, PO: Aungiadi,
UZ: Pakundia, Kishoreganj
- 2. Md.Wahiduzzaman,**
Chairman
Akota Unnayan Club (AUC)
Vill: Hossaindi Charpara, PO: Hossaindi,
UZ: Pakundia, Kishoreganj
- 3. Dr. Md. Sohrab Uddin,**
Chairman
Janata Club (JC)
Vill : Tarakandi, PO : Tarakandi,
UZ: Pakundia, Kishoregonj.
- 4. Md. Mostafa**
President
Mokampara Samabai Samity (MSS)
Village: Mokampara, PO: Hossaindi
UZ: Pakundia, Kishoreganj
- 5. Md. Shafiqul Islam,**
Chairman
Shapla Tarun Sanggha (STS)
Vill: Hossaindi Pachim Atkapara, PO: Hossaindi,
UZ: Pakundia, Kishoreganj
- 6. Md. Nazrul Islam,**
Chairman
Progati Samabai Samity (PSS)
Vill.: Sriramdi, PO : Pakundia,
UZ: Pakundia, Kishoregonj
- 7. Md. Arif Hossaen Bhuiyan,**
Chairman
Rajanigandha Sporting Club (RSC)
Vill: Narandi, PO: Narandi,
UZ: Pakundia, Kishoreganj
- 8. Mr. Harun -Or- Rashid,**
Chairman
Nissho Tran Sangshta (NTS)
Vill. Shitkahan, PO : Maizhati,
UZ: Pakundia, Kishoregonj

- 9. Md. Renu Miah,**
Secretary
Akota Bhandhu Club (ABC)
Vill: Syedgoan purbapara, Po: Aungiadi,
UZ: Pakundia, Kishoreganj
- 10. Md. Habibur Rahman,**
Chairman
Nayantara Samabai Samity (NSS)
Vill: Nandola Uttar Para, PO: Chowdoshoto,
UZ: Sadar, Kishoreganj
- 11. Ms. Gouri Rani Sarker,**
Secretary
Sultanpur Krishak Samabai Samity (SKSS)
Vill: Binnati, PO: Chowdoshoto,
UZ: Sadar, Kishoreganj
- 12. Mohammad Mohibullah,**
Deputy Director
Bangladesh Chashi Kalyan Samity (BCKS)
Kachari Pukur Par
Upazila Complex, Hossainpur, Kishoregonj
- 13. Md. Habibur Rahman,**
Secretary
Ashinal Krishak Kalyan Samity (AKKS)
Vill. Ashinal. PO : Sarar Char,
UZ: Bajitpur, Kishoregonj.
Vill. Ashinal. PO : Sarar Char,
UZ: Bajitpur, Kishoregonj.
- 14. Md. Anwar Hossain**
President
Bairagirchar Krishak Kalyan Samity (BKKS)
Vill. Boiragirchar, PO: Dhaundabazar
UZ: Kotiadi, Kishoreganj
- 15. Md. Abu Taher,**
Chairman
Charipara Gram Unnayan Samabai Samity (CGUSS)
Vill: Modhocharipara, PO: Achmita,
UZ: Kotiadi, Kishoreganj

A.10.2. List of partner organizations (Moulvibazar)

- 1. S.A. Hamid**
Chief Executive
Mac-Bangladesh (Manifold Assistance
Centre for Bangladesh)
Vill: Bhairabganjbazar, PO: Narain Chara 3211
UZ: Srimangal, Moulvibazar
- 2. Ranodhir Dutta**
President
Nishchitapur Krishak Samabai Samity (NKSS)
Vill: Nischitpur, PO: Mirzapurbazar,
UZ: Srimangal, Moulvibazar
- 3. Matilal Deb Roy**
Executive Director
Prantik
Vill: Bongaon, PO: Janaura,
UZ: Srimangal, Moulvibazar
- 4. Md. Johirul Islam**
Chief Executive
Multipurpose- Socio Economic Development Association (MSEDA)
College Road, Srimangal Moulvibazar
- 5. Sheikh Shamsuzzman Ahammed (Salim)**
Chairman
Socio Economic Development Association (SEDA)
Malancha, F/2, 44 Shamshernagar Road
UZ: Sadar, Moulvibazar

A.10.3. List of partner organizations (Habiganj)

- 1. Md. Jafar Iqbal Chowdhury**
Chief Executive
Association for Socio- Economic Development (ASED)
Shapla-3, Tinkona Pukurpar,
UZ: Sadar, Habiganj
- 2. Mus.Tanjina Khanam**
Executive Director
Socialwelfare Advancement Brilliant Association (SABA)
Vill & P.O: Mirashi -3320
UZ: Chunarughat
Dist: Habiganj
- 3. Rezaul Kabir Laskar**
Executive Director
Pragoti Samaj Unnayan Sangstha (PSUS)
Shakir Muhammed Road
UZ: Chunarughat, Habiganj

- 4. Mrs. Amiya Prava Chowdhury**
Executive Director
Madhabpur Bahumukhi Nari Mukti Sangstha (MBNMS)
Thana Road
P.O& UZ: Madhabpur
Dist: Habiganj
- 5. Dr. Md. Abdus Shahid**
Executive Director
Bahubal Agrani Samaj-Kalyan Sangstha (BASS)
Mudaharbad, Mirpur Road, Nandanpur,
P.O.: Shalim Nagar
UZ: Bahubal, Habiganj
- 6 . Md. Muklasur Rahman**
Executive Director
Bangladesh Association For Social Advancement (BASA)
Taliapara
UZ: Madhabpur, Habiganj
- 7. Md. Shofe Ul Alam**
Executive Director
Advancement Buro for the Articul's of Society (ABAS)
Puran Monsafi Road, Habiganj-3300
- 8. Dula Sutradhar**
Executive Director
Association For Urban and Rural Development (AURD)
R.K. Mission Road
UZ: Sadar, Hobiganj
- 9. S.M. Kayum**
Executive Director
Rural Agriculture and Social Development of Bangladesh
PO: Nuton Bazar, Shatiagori
UZ: Bahubal. Habiganj
- 10. Sheik Mozahid Bin Islam**
Executive Director
Manab Kalyan Sangstha (MKS)
Vill: Naya Para, P.O: Saihamnogor
UZ: Madhobpur, Habiganj
- 11. Ms. Khairunnahar Popi**
Executive Director
Aporazita
Vill: Biraimpur
UZ: Chunarughat, Habiganj