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Evaluation of Training Program of Farmer Field School under Agriculture and Food Security Project-II in Khagrachari Hill District, Bangladesh

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Abstract

By close collaboration of CHTDF-UNDP and All Hill District Council, Agriculture and Food Security Project (AFSP) has been implementing in Chittagong Hill Tracts. The project is continuing mainly depending upon motivation of grass-root level farmers to replicate Farmer Field School Knowledge by some Upazila wise recruited Farmer Facilitators (FF) whom again followed and monitored by Upazila FFS coordinator (UFFSC) at Upazila level and all FFs are gaining backstopping support by technically sound Master Trainer (MT). In beginning of the project, project area where to implement project was selected by respective union parisad (UP) and an overall orientation on project was given to para community people, simultaneously para development plan (PDP) also carried out through Focus Group Discussion (FGD) by the project team. Then Farmer Facilitator (FF) was employed to carry out grass root level training on homestead agricultural production (agri/livestock/fisheries) and basic nutritional concept also. Small amount fund budgeted BDT. 24,000/= is given to each Farmer Field School only for costing in training material and training necessaries. The FFs were trained up (FF-ToT) by Master trainers on various agricultural issues (agri/livestock/fisheries) for duration of total 60 days splitting into 6 spells. Each spell is consisting of 10 days. On the other hand, MTs were also trained up (MT-ToT) by expert Master Facilitator (MF) from IFMC component of Department of agriculture extension (DAE) for 40 days splitting into 4 spells. Now core issues on MT-ToT and FF-ToT training to be analyzed and evaluated under this study and recommend possible necessary steps to be taken if any.

Key words: Training programme, MT responses, FF responses, level of opinion %.

PRELUDE

The Chittagong Hill Tracts in the south-eastern part of Bangladesh bordering North East India in the homeland of 12 indigenous communities of about 6,00,000 people covering 5093 square miles. The region has limited cultivable land; most of it is of low quality in contrast to very fertile multi-crop-able alluvial plains of the mainland. Despite this agriculture is the principal occupation of most of the people which brings in little for their sustenance. (Source: ‘‘Socio-economic Baseline Survey of Chittagong Hill Tracts” –by a team of researchers prepared for Chittagong Hill Tract Development Facility April 08, 2009). The Khagrachari agricultural businesses are generally related to crop, livestock, poultry, fishery, homestead gardening and horticulture. Although the area covers only small area of land, valley lands and lower sloping lands are more productive and these lands have been utilized for intensive horticulture and vegetable production. Both *Jhum* cultivation and

forest and bamboo production are practised on steep to very steep slopes of hill area. The ethnic groups are practicing the Jum cultivation in hilly region which is called *shifting cultivation.* Major agricultural commodities produced from Khagrachari are rice, vegetables, livestock and fruits. According to the socio-economic baseline survey done by HDRC, more than 35 crops are cultivated in CHT area including Khagrachari district. Over 60% of the total household in Khagrachari produces paddy and the other main crops are turmeric, ginger, arum, binny paddy and banana. The survey shows that 19% of Khagrachari household cultivates chilli, 11% grows ginger, 14% engages in Arum cultivation and 8% grows banana (Sources: District Agriculture Office, Khagrachari). Agriculture and Food Security Project funded by Danish International Development Agency (DANIDA) has been implementing since 2010 in Chittagong Hill Tracts as Phase-I or pilot project to 2013. The project has jointly been implementing by CHTDF-UNDP and three Hill District Councils and main program of the project is focused on the formation and implementation of Farmer Field Schools (FFS). In the pilot phase-I, 215 FFS was formed and successfully implemented its activities in Khagrachari Hill District. After farmers' acceptance and stakeholders' cooperation the project is extended as phase-II (AFSP-II) for five years duration from July-2013 to June-2018. In the said AFSP-II project, Total 1800 FFS will be implemented in whole Chittagong Hill Tracts covering 26 Upazilas of Khagrachari, Rangamati and Bandarbon Hill District, of which 565 FFS by turns will be implemented solely in Khagrachari Hill District in AFSP-II (Source: Office records-AFSP-II, KHDC, Khagrachari). The overall objective of AFSP-II project is to alleviate poverty in back behind community people and overall development and create sustainable employment in Chittagong Hill Tracts. Besides these objectives, it is to contribute in acceleration of historical Peace Accord- 1997.

STATEMENT OF THE PROBLEM

Agriculture and Food Security Project funded by Danish International Development Agency (DANIDA) has been implementing since 2010 in Chittagong Hill Tracts as Phase-I or pilot project to 2013. The project has jointly been implementing by CHTDF-UNDP and three Hill District Councils and main program of the project is focused on the formation and implementation of Farmer Field Schools (FFS). In the pilot phase-I, 215 FFS was formed and successfully implemented its activities in Khagrachari Hill District. After farmers' acceptance and stakeholders' cooperation the project is extended as phase-II (AFSP-II) for five years duration from July-2013 to June-2018. The basic difference of AFSP-I from AFSP-II is nothing but its implementation strategy. In past, as of AFSP-I, one Farmer Facilitator (FF) used to operate one FFS only and employed for duration of 1.5 year (one year for technical session and six month for follow-up task), but now in AFSP-II, one Farmer Facilitator has been employed for duration of 3.5 year to operate by turns at least 3-5 FFS usually called as FFS cluster considering one year for own village area, second year for two new FFS formation with own FFS to follow-up and accordingly third year for two new FFS formation with two old FFS to follow-up. The strategy in implementation of FFS has been changed due to load of training of Farmer Facilitator (FF-ToT) to be minimized. In the said AFSP-II project, Total 1800 FFS will be implemented in whole Chittagong Hill Tracts covering 26 Upazilas of Khagrachari, Rangamati and Bandarban

Hill District, of which 565 FFS by turns will be implemented solely in Khagrachari Hill District in AFSP-II. Each and every FFS is implementing through Integrated Farm Management (IFM) approach where there is a combine view of livestock, agriculture, fisheries, nutrition and also business and marketing knowledge remaining (Source: Office records-AFSP-II, KHDC, Khagrachari).

REVIEW OF LITERATURE

What is Farmer Field School?

Farmer Field Schools (FFS) consist of groups of people with a common interest, who get together on a regular basis to study the "*how and why*" of a particular topic. The topics covered can vary considerably – from IPM, organic agriculture, animal husbandry, and soil husbandry, to income-generating activities such as handicrafts. The FFS, however, are particularly adapted to field study, where specific hands-on management skills and conceptual understanding is required (Gallagher, 2003). A Field School is a Group Extension Method based on adult education methods. It is a "school without walls" that teaches basic agro-ecology and management skills that make farmers experts in their own farms (Khisa, 2004). In a FFS, the participants are supposed to get together in a weekly basis. FFSs are "school without walls" where a group of farmers meet weekly with facilitators (Davis and Place, 2003). The FFS approach relies on participatory training methods to convey knowledge to field school participants to make them into "…confident pest experts, self-teaching experimenters, and effective trainers of other farmers" (Wiebers, 1993). FFS were developed as a "bottom-up" approach to extension with a focus on participatory, experiential, and reflective learning to improve the problem-solving capacity of farmers through highly trained facilitators working with farmer groups (Larsen and Lilleor, 2014).

History of Farmer Field School (FFS)

The term "Farmers' Field School" comes from the Indonesian Sekolah Lampangan meaning simply "field school". The first Field Schools were established in 1989 in Central Java during the pilot phase of the FAO-assisted National IPM Programme. Farmer field school (FFS) was first promoted by the Food and Agriculture Organization (FAO) in Indonesia in a small scale rice-based system in 1989–1990 and then quickly expanded to other Asian and African countries (Cai et. al., 2016). This Programme was prompted by the devastating insecticide-induced outbreaks of brown plant hoppers (Nilaparvata lugens) that are estimated to have in 1986 destroyed 20,000 hectares of rice in Java alone. The Government of Indonesia's response was to launch an emergency training project aimed at providing 120,000 farmers with field training in IPM, focused mainly on recording on reducing the application of the pesticides that were destroying the natural insect predators of the brown plant hopper (Khisa, 2004 and Bijlmakers, 2011). The first wave of FFS was conducted in 1989 in the rice fields of Indonesia. This involved 200 FFS in four districts of Yogyakarta initiated by the Indonesian National IPM programme with funds from the Government of Indonesia-United States Agency for International Development (GoI-USAID) and technical assistance from Food and Agriculture Organization of United Nations (FAO). By 1990, the Indonesian National IPM programme scaled up and launched 1,800 FFS for rice IPM in six provinces in Java, Sumatra and South Sulawesi. Around 1991, the pilot FFS in IPM for rotation crops (mainly soybeans) was initiated while the FFS programme spread out to

different countries in Asia (CIP-UPWARD, 2003). In Bangladesh, the FFS was first used in the early 1990's in FAO implemented Integrated Pest Management (IPM) program. Initially, FFSs organized by Department of Agricultural Extension (DAE) followed the "original" rice IPM FFS curriculum to a large extent, with a strong focus on managing pest problems and with the aim of reducing pesticide related problems (Roy et. al., 2013).

Current global status of Farmer Field Schools

Braun, et. al. (2005) stated an overview of the global status of FFS is difficult to obtain since many different organizations have implemented FFS in over 87 different countries. He carried out a Farmer Field School global survey in 2005- this study was used as a reference to judge the current global status with some additional information and details for the period 2005-2008. Based on the global survey of 2005 a rough estimation is that by 2008 10-20 million farmers have graduated from Farmer Field schools globally. FFS are active in Asia (including East, South-east, South, Central and Middle East), Africa (Western, Southern, Eastern and Central), Latin America (South and Central America), the Caribbean, Eastern Europe and recently in Western Europe (Denmark) and the USA. The geographic spread has been accompanied by local cultural and socio-economic adaptations by local facilitators. In the case of moving from Asia to Africa, the focus moved from IPM to Integrated Production and Pest Management (IPPM) due to an emphasis on production and already low levels of pesticide use in most crops since structural adjustments took place. In Asia, the first IPM farmer field school was conducted in Indonesia in 1990. Since then, over two million rice farmers have participated in rice IPM farmer field schools. During the last decade, farmers, agriculture extension agents, development workers, agronomists, governments and NGOs conducted over 75,000 farmer field schools throughout Asia and have been learning how to facilitate the FFS approach (Din and Morisson, 2003). In recent years, a number of development agencies have promoted farmer field schools (FFS) as a potentially more effective approach to extend knowledge to farmers. FFS programs were first introduced in East Asia, in the late eighties, as a way of diffusing knowledge-intensive integrated pest management (IPM) practices for rice. 3 FFS have since been adapted to work with other crops and diseases, and have spread rapidly across Asia, Africa, and Latin America (Nelson et al., 2001). After Asia the FFS approach has been extended to several countries in Africa and Latin American. African countries implementing the approach are among others Kenya, Uganda, Tanzania, Zimbabwe, Zambia, Malawi, Ethiopia, Ghana, Nigeria, Gambia, Egypt, Lesotho, Swaziland and Mozambique (Khisa, G., 2004). The FAO-supported FFS programs were launched nationwide in China in the 1990s, but were largely discontinued in 2007 due to FAO's cutoff of funding support. By 2010, 758 FFSs were set up in Beijing, one in each participating village. They include 20% of all the agricultural villages in the Beijing area. Approximately 40,000 farmers participate in the FFSs' activities (Cai et. al., 2016).

Characteristics of Farmer Field School

Hagiwara, et. al. (2011) and Khisa, G., (2004) stated the following core characteristics of FFS approach: *The field is the learning place.* Learning takes place in the field, usually on a host farm.

Facilitation, not teaching. FFS does not focus on teaching but on guiding FFS members through the learning process. *Hands-on and discovery-based learning.* The process of learning adheres to principles of adult education and "learning by doing". *The farmer as expert.* The FFS approach recognizes community members as the experts within their particular contexts, and considers indigenous and local knowledge an important source of information to be used within the FFS learning process.

Equity and no hierarchy. An FFS is designed for all to participate on an equal basis. *Integrated and learner-defined curriculum.* The FFS curriculum is defined by the learners and is unique for each group. *Training follows the seasonal cycle. Comparative experiments*. The trials are regularly observed and analyzed.

Agro-ecosystem analysis. The agro ecosystem analysis (AESA) is one of the cornerstones of the FFS approach which is practiced by all FFS members. *Special topics.* Decided on by the group and plays a central role in FFS. *Team building and social animation.* Aspects of team building, group dynamics and social animation are important components of learning sessions. *Regular group meeting.*

Participatory monitoring and evaluation. While preparing the FFS curriculum, participants develop a plan for monitoring and evaluating progress to later assess whether they are achieving the agreed objectives. Group Dynamics/Team Building.

The main role of Master trainers

According to FAO (2016), the followings are the role of Master trainers:

mentoring of FFS activities in the field, especially supporting facilitators on-site; running ToF, including preparation and follow-up in the field; monitoring, evaluating and documenting FFS experiences and results; advocating for FFS approaches to farmer education; managing, designing and budgeting FFS programmes; assisting in the development of training curricula and materials, such as the innovation of new FFS facilitation exercises; exploring opportunities to move forward with FFS-related activities and programmes; being an active member of the FFS network and supporting linkages across programmes/countries; Being a general resource person for FFS.

OBJECTIVES OF THE STUDY

The overall objective of the study is to evaluate the effectivesness of the Master Trainer-Training of Trainers (MT-ToT) and Farmers Facilitator- Training Program (FF-ToT) because training part of any project is also a vital driving force to make the project successfully implemented. FF-ToT programme directly or indirectly impact on the FFS session quality conducted by FF and further overall implementation and replication of the project. The specific objectives of this study are given below:

To overview the responses of MT-ToT participants facilitated by Master Facilitator of IFMC, analyze and categorize the responses which further indicates the effectiveness of MT-ToT programme.

To overview the opinion of FF-ToT participants regarding ToT programme facilitated by Master Trainers of KHDC, analyze and categorize the opinion level which further indicates the effectiveness of FF-ToT programme.

To find out the training needs of ToT participants by analyzing the resposes on different selected issues. To forecast about the project implementation and replication of FFS activities at grass root level. To identify the problems /

bottlenecks of ToT programme to make an effective and successful ToT. To suggest or recommend the prudent strategy and policy of making successful ToT programmme.

To highlight the possible steps or strategy need to be taken by different development actors (KHDC, CHTDF-UNDP, stakeholders etc.)

METHODOLOGY OF THE STUDY

The study was designed under the assumption that a successful ToT training leads to a good consequences or outcome of training participants. The main indicators of successful ToT training to be evaluated under the study are the participants' good responses on various issues of ToT programme.

The first area is to study the level of evaluation of Master trainers' responses to some selected issues related to ToT programme and eventually overall assessment of MT-ToT programme facilitated by Master Facilitator (MF) of IFMC component of DAE.

The second area is to study the level of given opinion of farmer facilitators on various aspect of ToT training and finally overall evaluation of FF-ToT programme facilitated by Master Trainer of Khagrachari Hill District Council.

Selection of the study area

Researcher chooses to work on a part of implementation of the project from HRM point of view, it is the evaluation of ToT programme under the said project prevailing in all Upazilas of Khagrachari Hill District.

Selection of Sample

The sample to be used under the study for evaluation of ToT programme was selected thoroughyly by random sampling method. In this regards, first of all, the lists of Farmer facilitators (FF) functioning in various unioin level of all upazila and Master trainers (MT) functioning in three Hill District Councils were collected from district AFSP-II office. Then the representative sample: 100 in case of FF selected by random sampling method and 12 were selected in case of MT.

Sample Size for evaluation of training program of FFS

Tools used for Data Collection

The tools that are used for the data collection are given below-

Questionnaire base survey on Farmer Facilitator (FF) and Master Trainer (MT): Some tools were used under this study to collect the qualitative and quantitative information from the field and interviews were undertaken to collect the information about the training aspect**.** These schedules have been arranged and designed to record the structured/categorical and open-ended & close-ended responses. However, the information from the FF and MT usning questionnaire was collected following face to face interview.

Focused Group Discussion (FGD): In order to collect the required information for the study, the respective Upazila FFS coordinators organized general meeting at Upazila level where there was an orientation on the questionnaire held. Various aspects regarding ToT programme were discussed.

Collection of case studies: In order to collect the qualitative information regarding the consequence of FF-ToT training proramme, the case study method was very useful one. There are two case studies to collect such information and it was collected directly from primary souces (FF) where there was included the respondents' quotation regarding the consequence of FF-ToT

After collection of data, raw data were summarized, organized, tabulated, and then analyzed by using simple statistical tools like mean, ratio, percentage etc. Finally the data were represented in various graphs/figures with required illustrations.

OVERALL OBJECTIVES, SPECIFIC OBJECTIVES AND EXPECTED OUTCOMES/RESULTS OF AFSP-II IN CHT

The overall objective of AFSP-II project is to alleviate poverty in back behind community people and overall development and create sustainable employment in Chittagong Hill Tracts. Besides these objectives, it is to contribute in acceleration of historical Peace Accord-1997 (Source: CHTDF-UNDP and KHDC, 2014).

There are basically two specific objectives of AFSP-II project in CHT. The first objective is to promote farm agricultural production (agriculture /livestock /fisheries) and diversity in production in marginal and hardcore poor people of CHT through Integrated Farm Management approach. The second one is to accelerate the de-centralized activity of already Khagrachari Hill District Council handed-over departments (Agriculture /Livestock/ Fisheries) (Source: CHTDF-UNDP and KHDC, 2014).

Agriculture and Food Security Project-II was designed by donor agency having three main expected outcomes/results (Source: CHTDF-UNDP and KHDC, 2014):

i) It is to increase 25% of agricultural production (agri/livestock/fisheries) in project included poor farmers of CHT.

ii) Promotion of food security status of CHT through alleviation of food crisis and accordingly meet up nutritional demand.

iii) Confidence building of poor farmers.

FINDINGS AND ANALYSIS

In AFSP-II, Overall assessment of ToT as responded by MT is good (50%); very good (42%) and moderate 8% only but regarding training schedule/curriculum it is found very good (58%) and good (42%). In case of concept and relevance of crop production & food security and nutrition, it is good condition (83%) and regarding basic knowledge on Integrated Pest Management (IPM), it is very good (83%) condition. In the aspect of structured learning exercise on crop production, it is found moderate level (58%) and good (42%) and in case of structured learning exercise on food security and nutrition, it is also found moderate level (67%) and good (33%). In the matter of curriculum development & manual compilation, it is found good and moderate same (42%) level and fair (16%) but in case of GD/ice-breaking activities it is found very good (67%), good (25%) and moderate only 8%. In case of hands-on Farmer Field School implementation in target communities, it is good position (50%); very good and moderate level same (25%). For the issue of baseline survey on home gardening for food & nutrition security: needs assessment and curriculum Suggestion, it is found good (67%) and very good (33%). In case of training document support on the relevant topics, MT evaluated good (58%) condition and very good (8%) and rest moderate & faire are same level (17%) where in case of Farmer Field School based adult education methodologies used for learning about technical topics, it is found very good (67%) and good (33%). For the context of learning exercises for development of Facilitation skills, MT responded good (58%); very good (34%) and rest 8% moderate level. In respect of technical contents delivered & Farmer

Field School based training skills performed, they responded good (75%), very good (25%). Regarding general training materials used in ToT, MT responded good (50%) and very good (42%) and moderate 8% only. In the issue of training location/facilities, it is found good (50%) and very good (42%) but moderate only 8%. In case of transportation facility, it is found good (67%), good (25%) and moderate only 8%. In the study, it is also evaluated FF-ToT program. In the issue of the training program of Farmers Field School consists of field studies and special topics, based on farmer identified problems, most of FF agree (56%), strongly agree (43%). In case of training program of Farmers Field School is a group-based learning process using the farmers' own experience, 57% FF agree; 40% FF strongly agree and only 3% moderately agree. In respect of the learning is done in the field in small groups doing comparative studies/experiments (discovery learning), 49% FF agree; 46% strongly agree and 4% moderately agree but 1% FF disagree it. In the issue of farmers learn together and from each other in training program, maximum FF agree (55%); strongly agree (42%); moderate 1% and disagree 2%. In case of FFS is not top-down technology transfer but is learning focused, the field is, and provides learning material, maximum FF agree 60%; strongly agree 37%; moderate 2% but disagree 1%. Regarding farmers' experimentation is part of the discovery learning, FFs agree 53%; strongly agree 43%; moderately agree 4%. In the issue of farmers are encouraged to experiment in their own fields, FFs agree 67%; strongly agree 27%; moderately agree 3% but disagree also 3%. In respect of FFS training program requires competent, skilled facilitators, able to facilitate the learning process; no teaching, FFs strongly agree 50%; agree 42%; moderately agree 7% but disagree 1% only. In case of facilitators create a suitable learning environment, provide backstopping and facilitate learning by asking questions, FFs agree 52%; strongly agree 44%; moderately agree 3% but disagree 1% only. Regarding competent facilitators should have good technical knowledge but also a certain attitude; It requires good mentoring, on-the job training and experience to become an expert facilitator, half of FFs agree 50%, strongly agree 45%, moderately agree 5%. In the issue of farmers make all decisions in FFS by collecting data, analyzing data, making decisions, reaching group consensus, maximum FFs agree (67%), strongly agree 25%, and moderately agree 8% only. In case of participants have the right to make mistakes, and learn from their mistakes, FFs agree 55%, strongly agree 42%, and moderately agree 3%. Regarding farmers develop confidence in their abilities and local knowledge; maximum FFs agree 65%; strongly agree 29% and moderately agree 6%. In case of FFS training program improves farmers' communication, conflict and problem solving abilities, leadership and discussion skills, maximum (61%) FFs agree, strongly agree 28%, moderately agree 7% but disagree only 4%. Regarding FFS is a system approach: it considers the farm and the whole agro ecosystem in the learning process, maximum (62%) agree, strongly agree 36% and moderately agree only 2%. In respect of FFS training program is participatory and community based, FFs agree 53%, strongly agree 34%, moderately 6% but disagree 7%. Regarding success depends on involvement of individual farmers and the community, maximum (64%) FFs agree, 35% strongly agree, moderately agree only 1%. In case of FFS training programs have to continue over a long period of

time to be effective, maximum (60%) FFs agree, strongly agree 39% and moderately agree 1%. In the matter of key for sustainability is farmer ownership at all levels, maximum (63%) agree, strongly agree 36% but disagree 1% only. Regarding farmers and facilitators are equal partners in the Farmers Field School learning experience issues, FFs agree 66%, strongly agree 26%, moderately agree 6% but disagree only 2%. In case of curriculum of training program of Farmers field School related to what is important to the group members and aim to fill their particular gaps in knowledge, it is found 65% agree, strongly agree 34% and moderately agree 1% only. Regarding post training evaluation is regular, 55% FF agree, 31% strongly agree, 6% moderately agree but disagree 7% and strongly disagree 1% only.

RECOMMENDATIONS

Although the training program of Farmer Field School is running well, it can be provided some recommendations based on study findings:

Structured learning exercise on crop production as well as on food security and nutrition should be emphasized and under consideration to be improved.

Curriculum development & Manual compilation for use in FARMERS FIELD SCHOOL can also be re-developed or re-organized by the development actors.

Training document support on the relevant topics (i.e. manual, hand-outs, poster etc.) should be provided more properly and sufficiently.

The issue: farmers are encouraged to experiment in their own fields should be flexible at field level.

The issue: FFS training program improves farmers' communication, conflict and problem solving abilities, leadership and discussion skills; should be emphasized and improved more to achieve such target.

The issue: FFS training program is participatory and community based; should also be more practical and improved.

In case of the issue: post training evaluation is regular, it should be re-consider and should be done in alternative way.

CONCLUSION

The results emerged from the conducted study clearly concluded that both MT-ToT as well as FF-ToT was effective and efficient which was revealed from the study and analysis of respective participants's voice. The ToT program under Agriculture and Food Security project-II concertedly implemented by Khagrachari Hill District Council and CHTDF-UNDP, from the participants' perspective, can be said that it was running in right path and hopefully the MTs will reflect their gained knowledge & skill in their field monitoring and backstopping support to farmer facilitators and FFs will also reflect their ToT skill in FFS implementation towards a better way. The study possesses an equal importance for both development actors (supervising organization & donor) and partner organization (Khagrachari Hill District Council) as it highlights about the level of evaluation of FF-ToT and MT-ToT programme. In the study, it was emphasized on the responses of ToT participants and categorized the level of responses. The study definitely indicates where to promote the strategy of ToT programme by the development actors to be implemented the project smoothly. Similarly the implementing organization easily understands the weak and strength point of ToT training programme and thus

further steps can be taken by this organization. From the study, various relevant stakeholders also able to know about effectiveness and efficiency of the ToT programme.

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Table 5.3.1: Farmer Facilitator (FF) selection for data collection for ToT evaluation

Upazila	Union	Total FF	Sample FF for Data collection	Remarks/coverage ratio
Khag. Sadar	05	20	14	FFs are selected Randomly (80% covered)
Panchari	05	18	14	
Dighinala	04	08	08	
Mahalchari	04	13	11	
Matiranga	06	19	13	
Guimara	03	11	09	
Manikchari	04	13	12	
Ramgorh	02	08	07	
Laxmichari	03	15	12	
Total	36	125	100	

Table 5.3.2: Master Trainer (MT) selection for data collection for ToT evaluation

District	No. of MT	MT Response in data collection	Remarks/coverage ratio
Khagrachari	04	04	100% covered for training evaluation
Rangamati	04	04	
Bandorban	04	04	
Total	12	12	

Fig-1: Typical FFS approach

Appendix-01: Summarization of Questionnaire Survey result

	Issue	Poor (1)	Fair (2)	Moderate (3)	Good (4)	Very good (5)
MT-ToT evaluation						
01.	Overall assessment of training experiences and results based on learning expectations	0	0	8%	50%	42%
02.	Training schedule/curriculum of ToT programme	0	0	0	42%	58%
03.	Concept and relevance of crop production & food security and nutrition	0	0	8.5%	83%	8.5%
04.	Basic knowledge on IPM	0	0	8.5%	8.5%	83%

05.	Structured learning exercise on crop production (i.e soil & fertilizer, seed, ecosystem, pests & natural enemies, diseases, alternative management etc.)	0	0	58%	42%	0
06.	Structured learning exercise on food security and nutrition (i.e facts on food security and nutrition, consumption of nutritious food: multi-colored vegetables and fruits, 5 food groups, food sanitation & preparation and cooking class etc.)	0	0	67%	33%	0
07.	Curriculum development & manual compilation for use in FFS	0	16%	42%	42%	0
08	Group dynamics/ice-breaking activities	0	0	8%	25%	67%
09.	Hands-on FFS implementation in target communities	0	0	25%	50%	25%
10.	Baseline survey on home gardening for food & nutrition security: needs assessment and curriculum suggestion	0	0	0	67%	33%
11.	Training document support on relevant topics (i.e manual, hand-outs, poster etc.)	0	17%	17%	58%	8%
12.	Farmer Field School based on adult education methodologies used for learning about technical topics in ToT and FFS	0	0	0	33%	67%
13.	Learning exercises for development of facilitation skills	0	0	8%	58%	34%
14.	Technical contents delivered & FFS based training skill performed	0	0	0	75%	25%
15.	General training materials (Flipchart, markers, paper tape etc.)	0	0	8%	50%	42%
16.	Training location/facilities	0	0	8%	42%	50%
17.	Transportation to support training activities/events	0	0	8%	67%	25%
18.	How would you consider the general improvement of your knowledge on the topics addressed in the course?	In this regards, All Master trainers responded that they learned a lot on relevance of ecosystem and IPM.				
FF-ToT training program evaluation						
19.	The training of FFS consists of field studies and special topics, based on farmer identified problems	0	0	01%	56%	43%
20.	Training program of FFS is a group-based learning process using the farmers' own experience	0	0	03%	57%	40%
21.	The learning is done in the field in small groups doing comparative studies/experiences (discovery learning)	0	1%	4%	49%	46%
22.	In training program farmers facilitators learn together and from each other	0	2%	1%	55%	42%
23.	FFS is not top-down technology transfer but is learning focused. The field is, and provides learning materials	0	1%	2%	60%	37%
24.	Farmers' experimentation is part of the discovery learning	0	0	4%	53%	43%
25.	Farmers are encouraged to experiment in their own	0	3%	3%	67%	27%

	fields					
26.	FFS training program requires competent, skilled facilitators (MT), able to facilitate the learning process, no teaching	0	1%	7%	42%	50%
27.	Facilitators (MT) create a suitable learning environment, provide backstopping and facilitate learning by asking questions	0	1%	3%	52%	44%
28.	Competent facilitators (MT) should have good technical knowledge but also a certain attitude. It requires good mentoring, on job-training and experiment to be an expert facilitator	0	0	5%	50%	45%
29.	Farmers make all decisions in FFS by collecting data, analyzing data, making decisions, reaching group consensus	0	0	8%	67%	25%
30.	Participants have the right to make mistake and learn from their mistakes	0	0	3%	55%	42%
31.	Farmers develop confidence in their abilities and local knowledge	0	0	6%	65%	29%
32.	FFS training program improves farmers' communication, conflict and problem solving abilities, leadership and discussion skills	0	4%	7%	61%	28%
33.	FFS is a system approach: it considers the farm and the whole agro-ecosystem in the learning process	0	0	2%	62%	36%
34.	FFS training program is participatory and community based	0	7%	6%	53%	34%
35.	Success depends upon improvement of individual farmers and the community	0	0	1%	64%	35%
36.	FFS training program have to continue over a long period of time to be effective	0	0	1%	60%	39%
37.	Key for sustainability is farmer ownership of the process at all levels	0	1%	0	63%	36%
38.	Farmers and facilitators (MT) are equal partners in the FFS learning process	0	2%	6%	66%	26%
39.	Curriculum of training program of FFS related to what is important to the group members and aim to fill their particular gaps in knowledge	0	0	1%	65%	34%
40.	Post training evaluation is regular	1%	7%	6%	55%	31%

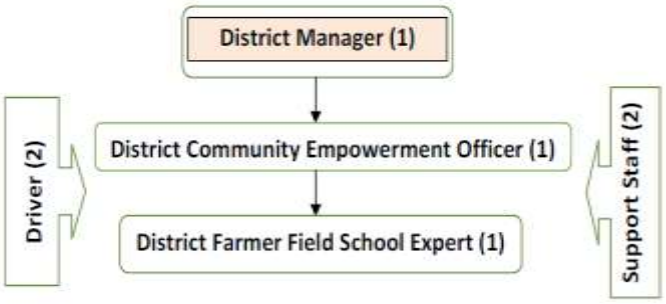
Appendix-02: *Acronym*

AEC	Agriculture Externsion Component.	IFMC	Integrated Farm Management Component.
BDT	Bangladeshi Taka.	I-NGO	International Non-Government Organization.
BBS	Bangladesh Bureau of statistics.	IPM	Integrated Pest Management.
CBOs	Community Based Organizations.	IPPM	Integrated Production and Pest Management.
CHT	Chittagong Hill Tracts.	INGO	International Non-Government Organization.
CHTDF	Chittagong Hill Tract Development Facility.	JICA	Japan International Cooperation Agency.
CLW	Community Livestock Worker.		
CPW	Community Poultry Worker.		
DAE	Department of Agriculture Extension.		

DANIDA	Danish International Development Agency.	KFS	Kenya Forest Service.
DAT	Day After Transplantation.	KM	Kilometer.
e.g	Exempli gratia (Example).	LoA	Letter of Agreement.
etc.	Et cetera.	LGI	Local Government Institution.
ERD	Economic Relation Division	MT	Master Trainer.
EU	European Union.	MF	Master Facilitator.
FAO	Food and Agriculture Organization of United Nations.	N.B	Nota Bene (Note well).
		NGO	Non-Government Organization.
FF	Farmer Facilitators.	PDP	Para Development Plan.
FFD	Farmers Field Day.	PNDG	Para Nari Development Group.
FFS	Farmer Field Schools.	RC	Regional Council.
FYM	Farm Yard Manure.	RCC	Regional Coordination Committee.
GD	Group dynamics.		
GoB	Government of Bangladesh.	SLL	Seaon long learning.
GoI-USAID	Government of Indonesia-United States Agency for International Development.	ToT	Training of Trainers.
		T&V	Training & Visit.
Ha	Hector.	UFFSC	Upazila Farmer Field School Coordinator.
HDC	Hill District Councils.	UnFC	Union Facilitation Committee.
HH	Household.	UNDP	United Nations Development Programme.
HTL	Host Team Leader.		
ICM	Integrated Crop Management.	UP	Union Parisad.
i.e	That is.	US$	United States Dollar.
IFAD	International Fund for Agricultural Development.	UzACs	Upazila Advisory Committee.
IFM	Integrated Farm Mangement.		

6. Organogram of supervising and implementing organization

Flow chart 1: UNDP-CHTDF Organogram



Flow chart 2: Hill District Council Organogram

Flow chart 3: AFSP-II Project Organogram