



Blue Gold Program

Report

**FFS Curriculum Design Workshop
Dhaka, 30-10-2013**

**Embassy of the Kingdom of the Netherlands,
Dhaka, Bangladesh**

**Bangladesh Water Development Board (BWDB)
Department of Agricultural Extension (DAE)**

November, 2013





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Contents

Chapter	Title	Page
1.	Introduction	1
2.	Workshop Results	2
3.	Conclusion	9

Annexes

Appendix 1	Workshop Agenda	10
Appendix 2	List of Participants	11
Appendix 3	Photos of Workshop	12

Tables

Table 1	Workshop Results	2
Table 2	Workshop Agenda	10
Table 3	Workshop Participants.....	11

List of Abbreviations

AEC	Agricultural Extension Component
BARI	Bangladesh Agricultural Research Institute
BBT	Ballot Box Test
BRAC	Bangladesh Rural Advancement Committee
BSFB	Brinjal Shoot and Fruit Borer
BWDB	Bangladesh Water Development Board
DAE	Department of Agricultural Extension
DLS	Department of Livestock Services
ECRRP	FAO's Emergency Cyclone Recovery & Restoration Project
EKN	Embassy of the Kingdom of the Netherlands
FFS	Farmer Field School
FMA	Farm Management Analysis
FO	FFS Organizer
FYM	Farm Yard Manure
IFMC	DANIDA's Integrated Farm Management Component
RFLDC	Regional Fisheries and Livestock Development Component
SCDP	Second Crop Diversification Project
WMA	Water Management Association
WMG	Water Management Group

1. Introduction

The Food Security and Agricultural Production component of Blue Gold (Component 3) is recruiting about 20 FFS Organizers (FO) who will be involved in organizing Farmer Field Schools (FFS) in Blue Gold polders. While FFS in rice and other crops will be implemented in collaboration with DAE under a separate DPP, the Blue Gold FOs will concentrate on FFS modules related to fish, livestock and homestead gardens.

The first FFS cycle (expected to start in November 2013) will include four “modules”:

- i. Introductory sessions
- ii. Poultry (chicken and duck)
- iii. Homestead garden (vegetables and fruits)
- iv. Nutrition

Draft curricula for these modules were developed based on existing curricula in other FFS programs (AEC, RFLDC, and ECRRP). A one day curriculum design workshop was organized to review and validate the draft curricula for these modules and to propose improvements.

The curriculum Design Workshop was held on 30 October 2013 at the Women Voluntary Association (WVA), Dhanmondi, Dhaka. The workshop agenda is included in Appendix 1.

Twenty-three resource persons participated in the workshop. These included master trainers and technical staff with FFS experience from different organization (IFMC-DANIDA, BRAC, FAO-ECRRP, BARI, DLS, DAE, SCDP), a Nutrition Consultant and technical staff of Blue Gold. A list of participants is included in Appendix 2.

2. Workshop Results

The output of the workshop was recorded as a number of suggestions by the participants to make changes to existing curricula. The presentations by the 4 working groups are compiled in the following table, showing the existing curricula side by side with the suggested changes.

Please note that not all of these “suggestions” will become part of the updated FFS curriculum.

Table 1 Workshop Results

No.	Existing Learning sessions	Proposed by Workshop
Introductory Module		
1	Community Resource Mapping Through Transect Walk	Situation Analysis and resource map after Transect Walk Situation analysis (Resource list, Present Practice of different Farm Component, Market facilities, Existing Problem and Support services) Ok
2	Community Meeting conduction Module wise primary ‘Farmers’ Selection’ Ways of horizontal learning	same as before
3	Household survey. Farm house survey for verifying the resources of primary listed farmers. Finalization of selected farmers’ families (module wise) Bench mark survey of selected 25 farm families head (for poultry, homestead garden, and nutrition module	OK
	Pre evaluation Ballot Box Test (BBT) for selected modules Problem analysis Presentation of FFS curriculum and incorporate the needs of the participants Farm Production Planning FFS norms, day & time of FFS Month wise session plan preparation, which module when will start and finish Responsibilities of the participants for horizontal spreading of knowledge.	A) Problem analysis Presentation of FFS curriculum and incorporate the needs of the participants. This two activities will be a separate session B) Pre evaluation (BBT) for selected modules Farm Production Planning This two topics will be conduct as a 1st session of a respective module Ok
Common		
1	Beginning session of FFS	BBT will be conducted once at the beginning of FFS learning sessions FFS norms, day & time of FFS

		Responsibilities of the participants for horizontal spreading of knowledge.
2		<p>Problem analysis</p> <p>Presentation of FFS curriculum and incorporate the needs of the participants.</p> <p>Date wise session plan preparation, which module when will start and finish</p>
Poultry		
1	New ok	<p>Importance of Poultry</p> <p>Production planning for poultry (Duck & Deshi Chick)</p> <p>Introduction and planning of poultry trials.</p> <p>Introduction to locally available Poultry Breeds</p>
2	<p>Housing Management of Poultry:</p> <p>Discuss why housing is important for keeping poultry</p> <p>The importance of day and night shelter system for adult chicken,</p> <p>Chicks presenting different types of local housing (two storied or baskets),</p> <p>Why chicken and ducks kept in separate housing</p> <p>Types of materials may be use for constructing baskets and houses and where to find or buy these materials</p>	OK
3	New ok	Trial set up (Improve and traditional rearing system of poultry; break down in to housing, early chicks separation, vaccination and de-worming etc)
4	Farm Management Analysis (FMA) 1 Practices	FMA 1 Practices
5		<p>Laying hen and pullet /Duck management</p> <p>Feed management</p> <p>Feed formulation using locally available feed ingredients (Specially duck weed in Ducks)</p> <p>Egg collection and storage for marketing</p> <p>Vaccination and health care of laying hen and duck</p> <p>FMA (Trial observation and information collection)</p> <p>What is Hazal (hatching box)?</p> <p>Importance of improved Hazal.</p> <p>Difference between improved and typical Hazal</p> <p>Measurement of a Improved Hazal</p> <p>Make a Hazal and its correct measurements (Practical)</p> <p>New</p>

6	<p>Laying and Broody Hen Management</p> <p>Understand management of laying hens</p> <p>Know how to identify broody hen for hatching eggs</p> <p>Why broody hen requires feed and water during incubation</p> <p>Know how to select and preserve & Candling eggs</p> <p>Know how to handle and manage a broody hen</p> <p>Know how to make a Hazal (Hatching box)</p>	<p>Broody hen management:</p> <p>Discuss to identify broody hen for hatching eggs</p> <p>Why broody hen requires feed and water during incubation</p> <p>To select and preserve eggs for hatching</p> <p>To handle and manage a broody hen</p> <p>Identify fertile and in-fertile eggs after seven days</p> <p>Health tips for broody hen management</p> <p>Setting of eggs for incubation</p>
7	<p>Chicks and Pullet rearing and its feed Managements</p> <p>Understand importance of creep feeding system</p> <p>Have practiced the use of a basket, polo, gunny bags etc</p> <p>Have practiced including feeding, watering and cleaning the area beneath the basket</p> <p>Able to understand poultry saline for chicks</p> <p>Have practiced vaccination</p>	<p>Chicks and duckling rearing management:</p> <p>Able to understand poultry saline for chicks</p> <p>Discussion on importance of creep feeding system</p> <p>Have practiced the use of a basket, gunny bags, straw</p> <p>Have practiced including feeding, watering and cleaning the area beneath the basket</p> <p>Chick separation</p> <p>Brooding of chicks and duckling</p> <p>Time of duckling releasing in water</p> <p>Have practiced vaccination.</p> <p>Discussion part related to value chain</p> <p>FMA (Trial observation and information collection)</p>
8	<p>Poultry Health care</p> <p>Able to identify healthy and unhealthy chicken</p> <p>Know how to deal with healthy and unhealthy chicken</p> <p>Know symptoms of common diseases like Newcastle diseases, Fowl pox, internal and external parasites</p> <p>Which diseases have public health importance?</p>	<p>Poultry Health Care:</p> <p>Able to identify healthy and unhealthy chicken/duck</p> <p>Know how to deal healthy and unhealthy chicken/duck</p> <p>Know the symptoms of common diseases of poultry</p> <p>internal and external parasites</p> <p>Preventive measures for poultry diseases</p> <p>Which diseases have public health importance?</p> <p>Discussion part related to value chain</p>
9	<p>Participatory Epidemiology and Bio-security of Poultry</p> <p>To know what is Bio-security?</p> <p>Why Bio-security is important?</p> <p>What are the factors responsible for damaging poultry?</p> <p>What measure to be taken for maintaining Bio-security?</p> <p>Farmers will have exchanged knowledge about the various common diseases in the area</p> <p>When during year the different diseases are most likely to occur</p>	<p>Participatory Epidemiology and Bio-security of poultry</p> <p>Discussion on what is bio-security, why it is important</p> <p>Discussion disease causing agent that brought into farm?</p> <p>How to prevent these causal agents from spreading disease?</p> <p>House management and bio-security.</p> <p>Discussion part related to value chain</p>

	To Produce a seasonal Disease calendar	FMA (Trial observation and information collection)
10	New	Trial observation, result discussion and conclusion of the poultry module cost benefit analysis.
Homestead Garden (Vegetables and Fruits)		
1	<p>Introduction of this module (Brief discussion on the content and highlighting the main activities)</p> <p>Introduction, opportunities, Benefits and scope of fruit cultivation in that locality</p> <p>Group dynamics/Ice break</p> <p>Sapling selection and planting</p> <p>Trial set up (New fruit/ new variety of a fruit cultivation)</p> <p>Discussion part related to value chain</p>	<p>Introduction of this module</p> <p>Introduction, opportunities, Benefits and scope of fruit cultivation in that locality</p> <p>Group dynamics/Ice break</p> <p>Sapling selection and planting</p> <p>Trial set up (New fruit/ new variety of a fruit cultivation)</p> <p>Discussion part related to value chain</p>
2	<p>Recap.</p> <p>Problem identification of fruit trees and their management:</p> <p>Fertilizer management</p> <p>Pest management</p> <p>Water management</p> <p>Group dynamics/Ice break</p> <p>Trial set up One trial from 3 options: Mango hopper control/ Bagging of fruit for controlling fruit fly / Pruning of fruit tree after harvesting</p> <p>Discussion part related to value chain</p>	<p>Recap.</p> <p>Problem identification of fruit trees and their management:</p> <p>Pruning & training of fruit trees</p> <p>Existing fruit tree improvement – budding & grafting</p> <p>Removal of parasitic plant</p> <p>Fertilizer management</p> <p>Pest management</p> <p>Water management</p> <p>Trial set up on Fruit Tree Management (Pruning & training of fruit trees; removal of parasitic plant, fertilizer management; pest management and water management)</p> <p>Group dynamics/Ice break</p> <p>Trial set up One trial from 4 option from Mango hopper or weevil control/ Bagging of fruit for controlling fruit fly /Powdery Mildew or anthracnose diseases</p> <p>Discussion part related to value chain</p>
3	<p>Recap.</p> <p>Introduction, Importance of vegetables</p> <p>Homestead space planning</p> <p>Preparation of vegetable production calendar</p> <p>Group dynamics/ Ice break</p> <p>Trial set up (Plan wise vegetable cultivation utilizing different places of a farm house)</p> <p>Discussion part related to value chain</p>	<p>Recap</p> <p>Introduction, Importance of vegetables</p> <p>Homestead space planning</p> <p>Preparation of vegetable production calendar</p> <p>Vegetable seeds and saplings selection – variety, characteristic, germination test, seed treatment etc.</p> <p>Group dynamics/ Ice break</p> <p>Trial set up (Plan wise vegetable/spices/fruit trees cultivation, utilizing different places of a farm house)</p> <p>Discussion part related to value chain</p>

4	<p>Recap</p> <p>Vegetable production technology:</p> <p>Land preparation</p> <p>Preparation of seedbed, sowing seed , transplanting of seedling</p> <p>Organic and chemical fertilizer management and water management</p> <p>Crop management</p> <p>Group dynamics/ ice break</p> <p>Trial set up (Fertilizer management Organic, organic+ inorganic and only inorganic treatment)</p> <p>Practice FMA-1</p> <p>Discussion part related to value chain</p>	<p>Recap</p> <p>Vegetable production technology:</p> <p>Land preparation</p> <p>Preparation of seedbed, sowing seed , transplanting of seedling</p> <p>Organic and chemical fertilizer management and water management</p> <p>Crop management</p> <p>Pest management in homestead vegetable garden using IPM concepts</p> <p>Group dynamics/ ice break</p> <p>Trial set up (Fertilizer management Organic, organic+ inorganic and only inorganic treatment)</p> <p>Discussion part related to value chain</p>
5	<p>Recap. Review if decisions from FMA-1 were implemented</p> <p>Importance organic manure</p> <p>Farm Yard Manure (FYM) pit preparation (Discussion and Practical)</p> <p>Use of organic manure</p> <p>Group dynamics/Ice break</p> <p>Discussion and Trial set up of FYM Preparation and Hand Pollination</p> <p>Practice FMA-2</p> <p>Discussion part related to value chain</p>	<p>Recap.</p> <p>Importance organic manure</p> <p>FYM pit preparation (Discussion and trial set-up of FYM preparation)</p> <p>Use of organic manure</p> <p>Group dynamics/Ice break</p> <p>Discuss on FMA and Practice FMA-1 on fruit tree</p> <p>Discussion part related to value chain</p>
6	<p>Recap. Review if decisions from FMA-2 were implemented</p> <p>Collection, sorting, identification of pest and diseases sample of vegetables</p> <p>Group dynamics/Ice break</p> <p>Trial set up (Pest management in vegetables one trial from 6 options) Bagging of cucurbit fruit/Use of poison bait for controlling fruit fly/Use of Neem extract/Use of ash/Use of soap and tobacco dust/ Hand Cleaning of infested fruit/ plant parts</p> <p>Risk reduction of pesticides use (role play)</p> <p>Practice FMA-3</p> <p>Discussion part related to value chain</p>	<p>Recap. Review if decisions from FMA on fruit trees were implemented</p> <p>Collection, sorting, identification of pest and diseases sample of vegetables</p> <p>Group dynamics/Ice break</p> <p>Trial set up (Pest management in vegetables one trial from 6 options)</p> <p>Fruit fly management in cucurbits (Bagging/poison bait/Sex pheromone)/ Leaf sucker (Hand picking, use of Neem extract, use of ash, use of soap water, use of tobacco dust, use of bio-agent)</p> <p>Management of Brinjal Shoot and Fruit Borer (BSFB) by clean cultivation, using bio-agent, using sex pheromone.</p> <p>Safe handling of chemicals (role play)</p> <p>Practice FMA on vegetables</p> <p>Discussion part related to value chain</p>
7	<p>Recap. Review if decisions from FMA-3 were implemented</p>	<p>Recap. Review if decisions from FMA on vegetables were implemented</p>

	<p>Pest management in homestead vegetable garden using IPM concepts</p> <p>Trial plot observation</p> <p>Discussion part related to value chain</p>	<p>Vegetable seed production and storage – discussion and practical</p> <p>Fruits and vegetables harvesting, processing and marketing</p> <p>Trial plot observation</p> <p>Discussion part related to value chain</p>
8	<p>Recap</p> <p>Discuss results and conclusions on fruits and vegetable production, analyze home consumption and marketing, economic benefit</p> <p>Adverse effect of chemicals used for fruit ripening, fish & vegetable processing</p> <p>Discussion part related to value chain</p>	<p>Recap</p> <p>Adverse effect of chemicals used for fruit ripening, fish & vegetable processing</p> <p>Discuss results and conclusions on fruits and vegetable production, analyze home consumption and marketing, economic benefit</p>
Nutrition		
1	<p>Safe food and food security</p> <p>Primary healthcare</p> <p>Safe water use</p> <p>Water borne disease management</p> <p>Use of sanitary latrine</p>	<p>Food, Nutrition, Balance food,</p> <p>Food classification on the basis of function (Practical)</p> <p>Nutritional disorder and their remedies</p>
2	<p>Food, Nutrition Balance food, nutritional disorder and their remedies,</p> <p>Group dynamics/ Ice break</p> <p>Food classification on the basis of function (Practical)</p>	<p>Balanced food for different groups (infant, adolescent, pregnant, lactating, etc.)</p> <p>Make a comparison for the need of extra food for different age group</p>
3	<p>Balanced food for different groups (infant, adolescent, pregnant, lactating, etc.)</p> <p>Make a comparison for the need of extra food for different age group</p>	<p>Primary healthcare (Safe food, safe water, personal hygiene, immunization, water borne disease management, sanitary latrine etc)(Demo. on hand washing, making a symbolic latrine, cutting nails etc)</p>
4	<p>Proper cooking, use vegetables from own garden</p> <p>Food preparation without loss any nutrition (Practical)</p> <p>Post evaluation (BBT) (BBT will include all modules learned at the FFS and will be conducted at the last day of FFS)</p> <p>Discussion part related to value chain</p>	<p>Micro Level Food security (access, availability and distribution, production, food habit, small scale food preservation, Superstition about food)</p> <p>Food preparation with minimum loss of nutrients (Practical)</p> <p>Post evaluation (BBT) (BBT will include all modules learned at the FFS and will be conducted at the last day of FFS)</p> <p>Discussion part related to value chain</p>
Other topics discussed		
	<p>Horizontal Learning Approach:</p>	<p>Result sharing/showing in the field days for each of the modules should be done choosing the best time/ critical time.</p>

		<p>Disseminate information through Water Management Group (WMG) and Water management Associations (WMA).</p> <p>Use CDs, DVDs and others media.</p> <p>Produce seasonal calendars and posters.</p>
	<p>Market Orientation:</p>	<p>Discuss input supplies in the FFS learning sessions.</p> <p>Give orientation of value chain approach to the FFS facilitator.</p> <p>Invite vendors or representatives of inputs sellers (seed, feed, fertilizer, vaccine, etc.) from good and reputed company during field days and if needed during FFS sessions.</p> <p>Invite paravets and other service providers during field days and FFS sessions.</p> <p>After value chain study/analysis introduce market /value chain activities in the FFS curriculum to improve it further.</p>

3. Conclusion

Workshop participants showed a lot of interest and participated actively in the discussions and suggested modification to the curricula of the FFS modules based on their experience. It was found that having a relatively small workshop (less than 25 participants) is an excellent way to facilitate brainstorming about possible modification of FFS curricula.

As usual in curriculum design workshops, a number of new topics were proposed, which in some cases may not be practical in view of the duration of the FFS. Based on the outcome of this workshop, Component 3 staff of Blue Gold will review the draft curriculum and produce a new set of curricula to be used and tested in the first cycle FFS, which will take place between November 2013 and May 2014.

The organizers of the workshop would like to thank the various organizations and projects that allowed their staff to participate in this curriculum design workshop. We thank all participants for their valuable comments and enthusiasm during the workshop.

Appendix 1 Workshop Agenda

Table 2 Workshop Agenda

Time	Activities	Resource Person
08:30-09:00	Registration	
09:00-09:30	Inauguration Objectives of the workshop	Dirk Smits, Team Leader Hein Bijlmakers
09:30-10.30	Presentation of drafted FFS curriculum (module wise) and formation of 4 groups	Muhammad Ashraful Islam
10:30-11:00	Tea break	
11:00-01:00	Group exercise on different modules and tasks	Munir Ahmed
01:00-02:00	Prayer and lunch break	
02:00-03:30	Presentation by the groups	Abul Kashem
03:30-04.00	Finalization of the Curriculum	Ashraful Islam Munir Ahmed
04:00-04:45	Discussion	Hein Bijlmakers
04.45-05.00	Review and Closing	Abul Kashem

Appendix 2 List of Participants

Table 3 Workshop Participants

No.	Name	Organization	Contact No.
1	Dr. Habibur Rahman Khan , ULO, Patuakhali	DLS	01711020662
2	Shariful Haque, Livestock Training Specialist	FAO-ECRRP	01715247398
3	Dr. Kaisar Parvez, DM, Poultry and Livestock	BRAC	01726559501
4	Sharif Md. Ismail, UAO, Rupsha, Khulna	DAE	01716251495
5	Abu Hena Md. Zafor ,UAO, Sadar, Patuakhali	DAE	01716980466
6	Mahmud Hossain Al-Mamun, SO, Olericulture Division, Horticulture Research Centre, BARI, Gazipur	BARI	01715179366
7	Dr. S M Rafiqul Amin	SCDP	01731300387
8	Md. Shamsul Alom	UAO (LR)	01712038287
9	G M Idris	Planning Wing, DAE	01751897745
10	Qazi Afzal Hossain	IFMC	01715050966
11	Kamrul Islam	IFMC	01712852903
12	Dr. Abdun Noor	IFMC	01712562931
13	Dr. Omor Farooq	IFMC	01748907398
14	Sufia Begum	Nutrition consultant	01711538354
15	Alamgir Chowdhury, DTL	Blue Gold	01711833212
16	Tanvir Islam, Value Chain Expert	Blue Gold	01719676383
17	Hein Bijlmakers, Component Leader Food Security and Agricultural Production	Blue Gold	01780016516
18	Muhammad Ashraful Islam	Blue Gold	01712512525
19	Dr. Munir Ahmed	Blue Gold	01711781052
20	Dr. Shamsul Huda	Blue Gold	01712285285
21	Sumona Rani Das	Blue Gold	01711155356
22	Md. Anayet Husain Topader	Blue Gold	01711318550
23	Md. Shamim Ahamed Yousuf	Blue Gold	01712712282
24	Abul Kashem	Blue Gold	01711733719
25	GM Khairul Islam	Blue Gold	01724534040

Appendix 3 Photos of Workshop

