Blue Gold Program interventions

Homestead Farmer Field Schools

Pursuing food security through homestead production

Introduction

One of the Blue Gold Program's (BGP) objectives is to improve the income and food security of polder dwellers through improved water management and increased and diversified agricultural production. In a first approach, the Department of Agricultural Extension (DAE) implemented Farmer Field Schools focussed on cropping systems taking advantage of the rehabilitated water management structures.

Approximately 30% of polder households do not have the necessary access to land or family labour though to benefit from this approach. These households can only rely on their homestead land. For such households, a second more inclusive Homestead Farmer Field School (FFS) program was implemented to improve their food security, nutrition, and their overall living standard.

Homestead Farmer Field School Summary

From 2013 to 2019 thirteen cycles of 1133 FFS were implemented for 25 farmers each. Initially, modules were combined in one FFS but later single-module FFS were implemented. 1,710 modules were facilitated covering homestead gardening, poultry rearing, pond aquaculture and beef fattening. The focus varied with the seasons but always covered season-long experiential learning (seed to harvest, egg to egg, etc). The single-module FFS approach refined targeting of participating households, became more demand driven in respect of key technologies and facilitated an enlarged outreach at lower cost.

Participants for Homestead FFS were proposed by the Water Management Groups (WMG) after being briefed on this program's inclusive objectives. WMG's also advised on the preferred module.

The final 25 participants were selected by project field staff. They ascertained if they belonged to the truly needy, took a genuine interest and possessed the necessary assets to benefit from the program. The male/female ratio in the groups was initially set at a minimum of 50% women but varied with the interest in particular modules.

Beyond focussing on key technologies, all modules gave attention to nutrition, and later also market orientation. The latter established market linkages for input purchasing as well as surplus selling, sought to create trust with these market system actors, and facilitated the use of an FFS group's bargaining power through collective actions. In support hereof, the participants decision-making and negotiation skills were enhanced. Resource farmers were coached to initiate and lead collective actions for the members of their groups and others interested.

Early on in the program, Homestead FFS was implemented by 22 Community Development Facilitators (CDF), selected from the Department of Agricultural Extension's pool of experienced Farmer Trainers. Later, an additional 95 Local Facilitators were familiarised with the Homestead FFS curricula to become Farmer Trainers. They worked two cycles long with the CDF's as apprentices and thereafter ran Homestead FFS independently mentored by Blue Gold field staff. Farmer Field Days concluded an FFS as a Horizontal Learning opportunity, presenting the wider community an opportunity to benefit indirectly.

Vaccination as a key technology in the livestock modules was complemented by training Community Animal Health Workers. Supported by the Department of Livestock Services, both Community Livestock Workers (40 in total) and Community Poultry Workers (60 in total) were equipped with technical as well as business skills. Water Management Groups were primed to facilitate the organisation of vaccination campaigns.

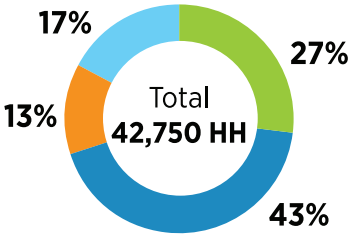
What is a Farmer Field School?

A group-based adult learning approach that teaches farmers how to experiment and solve problems independently. In FFS, groups of farmers meet regularly with a facilitator, then observe, talk, ask questions and learn together.

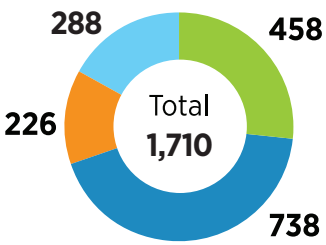
FFS were developed initially to teach integrated pest management (IPM) techniques in rice farming, and later adapted to teach organic agriculture, animal husbandry, and non-farm income generating activities. Blue Gold implements homestead FFS to improve particpants' production and market linkages.

Key operational data

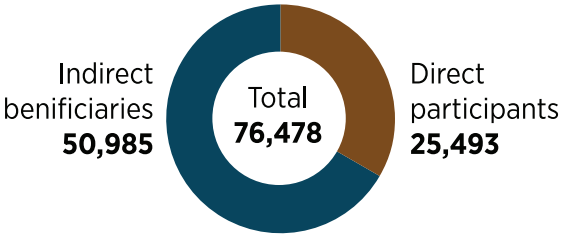
Household (HH) participation



Modules conducted



Household outreach



Gardening | Poultry | Beef fattening | Pond Aquaculture

Monitoring & Evaluation of Homestead FFS

Before FFS | After FFS

Poultry

Identification

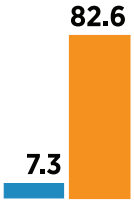
Number of chickens (average)

Key technologies

Use of hazal (%)

Egg candling (%)

Chick separation after 1 week (%)



Use of vaccination(%)

40%
increase in egg production per hen per year

2.67 times
more eggs are sold per month on average

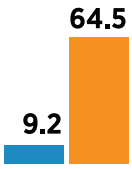
4.35 times
more poultry is sold per year on average

Beef fattening

Identification

Number of cattle (average)

Key technologies



Feed roughage, concentrate and straw (%)

Feed urea, molasses and straw (%)

De-worm regularly (%)

Know how to measure body weight (%)

35.72%
increase in meat production per cow

Home gardening

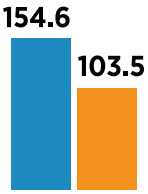
Identification

Average Homestead area

12.4
DECIMALS

Key technologies

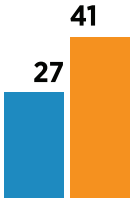
Average types of vegetables grown



Average money spent for pest management (BDT)

Follow proper pit methods (% farmers)

Follow proper bed methods (% farmers)



Average number fruit tree (in quantity)

29.1%
more farmers consuming or selling about 50% of their produce

23.7%
more farmers selling more than 50% of their produce

Fish Culture

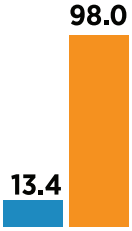
Identification

Average pond size

11.4
DECIMALS

Key technologies

Fully knowledgeable in pond preparation (%)



Use supplementary feed (%)

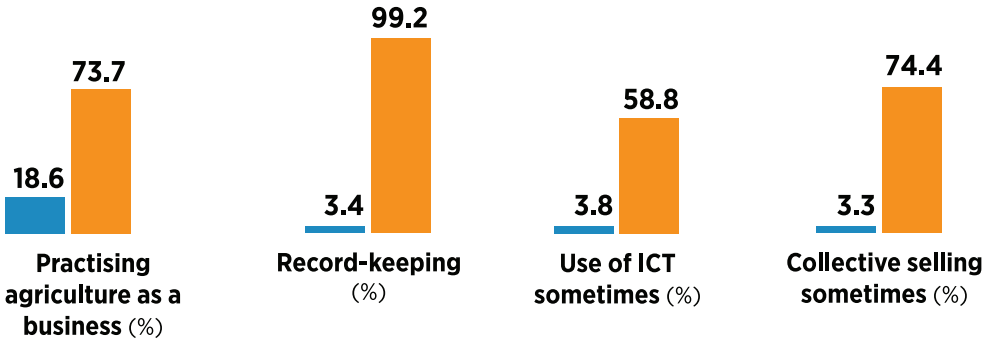
Knowledgeable in stocking density (%)

Knowledgeable in sampling (%)

2.53 times
more fish production per decimal

Nutrition

Market orientation



Market orientation

Market orientation took the FFS content beyond technology transfers. Even at Homestead level, producers require quality inputs and increasingly have the occasional surplus for sale. Market orientation helps them to see this as a micro-enterprise, requiring basic record keeping to ensure an actual benefit is obtained. It also provides the skills to access these market actors and focuses on lowering costs or increasing revenues by the use of mobiles and collective actions using a group's bargaining power.

Additional Insights

Outreach

Homestead FFs reached 25,493 households directly and an estimated 50,985 households indirectly, bringing the total beneficiary households to nearly 76,500 or 41% of the total Blue Gold target population of households.

Targeting

The actual target population for Homestead FFS based on a poverty incidence and household characteristics assessment was estimated at 30,000 to 35,000 households. Using a proxy definition for the poorest in the community with sufficient assets, 45 to 65% of the Homestead FFS participants belonged to the target group. Even at the lowest percentage, BGP has been successful.

Cost

Homestead FFS are relatively resource intensive. The cost per participant in the single module approach is 1,275 BDT. That is half the cost in the bundled approach, while no loss of effeciveness could be noted. Considering indirectly reached households through Horizontal Learning, the cost drops to little more than 500 BDT.

Farmer Trainers

The use of local Farmer Trainers (FTs) reduced implementation costs but placed higher demands on technical support and quality monitoring. FTs have proven to be valuable as local resource, often becoming vaccinators, and especially when integrated in the local resource network with WMO's, UP's, SAAO's, and other market actors.

Women Empowerment

Homestead FFS offered an opportunity to contribute to women empowerment. By proper targeting amongst the landless, and depending on the module, 45% to 95% of the participants were women. Women could increase income by participating at FFS, organising collective selling, better networking, and use of ICT; particularly in poultry rearing and gardening.