

BANGLADESH

Extension, Gender and Nutrition Landscape Analysis

Prepared by M. Wakilur Rahman, M. Serajul Islam, Lutful Hassan, Nishith Zahan Tanny,
Lovely Parvin, and Andrea Bohn. Published in August 2017



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Extension, Gender and Nutrition Landscape Analysis

A Synthesis of the current situation of gender-responsive and nutrition-sensitive agricultural development initiatives in Bangladesh with special focus on the role of different types of extension service providers (public, private, NGO)

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Inputs of additional information and correction of possible errors are welcome. Please submit these via email to Dr. M. Wakilur Rahman at wakilrsbau@gmail.com and Andrea Bohn at abohn@illinois.edu.



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Acronyms and Abbreviations

AAPI	:	Accelerating Agriculture Productivity Improvement
AEP	:	Agricultural Extension Project (Agricultural Extension Support Activity)
AIS	:	Agricultural Information Service
BAURES	:	Bangladesh Agricultural University Research Systems
BBS	:	Bangladesh Bureau of Statistics
BIID	:	Bangladesh Institute for ICT in Development
BIRTAN	:	Bangladesh Institute of Research and Training on Applied Nutrition
BRAC	:	Formerly Bangladesh Rehabilitation Assistance Committee and later Bangladesh Rural Advancement Committee
BSERT	:	Bureau of Socio-economic Research and Training
CEDAW	:	Committee on the Elimination of Discrimination against Women
CGIAR	:	Consultative Group for International Agricultural Research
CIMMYT	:	International Maize and Wheat Improvement Center
DAM	:	Dhaka Ahsania Mission
EAS	:	Extension and Advisory Services
ECNEC	:	The Executive Committee of National Economic Council
FAO	:	Food and Agriculture Organization
FPMU	:	Food Planning and Monitoring Unit Ministry of Food
FTF	:	Feed the Future
GFRAS	:	Global Forum for Rural Advisory Services
GoB	:	Government of Bangladesh
GRAST	:	Gender and Rural Advisory Services Assessment Tools (developed by FAO)
GRB	:	Gender Responsive Budgeting
HIES	:	Household Income and Expenditure Survey
HKI	:	Helen Keller International
icddr,b	:	International Centre for Diarrhoeal Disease Research, Bangladesh
ICF	:	Interdisciplinary Centre for Food Security
ICT	:	Information and Communication Technology
IFDC	:	International Fertilizer Development Center
INGENAES	:	Integrating Gender and Nutrition within Extension and Advisory Services
INGO	:	International Non-governmental Organization
LC	:	Law Commission
MoA	:	Ministry of Agriculture

MoWCA	:	Ministry of Women and Children’s Affairs
MT	:	Metric Tons
NAEP	:	National Agricultural Extension Policy
NAEP	:	New Agriculture Extension Policy
NAP	:	National Agriculture Policy
NGO	:	Non-Governmental Organization
NRDP	:	National Rural Development Policy
NWDP	:	National Women Development Policy
PRSP	:	Poverty Reduction Strategy Paper
PSHT	:	Prevention and Suppression of Human Trafficking
RAS	:	Rural Advisory Services
SAO	:	Senior Agricultural Officer
SAURES	:	Sher-eBangla Agricultural University Research Systems and Sylhet Agricultural University Research Systems
SFYP	:	Seventh Five Year Plan
SME	:	Small and Medium Enterprise
UN	:	United Nations
USAID	:	United States Agency for International Development
WEA	:	Women's Empowerment Activity
WEAI	:	Women's Empowerment in Agriculture Index

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1 INTRODUCTION

1.1 Background

Bangladesh is a small territory of 147,570 sq. km. situated on a fertile alluvial plain. India borders the country to the northeast, west and north; Myanmar is to the southeast; and the Bay of Bengal to the south. Bangladesh has 160 million inhabitants and the population density is 1,198 per sq. km. The annual growth rate of the population is 1.6% (BER, 2015). According to BBS estimation, about 30% of the population is considered as youth (defined as aged between 14 to 24 years; BBS, 2016).

The country has been following a mixed economy that operates on free market principles. The economy has been growing steadily. The real GDP grew by 6.55% in FY 2014-2015 compared to only 5.8% growth in the preceding decade FY 2010-2011 (BER, 2016).



The economy of Bangladesh has reached a sustained growth trajectory with strong macroeconomic fundamentals. The GDP growth over the last ten years consistently remained above 6%. The estimated growth in agricultural output was 2.60%, whereas industry output growth was 10.10% and service sector growth was 5.80% in FY 2015-2016, compared to 4.7%, 6.0%, and 6.4% growth in these sectors, respectively, in FY 2010-2011. Thus, agricultural output growth is now lagging behind that of other sectors. Despite the losses caused by two consecutive floods and the cyclone 'Sidr' in 2007 and economic challenges at the global level, the economy of Bangladesh has been showing remarkable resilience. The satisfactory growth of import-export trade, increasing trends in the flow of remittances, and the favourable balance of the current account kept the economy stable. However, some adverse impacts noted in certain areas include the declining trend of remittance inflows (declined by 2.39% compared to FY 2014-15), declining export earnings (particularly exports of the garment products to the western world), and inflationary pressure in recent times (BER, 2016).

This macroeconomic achievement comes with improvements in socio-economic indicators that measure poverty rates, life expectancy, gender equity, nutritional status, etc. The Household Income and Expenditure Survey (HIES) 2010 data revealed that the incidence of poverty has declined by 1.74 percentage points from 2000 to 2010. Life expectancy for men rose from 64.4 to 67.9 years and for women it rose from 65.8 to 70.3 years from 2005-2010.

Noticeably, poverty⁷ as measured by reduced head count ratio has consistently declined. In 2015, the estimated poverty rate (upper poverty) was 24.8% (BER, 2016). However, the lack of sex-disaggregated data makes it difficult to measure the reduction of women's poverty (SFYP, 2015). According to Social Progress Imperatives, the Social Progress Index 2014 for Bangladesh was 52.04. This is a better rate than the averages for the nearby countries of Nepal, India, and Pakistan. According to the Global Gender Gap Index, Bangladesh ranked 68 out of 142 countries in terms of the magnitude of the gap with a score of 0.697⁸ in 2014 (Begum, 2014). In spite of the improvements in gender equity, women in Bangladesh are more vulnerable than men with respect to unemployment and poverty. Employment for rural women is more likely to be within the agricultural and home-based manufacturing sectors. This has been linked to the cultural and religious practice of '*purdah*'⁹ (Sultana, et al., 2009).

Although the poverty situation of Bangladesh improved over the past several years, significant achievements have not appeared in the nutrition sector. The rate of underweight children was ca. 36% in 2011, 30% of those were born to mothers who had secondary education and were malnourished. In 2011, 30% of children under five were severely malnourished and 51% of children aged 6-59 months were anaemic.

It is widely expected that judicious interventions in the agricultural sector could help improve women's standing/empowerment, and contribute to better nutritional outcomes/status of both children and women. Literatures emphasize on the gender dynamics in designing, implementing and evaluating agricultural development projects (Johnson et al. 2015; Quisumbing et al. 2015). There is more evidence supporting such arguments. For example, in Bangladesh, agricultural interventions disseminated through women's groups brought better results in improving women's and children's nutrition than those targeted to households or male member (Quisumbing et al. 2011). It is evident that increases in women's empowerment are positively associated with calorie availability and dietary diversity at household level (Sraboni et al. 2014).

The Social Development Foundation (SDF) implemented the Social Investment Programme Project (SIPP) from 2003 to 2011 to promote community development through strengthening rural institutions by focusing on the marginalized portion of the society. The project targeted ultra-poor and poor households and facilitated women's empowerment through engaging women in decision making positions in all village institutions set by the project.

⁷ The Household Income and Expenditure Survey of Bangladesh Bureau of Statistics measures incidence of poverty by using the cost of basic needs methods, where the poverty line is \$1.25 (Purchasing Power Parity) per day per person.

⁸ According to World Economic Forum's (2016) Global Gender Gap Index, Bangladesh ranked 72 out of 144 countries with a score of 0.698. According to GGGI, only five countries, namely, Iceland, Finland, Norway, Sweden and Rwanda have closed 80% or more of the gender gap. Countries like Yemen, Pakistan, Syria have yet to close the gender gap of above 40%.

⁹ "*Purdah or pardah* (from Persian: پرده, meaning "curtain") is a religious and social practice of female seclusion prevalent among some Muslim communities in South Asia. It takes two forms: physical segregation of the sexes and the requirement that women cover their bodies so as to cover their skin and conceal their form. ... Physical segregation within buildings is achieved with judicious use of walls, curtains, and screens. A woman's withdrawal into *purdah* usually restricts her personal, social and economic activities outside her home. (Wikipedia, <https://en.wikipedia.org/wiki/Purdah>, accessed April 12, 2017)

1.2 Agriculture

Bangladesh is predominantly an agrarian economy, where roughly 70% of the population lives in rural areas. There is a large unemployed labour force in rural areas (particularly women), although agriculture-related activities account for 47.5% of the total labour force (Planning Commission, 2015). In fact, the country's labour force is growing at 2.4% of which 1.7% can find employment in the agriculture, industry, and service sectors.

Nevertheless, the overall share of the agricultural sector's contribution to GDP has decreased over the last few years. The share of agriculture contributions to GDP declined from 50% in 1972-73 to 16.96% in 2013-14 (BER, 2016). However, the declining trend does not imply that the contribution of agriculture sector is declining, rather, it indicates the overall agriculture contribution is increasing but at a lower pace compared to other sectors. After all, the dominance of the services sector (about 50%) in terms of its contribution to economic growth is largely attributable to the performance of both agriculture and industry sectors. In FY 2014-15, Bangladesh earned USD 1,155 million from the export of agricultural products, equivalent to 3.7% of the total export earnings. Indeed, the growth of the agricultural sector has moved the country towards greater food security and has a direct link to the issues like poverty alleviation, improved standards of living, and employment generation.

Over the last few years, there has been an increasing trend in food production. According to BBS, in FY 2014-15, food grains (rice, wheat and maize) production stood at around 38.42 million metric tons (MT). In the same fiscal year, the total internal procurement of food grains was 1.7 million MT, whereas total import of food grains through public and private sectors was 5.27 million MT (SFYP, 2016). In order to scale up productivity, the government increased subsidies for agricultural inputs, increased availability and coverage of agricultural credit. Government and NGOs have launched programs to popularize the use of organic and balanced fertilizers to maintain soil fertility and productivity (BER, 2016). However, one of the major challenges of agriculture is to promote crop diversification as well as consumption diversification. In fact, rice is the staple food crop in Bangladesh with production occurring on up to 80% of arable land twice yearly (FAO, 2014). Heavy reliance on this cereal crop and a lack of dietary diversity have contributed to the epidemic of malnutrition and poor nutritional status seen in Bangladesh (Feed the Future, 2015).

1.3 Agriculture Extension, Gender and Nutrition

Bangladesh is a developing country where about 25% of the population lives below the poverty line (BBS, 2015). Women are among the poorest of the rural poor, especially when they are the sole heads of their households, such as widows or wives of men who have migrated in search of employment. They suffer discrimination because of their gender. They have scarce income-earning opportunities and their nutritional intake is often inadequate. Among extremely poor people, there are a disproportionate number of households headed by women. Women usually do all types of household chores. However, their work is often not valued or quantified in monetary form. Rarely involved in income-earning activities, the unemployment rate is very high among rural women and their income levels are very low. They have very limited control over household resources and their voice is rarely valued. Again, in Bangladesh nearly 24.8% of the population lives below the food consumption-based poverty line, lacking sufficient resources to afford a diet of 2,122 kilocalories (kcal) per person per day, along with other necessities (BER, 2016). Poverty is an underlying cause of undernutrition, including protein and micronutrient deficiencies (Black et al., 2008). It is associated with limited or non-cash

income, food insecurity, low health-services, and complicated by problems with water and sanitation (Caulfield et al., 2006).

Apart from the prevailing deficit in total calories intake, the normal diet of Bangladeshi people is seriously imbalanced, with inadequate consumption of protein, fat, oil, fruits and vegetables, and with more than 70% of calories derived from cereals. Traditionally, women in rural Bangladesh usually take their meals after serving food to all other family members. As a result, women in rural areas are especially vulnerable and more so when their nutrient consumption requirements are particular during pregnancy and lactation.

Malnutrition is a serious public health problem in Bangladesh, which is acute among women especially in rural areas. Diet diversification is arguably the most sustainable and affordable strategy to improve nutrition for the majority of the population, particularly the women. For poor households vegetables, pulses, and local homestead fruits are often the only source of micronutrients in the family diet (Talukder, et al. 2000). Moreover, cultivable land is a scarce resource in densely populated Bangladesh, and priority is put on using it for the production of rice and other field crops.

It is well documented that dietary imbalance and unavailability of micronutrients are among the major factors responsible for poor nutritional outcomes (Talukder, et al. 2015). Literature shows that high consumption of cereals, but low intake of edible oils, vegetables, and fish result in a low level of absorption of micro-nutrients and a high level of anaemia and other ailments (BDHS, 2011). About 70% of the total calories come from cereals of which rice alone contributes 62% (HIES, 2010). Other food groups that contribute to calories are edible oil (7.9%), vegetables (3.8%), potatoes (2.8%) and spices (2.9%). The share of rice in total calorie intake was substantially higher in rural (65%) than in urban (53%) areas, which is consistent with higher rice consumption of the rural people. Although the share of cereal in the total calorie intake decreased from 73% in 2005 to 70% in 2010, according to nutritional norms, the share should not exceed 60% (FPMU, 2015).

The child under-nutrition (stunting) trend declined from 2004-2011. It was 51% in 2004, and it dropped to 43% in 2007 and 41% in 2011. 41% of children under the age of five were stunted, 36% were underweight and 16% were wasted in 2011. Bangladesh has one of the highest rates of child marriage below the age of 15 in the world, illustrating how much more needs to be done to empower women and adolescent girls in Bangladesh. Child marriage also leads to adolescent girls dropping out of education and restricts their social development, perpetuating an unequal society and increasing female vulnerability. Child marriage, early pregnancy and stunting at birth are critical points for malnutrition across the lifecycle. Empowering women and targeting adolescent girls for nutrition-sensitive social protection in Bangladesh is a clear priority (Save the Children, 2015). Meanwhile, nutrition messaging and agriculture extension advisory services (EAS) should be a priority area for improving the situation.

EAS in Bangladesh are pluralistic, consisting of a government funded (i.e., public extension network), local and international NGOs, private sector firms, donors and their development projects, and voluntary farmer advisors (Karim, 2009). The government's EAS system is by far the biggest with 26,042 employees (22,000 of which are under the Field Service Wing) (Roy and Hassan, 2017). New information, knowledge and skills related to agriculture (including livestock and fisheries) are provided by these organizations through farmer trainings, group meetings, demonstrations, farmers' field school, mass media (radio, television, newspaper and magazine), motivational campaigns, agricultural

fairs, as well as farm and home visits. Some organizations are also disseminating agricultural information through call centres and sending messages through ICT tools such as mobile phones (Ali, 2016). Some organizations are providing access to complete knowledge on specific crops and services to the user by providing different mobile apps both online and offline. In some cases, EAS include farmers visit to different research centres, universities, and successful farms to gain agricultural information, knowledge, and skills.

With these initiatives, Bangladesh achieved a lot in the agriculture sector. However, EAS remains spotty, and farmers living in remote areas face challenges in accessing suitable services. Katalyst (2015) reported that, in Bangladesh, agencies responsible for agricultural, livestock, and fisheries extension services face resource limitations, both in manpower and finances. Sub-district (upazila) level officers and their field staff are often unable to meet principal information needs of the majority of farmers within their jurisdiction.

Going ahead, the Planning Commission (2015) noted that the main extension services provided by the Department of Agricultural Extension (DAE), Department of Fisheries (DoF) and Department of Livestock Services (DLS) are mostly dependent on project funds. The major weaknesses of this project dependency are that certain areas seem to attract repeated projects whereas others do not attract any projects. Additionally, efforts are duplicated and similar approaches tried repeatedly without success. Furthermore, the extension content may depend on the parameters that the project sets without considering local needs. Many important innovations that took place during the project period were unsustainable once the project ended (Planning Commission, 2015).

To address these shortcomings, the Seventh Five Year Plan suggested creating a database of completed project records, to help identify future project directions. The report also noted that to improve the relevance of extension, reviving the previous Upazila Agriculture Extension Coordination Committee and District Committees might be considered. These suggestions could be effective, with bottom-up planning approaches and the participation of research and other extension departments and support from funds allocated at the district level. It is worth mentioning that the government could realize and identify the shortcomings of extension advisory services, which need appropriate strategies and actions to improve the situation.

The constitution of Bangladesh (under section 15 (A) and section 18 (A)) has given equal rights to safe and nutritious food for all (male and female). However, gender discrimination is widely recognized as a primary underlying cause of undernutrition in Bangladesh (WB, 2012). About 40% of children under five and almost two-thirds of women in Bangladesh were found to be zinc-deficient (Fan, 2015). Among the population living under poverty line, two thirds of them are women and female-headed families. One of the most important causes of women's malnutrition is their position in the society – particularly within the household. Married young girls and women have less power over household resources. They have less decision-making power regarding what food to buy and how to be distributed among household members (usually unequally), and they lack knowledge on what comprises a balanced diet and which foods are most nutritious. Generally, high value animal protein foods are allocated to male members. More importantly, when food is scarce, women deliberately sacrifice their own food intake to other household members. Pregnant woman also often deliberately eats less (as older household members instruct her) in order to keep the foetus small and so minimize the risk of an obstetric complications and expense of an institutional procedure such as C-section (Hussain et. al., 2015). In fact, less educated and rural women are more vulnerable to the problem.

Hence, gender-responsive and nutrition-sensitive initiatives are crucial tools to tackle further deterioration of gender inequality in Bangladesh.

1.4 Gaps in gender and nutrition integration within extension

Encouragingly, agriculture has the potential to help meet the nutritional requirements and reduce the gender imbalance. Agriculture provides food and nutrients, a broad-based source of income, and affects food prices. Therefore, it is vital to focus on agricultural education, research, and extension in connection to gender and nutrition. However, based on extant literature, researchers identified the following gaps in gender and nutrition integration within extension:

- Inadequate research, evidence, and database on how to integrate gender and nutrition in the agricultural innovation system in Bangladesh with special focus on agricultural extension;
- Lack of research evidence on the impact of agricultural growth on gender and nutrition;
- Lack of gender and nutrition specific education program/curricula in different formal and informal education;
- Limited multi-disciplinary research program on gender and nutrition in the agricultural innovation system in Bangladesh, and particularly on the potential role of agricultural extension in gender transformative, nutrition sensitive agricultural development;
- Lack of communication and coordination among academia, research, extension and development personnel on how to integrate gender and nutrition in agricultural development at large and specifically agricultural extension services within their programs;
- Lack of platform for sharing knowledge, stimulating policy dialogue, and communicating evidence based on research findings to government and other stakeholders (Sraboni et.al. 2014)
- Few target oriented interventions to reduce the gender discrimination within and through agricultural extension service providers (public, private, NGO);
- Dearth of trained and skilled professional human resources (WB, 2010) in extension;
- Lack of applied research to fill knowledge gaps on critical food and nutrition security and agricultural developmental issues, especially the role of agricultural extension (public, private, NGO);
- Lack of capacity for critical agriculture and food security related policy research within the country.

With this backdrop, proposed projects would aim to:

- Synthesize existing education, research, and extension initiatives/programs on gender and nutrition in agricultural extension;
- Enhance the institutional capacity and human resources in particular.

2 OBJECTIVES AND METHODOLOGY

2.1 Objectives

1. Synthesize the current gender-responsive and nutrition-sensitive agricultural development initiatives in Bangladesh with a special focus on the role of extension (public, private, NGO);
2. Identify and prioritize means towards a more gender-responsive and nutrition-sensitive agricultural innovation system in Bangladesh with a special focus on the role of extension (public, private, NGO);
3. Enhance the capacity and collaboration among academia, researcher, extension, and development personnel on more effectively integrating gender and nutrition.

2.1 Methodology

This landscape study mostly follows an exploratory and descriptive mode of inquiry for synthesizing the activities of research organizations, agricultural universities, non-government, private, and international organizations on the issues of gender, nutrition, and agricultural extension services. In general, the study adopted following procedure:

- Develop research framework;
- Search relevant data and information with specific questions in the internet like systematic review,
- Visit websites of the individual institute/organization to gather information;
- Collect hard copies of the relevant documents from the institution/organizations;
- Categorize and analyse collected information at individual and group of organizations;
- Share reviewed documents with selected institutions or organizations for their comments;
- Conduct key informant interviews and group discussions;
- Utilize the FAO Gender and Rural Advisory Services Assessment Tool (GRAST) to assess the enabling environment specifically for gender integration in extension and advisory services
- Prepare draft report based on data generated from different sources;
- Organize workshop to finalize the report with specific recommendations.

2.3 Selection of Institutions and Organizations

Based on the objectives of the study, the four agricultural universities Bangladesh Agricultural University (BAU), Sher-e-Bangla Agricultural University (SBAU), Sylhet Agricultural University (SAU), and Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU) were selected purposively considering that these are among the prime universities that provide agricultural education. Science and technology universities also offer some agriculture-related degrees but they were not being included in this survey considering their limited exposure to agriculture.

Almost all agricultural research and training organizations (run by the government) were selected in the landscape study. These include: Bangladesh Agricultural Research Institute (BARI), Bangladesh Rice Research Institute (BRRI), Bangladesh Livestock Research Institute (BLRI), Bangladesh Fisheries Research Institute (BFRI), Rural Development Academy (Bogra), and Bangladesh Academy for Rural Development (BARD).

The Department of Agriculture Extension (DAE) was included in the study as it is the most important governmental organization providing agriculture extension services. In addition, a good number of

non-governmental and development organizations were selected for assessing their existing gender, nutrition, and extension services in Bangladesh (see comprehensive list in the annex). These organizations were selected considering the regional and national level coverage and area of interest to serve the farmers. In fact, we used the following three criteria to select the institutions and organizations:

1. The organization/institution is engaged in conducting activities relating to nutrition, gender and agricultural extension.
2. It is operating and/or supports activities in the villages of Bangladesh.
3. It has been conducting these activities for at least two years.

A summary list of the selected institutions and organizations appear in Table 2.1. However, a full list of the organizations is in the appendix section.

Table 2.1: Broad category of the selected institutions and organizations with respective numbers

Institution and Organization Selected	Types of Institution and Organization	Number of Organizations Selected
Agricultural Universities	Government	4
Agricultural research and training organization	Government	7
Non-governmental Organizations	NGO	23
International Development Organizations	INGO	10
Private Organization	Private	4
Bilateral Aid		2
Total		50

2.4S systematic Review of Documents

After selecting the organization, the researchers carried out a systematic review. Advantages of a systematic review include:

- i. It reduces bias in the estimation of the effectiveness of an intervention by identifying all studies that address a specific issue (in this case gender, nutrition, extension, or a combination of two or more). Hence, the likelihood that research would mislead policymakers is lower with systematic reviews than with individual studies.
- ii. It reduces the role of chance in estimating effectiveness of different options by increasing the number of units for study, providing more precise effects estimates. Therefore, policymakers can have greater confidence in the expected outcomes of an intervention.
- iii. It saves time because the research literature has already been identified, selected, appraised and synthesized in a systematic and transparent way for the specific issues (in this case, gender, nutrition, and extension services).
- iv. A systematic review can be more constructively contested than an individual study because debates can focus on appraisal and synthesis rather than on the reasons that one study was identified and selected over others.
- v. It helps identify directions for future research.

Due to these strengths, the researchers followed a mix of systematic reviews. However, this landscape study could not follow the precise method of a systematic review due to the nature of research as well as the availability of information on the websites. Hence, besides collecting information from the general websites and organizational websites, the researchers collected the report and documents through visits to the specific organizations.

2.5 Method of Data and Information Collection

Data and information were collected by searching websites, library documents, personal communication, documents, and reports, and through conducting Key Informant Interviews (KII). Several key words such as “Gender”, “Nutrition”, “Agriculture Extension”, and “Bangladesh” were taken into account to gather information and data from the web sources. The survey further scrutinized the large number of reports, articles, and documents found based on the interest of the landscape study. All this information was categorized into three different groups and one mixed group. Furthermore, reports and documents were collected from the organization through visiting its offices. More importantly, KIIs were performed with the research director of agricultural universities, research organizations, and with selected NGO and INGOs. Before conducting KII, a letter was sent to the specific organization to gain their consent to participate into KII. The letter mentioned that the information be collected from different sources of a particular organization and requested them to provide further information if any relevant and important information were not incorporated. This approach helped verifying the information and discovering the most efficient way to perform KIIs. It is noted that before conducting each KII, a checklist was prepared and pre-tested with some organizations situated at nearby BAU. We maintained regular contact and communication with DAE and funders so that we could continuously revise the research findings. Authenticated data and information were collected by crosschecking it with funding and implementing organizations.

2.6 Data Analysis and Analytical Technique

Information about each project/organization was captured into a Microsoft Word document based on some specific criteria. Later on, it was categorized based on organization as well as focus area (gender, nutrition, extension). Some inclusion and exclusion criteria were developed to save time and resources. All projects/reports that stated the objective for improving nutrition and gender issues were included. By doing so, the researchers prepared a list of eligible research projects and selected a few and reviewed their objectives, key findings/expected outcomes and finalized them for inclusion in a specific category. The research team members carried out a multidisciplinary consultation for final inclusion in the synthesis report. Accordingly, there is a synthesized description of each organization category in the results and discussion section. The key findings from the landscape and scenario analysis are consolidated for each organization, with descriptive and summary statistics generated where quantitative data are available. Any differences that may emerge between organizations were highlighted, and the role, allocation and activities of these discrepancies examined. The findings have been aggregated across the institutions/organizations to provide a broader understanding of the underlying determinants of including gender and nutrition aspects in their projects.

To select good practices, the researchers developed a composite index to evaluate each project’s performance. These indices have been used to rank every component. The aggregate value of each component was used to identify the extent of a particular good practice of a particular project. This is done to identify gender-responsive good practices, nutrition-sensitive good practices, extension

services, gender and nutrition jointly, and gender, nutrition and extension together. Individual indices and the composite index have been ranked on a scale of one to five, where one is the least and five is the most effective. An example of gender related performance evaluation indices are presented below.

Table2.2: Indices for evaluating the effectiveness of a particular project related to gender

Measuring indices	Sufficiently well addressed	Addressed	Indifferent	Less addressed	Not addressed
Gender issue is addressed within the project/research title					
There is at least one specific objective covering gender issues					
Baseline and end line impact are documented					
Significant and positive difference observed between two periods					
Specific indicators is used to evaluate the project performance					
Outreach (above 1000 HHs)					
Project findings disseminated through mass media					
Project findings disseminated through academic publication					
Monitoring and supervision procedure explained well					
Replication is carried out in other areas					
Sustainability and institutionalization taken care					
Any important criteria (specific)					

Similar composite indices have been adopted for identifying good practices for nutrition, extension services, gender and nutrition (together), and gender, nutrition and extension (jointly). Please see appendix for other selection criteria indices.

Furthermore, a SWOT analysis was undertaken to understand the existing potential and difficulties of the organizations to deal with gender, nutrition and agriculture extension services. The survey also conducted a daylong workshop at BAU where participation and engagement of the respective organizations' personnel were ensured. In the afternoon session, a scenario analysis was performed in two different ways to ascertain and analyse possible collaboration in the future.

Scenario 1: The research, education, development and agricultural extension organizations will jointly conduct research. The workshop participants have identified the prospects and challenges of such a scenario and rank them accordingly. By doing so, the most important challenges and prospects were identified and documented for future collaboration and partnership agreement.

Scenario 2: The research, education, development and agricultural extension organizations (with similar mission and vision in promoting agricultural development) will individually conduct research and carry out the project. Similar to Scenario 1, the most important prospects and challenges were identified and documented for consideration when conducting future project/research individually or jointly.

Finally, participants themselves identified and prioritized future research directions through promoting open discussion that has been shared for further feedback. Some of the participants have given their feedback which has been incorporated in finalizing the report. A noticeable outcome of this stakeholder workshop would be the knowledge sharing on existing gender, nutrition and agricultural extension programs and strategies, which enhance ideas about future collaboration and integration.

2.7 Limitations

One of the greatest challenges of this landscape study was to collect data and information using a search engine. In fact, many organizations, particularly the government organizations, seldom update their website and do not upload detailed information. Hence, researchers had to depend on personal communication and visiting the organizations to collect relevant information. Accordingly, the researchers could not use systematic reviews to their full potential. In some cases, the researcher also faced barriers to finding a convenient time to conduct KIIs with the respective personnel of some organizations.

3 ENABLING ENVIRONMENT FOR GENDER RESPONSIVE RURAL ADVISORY SERVICES¹⁰

3.1 Background and Rationale

Gender relations in Bangladesh have been undergoing a process of considerable transformation over the past thirty years as part of a broader process of economic transition and societal change. Women farmers made up 40 percent of the total agricultural labor force in 2010, with a 7 percent growth in women's participation in agriculture between 2005 and 2010 (Akter et. al. 2015). Evidence shows that the wage difference between men and women in agriculture decreased from 40% to 30% for the year 2011/12 to 2013/14, which can be taken as a positive change (FPMU, 2015; BBS Monthly Bulletin, 2015), although the gap is still very high. Despite such progress, Bangladeshi women are still primarily considered to be unpaid family labor (56.3% of women in the labor force), and their contributions to agriculture are not fully recognized, neither in the household and communities nor at the national level (SFYP, 2015). Gender issues in agriculture are complex but it is generally agreed that the major barriers for women to contribute more fully to social and economic development are a) limited ownership of land by women, b) inequitable access to infrastructure and services and c) social and structural (socio-political and cultural) inability of women farmers to negotiate and engage with markets and related stakeholders as farmers in their own right (ICF, 2014). Women are already heavily involved in agriculture; by purposefully supporting them in this role, they will be able to contribute more substantially and more productively to the sustainable development of the country.

Is the policy environment in Bangladesh conducive to leading the country towards that goal? What are the conditions especially for the rural advisory or extension system to provide services that are more equitable to men and women farmers? To attempt to answer these questions, we used the pilot version of the "Gender and Rural Advisory Services Assessment Tool" (GRAST, see Box 1) developed by the Social Policies and Rural Institutions Division, Economic and Social Development Department of the Food and Agriculture Organization of the United Nations (FAO, Rome). The tool was used to assess the enabling environment dimension of rural advisory services (RAS) in Bangladesh and guide the writing of this discussion paper. The analysis was carried out from March to November 2016.

Following the structure of the GRAST, the following specific questions are addressed in this report:

1. Whether or not high-level commitment to include women in development planning and programming exists in terms of written policies and/or strategies;
2. Whether or not national ARD/FS or poverty reduction policies/strategies recognize the important contribution of women to agriculture and rural development (ARD) and food security and nutrition (FSN).

¹⁰ This chapter has also been published by INGENAES as a stand-alone report. It is called "Analyzing the gender sensitivity of rural advisory services in Bangladesh. Results from the implementation of the FAO Gender and Rural Advisory Services Assessment Tool (Enabling Environment component). It was prepared by M. Wakilur Rahman, Nishith Zahan Tanny and M. Serajul Islam and published in April, 2017. It is available at <http://ingenaes.illinois.edu/bangladesh>.

3. Whether or not ARD/FS or poverty reduction policies/strategies include an explicit objective to ensure that women access and control productive resources, services and income generating opportunities, in particular RAS, equal to men.
4. Whether or not the Ministry of Agriculture has and is implementing a Policy for Gender Equality (or equity)

Box 1: About the FAO Gender and Rural Advisory Services Assessment Tool (GRAST):

GRAST was designed for development organizations, national rural advisory services providers, and private sector companies who wish to assess gender-sensitivity of RAS in order to help introduce improvements. In 2015, the FAO completed a systematic literature review of the major constraints to women’s access to RAS, as well as good practices in gender-sensitive approaches for overcoming these constraints. Based on the results of the literature review, FAO identified the need for a tool that can easily but comprehensively assess the gender-sensitivity of the given RAS. The GRAST has two main objectives. On one hand, by assessing the gender-sensitivity of RAS organizations and programs, it aims to understand what works to design and deliver gender-sensitive RAS, and facilitate the sharing of innovative approaches. On the other, the assessment aims to shed light on the areas of the assessed organizations and their programs that require improvement in order to increase gender-responsiveness and thus effectiveness of RAS design and delivery. Both objectives will enable the formulation of recommendations and capacity development materials for gender-sensitive RAS at policy, organizational and individual levels. The GRAST is structured around three areas of inquiry that correspond with three dimensions, namely (1) enabling environment; (2) organizational; and (3) individual. The individual dimension includes both RAS staff and clients, as it is important to account for the clients’ perspectives on the service provision in assessing the enabling environment, organization, and individual capacity.

For more information on FAO’s work on gender-sensitive RAS visit: www.fao.org/3/a-i5120e.pdf and www.fao.org/3/a-i6194e.pdf.

3.2 Level of Commitment to Include Women in Development Planning and Programming

The Government of Bangladesh (GoB) ratified the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and its Optional Protocol in 2011. The eighth periodic report (submitted on 9 March, 2016) of Bangladesh to the CEDAW Committee acknowledged (para 85) that it is a challenge to provide all the required support to rural women due to limited resources. It explicitly stated that the Ministry of Women and Children’s Affairs (MOWCA) has inadequate human, financial and technical resources and decision-making authority. Hence, it is suggested to ensure adequate human, financial and technical resources and decision-making authority so that MOWCA can work effectively for the advancement of women and the promotion of gender equality at all levels (CEDAW, 2016). The ECNEC (The Executive Committee of National Economic Council) in collaboration with

¹¹Bangladesh acceded to the CEDAW treaty on November 6, 1984.

MOWCA has issued guidelines for gender responsive planning and review, guiding on how to address gender in technical assistance and investment project documents. The resource allocation for gender is to be aligned with the identified priority areas by the ministries and to be consistent with actions based on set criteria. The department of women affairs (under MOWCA) has prepared a national action plan to address above issues through allocation of resources (from the government) and provide gender related training to their staff and the participants. Similarly, the CEDAW shadow report prepared by civil society organizations urged the GoB to establish strong legal measures to ensure women's control over their own earnings and wealth, as well as their right to inheritance given that women are major contributors in the economy and income earners. They also expressed their concern that existing social safety net programs for rural women often fail to reach the most disadvantaged and remote areas (CIC-BD, 2016).

Bangladesh has enacted several legal and policy measures to uphold the rights and opportunities of women at the national level. The Constitution of Bangladesh grants equal rights to women and men in all spheres of public life (Article 27, 28(1), 28(2), 28(3), 28(4), 29(1), 29(2) and 29(3)) and has been supplemented by a number of Acts and Ordinances to safeguard women's equal rights. Laws formulated include the Domestic Violence (Prevention and Protection) Act 2010, the Domestic Violence Prevention and Protection Rules 2013, Prevention and Suppression of Human Trafficking (PSHT) Act 2012, Hindu Marriage Registration Act 2012, Child Marriage Control Act-2013 (draft) and National Children's Act 2013 (KfW, 2006; NWDP, 2011, SFYP, 2015).

Another important achievement was the reformulation of the National Women Development Policy (NWDP) 2011 from the National Women Advancement Policy of 1997. A National Action Plan (NAP) for implementing the policy as well as meeting commitments under the Beijing Platform for Action (PfA) was approved in 1998. Among the twenty-two objectives of the NWDP 2011, one objective clearly calls for Bangladesh "to innovate and import technology favoring the interest of women and prohibit anti-women technologies". Furthermore, under the "women and farming" section, it suggests "taking initiative to ensure equal wages for the same job and to remove wage discrimination to women in agriculture". Besides, it suggests taking steps to ensure that farming women have equal opportunity having access to agricultural inputs like fertilizer and seeds, as well as farmers' cards and credit facilities, etc. (NWDP, 2011: page 20, 31.3). There is an ordinance for minimum wages for agricultural laborer ("The minimum rate of wages for agricultural labor per day shall be 3.27 kilograms of rice or such amount of money as is equal to the price of this quantity of rice in the local market") but no concrete measures are formulated to ensure equal wages for male and female.

3.3 Contribution of Women to Agriculture and Rural Development and Food Security

One of the key objectives of National Rural Development Policy 2001 is "improving the quality of life of women and the poor" besides ensuring a supportive environment for ethnic, marginal, disadvantaged people in the society (NRDP, 2001). In line with the Poverty Reduction Strategy Paper 2009 (Policy Matrix 3 and 14), the Policy of Action (PoA) calls for a multi-sectoral set of actions focused on women's skill development, access to productive assets and encourage participation in extension services (PRSP, 2009). This policy mentioned continues for the next decade and poverty reduction strategies in sixth five-year plan include stimulating women participation in the labor force and improving the access to and quality of education, health and nutrition services (SFYP, 2015). The National Agriculture Policy of 2013 (originated from NAP 1999) recognizes the importance of the

involvement of women in different agricultural activities such as post-harvest operations, seed preservation, nursery business, jute stripping, vegetable cultivation, homestead gardening, floriculture, production of horticultural seeds, establishment and management of cottage industries based on locally produced agricultural commodities. Similarly, the National Food Policy (NFP) Plan of Action agenda is guided to empower rural women by ensuring access to productive resources, income opportunities, extension services, credit, and labor and timesaving technologies (NFPMU, 2015). The Government of Bangladesh has implemented targeted social safety net programs such as One House One Farm, Food for Work, Vulnerable Group Development with strong focus on vulnerable women and their families (Rahman, 2014). For instance, “One House One Farm Project” reached more than 2.5 million beneficiaries in 40,527 villages among which 60 percent are women. The Department of Women Affairs (DWA) has allocated micro-credit to 300,000 beneficiaries through 3,525 women organizations during FY 2009 to 2014 (MOWCA, 2015). Similarly, from 2010-2014 more than 488,356 (50% women) rural people participated in different types of training programs organized by the Ministry of Agriculture (MoA, 2015). The stipend program for female children up to higher secondary level is regarded as a global best practice that achieved dramatic results in gender parity of education. In addition, the enactment of the Local Government (Union Parishad) Second Amendment Act in 1997 that provided for direct elections to reserved seats for women in local level elections was a significant step forward in gender equity (Walker, 2013). Likewise, one of the important objectives of Seventh Five Year Plan (2015-2016 to 2019-2020) is to “encourage wider women’s participation in homestead based agricultural production, post-harvest management, agro/food processing, marketing and decision making to support women’s empowerment in agriculture”. At the strategy level, the plan proposes that various subsidy schemes should be reviewed to make sure that they respond to the particular needs of women farmers; extra attention will be needed to ensure that technologies are gender neutral, and that they address all aspects of the production chain (SFYP, 2015). In fact, the Seventh Five Year Plan has clearly identified four strategic objectives and seven action areas towards women’s empowerment and gender equality. More importantly, it has set some indicators for ensuring gender equality (see annex for details).

3.4 Explicit Objectives to Ensure Equal Access for Women

RAS in Bangladesh is pluralistic, consisting of a government funded, i.e., public, extension network, local and international NGOs, private sector firms, donors and their development projects, and voluntary farmer advisors (Karim, 2009). The government’s extension system has by and large the largest coverage¹². Access to extension services, however, remains spotty, and farmers living in remote areas face challenges in accessing suitable RAS. Hence, the government encourages strengthening Public Private Partnerships in following areas (i) commercial production, processing and marketing; (ii) agro-technology extension services; (iii) market information system (development, expansion and flow); and (iv) establishment and management of agricultural product collection centers, wholesale market etc. (NAEP, 2015). A village level study (nearby a metropolitan city) reported that about 56 percent of rural women had medium awareness on agricultural extension

¹²Governmental statistics on the number of men and women working in specific units within the Ministry of Agriculture in the years 2013-14 to 2014-15 (see Table 1) report that there are 14,682 male and 1,439 female staff working in the Upazila Agricultural Offices, in addition to 1,458 male and 41 female officers. USAID (2015), Sadek (2015), and MEAS (2011) report a lower number, namely that there are 12,600 field extension officers are working throughout the country.

activities (Islam et. al. 2014). However, there is lack of effective demand driven RAS and from the farmers' side sometimes farmers are unable to articulate their RAS demand as well as to give feedback. There is a scope for capacity development of RAS providers through networking stakeholders both at individual and institutional level.

The most recent NAEP specifically encourages supporting the participation of women in agriculture through developing women farmer groups, encouraging women SME development in agri-business, developing confidence for raising their voice through grassroots level women farmers' organization, creating gender awareness of both women and male farmers (NAEP, 2015). The NAEP (2015) also suggests encouraging women farmers to lead and occupy decision-making positions in higher-level farmer organizations. The performance of rural advisory services (RAS) depends crucially on the conditions that prevail in the environment in which they are embedded (GFRAS, 2012). Clearly, Bangladesh does have policy and legal frameworks that imply an enabling environment for RAS in Bangladesh. However, although these laws and policies provide the essential legal framework for protecting and promoting women's equal rights in the public sphere, women continue to face considerable discrimination in RAS. They lag far behind men in rates of access to RAS. In fact, female farmers are often left out of the traditional extension system-because of gender barriers, many times female farmers do not interact with male extension agents (Sadek, 2015).

From National Extension Coverage Survey (ASIRP 2003) it is evident that the majority of farmers, particularly women in the smaller farm sizes or lower income categories, remain unaware of the main formal ESPs (Extension Service Providers) in both the government and non-government sector. There is considerable gender disparity in access to RAS, even within the NGO community, although NGOs have invested heavily in targeting women (ASIRP, 2003). Hence, the extension services seem to be poorly organized in meeting the needs of women in agriculture. Islam et al. (2014) report that rural women's awareness on extension activities showed significant positive correlations with their education, extension media contact and cosmopolitans. According to Uddin (2008) the interface between and among extension, research and education remain a critical area of concern to increase the efficiency of extension services.

A village level needs assessment survey documented that most of the women needed information on agriculture and animal husbandry (Hossain and Islam, 2012¹³; SFYP, 2015). Knowledge seeking behavior of women and access to participation of women in planning and marketing of farming production is different from men. Often they first need permission from their husbands or elderly female relatives to participate in these types of activities. With the absence of male family members (due to migration or and other reasons), women's role is changing as farm managers. Now, they have to manage the farm as well as the household. Accordingly, NWDP (2011) and USAID (2015) have identified lack of time due to household responsibilities as a major constraint on women's agricultural productivity. As a result, they recommend the research and extension system should invest in "women friendly technologies", aiming at saving time and reducing drudgery of women who are engaged in agricultural work (USAID, 2015). Application of sustainable household technology (e.g., household products, appliances, drinking water etc.) will decrease women's working hours in the household, and this saved time can be spent on farming. Concerning women's access to technology, Bangladeshi

¹³Hossain and Islam (2012) report that about 87% women's respondents prioritized agricultural information, followed by information on animal husbandry (83%), food and nutrition (75%), health (75%), education (58%), religion (42%), politics (25%), family planning (25%), loan (17%).

women have relatively easier access to credit (microcredit) than other assets. Therefore, greater financial access and decision-making ability in the household might influence women to purchase women-friendly technologies that will reduce their workload.

3.5 Availability of sex-disaggregated data

In general, the Bangladesh Bureau of Statistics (BBS) agrees to sex-disaggregated data synchronized with the national and sectoral indicators and the reporting needs for CEDAW, SDG and such others. The availability of sex-disaggregated data is the basis of baseline and assessment of development results for gender equality and women's empowerment. It has been a constant concern that sex disaggregated data is not available for all areas. Even though data are collected from men and women and can be presented in a disaggregated manner, often data are presented in general terms. It is critical that all agencies, field offices and local government institutions, collect and present data in a sex disaggregated manner, which eventually supports the Government and all to conduct gender analysis and use them for planning and evaluation. As the Government has recognized 'transgender' as a third gender, all data should also reflect that category. Sex-disaggregated data, especially if analyzed by income group, ethnicity, physical ability or geographical location will provide better information of the differential needs of women from different groups and locations (Begum, 2014). It is difficult to obtain gender disaggregated data to see who is receiving government support in terms of men and women. However, the Ministry of Agriculture has identified five areas with the highest spending priorities. Among these, 30% of the agricultural subsidy is allocated to women farmers, 40% to the special program for irrigation and water logging and a similar rate (40%) for agricultural rehabilitations programs (MoA, 2015).

3.6 Gender Responsive Budgets

A specific gender budget initiated by the government gradually ensures gender equity in every policy area through budgetary allocation and implementation. Adequate allocations along with proper implementation in the national budget are prerequisites to achieving gender equality and equity targets. In fact, the government is committed to strengthening the Gender Responsive Budgeting (GRB) process and it has taken some incremental steps. The Action Plan developed by the government to implement the National Women Policy strongly emphasized implementation of GRB in a tangible and meaningful manner. The Ministry of Finance is taking up initiatives to work with the Planning Commission to make project formulation more gender sensitive. It is also allocating resources for the line ministries, including the MoA, to undertake gender disaggregated beneficiary assessment of the implemented projects (Siddique, 2013). However, about 40 percent of total gender budget is unused. Regardless of the enormous allocation, the actual benefits of Gender Budget in Bangladesh have not come into force because of ambiguity of Government policies (Mozdalifa, 2012). For example, the Planning Commission uses 17 sectors for planning, and the Ministry of Finance uses 13 sectors for budget allocation. These together with the division of ministries by three gender equality results areas in gender budget reports pose difficulties in understanding and application of the 14 GRB criteria (Begum, 2014). The gender budget reporting compiles report in three different areas and divides the Ministries in 3 groups, each contributing in one area. This division is problematic as the same ministry can contribute in all three areas. As for gender responsive planning, the agencies are not oriented or aware of the guidelines and its use is limited. The main limitations are lack of purposive gender planning and that the guidelines are not integrated within the project planning formats. Staff capacity is also limited in using the guidelines. Thus, the seventh five-year plan has emphasized to continue

and expand the support for enhancing capacity of policy makers, existing staff contingent in different institutions. Private sectors should be encouraged to incorporate gender perspectives in their operation and employ gender specialists, if needed (SFYP, 2015).

3.7 Gender Equality of Equity Policies in the Ministry of Agriculture

Although there is existence of quota system in government jobs to ensure the employment of women, several gender gaps have been identified in the activities of the Ministry of Agriculture. For instance, the statistics of male and female officials in different organizations under the Ministry of Agriculture in 2014-15 fiscal years shows that only 5% of officers and 9% of staff are women (MoA, 2015). The situation is similar in the Department of Agricultural Extension. Here, among officers at ministry level, during the fiscal year 2014-15, 194 were male and 13 (6.7%) were female. Among education and training officers of the Department of Agricultural Extension on modern technology, only 8.3 percent are women. More importantly, there are 1,458 male versus 41 (2.7%) female officers employed at upazilla level. Similarly, the number of field staff is 16,121 in which 91.1% is male and 8.9% is female respectively. Women's lower participation in the Ministry of Agriculture activities has negatively influenced the formulation of gender-sensitive policies, programs and projects in the agricultural sector. The Ministry of Agriculture recognizes that despite the opportunities for agricultural education, training and research home and abroad, women's participation is lagging behind in respect to equal opportunities in management (MoA, 2015). In spite of these initiatives, there was no significant increase 2013/14 to 2014/15 in the number of women working in the Ministry (Table 3.1), the percentage of women among officers now being 5%, and 9% among staff.

Table 3.1: Number of men and women working in specific units within the Ministry of Agriculture in the years 2013-14 to 2014-15

Employees	Officers				Staff			
	2014/15		2013/14		2014/15		2013/14	
	Male	Female	Male	Female	Male	Female	Male	Female
Secretariat	81	17	74	13	55	19	55	16
Department of Agricultural Extension	194	13	194	13	271	38	115	37
Project Implementation Wing	1	0	1	0	21	3	17	1
Field Services Wing	352	7	353	7	1,478	173	1,405	162
Plant Protection Wing	69	1	62	1	165	23	138	20
Cash Crop Wing- Tobacco & Jute	7	0	7	0	42	6	42	6
Food Crops Wing	71	1	71	1	923	38	790	28
Agricultural Education & Training	133	12	133	14	410	40	350	33
Upazila Agriculture Office	1,458	41	1,458	40	14,682	1439	14,610	1,410
Seed Certification Agency	43	9	45	6	141	13	144	11

Employees	Officers				Staff			
	2014/15		2013/14		2014/15		2013/14	
	Male	Female	Male	Female	Male	Female	Male	Female
Cotton Development Board	65	6	65	6	644	45	444	45
Agricultural Information Service	26	0	24	1	154	19	155	10
Department of Agricultural Marketing	25	7	26	7	380	58	406	49
Soil Resource Development Institute	125	30	131	24	275	34	294	35
Total	2,650	144	2,644	133	19,641	1,948	18,965	1,864
Percentage	95%	5%	95.2%	4.7%	91%	9%	91.1%	8.9%

Source: Ministry of Agriculture, 2015

www.mof.gov.bd/en/budget/15_16/gender_budget/en/G-1_06_43_Agriculture_English.pdf

The Ministry is providing multi-faceted training on agricultural activities to women in order to provide them with opportunities by enabling them to become an educated and skilled workforce. Women farmers are supported in different areas alongside men for their contribution in social and economic spheres. In terms of the Ministry's total expenditure, during the fiscal year 2015-16, 26.8% was allotted to activities intended to benefit.

3.8 Overall Observations Regarding the Enabling Environment

This discussion paper carefully reviewed different policies and strategies of the Bangladesh government in line with FAO's Gender and Rural Advisory Services Assessment Tool. The review shows that there is important political commitment but this is often not accompanied by concrete action. The government policies are found to be extensive but existing documents reported slower progress on implementation. While the government has successfully passed policies that do include passages on gender, (e.g. the National Agriculture Policy, New Agriculture Extension Policy, Rural Development Policy, National Women Development Policy, Poverty Reduction Strategy Papers I&II, Seventh Five Year Plan and Two-Year plan (Government's Plan during 1978-1980)), there is an implementation gap of these policies. Also, coordination among different departments falls short. None of the policy frameworks have a specific implementation strategy that distinctly addresses gender issues in RAS.

For instance, as per CEDAW agreement, the county submits a regular report on the progress made in eliminating discrimination against women. However, reservations on articles 2 and 16 pertaining to marriage, divorce, and inheritance remain enforced. Article 2 (relating to "Obligations to Eliminate Discrimination") is in direct contradiction to Religious Personal Law, which allows members of different faiths to practice marriage, divorce, alimony custody and guardianship in accordance with the religious faith and article 16 ("Equity in Marriage and Family Law"). Withdrawal of existing reservation on Article 2 and Article 16(1)c was considered and the Law Commission (LC) was requested to review the merit of the reservation and to provide appropriate recommendations. The LC recommended government to withdraw her reservation from Article 2 and Article 16.1(c) of CEDAW.

However, Bangladesh shall apply the provisions of these articles in compatibility and harmony with her Constitution and existing laws. The Government is considering the LC recommendation with concern about the potential movements by the Islamic fundamentalist groups, who are against the withdrawal of the reservations (CEDAW, 2015). Hence, lifting reservation on Article 2 and 16 is a commitment of the GoB to CEDAW is yet to be fulfilled.

Although two significant policies (National Women Development Policy 2011, New Agriculture Extension Policy 2015) create provisions to improve access to productive resource, services and income generating activities for women, these are yet to be implemented due to execution problems. For example, the use of a top-down approach, over-dependence on training and visit approach, limited front line human resources, limited policy guidelines and absence of proper feedback mechanism, lack of ICT use, inadequate training centers, lack of coordination and integration in different departments and ministries, and limited number of female RAS advisors hinder implementation.

Despite some favorable policies and strategies, at present RAS is not gender sensitive due to substantial gaps in implementation of policies and lack of proper monitoring and evaluation. The lack of gender responsive working environment for extension service staff including inadequate childcare facilities, transport, accommodation, occupational health, and safety are some of the reasons that discourage women to pursue a career in RAS.

Furthermore, education, research and extension links remain weak, hence the extension system fails to come up with solution that could well improve the gender sensitivity of RAS (SAIC, 2006). Therefore, beside policy supports, coordinated and integrated efforts among education, research, and extension organizations could play substantial role to attain gender sensitive RAS in Bangladesh.

4 RESULTS AND DISCUSSIONS

4.1 Gender, Nutrition and Extension Services by DAE

The vision of DAE is to provide eco-friendly, safe, climate resilient, sustainable, and productive agricultural practices with commitment to conservation of natural resources. Their aim is to ensure food security and robust commercial agriculture to accelerate socio-economic development of the country. Accordingly, the mission of DAE is to provide efficient, effective, decentralized, location specific, demand responsive and integrated extension services so that all farmers can have access and utilize tools and information to increase sustainable and profitable crop production.

Indeed, DAE works to enhance food crop and fodder production through disseminating technology to farmers. DAE’s National Agriculture Policy (NAP) states that DAE is primarily responsible to provide information on appropriate technologies to the farmers; educating the farmers through proper advice and training; and motivating the farmers to adopt improved technologies.

It is also important to improve nutritional objectives, components and considerations within development policies and programs to improve food security at the household level. This works to protect consumers through improving food quality and food safety. DAE has future plans to support women in post-harvest operations, seed preservation, nursery business, jute stripping, vegetable cultivation, homestead gardening, floriculture, production of horticultural seeds, and establishment and management of cottage industries based on locally produced agricultural commodities. Box 4.1 contains a summary of the projects that DAE implemented in the past three years.

Box 4.1: Summary statistics of the projects implemented by DAE

Ongoing Projects:	23 in the year 2017
Previous projects:	26 in fiscal year 2014-2015
	24 in fiscal year 2013-2014

Of these, 15 projects specifically address gender and / or nutrition; Details are in Annex 4.

Some of the different projects implemented by DAE are presented here. One of DAE’s ongoing projects related to gender, nutrition and agricultural services is “Orienting Agriculture toward Improved Nutrition and Women’s Empowerment” (also known as “Agriculture, Nutrition and Gender Linkage”, or in short ANGeL). The overall goal of the project is to ensure women’s empowerment and nutrition development through identifying agricultural activities. The specific objective is to measure or evaluate the impact of project activities on food diversification, household income, nutrition status of mothers and pre-school children including calorie, protein, zinc and vitamin A intake.

The major activities of the ANGeL project include:

- conducting a baseline survey on 16 upazilas among 4,000 households;
- providing training to 125 trainers (TOT) in 125 blocks;
- farmer’s training to 3,125 households;
- international training to enhance capacity;
- arrangements of international seminar/conference; and finally,
- endline survey on 4,000 households.

After conducting a baseline survey, a total of 3,125 farmers' families including mothers and two-year-old children were selected through Randomized Control Trial for five treatment group. The remaining 875 farm families were included in the control group. To fulfil the second objective, Helen Keller International provides training for extension staff on nutrition (Pusti Karmi), gender and agriculture. To accompany the third objective, two farmers' groups were formed from each block resulting in 250 groups where each group was comprised of 12-13 households including one male and one female member from each family to provide training. Following these objectives, the trainers received training after three weeks and provided training to farmers on several sessions on gender, nutrition and agriculture. Based on available information of the project and good practice selection criteria, the project could be considered one of the good practices.

Another ongoing project is Nutrition and Food Security through Integrated Agricultural Development. The objectives of this project are to achieve food security and generate income of rural people living in char, *Haor* and poverty prone areas. The project adopts different strategies of increasing agricultural production. The practices are:

- Form ideal village by achieving food sufficiency and improving quality of life.
- Increase crop diversification areas by producing crop with high value and lower water requirements.
- Agricultural development and formation of farmer's group and intensifying their activities by agricultural mechanization.
- Increase agricultural productivity and crop intensification by 25-35% using modern agricultural technology.
- Homestead and schoolyard gardening
- Create nutrition awareness among women, students and the masses.

A major objective is to increase knowledge and capacity of farmers, DAE personnel, and beneficiaries through training on agriculture, nutrition and income generating activities. The project beneficiaries are all farmers with special emphasis on landless, small, and marginal farmers. Ultra poor and marginalized women get priority. The project implementation techniques are formation of farmers' groups under direct supervision of DAE personnel and distribution of agricultural equipment among them. The agricultural equipment distributed on rentals basis and there are demonstration and training sessions among the groups to ensure agricultural production, nutrition and food security.

The Agriculture Growth and Employment Program (AGEP) consists of three components- 1) Integrated Farm Management Component (IFMC); 2) Agriculture and Food Security Project (AFSP) in the Chittagong Hill Tracts, and 3) Agro Business Development Component (ABDC). The immediate objective of this project is to increase agricultural production among female and male members of landless, marginal and small farming households. Specific objectives are:

- Female and male farmers have been empowered with increased number of farm activities and diversification adopting Integrated Farm Management (IFM) technologies and management practices;
- Female and male farmers have been empowered and linked to service providers, market actors and micro-finance organizations to increase farm profitability, through the formation of Farmer Organization (FO);
- National dialogue on farmer-centered extension approaches has been strengthened.

In connection to gender and nutrition following activities was carried out in 373 upazillas of 61 districts (except three hilly districts). The project ensures equal participation of both male and females in every

activity implementation. Female and male farmers have been empowered and increased number of total farm activities and diversification adopting Integrated Farm Management (IFM) technologies and management practices. The project has developed 493 female Farmer Facilitators (FF) out of 2079 FF for running FFSs. The project developed 879 male and 890 female Business Focal Persons (BFP) for operating business activities of Farmer organizations. They must ensure that at least one female is in the executive committee (i.e., either as president, secretary, or cashier). IFMC has already built up the capacity of 545 male and 347 female FO-leaders to strengthen farmer organizations. Each FFS included a module on social issues such as gender equality which is compulsory for all participants in combined sessions which is spread over full FFS intervention period. Fifty percent female farmers are also included in motivational tour. Food and nutrition topics are focused in a separate module. It is elaborately discussed in FFS with both the male and female farmers by hands on practice. Each FFS has a module on homestead gardening to produce safe fruits and vegetables by the farmers. It is expected that the project will ensure minimum 50% female control over income from homestead vegetables, fruits and poultry production. Minimum 20% higher intake of animal protein by children aged below 5 (in trained households).

DAE also has strategic documentation for achieving gender equity. The overarching goal of this strategic document is to preserve the rights and opportunities of women in different development programmes to bring about equity between men and women. The objectives are 1) to formulate descriptive and suitable regulations reflecting women's needs, demands and priority to help them to come into the mainstream of agriculture, 2) to create a congenial environment to bring women into the mainstream of agriculture through enhancing institutional capacity of DAE, executing accountability and duty towards women, 3) to help to reflect women's contribution, their role, recognizing them as farmers, control over property, bring gender equality in agriculture and 4) to circulate the positive attitudes to women regarding their contribution in agriculture, their roles, success in different projects and standing beside them.

The beneficiaries of this strategic paper are all citizen of Bangladesh, those who are involved in agriculture, women, who have eagerness in agriculture and all female staff of DAE at all level. To evaluate this strategic paper, there is a focal team or committee, two thirds of which are female members. This team works to measure the contribution of women in the crop sector, availability and access to extension services, enhance women's access to the labour market and income generating activities, to examine the role of different government, non-government, and personal sector in eradicating the obstacles in agriculture and to implement a gender action plan. Besides these activities, DAE works to train male and female farmers and their office staffs to enhance their working capacity and create gender awareness.

4.2 Gender, Nutrition and Extension Services by Research Institutes

Different research institutes are mainly involved in innovation and technology development. Different initiatives taken by major research institutes are presented below.

4.2.1 BARI

BARI is solely engaged in varietal improvements of different crops, disease inspection, and management of soil, water and farm as well as socioeconomic analysis of production, distribution and consumption of crops. Concurrent projects of BARI focus on both extension (technology dissemination) and nutrition (food security, nutrient enriched crops). Similarly, the research highlights of BRRI are transferring technology (training to extension workers, scientists and rice farmers, exposure to social

media) and analysing socioeconomic dimensions. Different research programs are already running for the year 2015-16, among which some are related to rice varieties improvements, some are focused on introducing bio-fortified rice, while other are related to energy and gender. The contribution of agricultural economics is the assessment of modern rice technologies on farm level food security and livelihood improvements. This division also identified socio-economic constraints to accessing improved rice varieties (gender constraints are not mentioned). One of the major research findings of farm management division related to gender division of labour is male labour efficiency in harvesting and female labour efficiency in weeding and winnowing.

4.2.2 BFRI

BFRI is working with the vision of evolving aquaculture technologies, and management guidelines for open water fisheries to optimize sustainable harvest from national aquatic resources in consonance with environment, economics and equity and to assist the country in all matters relating to its fisheries R&D. One of the responsibilities of the institute is “to transfer the technologies to users through training of extension workers, planners, fish farmers and other relevant persons”. BFRI trained up about 300 female farmers in pearl culture in ponds.

4.2.3 BLRI

The Bangladesh Livestock Research Institute (BLRI) has been working since the late 1980s with the mandates to develop knowledge and techniques of livestock and poultry production to help poverty alleviation, women’s empowerment, food and nutrition security for the increasing population, employment creation, and environment pollution control. During the last two and a half decades, BLRI has already developed 67 technologies and packages and disseminated to the farmer. BLRI has seven mandates. Among them, four of them are related to this study, namely:

- i. To solve problems through multi and inter-disciplinary and inter-institutional research;
- ii. To develop techniques and knowledge for livestock and poultry production to help food and nutrition security for the increasing population, poverty alleviation, employment creation and environment pollution control;
- iii. To strengthen research-extension-NGO linkage and expedite quick dissemination of the developed and introduced techniques to the end users;
- iv. To impart training to trainers, farmers and first line extension of livestock technologies to the farmers.

However, while looking at their completed and ongoing research, it is observed that they mostly focused on production of livestock and poultry and its products and in some extent of dissemination of such technologies through training. For example, they have completed 42 research projects in the year 2013-14, and none of them distinctly addressed gender issues. Even the socio-economic and policy research emphasize household earnings and livelihood improvement but did not capture the gender-disaggregated information. In contrast, one research reported efficacy of technology transformation through farmer training and field demonstration. A couple of research projects cover nutritional issues, but mostly focused on animal (livestock) nutrition instead of human nutrition. Similarly, there are 47 ongoing research projects in which only two are associated with technology transfer (details are seen in the annex).

4.2.4 BINA

The Bangladesh Institute of Nuclear Agriculture (BINA) is an Agriculture Research Institute that has been using nuclear techniques in agriculture research since 1975. Now the institute has become one of the reputed national institutes and its exposure is gradually increasing internationally. The scientists in the institute are devoting themselves to full concentration on developing new varieties and generating non-commodity technologies. The scientists also conduct technology transfer with the help of DAE field staff. The institute is carrying out block demonstrations, DAE personnel and farmers training and field days, production and distributions of seeds of different varieties to different stakeholders. However, out of seven objectives of BINA, none of the objective clarifies the importance of gender and nutrition issues. In addition, during personal communication and piloting KIs, it is apparent that they were reluctant to address gender issues in their projects but they showed their interest in incorporating gender issues in upcoming projects. Similarly, they reported that they will develop new technologies (varietal improvement) that could improve nutritional values.

Encouragingly, BINA shared the gender budget report 2014-2015. The report stated the successes, future recommendations, and obstacles in achieving women's development. Among the successes, seed technology training has been provided 90 female farmers from Satkhira district in 2011-2014; the training helped them to acquire knowledge and produce BINA invented saline tolerant rice and pulses. About 60 female farmers from Sherpur and Satkhira districts also participated in "participatory varietal selection" activities. This workshop helped them to gain knowledge on improved crop varieties. Moreover, the SRSD project of BINA provided training to more than 7,000 women in different remote areas on crops like rice, pulse, mustard, jute, tomato and BINA invented germ fertilizer, soil management, disease inspection and irrigation technology. Through focus group discussion and sensory evaluation, 90 female farmers from Sherpur district were given training on varietal selection and nutrients in rice to raise awareness at family level. Under the soil science department, from 2012-2013, 60 female farmers from Barind Tract in Rajshahi district received training on cultivating high yielding wheat with inadequate water and preserving soil fertility. The future recommendations emphasize consideration of gender issues in all projects/workshops/activities. However, social and religious restrictions, reluctance to participate in the public sphere, and lack of social security at workplace are identified obstacles in achieving the goal in women development as reported by BINA scientists.

4.2.5 RDA

The Rural Development Academy (RDA), Bogra was established in 1974 as a specialized national rural development institution for training, research and action research. The Academy is an autonomous institution officiated with the Rural Development and Cooperatives Division of the Ministry of Local Government, Rural Development & Co-operatives (LGRDC). The vision of RDA is to be the centre of excellence in the field of rural development. The mission is to sustainable rural development through innovation and practices, RDA will contribute to: i) develop and disseminate models, technologies and approaches to address the rural challenges; ii) enhance capacity of rural development experts, practitioners, and change agents; iii) promote climate change resilient development; iv) reduce poverty; and v) promote gender parity and women's empowerment. The mandate of RDA is to provide training, research, action research and advisory services. It seems RDA covers all aspects that are important for agricultural development. In fact, the academy is performing well and that has been well recognized nationally. While looking at their completed and ongoing research projects- many of the researchers focus on gender, and nutritional issues. These are "Women in seed entrepreneurship",

“Women to Women Extension Project”, “Development of Destitute Women”, “Landless Women Development”, “Rural plant clinic”, Village Child Development Project (nutrition), “Homestead Gardening Project (nutrition)”. The objectives and achievements of these projects are presented in the annex. One example is the “Women in seed entrepreneurship” project where 1000 women were trained. It also provides extensive advisory services. More importantly, it has distinct division on rural governance and gender.

The academy has also tries to maintain linkages between research and extension. Hence, the academy has established a demonstration farm intending to disseminate the improved agricultural technologies among the farmers. It conducts trials on the newly developed innovated crop varieties and modern technologies. In doing so, the demonstration farm has achieved a considerable degree of success in the diffusion of HYV technologies leading to eventual increase in food production and diversification of crops in the northern region of Bangladesh.

4.2.5 BARD

The Bangladesh Academy for Rural Development (BARD) was established in 1959 to train government officials and representatives of the local government and village organizations on various subjects relating to rural development. The academy is famous for its evolved model “Comilla Approach to Rural Development” which is well-known at home and abroad, and BARD received a National Award in 1986 for its remarkable contribution to rural development. Like RDA, this academy provides training, research, action research and advisory services. The academy offers two extensive trainings on “Gender, Nutrition and Reproductive Health” and “Mainstreaming Gender in Development Planning”. It also carried out some gender related research. A good number of research (162) has been conducted by the scientists of BARD and several of them addressed gender (18) and nutrition issues (11). Considering the growing demand for technology demonstration services, recently it has established a demonstration farm in its premises for fulfilling two major objectives. i) to develop dairy extension system for CVDP villages in Comilla; and ii) to extend the horizon of research, training and project works of BARD on different aspects of Livestock Development (BARD annual report, 2015).

4.3 Gender, Nutrition and Extension by Agricultural Universities

It is widely accepted that the Bangladesh economy is predominately depends on agriculture. Agricultural education, therefore, bears special importance to update the production technology of agricultural commodities for their ultimate transfer to the end users, the farmers, throughout the country. Accordingly, several agricultural universities have been established to produce first-rate agriculturists, agricultural scientists and researchers for shouldering the responsibilities of agricultural development of the country. Despite some variation, the mission of the selected four universities is similar in general. The mission of these universities is to develop the art and science of agriculture for the well-being of mankind, and to educate agriculturists of high standards of scientific, managerial and professional competence in harmony with the environment, and to share knowledge and skills with world partners. The objectives are:

- i. to provide higher learning in all branches of agricultural sciences as a profession-based education;
- ii. to conduct basic and applied research in various aspects of agricultural problems faced by farmers, change-agents and agro-industrialists with a view to recommending possible measures for solving them;

- iii. to organize and supervise extension and related nation-building activities at different levels and in different forms;
- iv. to provide training for personnel of different government and non-government organizations and also for farmers and farm-leaders on various aspects of agriculture and rural development;
- v. to provide facilities for bilateral and multilateral cooperation and collaboration with institutes or organizations within and outside Bangladesh.

Graduates from agricultural universities are working in different government and private organizations throughout the country. They are contributing to the economy through dissemination of modern agricultural technologies for sustainable production, marketing of agricultural commodities, and livelihood improvements. Therefore, it is essential to equip graduate students with the knowledge of gender and nutrition so that they can contribute meaningfully in their respective area of expertise. However, while looking at the existing course layout for undergraduate programs of the selected agricultural universities none of the university has distinct course on gender and development. It is interesting to note that the Faculty of Agricultural Economics and Rural Sociology of BAU has been trying to introduce a course named “Gender Issues in Agriculture and Livelihoods” but could not bring success till now (See appendix for the syllabus). However, at MS level there are courses on gender issues such as “Doing Gender and Development” (offered by the Department of Rural Sociology), “Gender Relations in Agriculture” (offered by the department of Agricultural Economics), and “Gender and Agricultural Development” (offered by the Department of Agricultural Extension Education). Unfortunately, other universities do not have any course related to gender at present (Source: Personal communication as well as collection of course layout) except Sylhet Agricultural University (offer MS level course on Gender and Development). So, it is apparent that graduates from these universities do not have academic orientation related to gender that might have implication in their future career too. However, almost all graduate students attended a course offer by the Department of Extension Education and the Department of Rural Sociology (rural development for other university) that may enhance their capacity to effectively disseminate new technology and create friendly environment with the farmers.

The universities carryout two main streams of research-i) the degree research and ii) the project research. The degree research is being supervised by the teachers for postgraduate students at both M.S. and PhD levels, while the problem-solving research projects are conducted with sponsorship accorded either by the university or external funding agencies. The Committee for Advanced Studies and Research (CASR) is responsible for coordinating degree related research. On the other hand, for coordination and management of research projects, BAU Research System (BAURES) was established in 1984 at BAU. Similarly, SAURES was established for Sher-e Bangla Agricultural University and that of Sylhet Agricultural University, too. In contrast, project based research are carried out by the Research Management Committee for Bangabandhu Sheik Mujibur Rahman Agricultural University (BSMRAU).

Since the establishment of BAURES, it has completed 322 research projects and has 112 ongoing projects. A good number of projects have covered, gender and development issues but at small scale coverage. A research review workshop at BSMRAU documented 106 research projects during 2007-08 to 2013-14 year. However, reading abstract of these projects as well as discussion with the Director of Research, only one research was found that distinctly addressed gender issues (Research Review Workshop BSMRAU, 2007-8 to 2013-14). Similarly, for Sher-e Bangla Agricultural University, online

search and personal collection recorded 82 research projects in which only two projects distinctly address gender issues. Sylhet Agricultural University documented one research project that addressed gender issues. Unfortunately, none of the research projects have an objective related to nutrition or malnutrition except animal and plant nutrition issues. In BAU, besides BAURES, Bangladesh Bureau of Socio-economic Research and Training (BSERT) was established to conduct and promote socio-economic research with particular emphasis on rural problems of Bangladesh. It also offers training for the research workers and personnel. So far, BSERT has undertaken and completed 111 research projects in which many of them has good connection to gender issues. BSERT has been publishing a half-yearly journal named “The Journal of Bangladesh Agricultural Economics”. Similarly, BAURES also publishes a half-yearly journal. BSERT and Graduate Training Institute, Interdisciplinary centre for Food Security and PGT and ICT of BAU offer trainings for the graduate students in various applied discipline.

Except for BAU, there is no institutionalized form of extension services for the universities. However, all universities (those selected) have trial and demonstration sites for agricultural applied research. Specifically, Bangladesh Agricultural University Extension Centre (BAUEC) of BAU operates agricultural extension and village development activities in 22 villages of Mymensingh district through 45 cooperatives. Vegetable cultivation schemes are running in 40 primary schools, high schools, madrasas and orphanages under Mymensingh Sadar, Trishal, Gouripur and PhulpurUpazilla. As many as 10,185 farmers have attended training programs arranged by BAUEC.

BSMRAU has an outreach centre and it disseminated the developed varieties and technologies to the farmers’ end through collaboration with DAE and BADC (Bangladesh Agriculture Development Corporation).

4.4 Gender, Nutrition and Extension Services by national NGO and INGO

Different NGOs are working with gender, nutrition and extension services as well as different development areas. Extension services have also made accessible to farmers through different organizations. Research- extension-farmer linkages at different levels of the national system have also strengthened than before (see appendix for details of NGO and INGO).

For example, the Food and Agriculture Organization of the United Nations (**FAO**) is working in developing the areas of agriculture, food, forestry, fisheries, livestock, rural development, and climate change. First priority among different FAO programs is reducing poverty and enhancing food security and nutrition (access and utilization). FAO also specializes in food-based “nutrition-sensitive” approaches to improve nutrition. By focusing on locally- available foods, programs try to mobilize the economic potential of a particular geographic location, and conserve local biodiversity. Success areas of FAO include achieving food and nutrition security in remote areas of the Chittagong Hill Tract. Because of this program, rural men and women in remote areas of the Chittagong Hill Tracts are now more positive about their future and their ability to resist future shocks to their agriculture-based livelihoods.

Similarly, **BRAC** is working towards poverty alleviation and empowerment. BRAC is extensively working in the areas of human rights and social empowerment, education and health, economic empowerment and enterprise development, livelihood training, environmental sustainability and disaster preparedness. Gender equality, respect for the environment and inclusivity are themes crosscutting of activities. BRAC is trying to bring available and newly developed agricultural

technologies to the farmers' fields. The main approach is to disseminate agricultural technologies through large-scale block demonstration involving farmers' participation. Extension staff provides them with adequate training and up-to-date information on achieving better production. Presently, BRAC is operating extension activities at 51 sub-districts of 12 districts in Bangladesh. Most of the operational sites are disaster and stress-prone areas of the country. Agricultural extension services are provided through trained extension personnel, comprising a diverse group of agronomists, technical assistants and aquaculture experts (see appendix for details).

There are also some other NGOs that are working for gender equality. For instance, **CARE** Bangladesh focuses on women livelihood; reducing violence against women: and the emergence of strong social movements built on women's solidarity and participation of men.

Similarly, Development Wheel has Let Her Decide and Participate Project under gender and development programme where the main goal is to gain social and political acceptance of women's contribution to domestic, social, political and economic sphere. The objectives include giving women a voice to build self-esteem and confidence, increasing female participation in service providing organizations, raising awareness and building capacity in leadership. Moreover, to establish responsive governance, various strategies, like, policy advocacy, promoting women rights, gender equity have been undertaken through active participation of the local community.

Besides, some international development organizations (CGIAR, DANIDA, World Fish etc.) are contributing to poverty reduction as well as nutrition security through research works.

The role of NGOs in ensuring gender equality and nutrition safety is remarkable. NGOs have success stories on nutrition and gender equality. For example, Helen Keller International's (**HKI**) Homestead Food Production programs enhanced women empowerment as well as households' food availability. Their Nurturing Connections Program offers a participatory approach to challenging gender norms and building equality and constructive communications skills with every member of a community to create the best environment for improving nutrition.

4.5 Strategy for enhancing capacity among gender, nutrition and extension service providers

As discussed earlier, there are four major stakeholders involved in providing gender, nutrition and extension services to the farmers. Among them, DAE, DoF and DLS personnel worked very closely with farmers. Different level of staff work in different position, some of them graduated from the university (particularly agricultural university), some of them attended diploma course on different agricultural allied disciplines. They do have some academic orientation on agricultural and extension services but most of them do not have academic knowhow on gender and nutrition related courses. So, there is indeed urgent need to have some sort of training on gender and nutrition until and unless gender and nutrition related course incorporated into academic program.

Meanwhile, researcher also needs to have better understanding about gender and nutritional aspects towards development of new technology. It can be noted that NWDP clearly mentioned to development women friendly technology.

Nevertheless, NGO and INGOs work to support human rights including scaling up activities in wealth creation, health, education, poverty, hunger and vulnerability. These activities are generated from

different strategic approach to support poor people both in the short term and long term for capacity building and enhancing economic growth. The key mechanisms of different development organizations are rights-based approaches to ensure a systematic inclusion and empowerment of the most vulnerable groups in society. For instance, the New Agricultural Extension Policy (NAEP) provides separate extension program for women who are engaged in agricultural activities. The other enabling mechanisms, tools and frameworks, and scaling up strategies include measurement frameworks for gender equality, instruments to support women's adaptation and mitigation-based enterprises, investigation of gender in policy research, value chain research to assess women's engagement in supply chains, and their access to technical information, and barriers to participation. Despite their right-based approach for the betterment of the society as a whole, they are not out of questions to targeting the right person. Hence, strategic frameworks for inclusion of vulnerable people particularly women are essential for effective implementation of development projects. In the strategic framework, professional training could be the best option. Hence, the training should be organized for skill development of officials, field level extension workers as well as farmers. In addition, research priority should be target oriented that ensure farmer's needs. Accordingly, institutes should provide the qualified personnel if not the personnel can be trained considering the well-being of farmers. In fact, capacity building is a continuous process - therefore all stakeholders (teachers, researchers, NGO personnel) including policy makers should have some provision to attend training, workshop, and consultation meeting to upgrade their knowledge.

5 DOCUMENTATION OF GOOD PRACTICES AND APPROACHES

It is documented that some of the extension services have targeted women farmer while others were found to focus mostly on income generating activities controlled by male farmers. However, in consideration with gender responsive and nutrition sensitive advisory services, some good practices were registered in agriculture extension. This section describes different innovative approaches like market orientation, group based participatory approaches, and ICT based knowledge delivery systems that provide a great deal of scopes towards gender sensitization into agriculture extension in achieving nutritional security.

5.1 Good practices on gender and agricultural extension services

Universities

Different agricultural universities are conducting research on gender while it is still insufficient in addressing the aspect of incorporating gender into agricultural extension services. However, BAUEC efforts on disseminating newly developed technologies and addressing gender can be regarded as important contribution. Every year some research has been carried out related to gender but few address nutrition.

Governmental Initiatives

A rural development model named Women in Seed Entrepreneurship (WISE) has been introduced by RDA to improve supply of quality seed by synergizing women's contribution, seed technology and women centered seed system. Its primary focus on empowering rural women and improving supply of quality seed through energizing women become a powerful tool in assuring seed security. At initial level, women form small groups in a village and then operate at association level. Thus, women get a stronger voice and capacity to negotiate business beyond community market. The outcomes showed that seed entrepreneurship proved to be a great potential for women to be at the center of seed production, processing, preservation and business. After getting involved into this, women adopted effective knowledge, improved production practices and gained higher income. The developed knowledge and market linkages allowed more than ten thousand women working as micro entrepreneurs.

Non-Governmental Initiatives

EKATA (Bengali for unity) is a girls' and women's empowerment model based on participatory processes. Initially, a number of villages are selected to form female groups, comprising both adult women and adolescent girls allowing a focus and priorities of women of different ages. It works as a mechanism whereby adolescent girls can receive support in delaying their marriages and returning to school, while for adult women, the group often assists them in securing assets so they can establish their own sources of income, as well as improving food availability and nutrition outcomes for their children and families. Women engage more in agriculture based productive activities like cultivating vegetables and raising more poultry and livestock (such as goats and cows) and are contributing to household food security. Coupled with greater knowledge of health and nutrition, this also helps to improve the nutritional status of infants and children. This project is considered as good practice on gender and agricultural extension services as this incorporated gender as an important element in its objectives, different agricultural services have given to the project beneficiaries, significant

improvements have observed after the project intervention and the project outcomes were disseminated through mass media.

SHOUHARDO is one of the successful food and nutrition security programs. SHOUHARDO uses a bottom-up method of empowering the poorest and most marginalized populations of Bangladesh. It works to improve the nutritional status of children along with women's education, empowerment and access to resources. SHOUHARDO reaches over 400,000 households in 18 of the poorest and hardest to reach areas in Bangladesh. SHOUHARDO outcome indicators over the life of the program, where the prevalence of stunting has reduced by 30 percent and the prevalence of underweight by 21 percent. A successful intervention of SHOUHARDO, it has been extended to SHOUHARDO II and SHOUHARDO III. SHOUHARDO II program works with the targeted communities to not only help them towards food self-sufficiency, but also to broadly impact on a range of their livelihood needs including health, hygiene, nutrition, women empowerment, institutional strengthening and linking, and disaster risk reduction and climate adaptation. SHOUHARDO III has been implemented by Dhaka Ahsania Mission with an overall objective to improve gender equitable food and nutrition security and resilience of the vulnerable people living in the Char and Haor in Bangladesh by 2020 (Details available at www.ahsaniamission.org.bd/shouhardo-iii).

5.2 Good practices on nutrition and agricultural extension services

Bangladesh Institute of Research and Training on Applied Nutrition (BIRTAN) has taken different initiatives to circulate and extend the nutrition knowledge. Steps have been undertaken to incorporate nutrition into education curriculum, extending knowledge on nutrition and balanced diet through training and workshop at different levels, advertising nutrition information through mass media. BIRTAN provides short term nutrition training to different officials, employees of district and upazila level, field worker, teacher, religious leader, NGO worker, social worker, local representatives and farmers. BIRTAN is implementing ensuring nutrition and food security through integrated agricultural development project in 29 districts. Under this project, 870 officials of DAE, sub assistant agriculture officer, school teacher, religious leader, NGO worker in total 4350 person and 5259 farmers will receive nutrition training. Besides, there will be nutrition awareness campaign among 15000 students of 150 schools. To ensure nutrition and food security, a manual has been launched to provide training to field level officials or staffs. In this manual, description is given on different nutrition information like, activities of different food ingredients, source and required amount, diseases resulting from malnutrition and the prevention measures, preparing food retaining nutritional quality, food processing at household level, assuring safe food etc.

SPRING

SPRING uses the 1,000-day approach to improve the nutritional status of pregnant and lactating women and children under the age of two, and is currently working in 40 upazilas in Barisal and Khulna, two USAID Feed the Future Intervention divisions that cover approximately 5.4 million people. Collaborate with the Ministry of Health and Family Welfare and Ministry of Agriculture, using multiple channels to reinforce key nutrition messages. The specific interventions and innovations are targeting health and agricultural workers within the GoB and among NGO to reach communities and individuals (especially pregnant women and new mothers) with carefully targeted information on breastfeeding, complementary feeding, and other ENAs. Government staff from the upazila-level to community-level health clinics were trained, and delivery of key nutrition services and messages were enhanced at all

existing contact points in the health system, including the community outreach network, where services already provide immunization and family planning. The acquired nutrition and hygiene knowledge resulted in positive behavior change, increased dietary diversity, improved infant and young child feeding practices, improved hand washing practices, and compliance with micronutrient supplementations. More than 126,000 women have benefited from 6,421 SPRING-implemented farmer nutrition schools across 40 *upazilas* in Barisal and Khulna since May 2012.

SHIKHA Project

The SHIKHA project works to reduce undernutrition among pregnant women and children under the age of 2 in 26 sub-districts in Bangladesh. The five core interventions on changing feeding practice behaviours are home visits (pregnancy registry and follow up with mothers until their children are 2 years old, for a total of 16 home visits- four visits during pregnancy and 12 after the child is born), mobilization (engagement of fathers of children under 2 and doctors to encourage good infant and young child feeding behaviour), health forums (meetings comprised of pregnant women, mothers of children under 2, mothers-in-law and adolescent girls, to discuss issues about health and hygiene practices in the community), antenatal and postnatal visit (pregnant women and lactating mothers receive medical care and counselling from community health workers) and mass media and communication campaign (seven advertisements).The endline report of the project is available at www.fhi360.org/sites/default/files/media/documents/resource-shikha-end-line-report.pdf.

Agriculture and Nutrition Extension Project

The project aimed at developing market linkages between rural and urban areas and promote exchange of expertise and technologies between agricultural and research institutes. Through several mechanisms the ANEP Project enhanced access to agricultural technologies and improved rural and urban nutrition. The strategies include increase the productivity of rural smallholders (the knowledge and capacity building of producers adopting new agricultural technologies), improve awareness and access to nutritious food (nutritional education to low income families) and developing and nurturing institutions for technology transfer. The project has increased annual income of 35000 poor people, the consumption rate of nutritious food has increased and producers received quality seeds (www.securenutrition.org/resources/agriculture-and-nutrition-extension-project-anep).

Increased food and nutrition security (FAO project under priority-1 Reduce poverty and enhance food security and nutrition)

The project provided technical assistance and services to 6200 poor men and women in the form of integrated household farming approach, based on quality seed production, and improved upland farming practices, fruit and vegetable production, poultry keeping and nutritional awareness to develop capacity with emphasis on increased production, livelihood diversification, income generation and sustainable management of natural resources to improve food and nutrition security as well as reduce rural poverty in remote areas of the Chittagong Hill Tracts (CHT). Positive changes have been observed among rural men and women about their future and their ability to resist future shocks to their agriculture-based livelihoods.

5.3 Good practices on gender and nutrition both

The “Improving Maternal, Neonatal and Child Survival” project of BRAC initiated an approach of providing nutrition education and counselling of pregnant women to improve maternal nutrition and

reduce the poor health risk of both mothers and their children. An ideal meal plan has been developed by the project and along with nutrition counselling the community health workers demonstrated the pregnant women to enhance optimal dietary intake. The approach helped to develop nutrition knowledge of women that they could apply in their practical life. This project developed a daily meal plan with recommended dietary allowance of 2500 kcal for pregnant women and had piloted that in Nilphamari district. In connection to success of this project, ten sub-districts from Kurigram, Lalmonirhat, Rangpur and Mymensingh districts have been selected to offer maternal nutrition interventions to the pregnant women and lactating mothers. Another 10 sub-districts from the same two districts have been selected as control for evaluation. It is expected that a total of 120,000 pregnant women will receive maternal nutrition intervention in the intervention areas (for details visit www.brac.net/visit-brac/itemlist/user/666-brac?start=90).

5.4 Good practices on gender, nutrition and agricultural extension together

In the project objectives emphasis was given on gender, nutrition and agricultural extension services. Women were included in the beneficiaries group and agricultural support services were provided to improve income and nutrition outcome. Special monitoring and evaluation were made during the project period and significant changes were observed due to project interventions.

The Agriculture, Nutrition, and Gender Linkages (ANGeL) project

The project aims to identify actions and investments in agriculture that can leverage agricultural development for improved nutrition, and make recommendations on how to invigorate pathways to women's empowerment—particularly within agriculture. ANGeL is evaluating the impact of three types of interventions for promoting nutrition and gender-sensitive agriculture. The agriculture production intervention aims at facilitating the production of the high-value food commodities rich in essential nutrients through the diversification of crops, livestock, and the like. Besides, efforts include conducting high-quality training in behavior-change, communication to improve people's knowledge of nutrition and finally, it favors the activities to empower women and raise their status while encouraging gender parity. Thus, ANGeL is using government agriculture extension to facilitate field-level trainings on agriculture production, nutrition knowledge, and gender sensitization. Exclusively, ANGeL trainings are bringing everyone to the same table—husbands, wives, and other key decision makers such as mothers-in-law—to discuss traditionally gendered domains such as agriculture production (male-dominated) and nutrition (female-dominated). Inviting families to be part of the same conversation on nutrition, agriculture production, and household power dynamics gives men and women in the household more opportunities to weigh in equally on decisions that they likely had little or no input on before ANGeL. The ANGeL project recognizes the importance of gender along agriculture-nutrition impact pathways and it includes gender sensitization activities, based on a tool called Nurturing Connections, developed by HKI for using in Bangladesh at the community level with adult male and female household members (including grandparents) to foster communication, negotiation skills, mutual respect, and appreciation within families, even addressing topics such domestic violence and child marriage, and how they can be harmful to overall family health.

USAID Agricultural Extension Support Activity Project (AESAs, implemented by DAM/CARE/mPower)

The USAID Agricultural Extension Support Activity has been implemented for capacity building and support creation of a farmer demand-driven agricultural extension system, synergized by use of

information communication technology (ICT) in 12 districts in the central and southwest areas of Bangladesh (Barisal, Dhaka, and Khulna divisions). The focus has been on smallholder farmers, with priority given to women farmers to improve food security and nutrition. The three components of project framework include enhancement of access to and utilization of agricultural extension services by smallholder farmers and women; expansion and strengthen of ICT mechanisms and strengthening capacity of agricultural extension service agents (public and private) to respond to the needs of women and small holder farmer. The target population is 1000 vulnerable women and small holder farmer and 1000 GOB Extension workers. One of the success areas of this project is creation of awareness on health and nutrition through producer group meeting and extension services. Similarly, farmers' knowledge and capacity in agriculture were also enhanced and the outcome was higher production and value due to improved value chain resulting in increased income and food security.

Cereal Systems Initiative for South Asia (CSISA) in Bangladesh

USAID funded with project partners World Fish, International Rice Research Institute (IRRI) and the International Maize and Wheat Improvement Center (CIMMYT). Under homestead fisheries project, women were trained up to produce nutritious traditional fish and vegetables. The Project supplied vegetables seed and linked with vegetables seed suppliers. Income from the fallow ponds increased due to WorldFish intervention as farmers received training and adopted technology. Not only limited to this, during harvesting, the project staffs maintained linkages with businesses and agencies so that the farmers could identify the potential vendors. Thus, the enhanced capacity of different value chain stakeholders enabled sustainability of a new technique. Arrangements were made for a participatory trial in homestead pond to demonstrate fish and vegetable production techniques to encourage people to adopt a new technique. Women, who were engaged in homestead production, were empowered to earn income and to provide better nutrition to their family.

6 PRIORITIZING GOOD PRACTICES AND SCALING UP

6.1 Different scenarios of good practice on gender, nutrition and agricultural extension related programs

Creating awareness within and between different development organizations and governments will help everyone better understand the linkages between agriculture, gender and nutrition and the pathways how to achieve gender equity and nutritional security. Extension providers (public and private) contribute significantly to improve crops and livestock to ensure food security through increasing production and consumption. Most of the successful programs on gender, nutrition and agricultural extension services are seemed to emphasize largely on three aspects. These are facilitating the production of high value as well as diversified crops, livestock and fisheries; disseminating nutrition knowledge to change nutrition behavior, and gender inclusion. Gender inclusion focuses on building the capacity of women and empowering them for enhancing production and improving nutrition status. Women's voices within and beyond the communities are strengthened. Besides, different tools and technologies are provided to women to reduce their work and time burden. Moreover, initiatives are undertaken to ensure women farmer's access to productive resources and ownership of improved livelihoods. The inherent goal is to enhance decision making and help women to negotiate their own business. Some projects invest in agriculture to improve agriculture based livelihoods as well as nutrition. Tools, technologies and messages are given to enhance adoption of nutrition sensitive agriculture.

Producer group meetings and extension services are examples of how agricultural development can be both nutrition and gender sensitive. At field level, both men and women participate in meetings and emphasis is given on increased production through good agricultural practices. In addition, to affect behavior change, initiatives are undertaken to increase awareness, decision, adaptation, and adoption. To make these efforts successful attention is paid to empower women within agriculture. Some of the programs follow participatory processes and choose diverse groups of beneficiaries to bring maximum output. Besides, some initiatives focus not only on improving availability, access and utilization of food but also enhancing the capacity of people to resist future shocks and ensuring stability during crises.

Thus, agriculture interventions are seen to invest in different types of capital (natural, physical, human, social, and financial) to improve nutrition and gender relation. The projects which have concentrated on nutrition education and gender issues have greater possibilities of bringing positive nutritional and equity outcomes.

6.2 Prioritizing the good practices through stakeholder workshop

The participants of a stakeholder workshop held in December 2015 at BAU identified some criteria that should be an integral part of a program and they also rated each of the selected criteria. Seventeen key points were identified. Generally, scaling up denotes the perspectives and means seeing beyond the traditional project approach. It starts from the inception and throughout the project cycle and the potential impact pathways to ensure that a project has wide and sustainable impacts. Although not every project needs to be scaled up, the innovation process it followed should be recognized.

Gender responsive and nutrition sensitive indicators include both quantitative indicators based on statistical data and qualitative changes, such as, improvements in women's level of empowerment. The project or research may have agriculture, gender and nutrition issue in its title. The title may not incorporate any of these three issues explicitly but there must have at least one objective stating gender, nutrition or extension issues. Integrating gender within agricultural dimension in research and innovation content is one of the prerequisites of gender equity. Quality and accountability are enhanced when the gender dimension is taken into account. It further enhances the societal relevance of the produced knowledge, technologies and innovations. Again, the gender dimension helps to address the evolving needs and social roles of women and men. Consensus has been found regarding the impact assessment through end line surveys. Besides, dissemination of project findings through mass media and academic publication received greater importance as it will help to avoid repetition as well as to increase recognition.

Workshop participants have emphasized results based monitoring and evaluation system. Monitoring incorporates lots of things, including clarifying program objectives along with linking activities and their resources to objectives into performance indicators and setting targets. Evaluation analyses why intended results were or were not achieved, specific lessons, significant accomplishment or program potential, and offers recommendations for improvement. Moreover, monitoring and evaluations are key ingredients of a successful project as knowledge is acquired on potential drivers and constraints.

To make a project gender and nutrition sensitive, intermediate and final indicators of outcomes along with potential risks should be identified. Analyses should also ensure that different collaborating institutions in agriculture, gender and nutrition are truly engaged and working together. There should be provisions for adjustments over time if required. Analyses of costs, benefits, impacts, constraints and possible solutions should be done to make the project justified. Furthermore, the gender component should be considered as one of the important impact criterion. It can be expected that the intended actions will have an impact on the socioeconomic positions of men and women. It should be assessed how actions do or do not contribute to gender equality. Emphasis should be made to bottom up leadership where women will be deeply engaged in designing and implementing projects. Thus the whole leadership process will include sharing knowledge through training and other communication media at local level with diverse personnel. Moreover, sustainability can be assured through mixed involvement of public and private stakeholders in securing agricultural and nutritional knowledge to both men and women. Targeted approaches and research to address existing gap will ensure the effectiveness of programs and policies. Women's access to social safety nets should be enhanced to prevent deterioration of food and nutrition security and to foster women empowerment. These safety net programs also can help women create assets to improve wellbeing.

Five domains of empowerment in the Women's Empowerment in Agriculture Index (production, resources, income, leadership and time) can be a guiding tool of all development projects. It can act as a diagnostic tool for determining areas in which men and women in a particular area are empowered or disempowered. Then, specific policies and programs can be targeted to these particular areas. WEAI, along with well-being outcomes for women in different cultural settings, can capture the different indicators of empowerment. Besides, different ICT methods such as radio or mobile handset have the potentials to provide knowledge on agriculture as well as nutrition to smallholder farmers' (both men and women). These methods are necessary both in agricultural

production and marketing. Integrating gender in ICT will help to overcome gender gap in ICT education because when more women will be connected it will produce more value.

There is also the need to address climate smart agriculture along with integrating gender and nutrition within agricultural extension. Climate sensitivity should be taken into account to understand how societies are impacted by major climatic events. Climate sensitivity allows technical, policy and investments to support actions aimed at achieving nutritional security under a changing climate. So, nutrition sensitive agriculture must be climate smart. Climate smart agriculture should be aligned with nutrition sensitive objectives. To make this climate sensitivity approach sustainable, gender analysis should be incorporated in projects and interventions along with what it takes to achieve sustainable diets. Climate smart technologies also have the potential to add benefits on gender equality as these technologies contribute to sustainable agricultural intensification when these are adopted by women to improve their livelihoods, but also at the same time to save time, labor and energy.

The gendered key challenges in agriculture should be taken into account. These challenges should be identified and addressed for effective rural advisory services (Stakeholder workshop presentation can be found in Annex 11).

Table 6.1: Scaling up the indicators of good practices on gender, nutrition and agricultural extension

Measuring indicators for scaling up of good practices on gender, nutrition and agriculture extension	Five Point Likert Scale
Production, Gender and nutrition issue is addressed within the project/research title	4
There is at least one specific objective covering gender and nutrition issues	5
Significant and positive difference observed/documentated between base line and final survey (using gender segregated data)	5
Specific indicators are used to evaluate the project performance	5
Outreach statistically representative-randomly selected.	2
Project findings disseminated through mass media	5
Project findings disseminated through academic publications	5
Monitoring and supervision procedure explained well (using LFA and RBM)	5
Replication /scale up is carried out in other areas	5
Sustainability and institutionalization taken care	5
Project duration and cost benefit analysis	4
WEAI (women's empowerment in agriculture Index)-production, resources, income and time etc.	4
Dietary diversity score of children and women, stunting, wasting, underweight and BMI	4
Approach: demand driven, ICT based, agriculture, gender and nutrition targeting both man and women	5
Nutrition BCC (behavior change communication), safety net program, TMRI	4
Identification of challenge (s)	5
Climate smart	5

These gender and nutrition indicators can be used to evaluate the outcomes of gender sensitized interventions and policies to achieve success. These can also provide crucial information on required activities towards gender equity and nutritional security. Thus, the recommendations are:

- Apply both gender and nutrition lenses while designing project interventions to maximize the role of agricultural extension.
- Pay special attention on how the project stimulates gender equity.
- Monitor the project as it goes forward.
- Recognize behavior change communication as key element of project design.

6.3 Organizational Strength, Weakness, Opportunities and Threats

During the December 2015 stakeholder workshop, participants identified the strengths, weaknesses, opportunities and threats for undertaking and implementing gender and nutrition related projects. These are summarized in Table 6.2.

Table 6.2: Strength, Weakness, Opportunities and Threat for undertaking and implementing gender and nutrition projects

<p>Strength:</p> <ul style="list-style-type: none"> • Gender and nutrition policies are still good • There are trained resource persons present in some organizations • Research facilities and infrastructure are good • Gender disaggregated budget in place • Awareness is building up 	<p>Weakness:</p> <ul style="list-style-type: none"> • Lack of skilled human resources • Absence or no gender focal person in the organization • Gender and nutrition component are not incorporated into organizational mission and vision • The general mind set is not in favor of more women in public place • Limited access to land and agricultural equipment • Activities are still project based
<p>Opportunities:</p> <ul style="list-style-type: none"> • Donors are interested to provide funding on improving nutrition and gender equity • The Government is also promoting gender and nutrition issues • Male and Female staff ratio is narrowing • Gender issues are taken care in selecting training participants 	<p>Threat:</p> <ul style="list-style-type: none"> • Policy shift • Donor interest changes • Political interference

6.4 Potential of future collaboration among education, research and development organizations

Collaboration helps to achieve common goals and is necessary to solve complex issues and diversified problems. Individuals’ commitments to group efforts help the participants to achieve more than they can do individually. There is consensus regarding the need for collaboration among academia, research and development organizations to integrate gender and nutrition within agriculture

extension. It is recognized that collaboration among development organizations with education and research can help to orient research and education activities towards the needs of society, bring expertise to support knowledge transfer activities and help to introduce innovation oriented approaches in all activities.

Collaboration can be a significant catalyst to positive advancement both in education and research to have access to resources to allow meaningful investigation. Research may not have been possible but can be done if there is collaboration. Research collaboration enhances the quality of research and the results of such research get a better chance to be implemented. There is need for continuous technical support for implementing partners; engagement with local organizations and dissemination of key inventions among different development practitioners. Understanding the experience of developing and delivering particular interventions will benefit the design of new nutrition or gender interventions.

For future collaboration, policy alignment is an important first step. Organizations should have specific policies that support collaboration. Besides, they have to agree on the need to reach a consensus on different priority actions corresponding to national priority. This will serve as the basis for an action plan with more realistic combined monitoring and evaluation system enabling the harmonization of actions among different stakeholders. This support will act as a key to ensure the inter-ministerial coordination and resource allocation necessary for extension and advisory services to play a meaningful role in contributing towards gender equity and nutrition security. This support can take different forms like promotion of exchange of good policies or financial support to knowledge transfer mechanisms. Policies and strategies would work as a starting point for the integration of agricultural extension services, gender and nutrition activities. Furthermore, developing a gender and nutrition policy within the agriculture sector requires a strategy for implementation. The state should consider support for nutrition and gender as a development priority to achieve nutritional security and gender parity.

Gender and nutrition should be considered in agriculture policies as well as policies of other collaborating education, research and other development organizations. This can be achieved by establishing awareness of all activities relating to gender and nutrition. Besides, there is a need necessary to be an alignment with agriculture extension policies and priorities. Collaboration will be based on respective interest, so, identification of common interests and incentives is essential. Incentives are needed to drive actors and institutions. It may include reward, competition or community demands. Besides, collaboration requires the efforts of many people. If the top leaders are committed, the more likely will they involve others and reward them for building relationship with others. Although only few people may hold formal responsibility for external linkages, a great many may perform institutional work by volunteering, attending meetings and symposiums. Then partnerships should become institutionalized because institutional commitment is necessary for ensuring sustainability. Furthermore, dissemination of the positive effects of partnerships can make such effects sustainable.

Communication lines among extension workers, gender specialists and nutrition workers regarding demonstration of research results can include aspects of production, processing and utilization. Dissemination can take place through knowledge sharing by exchanging findings and views through workshops, seminar etc., organizing exchange visits, building knowledge sharing network, ICT based capacity building, and routine monitoring. The use of ICT helps different stakeholders to deliver the

messages. Besides, training and workshops can act as support systems for mentorship and feedback. The mentored training on nutrition sensitive agriculture will help it be sustainable. The positive feedback from dissemination efforts can drive the partnership forward.

Finally, for all these, there need to be resources available. The resources may be in the form of time, effort and money. Because it would be difficult to initiate nutrition interventions, messages and activities within the portfolio if the most basic agriculture services they are not provided. Both financial, training, human resources and infrastructural resources are needed to ensure vigorous services. However, this is crucial to have motivation, mutual understanding and interest to build partnership and these do not necessarily cost money.

Collaboration among education, research and development organizations must be developed but this may take time. This may begin with gaining an understanding of each other and it may require spending time at the organization prior to make collaborations. The benefit of getting to know organizations are equally valuable in terms of optimizing action design. Hence, the sustainability of collaboration requires highlighting the importance of funding and of developing strategies to identify further opportunities for collaboration. Innovative approaches through collaborative efforts are inevitable for organizational growth, addressing technical challenges and institutional adaptation.

CONCLUSIONS

This landscape study documents several initiatives that have been implemented by the Government of Bangladesh, agricultural universities, research institutes, development, and non-governmental organizations. The gender, nutrition, and extension related activities four agricultural universities, almost all agricultural research and training organizations, and a good number of non-governmental and development organizations were reviewed. Activities of DAE are also documented thoroughly, as the department is implementing several projects that have deep connections with gender, nutrition and extension. These include the ANGel project as well as the Nutrition and Food Security through Integrated Agricultural Development and the Agriculture Growth and Employment program. These projects train male and female farmers and their office staffs to enhance their working capacity and create gender and nutrition awareness. Agricultural research institutes only do sporadic research on gender and nutrition issues. However, research on bio-fortification is contributing to enrich nutrients in agricultural produce. Research organizations' extension activities are not significant but they do collaborate with DAE. Government run research and training centers, particularly RDA, has distinctly focused gender components in their research and training activities. At present, agricultural universities do not offer distinct course related to gender and nutrition at undergraduate level but there are some courses at the Masters level. Universities have research centers that manage research projects but there is no mandate for carrying out gender and nutrition related research. Bangladesh Agricultural University and Bangabandhu Sheikh Mujibur Rahman Agricultural universities have extension and outreach centers, but others do not. Non-governmental and development organizations are a bit ahead in addressing gender and nutrition issues. However, they are mostly project based and lack upscaling strategies, which would be crucial to generating greater impact.

As an outcome of an interactive workshop with four different stakeholder groups, seventeen key points were identified for evaluating a project whether it can be considered as good practice or not. Accordingly, a couple of projects have been presented as good practices in this report. Every participant recognized the importance of collaboration for effective project implementation. Workshop participants reported that collaboration is must among education, research and development organizations but this may take time. Collaboration may begin with gaining an understanding of each other, which this landscape study is intended to help with, and it may require spending time at the organization level. The benefit of getting to know the organizations are equally valuable in terms of optimizing action design. Innovative approaches through collaborative efforts are necessary for organizational growth, for addressing technical challenges and institutional adaptation.

The landscape study revealed that agricultural extension in Bangladesh has untapped potential for integrating gender and nutrition as part of a holistic development strategy. Insight were drawn from several initiatives working on gender and nutrition integration throughout Bangladesh. It is evident that more multidisciplinary action research is needed to fulfill existing development gaps in gender incorporation in agriculture. At organizational level, there should be a clear organizational mandate in mainstreaming gender and nutrition within agriculture and advisory services. Some agriculture interventions are explicitly found to be demand driven, gender responsive, nutrition sensitive, climate smart, etc. The key challenge is disconnection among the service providers and the subsequent programs. There seems to be competition over resources instead of collaboration. The lack of common understanding also deprives getting benefit from joint action planning. The supportive policy alignment among extension service providers supporting collaboration will also create a favorable

environment to scale up agriculture intervention. To do so, it is important to create a supportive environment through a strong consensus and commitment on integrating gender and nutrition within agricultural extension enriched with effective interventions for development. Coordination and implementation actions will work in synergies towards gender equity and nutritional security within the broader scope of agriculture. It is important to mainstream gender and nutrition into the curriculum of educational institutions, make them a research priority and anchor them as organizational mandates. Attempts are needed in bridging the gap in combining gender and nutrition policies, programs and projects within agriculture. Gender mainstreaming in nutrition within agriculture thus can act as a key tool in strengthening gender nutrition linkage and the enlightenment process through recognizing women contribution in agriculture and household nutritional security.

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APPENDICES

Annex 1: Major policy and planning documents reviewed for the GRAST Enabling Environment analysis

Title of the Policy	Web Links
Seventh Five Year Policy (2016-2020)	www.plancomm.gov.bd/7th-five-year-plan
National Women Advancement Policy, 1997	Not available, it has been converted to NWDP-2011
National Women Development Policy 2011	http://faolex.fao.org/docs/pdf/bgd149160.pdf
National Food Policy 2008 - Plan of Action (2008-2015)	http://fpmu.gov.bd/agridrupal/sites/default/files/The_National_Food_Policy_Plan_of_Action_(2008-15).pdf
National Food Policy Plan of Action and Country Investment Plan, Monitoring Report-2015	www.fao.org/3/a-az470e.pdf
National Rural Development Policy, 2001	www.bard.gov.bd/link_page_doc/Natinal%20RD%20Policy.pdf
Bangladesh: Poverty Reduction Strategy Paper I, 2005	www.preventionweb.net/files/9305_cr05410.pdf
Bangladesh: Poverty Reduction Strategy Paper II, 2009	www.imf.org/external/pubs/ft/scr/2012/cr12293.pdf
National Agricultural Policy, 1999	http://dae.portal.gov.bd/sites/default/files/files/dae.portal.gov.bd/page/dd7d2be1_aeef_452f_9774_8c23462ab73a/NAP.pdf
National Agriculture Policy 2013	http://moa.portal.gov.bd/sites/default/files/files/moa.portal.gov.bd/policies/2b1e1832_541c_492e_9764_c2b3c8db5317/Final_NAP%202013_web.pdf
National Agriculture Policy Plan of Action-2003	Not available the link but has summary review www.lcgbangladesh.org/Agriculture/reports/vol-3.pdf
The National Agricultural Extension Policy-2015 (Draft)	http://moa.portal.gov.bd/sites/default/files/files/moa.portal.gov.bd/policies/52c27d0f_c33c_4a6a_81b8_7b8288d17a1b/Draft_NAEP-2015.pdf

Annex 2: Gender related excerpts from major policy documents

7th Five Year Plan (from 2015/16-2019/20)

www.plancomm.gov.bd/7th-five-year-plan

Vision

“A country where men and women will have equal opportunities and rights and women will be recognized as equal contributors in economic, social and political development”.

Objectives

1. Improve women’s human capabilities (deals with women’s and girls’ access to health care, life expectancy, nutrition, reproductive health, education, information, training, and other services achieve better health and educational outcomes)
2. Increase women’s economic gains (deals with barriers to women’s economic participation and facilitate support services to improve access to these resources)
3. Enhance women’s voice and agency (women’s role as decision makers in public and private spheres including politics and promotion of their leadership is considered here)
4. Create an enabling environment for women’s advancement (key areas are enforcement of laws, regular collection of sex disaggregated data and understanding of gender issues)

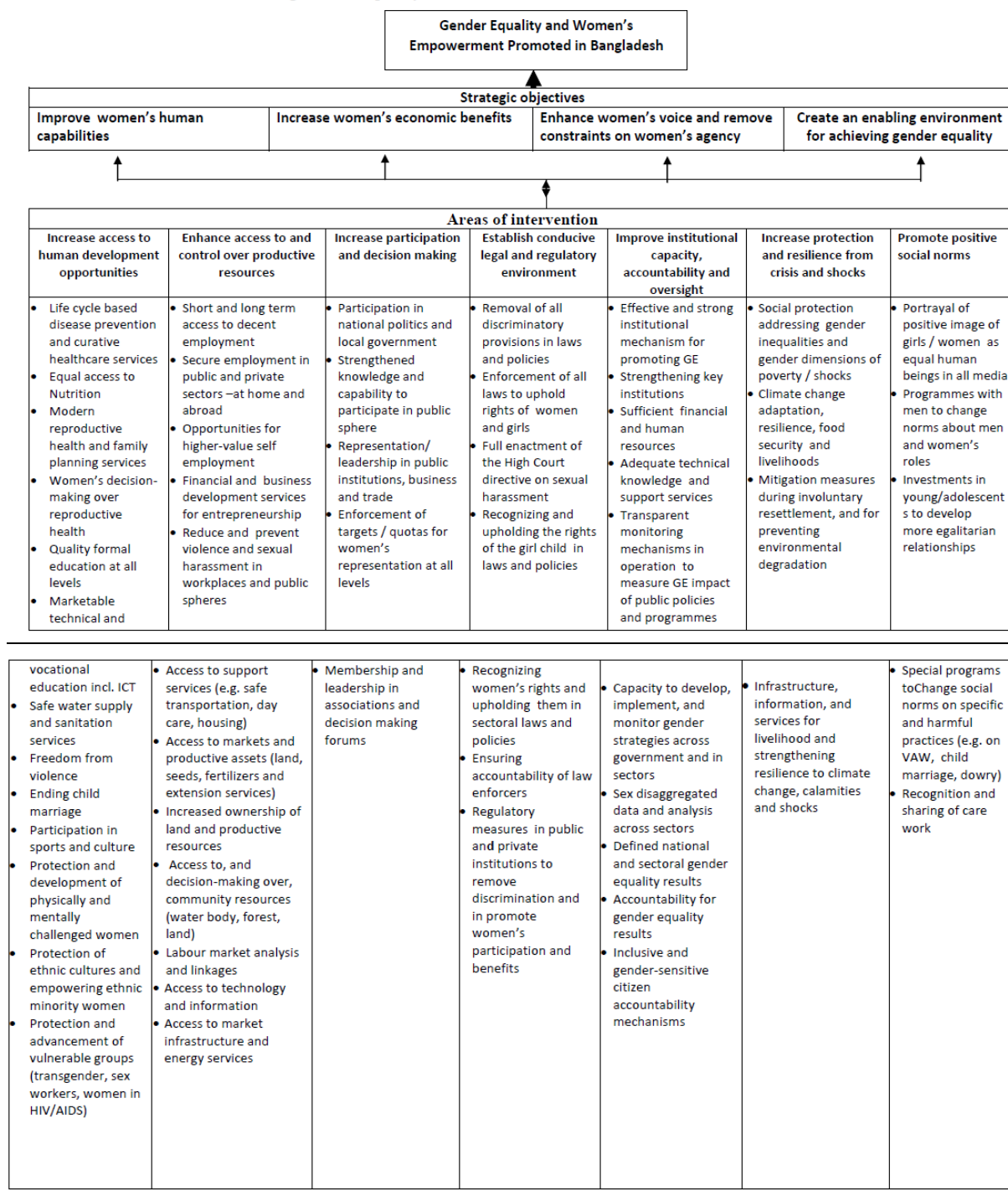
Four strategic objectives of women’s empowerment and gender equality:

1. Improve women’s human capabilities
2. Increase women’s economic gains
3. Enhance women’s voice and agency
4. Create an enabling environment for women’s advancement

Seven action areas that have been identified as critical for achieving results in these four objective

1. Increase access to human development opportunities
2. Enhance access to and control over productive resources
3. Increase participation and decision making
4. Establish conducive legal and regulatory environment
5. Improve institutional capacity, accountability and oversight
6. Increase protection and resilience from crisis and shocks
7. Promote positive social norms

Promoting Gender Equality: A Framework for the Seventh Five Year Plan



Source: 7th Five Year Plan (2016-20)

National Women Development Policy- 2011

<http://faolex.fao.org/docs/pdf/bgd149160.pdf>

16. The Objectives of National Women Development Policy

16.13. To innovate and import technology favoring the interest of women and prohibit anti-women technologies. (Page 13)

29. Women and Technology

29.1. To reflect gender perspective in the matter of innovation, import and application of new technology.

29.2. To take initiative to purge the harmful elements, if any, from the technology by conducting research on it if the application of such innovated technology affects adversely the interest of the women.

31. Women and Farming

31.1the women labor as farming hands contributing in the national economy need recognition which has to be done.

31.2. To extend all kinds of support and assistance in eliminating bottlenecks created due to climate change and disaster.

31.3. To take initiative to ensure equal wages for the same job and to remove wages discrimination to women in agriculture.

31.4. To take steps to ensure the farming women have equal opportunity in having agricultural inputs like fertilizer, seed, farmer's card and credit facilities etc.

Poverty Reduction Strategy Paper I (2005)

www.preventionweb.net/files/9305_cr05410.pdf

Key Issues

- Ensuring women's participation in market-oriented economic activities;
- Improving women's efficiency (reducing time use) in performing their household roles and ensuring infrastructure services for women;
- Building women's capacity in health and education towards improving productive capacity;
- Ensuring social protection for women against vulnerability and risk;
- Enhancing women's political empowerment and participation in decision making;
- Ensuring women's participation in the international forums; and
- Strengthening institutions and capacity-building in monitoring and the evaluation of women's development.
- Making governance work for the poor and women

Strategic Block I: Macroeconomic Environment for Pro-poor Economic Growth

- Facilitating entrepreneurship development among women
- Enhancing good quality employment opportunities for women

National Rural Development Policy (2001)

www.bard.gov.bd/link_page_doc/Natinal%20RD%20Policy.pdf

3. Aim and Objective (page 10)

3.2 To achieve comprehensive village development including improvement in the standards of living, increase in income and employment generation of rural people, particularly women and the poor.

3.11 To ensure equal participation of women with men in all socio-economic and cultural development and cultural activities including education, training and income generating activities;

5.12 Empowerment of Rural Women (Page 19):

1. Social and institutional initiatives will be taken for orientation of both men and women on various rules and rights relating to interests of rural women.
2. Side by side with raising women's consciousness, their male counterpart will also be made aware regarding their cooperation and responsibility towards development of women.
3. Gender equity in social, cultural, economic and political matter will be promoted.
4. Expansion of marketing facilities will be ensured for the locally produced commodities of rural women entrepreneurs.
5. Necessary steps will be taken for encouraging concerned rural women involved in all government and non-government programs to be united through an effective network.
6. Local administration will take initiatives to motivate and provide increased assistance to rural women so that they undertake income-generating activities according to their ability.
7. Motivational training as well as other assistance will be provided for ensuring effective representation of women at all spheres of local government.
8. Priority will be given to implementation of policies regarding women's equal rights, poverty alleviation, economic empowerment and employment as mentioned in National Women Advancement Policy 1997.

National Food Policy 2008 - Plan of Action (2008-2015)

http://moa.portal.gov.bd/sites/default/files/files/moa.portal.gov.bd/policies/2b1e1832_541c_492e_9764_c2b3c8db5317/Final_NAP%202013_web.pdf

Objectives

2.5 Income generation for women and the disabled through enhancing participation of women and disabled people in rural agricultural/other rural activities,

3.2. Balanced and nutritious food for vulnerable people through Increasing availability of low-cost items through local production; Improving coverage of poor, distressed and vulnerable women and children by food-based nutrition programs, including Growth Monitoring and Promotion (GMP).

3.3. Nutrition education on dietary diversification through increasing the % of women educated in nutrition and primary health care activities through formal and non-formal education; increasing home gardening and poultry raising activities by poor households;

Others:

- Expanding income generating opportunities for women/female-headed households and the disabled in agricultural activities as well as in rural micro and small enterprise development, through enhancing their access to productive assets;
- Improve coverage of extension services to disadvantaged segments of the rural population, including women (p. 70);
- Strengthen market information and business development services for agro-processors and micro/small and women entrepreneurs

National Agriculture Policy 2013 (Bengali)

http://moa.portal.gov.bd/sites/default/files/files/moa.portal.gov.bd/policies/2b1e1832_541c_492e_9764_c2b3c8db5317/Final_NAP%202013_web.pdf

12.1 Empowerment of Women

- Necessary support will be provided for capacity building of women in promoting household food and nutrition security.
- The Government will facilitate increased women participation in management decision making and their advancement in agriculture.
- Efforts will be made to ensure women's equal access to agricultural inputs (e.g. seed, fertilizer, credit, education & training, information etc.).

12.2 Participation in Production and Marketing

- The Government will encourage participation of the rural poor women in production of crops particularly in agro-processing and agri-business activities so that they can improve their economic well-being.
- Women's participation in agricultural production system will be facilitated through access to agricultural technologies.
- The Government will take steps to encourage women's participation in various extension programmes like training, farmers' rally and workshop.

12.3 Income Generation

- The Government will provide credit support to women for agricultural activities such as homestead gardening, post-harvest activities, seed production & preservation, nursery, bee-keeping, food processing etc.
- The government will provide micro-credit support to women for small-scale agro processing, storage and preservation.
- Efforts will be made to ensure non-discrimination in wages.

১২.০ কৃষিতে নারী

দেশের মোট মানব-সম্পদের প্রায় অর্ধেক নারী। সোজন্য, সরকারী চাকুরী ও কৃষি ক্ষেত্রে আরো অধিক সংখ্যক নারী কৃষক এবং কৃষি শ্রম-শক্তি হিসেবে অন্তর্ভুক্ত হওয়া প্রয়োজন। যেহেতু কৃষি প্রবৃদ্ধির ক্ষেত্রে নারীর অবদান রাখার যথেষ্ট সম্ভাবনা রয়েছে, তাই কৃষি সংক্রান্ত অর্থোপার্জন কর্মকাণ্ডে নারীকে অর্থবহভাবে সম্পৃক্ত করা এবং মানব-সম্পদ উন্নয়নে সরকারের করণীয় নিম্নরূপ:

১২.১ নারীর ক্ষমতায়ন :

- পারিবারিক খাদ্য ও পুষ্টির নিশ্চয়তা বিধান কর্মকাণ্ড উন্নয়নে নারীর দক্ষতা বৃদ্ধিতে প্রয়োজনীয় সহায়তা প্রদান করা হবে ;
- কৃষি ব্যবস্থাপনা বিষয়ে সিদ্ধান্ত গ্রহণে নারীর অধিকতর অংশগ্রহণ উৎসাহিত করা হবে ; এবং
- কৃষি উপকরণ প্রাপ্তি এবং ব্যবস্থাপনার ক্ষেত্রে নারীর সম-অধিকার নিশ্চিত করার বিষয়ে প্রচেষ্টা গ্রহণ করা হবে।

১২.২ উৎপাদন ও বিপণনে অংশগ্রহণ :

- সরকার কৃষি উৎপাদন ক্ষেত্রে, বিশেষত: কৃষি প্রক্রিয়াকরণ এবং কৃষি-ব্যবসা কর্মকাণ্ডে গ্রামীণ দরিদ্র নারীদের অংশগ্রহণ উৎসাহিত করবে যাতে তারা তাদের অর্থনৈতিক অবস্থার উন্নতি করতে পারে ;
- কৃষিতে নারীর প্রযুক্তিগত ক্ষমতায়নকে উৎসাহিত করার প্রচেষ্টা গ্রহণ করা হবে ;
- কৃষি প্রযুক্তি প্রাপ্তিতে নারীর অধিকার প্রতিষ্ঠার মাধ্যমে কৃষি উৎপাদন ব্যবস্থায় নারীর অংশগ্রহণকে সহজতর করা হবে; এবং
- বিভিন্ন প্রকার কৃষি সম্প্রসারণ কর্মকাণ্ড যেমন প্রশিক্ষণ, কৃষক সমাবেশ ও কর্মশালায় নারীর অংশগ্রহণ উৎসাহিত করার লক্ষ্যে সরকার পদক্ষেপ গ্রহণ করবে।

১২.৩ আয়ের সুযোগ সৃজন :

- কৃষি বিষয়ক বিভিন্ন কর্মকাণ্ড, যেমন বসতবাড়ীতে বাগান, ফসল কর্তনোত্তর কর্মকাণ্ড, বীজ উৎপাদন ও সংরক্ষণ, নার্সারী, মৌমাছি-পালন, খাদ্য প্রক্রিয়াকরণ ইত্যাদিতে নারীর অংশগ্রহণের ক্ষেত্রে সরকার ঋণ সহায়তা প্রদান করবে;
- সরকার ক্ষুদ্র আকারের কৃষি প্রক্রিয়াকরণ, গুদামজাতকরণ ও সংরক্ষণে মহিলাদের ক্ষুদ্র ঋণ সহায়তা প্রদান করবে; এবং
- নারী ও পুরুষের মধ্যে মজুরী বৈষম্য দূরীকরণ নিশ্চিত করার প্রচেষ্টা গ্রহণ করা হবে।

New Agriculture Extension Policy2015 (Draft in Bengali)

http://moa.portal.gov.bd/sites/default/files/files/moa.portal.gov.bd/policies/52c27d0f_c33c_4a6a_81b8_7b8288d17a1b/Draft_NAEP-2015.pdf

9.1 Agricultural extension services to all farmers: Should ensure agricultural extension services to all farmers. Meanwhile, tenant farmers, young, women and land less families should give especial priority in providing extension services.

9.2 Gender mainstream in Agriculture: women’s participation in agriculture should encourage through developing women farmer groups, encouraging women SME development in agri-business, developing confidence for raising voice through grass root level women farmers’ organization, creating gender awareness in both women and male farmers. In addition, women farmers are encouraged to lead and occupy decision making positions in higher level farmer organizations.

9.25 Participatory monitoring and Evaluation:

PM&E will focus on the active engagement of primary stakeholders (FG, FOs etc.). In the course of PM&E processes, it will be ensured that the (i) primary stakeholders are active participants – not just sources of information, (ii) capacity of local people is build up to analyze, reflect and taking action, (iii) joint learning of stakeholders at various levels have been taken place adequately, and (v) catalyzes commitment for taking corrective actions.

- ৯.১ সকল শ্রেণির কৃষকের জন্য সম্প্রসারণ সেবাঃ** কৃষি কাজে নিয়োজিত সকল শ্রেণির কৃষকের জন্য কৃষি সম্প্রসারণ সেবা নিশ্চিত করা হবে। পাশাপাশি বর্গা চাষী, নারী ও তরুণ কৃষক এবং ভূমিহীন পরিবারকে বিশেষ গুরুত্ব দিয়ে সম্প্রসারণ সেবা প্রদান করা হবে।
- ৯.২ নারীদের কৃষির মূল খরায় সম্পৃক্তকরণঃ** কৃষিতে নারীদের অংশগ্রহণ উৎসাহিত করতে নারী কৃষক সংগঠন তৈরি, নারীদের ক্ষুদ্র ও মাঝারি কৃষি-ব্যবসা প্রতিষ্ঠান স্থাপনে উৎসাহিতকরণ, তৃণমূল পর্যায়ের নারী কৃষক সংগঠনের মাধ্যমে তাদের সচেতন ও আত্মবিশ্বাসী করে তোলা এবং নারী ও পুরুষ কৃষকদের মাঝে জেন্ডার সচেতনতা বৃদ্ধির প্রয়াস গ্রহণ করা হবে। এছাড়াও, নারী কৃষক সংগঠনসমূহকে উচ্চতর পর্যায়ে সিদ্ধান্ত গ্রহণ ও নেতৃত্বদানে উৎসাহিত করা হবে।
- ৯.২৫ তদারকি ও মূল্যায়ন প্রক্রিয়া জোরদারকরণঃ** কৃষি সম্প্রসারণ কার্যক্রমের সকল স্তরে অংশগ্রহণমূলক তদারকি ও মূল্যায়ন পদ্ধতি অনুসরণ করা হবে। এ প্রক্রিয়ায় বিভিন্ন স্তরে অংশীদারগণ নির্দিষ্ট কার্যক্রম তদারকি ও মূল্যায়নে নিয়োজিত থাকবেন ও সংশ্লিষ্ট বিষয় নিয়ন্ত্রণ করবেন। মূল্যায়নের এ প্রক্রিয়ায় নিশ্চিত হবে যে-
- (ক) প্রাথমিক অংশীদারগণ সক্রিয় অংশগ্রহণকারী, শুধু তথ্যের উৎস নয়;
- (খ) স্থানীয় জনসাধারণের বিশ্লেষণ, প্রতিফলন ও ব্যবস্থা গ্রহণের সক্ষমতা বৃদ্ধি পাবে;
- (গ) বিভিন্ন স্তরে অংশীদারগণের যথাযথ জ্ঞান অর্জন হবে; এবং
- (ঘ) সংশোধনমূলক পদক্ষেপ গ্রহণে প্রত্যয়ী হতে উদ্দীপনা যোগাবে।

Annex 3: Roles of selected, non-health specific government institutions tasked with in improving nutrition

Domain	Role and activity towards scaling up nutrition	Ministry
Education	<ul style="list-style-type: none"> • Incorporate nutrition and hygiene education in curriculum, including school vegetable garden and cooking demonstrations • Ensure regular Health and Nutritional Days in the schools calendar • ensure completion for girls education at least up to high school standard • Promote and protect good dietary practices among children in places where there are school feeding programs • improve sanitation facilities in schools 	Education, Health and Family Welfare, Information
Water and sanitation	<ul style="list-style-type: none"> • Contribute to increased levels of hand-washing and hygiene • Ensure availability of safe drinking water • Improve availability of sanitary facilities in different settings • Prioritise the availability of water to women for agriculture and fishing 	Local Govt. Rural Development, coops, Health and family Welfare, Water Development
Social Protection	<ul style="list-style-type: none"> • Ensure that extreme poor households can access adequate (quality and quantity) of resources and access to basic health services • Targeted support to pregnant women and children under 2 (1000days) • Ensure Social Protection Strategy is nutrition sensitive and monitor nutrition-related results • Incorporate nutrition-related behaviour change interventions as an integral part of social protection 	Social welfare, Food, Disaster Management, Health and Family welfare, Information, women and Children Affairs, Religious Affairs
Food	<ul style="list-style-type: none"> • Ensure improving availability of diverse foods of quality • Promote best practices to ensure food safety in agriculture sector, food processing industries, food distribution systems and in food value chain • Ensure adequate food safety regulatory framework in place and monitored 	Food industry, Disaster Management, Fisheries & Livestock, Health & Family welfare, Agriculture
Agriculture, Fisheries and Livestock	<ul style="list-style-type: none"> • Improve production of diversified food (source of animal protein) • Empower women to access agriculture extension services and resources • Incorporate basic nutritional issues into agriculture extension training and tasks • Build agriculture extension and agriculture input supply system to ensure nutrition is considered in planning and implementation 	Agriculture, Fisheries and Livestock, Water Development
Women and children affairs	<ul style="list-style-type: none"> • Emphasis on empowerment of women to make decisions about their own and their children's wellbeing 	Women and children affairs, Health and

Domain	Role and activity towards scaling up nutrition	Ministry
	<ul style="list-style-type: none"> • Highlight child marriage/early pregnancy and childbearing, and their harmful implications for malnutrition • Ensure 6-month fully paid maternity leave is implemented in all sectors 	Family Welfare, Primary and Mass Education, Information
Industry	<ul style="list-style-type: none"> • Increase availability of essential staples e.g. salt and oil • Adhere to high standards in advertising/marketing focus on children development 	Industry, Food, Agriculture
Environmental, forestry and natural resources	<ul style="list-style-type: none"> • Restoring or enhancing natural resources • Protecting forests, promoting forest-derived foods to benefit poor/women • Securing ownership, access and management rights to land and other productive resources for poor or marginal groups (e.g. ethnic minorities, emergency-affected populations) • Pro-poor, efficient and integrated management of water resources including control for negative impacts, such as water borne diseases • Risk mitigation and management of water related shocks (e.g. droughts, floods, water insecurity) through adequate infrastructure, storage and flood control supporting adaptation to the effects of climate change • Strengthening early warning and nutrition surveillance systems • Increase collaboration with other sectors and joint programming to increase household/community resilience, especially in emergencies • Monitoring & evaluation systems including nutrition relevant indicators 	Environment and Forestry Chittagong Hill Tracts
	<ul style="list-style-type: none"> • Protect, promote and monitor rights and non-discrimination; right to adequate food and to be able to feed oneself in dignity; and all other-related rights (employment, children's rights; women's rights; water rights, focus on marginal groups, poor households and women) • Uphold refugee and humanitarian law in protracted crises 	Women and children affairs, Justice

Source: Nutrition Background Paper-compiled from other sources (www.plancomm.gov.bd/wp-content/uploads/2015/02/23_FINAL-Nutrition-Background-Paper-for-7th-Five-Year-Plan_-23-Feb-2015.pdf), Page 35

Annex 4: Projects implemented by DAE that pertain to gender, nutrition and extension

Project or Research Title	Aims/objectives or key findings	Duration
Second crop diversification project	The project will foster commercialization of agriculture through interventions to promote diversification into high-value crops (HVCs) and value addition, gender mainstreaming, and climate change adaptation. The project is market oriented and demand driven, and will increase farmers' incomes and enhance food security in Bangladesh.	July 2010 to June 2016
Integrated agricultural productivity project	It helps to enhance the productivity of agriculture in selected agro-ecologically constrained and economically depressed areas. It will enhance household ability to access other foods and goods/services that should improve household nutritional status and general welfare.	July, 2011 to June, 2016
Food security through enhancement agricultural production, diversified sources of off farm income, value addition and marketing in Bangladesh	Develop self-reliance in rural communities; strengthen local institution capacity; promote farming system diversification; and promote small scale agro processing, post-harvest, handling technology and on and off farm income generating activities.	July 2011 to June, 2015
Enhancing food security through improved crop water management practices in the southern coastal area of Bangladesh	To promote adoption and enhance capacities to use water saving and cost-effective irrigation technologies through Water Management Groups.	March, 2013 to December, 2014
Mujib Nagar integrated agricultural development project	The project activities will help in agri-business development credit linkage with banks to the entrepreneur by motivational, promotional and training activities. The project activities will help farmers in a better marketing facilities & favourable marketing environment	July 2011 to June 2016
Production, storage and distribution of rice, wheat and jute seeds at farmers level	Provides training to farmers and supports the production of improved seed of the three crops. Farmers have acquired better knowledge and skills in quality seed production through the training program of this project, and the project has supplied almost 20 percent of cereal seed in recent years.	July, 2013 to 2018
Production, storage and distribution of pulses, oil seeds and onion seeds at farmers level	Provides training to farmers and supports the production of improved seed of pulses, oil seeds and onion seeds.	July, 2013 to 2018

Project or Research Title	Aims/objectives or key findings	Duration
Integrated farm management component- agriculture production and income generation activities	Increased agricultural production among female and male members of landless, marginal and small farming households	July 2013- June, 2018
Farm Machinery Technology Development & Dissemination Project	(i) To create awareness among the farmers about the benefits of using BRRI and BARI developed farm machinery through field demonstration and training, (ii)to impart training to machine operators, agricultural extension workers, manufacturers and traders on operation, repairing/maintenance and manufacturing of BRRI developed farm machinery, (iii) to motivate the farmers on the use of BRRI and BARI developed machinery for increasing timeliness of cultivation, reducing costs of crop production and postharvest losses,(iv)to strengthen research and development on farm machinery, postharvest technology and renewable energy resources and (v) a notable numbers of BRRI and BARI developed machineries was sold to the farmers on 60% subsidized prices.	Mention the project duration
Food Security through Enhanced Agricultural Production, Diversified Sources of Income, Value addition & Marketing in Bangladesh Project	To make farmers self-reliant, crop diversification, homestead gardening, building producer-consumer linkage, value addition of agricultural products	July,2011-June, 2015
Enhancing food Security through Improved Crop Water Management Practices in the Southern Coastal Area of Bangladesh	To ensure efficient management of water to increase crop yield	March, 2013- December, 2014
Strategic Plan (2002-2006)	To support the entire policy framework of the Government of Bangladesh, including the National Agriculture Policy; National Rural Development Policy; National Strategy for Economic Growth, Poverty Reduction and Social Development (i-PRSP) and the New Agricultural Extension Policy (NAEP)	Year 2002 to 2006

Source: DAE website and KILs

Overview of the Department of Agricultural Extension and the IFMC Project

Presented by Mrityunjoy Roy and Dr. Abu Wali Raghieb Hassanat at the INGENAES Regional Symposium in Dhaka, March 7, 2017

Introducing the Integrated Farm Management Component (IFMC) Project

Project Title	Integrated Farm Management Component (IFMC), Agriculture Growth and Employment Program (AGEP)
Implementing Agency :	Department of Agricultural Extension, Ministry of Agriculture
Donor:	Danish International Development Agency (DANIDA) and Government of the People's Republic of Bangladesh (GOB)
Project Period:	July 2013 to June 2018
Total approved cost of the project (Lakh Taka):	DANIDA = BDT 324,00.00 (DKK 225 M) 75% GOB = BDT 108,00.00 (DKK 75 M) 25% Total = BDT 432,00.00 (DKK 300 M)

Background

After the successful completion of the Agricultural Extension Component (AEC), Regional Fisheries and Livestock Development Component (RFLDC), Noakhali and Barisal under ASPs-II, the governments of Bangladesh and Denmark agreed to continue the work under a new program. This is called the 'Agriculture Growth and Employment Program (AGEP)' and was designed in alignment with the Vision 2021, which aims at transforming the Bangladeshi socio-economic environment from a low income economy to the first stages of a middle income economy.

The AGEP consists of three components:

- (1) Integrated Farm Management Component (IFMC),
- (2) Agriculture and Food Security Project (AFSP) in the Chittagong Hill Tracts, and
- (3) Agro-Business Development Component (ABDC).

The IFMC will be implemented by the DAE, while AFSP will be implemented by UNDP in collaboration with the Ministry of Chittagong Hill Tracts Affairs (MOCHTA). ABDC will be implemented by Katalyst (?) and funded through a joint donor basket fund.

IFMC Objectives

Development Objective

- Pro-poor, inclusive and sustainable growth and employment creation.

Immediate Objective

- Increased agricultural production among female and male members of landless, marginal and small farming households

Specific Objectives

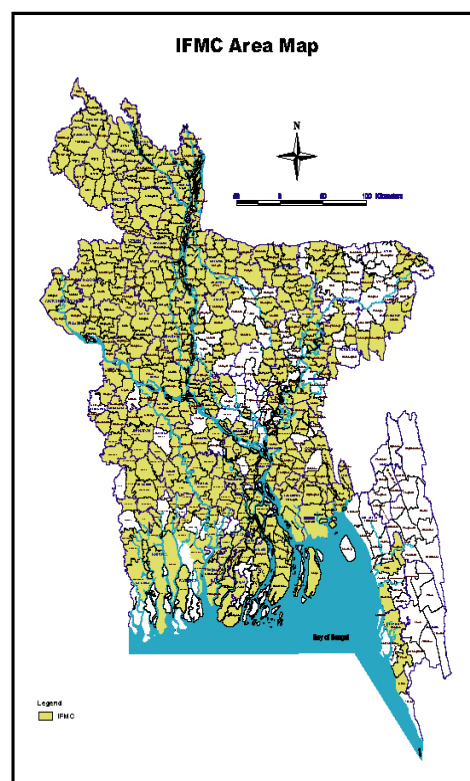
- Female and male farmers have been empowered and increased number of total farm activities and diversification adopting Integrated Farm Management (IFM) technologies and management practices

- Female and male farmers have been empowered and linked to service providers, market actors and micro-finance organizations to increase farm profitability, through the formation of Farmer Organization (FO)
- National dialogue on farmer-centered extension approaches has been strengthened

IFMC Project Locations:

- 373 Upazila under 61 district except 3 hill districts. Selection criteria: (1) Poverty- prone and (2) susceptibility to the effects of climate change and natural calamities.

Division	Dist (Nos.)	Upazila (Nos.)
Dhaka	12	65
Rajshahi	8	66
Rangpur	8	57
Barisal	11	66
Khulna	10	51
Chittagong	8	52
Sylhet	4	16
All	61	373



Manpower

Project Offices	Manpower (GoB)	Manpower (Danida)	Total
HQ, Dhaka	11	24	35
Regional Offices (6) in Barisal, Comilla, Jessore, Mymensingh, Rajshahi & Rangpur	18	66	84
District Office (20)	-	60	20
Total	29	150	179

Key Activities

- Implementation of IFM 20,000 Farmer Field Schools, FFS
- Capacity development of Farmers Facilitators (FF) on IFM FFS
- Capacity development of DAE Staff on IFM FFS
- Orientation, Workshop & Meeting
- Farmer's Organization (1062)
- Capacity development of DAE staff on development of Farmer Organization (FO)
- Capacity development of FO leaders and Focal persons on market linkage and business development
- Support to FOs
- Create National Platform
- Organize meetings, seminars and joint field visits

Training modules of IFM-FFS

- Crops: Rice
- Homestead gardening: Vegetables and fruits, farm yard manure production
- Poultry
- Livestock: Small and large ruminant
- Fisheries: Pond cultured fishes
- Food and nutrition: Classification and function, nutrition for different age group, girls and adolescents, pregnant, cooking, etc,
- Climate change
- Social issues

Gender inequality is bad for all

- Inequities in access to and control of assets have severe consequences for women's ability to provide food, care, and health and sanitation services to themselves, their husbands, and their children, especially their female children. Women with less influence or power within the household and community will be unable to guarantee fair food distribution within the household.
- Women's contribution to food production, food preparation, and child care are critical underpinnings for the social and economic development of communities, yet efforts in this direction are hampered by malnutrition.
- Furthermore, malnutrition in women contributes significantly to growing rates of maternal deaths and is directly related to faltering nutritional status and growth retardation in children. Maternal malnutrition has been linked to low birth weight, which in turn results in high infant morbidity and mortality rates, adding to health care costs and undermining the human resource potential for an economy. It is also now clear that fatal malnutrition harms health status in later life.
- Better-nourished girls are more likely to stay in school and to learn more. Targeting to improve the nutrition status of girls and adolescents will help to ensure that women's status improves throughout the life cycle.

Gender and nutrition

- IFMC is very much concern about gender sensitization and nutrition for women. The project ensures equal participation of both male and females in every activity implementation. Female and male farmers have been empowered and increased number of total farm activities and diversification adopting Integrated Farm Management (IFM) technologies and management practices.
- Among the project staff there are 25 women (out of 179).
- The project has developed 493 female Farmer Facilitators (FF) out of 2079 FF for running FFSs. (%)
- Project developed 879 male and 890 female Business Focal persons (BFP) for operating business activities of Farmer organizations.
- Ensures at least one female in executive committee (President/ secretary/ cashier). Already IFMC built up capacity of 545 male and 347 female FO-leaders to strengthen farmer organizations.
- Each FFS included a module on social issues such as gender equality which is compulsory for all participants in combined sessions which is spread over full FFS intervention period.
- 50% female farmers are also included in motivational tour.
- Food and nutrition topics are focused in a separate module. It is elaborately discussed in FFS with both the male and female farmers by hands on practice.
- Each FFS has a module on homestead gardening to produce safe fruits and vegetables by the farmers.

Expected Outcomes/Impact on gender and nutrition

- Minimum 50% female control over income from homestead vegetables, fruits and poultry production.
- Minimum 20% higher intake of animal protein by under 5 children (in trained households).



Annex 5: Overview of projects related to gender and nutrition and are/were implemented by research organizations in Bangladesh

Name of the organization	Title Aims/objectives or key findings
BARI	<p>Research Area</p> <p>Variety improvements of crops, crop husbandry, soil-plant nutrient management, disease management, irrigation & water management, farm machinery, postharvest technology, farming system research, socio-economic studies on production, utilization & marketing</p> <p>BARI Annual Report 2012-13</p> <p>BARI Annual Report 2013-14</p> <p>BARI Annual Report 2015</p>
BIRRI	<p>Research highlights:</p> <p>Development of new varieties, transferable technology, soil health, disease management, insect management, farming system, water management, farm mechanization, socio-economics & ICT</p> <p>BIRRI Annual Report Summary 2011-12</p> <p>Research highlight 2013-14</p> <p>Research Program 2015-16</p> <p>Proposed Research Programme 2015-2016</p> <p>Plant breeding division (19 projects relating to rice varieties improvements)</p> <p>Hybrid rice division (varietal development)</p> <p>Biotechnology division (21 projects relating to cultural practice)</p> <p>Genetic resource & seed division (varietal development)</p> <p>Grain quality & nutrition division</p> <p>1.3. Evaluation of nutritional quality of BIRRI varieties on the basis of Cookingtime of different soaking condition.</p> <p>1.4. Determination of physicochemical and cooking properties of Kanakchul (local) rice grain</p> <p>1.5. Effect of salinity on grain quality and nutritional status of salt tolerant rice varieties.</p> <p>4.1. Formulation of rice based biscuit and analyse the nutritional characteristics</p> <p>4.2. γ-Aminobutyric acid (GABA) enriched rice based bioactive product improve health condition to mitigate global climate change effect on health in Bangladesh perspective.</p> <p>Agronomy division (crop-soil water management)</p> <p>Soil science division (Soil physics, soil fertility, plant nutrition, environmental problems)</p> <p>Irrigation and Water Management Division (water use efficiency, land productivity improvement, renewable energy)</p> <p>Plant physiology division</p> <p>Entomology division</p> <p>Plant pathology division (pest management)</p> <p>Rice farming system division (production system)</p>

Name of the organization	Title Aims/objectives or key findings
	<p>Agricultural economics division (rural institution, production economics, rice marketing, agricultural policy & development incorporating gender) RESEARCH PROGRAMME 2015-2016 6.6 Community water management for improving food security, nutrition and livelihoods in the polders of the coastal zone of Bangladesh Agricultural statistics division (socio-economics & policy) Farm management division</p>
BLRI	<p>Research highlights 2014-15 (Animal production research, animal health, poultry production, goat and sheep production, biotechnology division) Research Activities 2015-16 (Livestock & poultry disease & animal biotechnology) Packages and Technologies Developed by BLRI Achievements or progress of BLRI (technology innovation, research progress, infrastructural development, human resource development, expansion of ICT)</p>
BFRI	<p>One of the objectives: To transfer the technologies to users through training of extension workers, planners, fish farmers and other relevant persons. Research Achievements 49 aquaculture & management technologies Freshwater aquaculture research (breeding & culture technology of endangered species, development of quality fish feed, disease diagnostics, policy research on socio-economic aspects) Coastal aquaculture research (Breeding & seed production, disease prevention & quality control) BFRI Invented Technology BFRI Development Project (Production of quality dry fish) List of BFRI Publications 1.Short Training Programme on Fisheries, Aquaculture and Hatchery Management for Extension Officers, Entrepreneurs Progressive Farmers and Fishermen 2.Nutrient Composition of Small Indigenous Fish Species (SIS) & Processed SIS of Bangladesh BFRI Magazine</p>
	<p>Project Name: Engender and promising fruit species in the changing context of climate change for nutrition security and livelihoods BARD- Completed Empowerment and food security among vulnerable women group in selected district of Bangladesh- On going research</p> <hr/> <p>A.2.1. Women’s Education, Income and Nutrition Improvement Project (WEINIP) Objectives:</p> <ul style="list-style-type: none"> Organize the rural female into groups and develop their managerial skill and leadership qualities for promoting women’s empowerment;

Name of the organization	Title Aims/objectives or key findings
	<ul style="list-style-type: none"> • Build capacity through training and education and adopt appropriate technologies for undertaking income and employment generation activities; • From capital, provide credit to generate IGAs and institutional support for investing capital in entrepreneurship development; • Develop a group of female community extension agents involving them (in the field of planning process, including functional education, health and nutrition improvement, save mother hood, gender rights practice and violence protection activities) as complementary to the government agents in these fields; and • Develop a viable model for replication throughout the country for improving conditions of females in Bangladesh.

Annex 6: Summary statistics of the projects implemented by RDA, Bogra

Project or Research Title	Duration and funded by	Aim/objectives or key findings	Outcome from Project
Support for Tube-well Command Areas Development, North West Bangladesh	1981-83 FAO/ UNDP	<ul style="list-style-type: none"> • To meet up the scarcity of food and nutritional status in North West region of Bangladesh through increase in command area per irrigation equipment. 	<ul style="list-style-type: none"> - The project has set up buried pipe irrigation system for first time in Bangladesh. It is found that on an average a DTW can irrigate 166 acres of land during Boro season whereas the national average per irrigation equipment is 40 acres. - Development of a multidisciplinary group of core trainers among the officials of DAE, BADC and BARD.3. - Increase in command area is possible through efficient use of irrigation equipment and the efficiency can be enhanced through training and the construction of appropriate channel. - Buried pipe irrigation system is feasible for Bangladesh from both technical and financial perspectives. - There is a need for conducting study on the use of alternative pipe materials to reduce capital cost of buried pipe irrigation system.
Comprehensive Village Development Programme	1991-December 2015 GoB	<ul style="list-style-type: none"> • To promote overall development of all segments of the population of a village by bringing them under a village – based co-operative organization. • To develop a replicable rural development model for the country 	<ul style="list-style-type: none"> - During the last 14 years, the project has succeeded in enabling the beneficiaries to comprehend the core idea of CVDP. As a result, the participation of the villagers in terms of family coverage, membership enrolment, capital accumulation and credit disbursement and its realization has increased manifold. Several studies show that utilization of credit and training is effective in creating opportunities for employment and income. However, based on the past experience the followings observations may be made: - There has been a congenial atmosphere in the project villages as a result of multidimensional activities undertaken by the project. But the soft programmes, especially the credit programmes of the NGO's in some villages has caused inconvenience to the smooth implementation of the project. Provision for loans on easy terms by the NGOs was a strong barrier to the formation of CVDP co-operative

Project or Research Title	Duration and funded by	Aim/objectives or key findings	Outcome from Project
			<p>societies. As a matter of fact, it is difficult to implement a hard program where the soft one is in implementation.</p> <ul style="list-style-type: none"> - Considering the necessity as well as high demand for credit of the co-operators, the government has allocated Tk. 40.00 lakh (four times more than the initial amount) as seed capital in the third phase. The amount has been disbursed very recently and the concerned beneficiaries have started undertaking different IGAs with this credit money. However, as the project will come to an end in June 1999, there remains little scope for assessing the utilization of credit. The government may think of further extension of the project at least to examine the utilization and impact of the credit program from wider perspective. - The Academy is not an implementing agency and as such the project has to be handed over to someone else. However, after handing over, the nature of the program underlines the need for continuation of its involvement for some time so that it may assist the implementers in guiding to keep the programmes in the right direction. - A good functional linkage has been developed between the Thana level officials and the co-operators. The involvement of the local UP Chairmen and Members in the project activities has been found a marginal one. For successful implementation of the project, efforts should be made to enhance their participation on many counts. - The principle for village selection under CVDP sets that the CVDP must not select a village where BRDB/NGOs were working. But in reality it was very difficult to find out any villages free from NGO's. Even if villages were found, people were not found receptive to the program. This has resulted in delay in selection of villages, formation of co-operative societies and undertaking training and other activities.

Project or Research Title	Duration and funded by	Aim/objectives or key findings	Outcome from Project
			<ul style="list-style-type: none"> - Initially, the villagers appeared to be dependent on others. As a result, they were found more interested in relief and loans than in work. So efforts have been made to divert their attention from relief to work. - At the beginning, participation of women in the project activities was quite discouraging. Motivation by the project staff and arrangement of different training programmes at the Academy brought about positive changes in them. Their interest in the society is increasing day by day. - The experience of CVDP suggests that one should not be hurry in implementing any experimental project in the social sector. For sustainable results, it is better to follow the principle of “slow but steady”.
Home Steed Gardening Project	1997-1999 Helen Keller International, Bangladesh	<ul style="list-style-type: none"> • To equip the rural mass, especially the poor with modern technological know-how of vegetables production through training and practical demonstration. • To enhance nutritional status of the rural mass through promotion of year round vegetables production and consumption. • To ensure vegetables production as an additional source of income through the sale of additional product 	<ul style="list-style-type: none"> - The project beneficiaries have become aware of homestead resources and a total of 135 nurseries having 25 in each Upazila have been established in order to facilitate vegetables seed and green vegetables. - A three-day training on vegetables production technologies has been provided for 195 vegetable gardeners and 450 group leaders of the project area. In addition, demonstration of varied food items prepared from soybean have been arranged in 15 villages in order to promote soybean production. - The project beneficiaries have also realised the need for the proper use of the fallow lands in and around their homestead. - The surplus of the green vegetables is sold in the local market to meet their other needs. - The project activities have made positive impact on the nutritional status of the beneficiaries

Project or Research Title	Duration and funded by	Aim/objectives or key findings	Outcome from Project
Village Child Development Project	1981-85 UNICEF	<ul style="list-style-type: none"> • To develop a model for delivery of basic services for children and women at the village level; • To Reduce the first degree malnutrition by 100% and xerophthalmia by 75% in children and anaemia in women and reducing infant, child and maternal mortality by 25%; • To increase retention rate of the enrolled children in primary schools and enrolment of out- of- school children; • To create opportunities for self-employment of women, youths and landless labourers. 	<ul style="list-style-type: none"> - Maternity services provided to the mothers by the trained Traditional Birth Attendants (TBA) reduced the infant mortality and pre-mature maternal deaths. - Income generation and consciousness about nutrition have been possible among beneficiaries because of simultaneous confluence of credit and training. - The project was handed over to BRDB for replication after the experimental stage was over. However, the project activities are still within the same areas and there has been no increase in the number of villages.
Community Empowerment for Poverty Alleviation at the Grass root Level	1997-2002 UNDP/GOB	<ul style="list-style-type: none"> • To assess the needs and priorities of the people of the project villages and assist them in implementation of the issues to be indicated by the poor and the women in the villages. • to establish a process of empowerment that would enable the villagers to organise themselves, mobilise resources, plan and implement the development activities 	<ul style="list-style-type: none"> - In all 63 villages have been brought under the project activities. In these villages a total of 306 Village Organisation Groups (VOGs) have been formed representing 145 female groups and 161 male groups. These VOGs have also mobilised Tk. 48.27 lacs through thrift savings. Besides, the VOG members have started a good number of income generating activities with technical backup from the project and the other service providers (GO/NGO) working in the project area. - Established 44 centres and educated 1088 illiterate adult women through REFLECT Programme in collaboration with Action Aid Bangladesh.

Project or Research Title	Duration and funded by	Aim/objectives or key findings	Outcome from Project
			<ul style="list-style-type: none"> - Established physical infrastructure relating to health and sanitation through installation of 736 hand tube wells and 1996 water-sealed latrines. - Ensured the natural resource management such as Fish cultivation in natural water bodies, afforestation of public lands.

Annex 7:Summary statistics of the projects implemented by BARD

Title	Author/Editor	Year of Publication
Community Participation : Case Studies of Population and Health Programme in Bangladesh (Reprint)	Hye, Hasnat Abdul and Quddus, M.A	1990
Nutrition in Rural Communities: With Seasonal Variations	Quddus, M.A. and Ara, Shamim	1991
Nutritional Situation in Rice and Rice Vegetable Growing Villages in Comilla	Sarwar, Hasan	1991
Co-operative Based Primary Health Care Experiment: Comilla Experience	Sarwar, Hasan	1993
Vaccination Coverage and Child Survival and Development Situation	Quddus, Md. Abdul	1995
Basic Needs and Ecology : Baseline Survey of the Village in Bangladesh	Sarwar, Hasan	1995
Impact of Income, Education, Nutrition and Family Planning	Kabir, NurulNahar	1996
Impact of Poverty Alleviation Programme on Health, Nutrition and Family Planning: A Case of Six Programme Villages	Sarwar, Hasan	1998
The Late Life Story : Nutrition Securities and Empowering Status of Elderly People in Rural Bangladesh: A Case of Four Villages	Miah, Md. AbdusSamad	1999
Impact of Micro-Credit on Food Consumption and Nutrition Status of Selected Rural Poor	Sarwar, Hasan et al	2003
Health, Nutrition and Educational Status of Rural Women and Children in CVDP Village of BARD	Akhter, Nasima et al	2004
Pauperization and Rural Women in Bangladesh	Wastergaard, Kirsten (1985)	1985
Women in Agriculture : An Annotated Bibliography	Hannan, H. Ferdouse and Nazrul Islam	1986
Women's Contribution to Homestead Agricultural Production Systems in Bangladesh	Hussain, Saadat et al	1988
Resources Untapped: An Exploration into Women's Role in Homestead Agricultural Production System	Hannan, Ferdouse	1988
Rural Women in Households in Bangladesh : Case Study of Three Villages in Comilla (Reprint)	Quddus, Md. Abdul	1990
One Legged or Two? Targeting Mainstream Strategies for Women's Development: Experiments by BARD	Kabir, NurulNahar	1994

Comprehensive Village Development Programme and Women	Chowdhury, Masuda Akhter	1994
Women's Empowerment and Fertility	Begum, ShawkatAra	1998
Feasible Income Generating Activities for Rural Women and their Management	Bose, TapashRanjan et al	2000
Skill Training Opportunities for Rural Women: Problems and Prospects	Islam Md. Shafiqul et al	2000
Management of Different Village Level Groups and their Development Programme by Women: Problems and Prospects	Ali, Md. Easin et al	2000
Technological Innovation in Farm and Non-Farm Sectors and its Impact on Women in Development	Sharifullah, A.K.	2000
Different Models of Credit Support to Rural Women: A Comparative Study	Dasgupta, Swapan Kumar	2000
Different Models of Credit Support to Rural Women: A Comparative Study	Khan, Akhter Hussain et al	2000
Different Models of Credit Support to Rural Women: A Comparative Study	Begum, ShawkatAra et al	2001
Participation of Women in Local Government Institution	Quddus, Md. Abdul et al	2001
Women's Empowerment and Demographic Change	Biswas, Tapash Kumar	2004
Women in Mainstream Development: The Role of Mass Media	Kabir, M. Khairul et al	2008

Annex8: Syllabifor selected university courses with gender focus

Gender Issues in Agriculture and Livelihoods (Course No: RS 323, 3 credits)

Department of Rural Sociology, Bangladesh Agricultural University B.Sc. Ag. Econ (Hons), Level-3, Semester-2. **This course is intended to be compulsory for the Faculty of AERS, yet to be approved by the faculty and academic council.**

Rationale: This course pertinent to introduce agricultural economics graduate to gender issues related to the continued economic, social and agricultural development in Bangladesh to provide them with the analytical skills and critical thinking in the conduct of gender analyses in agriculture and development.

Objectives:

- To build **perspective** in agricultural students by providing an overview of the social construction of gender and socio-economic inequality in Bangladesh
- To **create skills** to help students identify and analyse gender roles, rights and responsibilities in different agro-ecological systems and understand how they shape gender relations
- To **bring about attitudinal change** by facilitating gender sensitivity among students and helping them internalize equity concerns as fundamental human rights

Learning Outcomes	Course Content	Teaching Strategy/ Learning Experience	Assessment Strategy
Gain increased awareness of male/ female stereotypes Able to initiate discussion about some of the consequences of stereotyping	Introduction What is gender? Socialization of gender identities, and system of gender inequalities; trends in gender and development: from WID to GAD and beyond	Classroom lecture; Classroom discussion; photo study	Class test, Home exam, Class Presentation, Group work, Participation in class, Final exam
Become able to reflect on their perceptions of women and gender	Feminist Perspectives Introduction; key concepts, feminist political ecology, feminist critiques of representational practices, feminist critiques of science	Classroom lecture; classroom discussion	-ditto-

Learning Outcomes	Course Content	Teaching Strategy/ Learning Experience	Assessment Strategy
<p>Learn about gender roles in agriculture in diverse regional and sectoral contexts</p> <p>Develop the skill to trace the gender differentiated impacts of and adaptation to changing biodiversity, climate and natural disaster</p>	<p>Gender roles in agriculture and natural resources: Women as farmers: invisible work, unequal wages; review of agricultural development in Bangladesh from a gender perspective; 1980s onwards: impact of agricultural liberalization on women farmers; gender in crop agriculture, fisheries and aquaculture, livestock, and forestry. Gender and biodiversity; gender dimensions of climate change; gender and natural disasters; gender dimensions of land, water degradation and desertification.</p>	<p>Classroom lecture; classroom discussion; film study</p>	<p>-ditto-</p>
<p>Understand accurately labour rights, gendered differentiated work and salary, entrepreneurship and market linkage</p>	<p>Labour and Agricultural markets: Gender and informal labour; labour rights and decent work for women agricultural labourers; gender and employment in labour-intensive export agriculture; strengthening the business environment with women; capacity development for small and market linkages; gender in value adding strategies.</p>	<p>Classroom lecture; classroom discussion; film study</p>	<p>-ditto-</p>
<p>Attain skill to identify gendered dimension of food security and livelihoods, daily food consumption,</p> <p>Ability to assess the role and impacts institutions and organizations on food and livelihood security</p>	<p>Gender, food security and rural livelihood: Women’s role in food and nutritional security, Gender in policy making, Institutionalizing the gender, Decentralization and community-driven development, Gender, self-help groups and farmers, organizations in agricultural sector.</p>	<p>Classroom lecture; classroom discussion; film study</p>	<p>-ditto-</p>
<p>Achieve skills to identify the innovative technology, gendered access and use</p>	<p>Technological change and gender relations Agricultural technology: innovating for whom? gender and agriculture in the information society; gender constraints to ICTs in rural areas;</p>	<p>Classroom lecture; classroom discussion</p>	<p>-ditto-</p>

Learning Outcomes	Course Content	Teaching Strategy/ Learning Experience	Assessment Strategy
	Empowering rural communities: Village Knowledge Centres; Ensuring equitable access to information		
Build capacity to examine women's development projects and identify strengths and weaknesses in the project approach from a gender perspective	Policy approaches to women and development: The colonial state; Post-independence: The welfarist approach; towards equity and equality: 1970s...; the anti-poverty approach: 1980s...; the efficiency approach; the empowerment approach; summary of different policy approaches	Classroom lecture; classroom discussion	-ditto-

Recommended Reading

Textbooks

- Agarwal, B. (2003) Gender and land rights revisited: Exploring new prospects via the state, family and market, in S. Razavi (ed.) Agrarian Change, Gender and Land Rights, Oxford: Blackwell Publishing (for the UN Research Institute for Social Development).
- Alston, M. (2015): *Women and Climate Change in Bangladesh*, London: Routledge.
- Butler, J. (1999): *Gender Trouble: Feminism and the Subversion of Identity*, 2nded. New York: Routledge.
- IFAD (2009): Gender in agriculture Sourcebook. The World Bank.

References

- Kabeer, N. (1995) *Reversed Realities: Gender Hierarchies in Development Thought*. New Delhi: Kali for Women.

Doing Gender and Development (Subject: RS 537, 2 credits)

Department of Rural Sociology, Bangladesh Agricultural University - MS in Rural Sociology

Rationale: Despite the fact that gender issues in (rural) development are crucial and many postgraduate students works gender issues often lack the analytical and practical skills to research/work in the area of gender and development. It is therefore, pertinent to provide them with the analytical skills and critical thinking in the conduct of gender analyses in (rural) development.

Objectives: This Master course brings together the conceptual and analytical skills in gender and development and focuses on how to apply them to development [practice]. The broad objectives of this course are:

- To build **critical perspective** in Master degree students by providing an overview of the gender issues in (rural) development in Bangladesh
- To **create analytical skills** to help students identify and analyse strength and weakness in different program/projects on gender and development
- To **strengthen research skills** through providing students with practical fieldwork skills and experiences to participate effectively in gender and development-related research, policymaking and implementation

Learning Outcomes	Course Content	Teaching Strategy/ Learning Experience	Assessment Strategy
Become able to reflect on their perceptions of women and gender in development to initiate discussion as well fieldwork	Introduction What is gender? Trends in gender and development: from WID to GAD and beyond. Key ideas in Feminist Perspectives, feminist critiques of representational practices and development. Gender mainstreaming – what’s it all about	Classroom lecture and discussion; photo study	
Build critical reflection on nature of the state, women's development projects and identify strengths and weaknesses in the project approach from a gender perspective	Policy approaches to gender and development: Bangladeshi State, Women development policy and different policy approaches to gender and development	Classroom lecture and discussion;	
	Feminist Methodologies Researching the Vulnerable Feminist methodologies	Classroom lecture Supervised Field visit	

Learning Outcomes	Course Content	Teaching Strategy/ Learning Experience	Assessment Strategy
Understand the politics and underlying patterns of use of gender in development.	Designing a Political Strategy to unstick the ‘sticky stuff’ Politics of framing within the policy domain, the tactics and strategies deployed by feminist scholars, advocates and activists in their struggles for interpretive power and the interactions between global institutions and local movements in shaping policy outcomes.	Guest Lecture/Seminar	
Develop the skill to assess the existing strategies/program on gender and develop ability design and evaluate gender sensitive development projects	Designing a strategic Evaluation and Learning Process A critical overview of current monitoring and evaluation frameworks. Gender and indicators. Gendered Outcome Mapping How to support strategic learning?	Guest Lecture/Seminar	

Recommended Reading

- Ahmed, S (2004): *Gender Issues in Agriculture and Rural Livelihoods*. Chennai: M. S. Swaminathan Research Foundation and Thrissur: Kerala Agricultural University
- Beetham, G., and Demetriades, J. (2007) ‘Feminist research methodologies and development: overview and practical application’ *Gender & Development* 15(2):
- Cranny-Francis, A., Waring, W., Stavropoulos, P. and Kirkby, J. (2002/2012): *Gender Studies: Terms and Debates*. New York: Palgrave Macmillan.
- Kabeer, N. (1995) *Reversed Realities: Gender Hierarchies in Development Thought*. New Delhi: Kali for Women.
- Liamputtong, P. (2006) *Researching the Vulnerable: A Guide to Sensitive Research Methods*. London: Sage.
- Porter, F., and Wallace, T., (2013) 'Introduction: Aid, NGOs and the shrinking space for women: a perfect storm' in Tina Wallace (ed) *Aid, NGOs and the realities of women's lives: a perfect storm*. Practical Action.
- Rao, A., Sandler, J., Kelleher, D. and Miller, C (2015) *Gender at Work Theory and Practice for 21st Century Organizations*

Gender Relations in Agriculture (Subject: AE 515, credits: 2)

Department of Agricultural Economics, Bangladesh Agricultural University - MS level. **Optional Course**

Gender Relations and Women’s Work: Concept of gender analysis - Seeing women’s work - Valuing women’s work - Women work and development project.

Analysing Rural Women: Women in Farming Systems - The Household Economics - Political Economy approach to gender analysis.

Women in Production and Reproduction: Gender, class and food security - Women’s access to land, water and technologies - Gender and the environment - Fertility, health and nutrition.

Gender Analysis and Policy Directions: States, markets and gender - Investigating rural women - Empowering rural women.

References:

- Bamberger, Michael. 1999. Developing Gender Sensitive Monitoring and Evaluation Systems for Rural Travel and Transport Projects and Programs—Draft. The World Bank, Washington, D.C.
- Bamberger, Michael, Mark Blackden, Lucía Fort, and VioletaManoukian. 2002. “Gender,” in PRSP Sourcebook. The World Bank, Washington, D.C.
- Canadian International Development Agency (CIDA). 1997. A Project Level Handbook: The Why and How of Gender-Sensitive Indicators, Canada.
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- Fong, Monica S., and AnjanaBhushan. 1996. Toolkit on Gender in Agriculture: Gender Toolkit Series No. 1. The World Bank. Washington, D.C.
- Food and Agriculture Organization (FAO). 2011. State of Food and Agriculture 2010–11. Women in Agriculture—Closing the Gender Gap for Development. Author, Rome.
- King, Elizabeth, and Andrew D. Mason. 2001. Engendering Development through Gender Equality in Rights, Resources, and Voice. The World Bank, Washington, D.C.
- Kusek, Jody Z., and Ray Rist. 2004. Ten Steps to a Results-Based Monitoring and Evaluation System. The World Bank, Washington, D.C.
- World Bank. Gender in Agriculture. URL: www.genderinag.org.
- World Bank. 2002. A Sourcebook for Poverty Reduction Strategies, Volume 1. Community Driven Development. Washington, D.C.
- World Bank. 2003. Social Analysis Sourcebook: Incorporating Social Dimensions into Bank-Supported Projects. Social Development Department. Washington, D.C.
- Bank. 2012a. Core Sector Indicators—Guidance. ResultsPlatform. OPCS, 2012, Washington, D.C.

- World Bank.2012b. World Bank Group Agriculture Action Plan 2013–2015, Washington, D.C.
- World Bank. 2012c. World Development Report 2012: Gender Equality and Development. Author, Washington, D.C.
- World Bank, Food and Agriculture Organization (FAO), and International Fund for Agricultural Development (IFAD). 2009. Gender in Agriculture Sourcebook, Washington, D.C.

Gender and Development Course No. ARD-507 Credit: 2

Department of Agricultural & Rural Development, Sylhet Agricultural University, Sylhet. Course for MS in Sociology and Development Studies.

Introduction to Gender and Development: Gender terminology, role, division, needs and disparity in Bangladesh, Women in different sectors

Approaches to Women, gender and development: the welfare approach, women in development (WID) Approach, Gender and Development (GAD) approach, women and Development approach, the efficiency approach, the empowering approach, gender and environment approach and mainstreaming gender equality.

Measuring Gender Development: Gender development Index, Gender Empowerment Measure, Strategies and mechanism of empowering rural women, economic engagement of rural women, gender indicators and criteria, role of women in agriculture, developing technologies for farm women, employment opportunities of rural women, extension needs to farm women, women's empowerment and role in the participatory community development.

Gender Development: Identities, Ideologies, Institutions, Feminises, masculinities, Masculinities and development, Feminist Interventions, gender and education.

Gender and Health: Reproductive health, HIV/AIDS and violence.

Gender and migration: The case of Nannies, Maids and Domestic workers

State and Women Development: Role of state, different program for women development in Bangladesh, agencies to support victims.

Study Tour: One or two study tour will conduct for collect data from different communities about gender discrimination and activities against violence.

References:

- Bins Srinivasan, 1997, Negotiative Complexities: A collection of Feminist Essays, India
- John Stuart Mill, 2009. The subjection of Women, Publisher: Creates pace
- Sujata Sen, 2003. Gender Studies, Pearson, Delhi, India
- Judith Spector, 2010. Gender Studies: New Directions on Feminists Criticism, USA
- David Clover, 2007. Fenders: the new Critical Idiom, 2nd Edition, Altantic
- Umesh Pratap Singh and Rajesh Kumar Garg, 1989. Women Empowerment: Difernt Issues, Pulishers, India
- FAO, 2010. Rural Women and Food Security: Current Situations and Perspectives, Rome: Food and Agricultural Organization of the United States
- Hye, H. A 2008. Village Studies in Bangladesh, Comilla, Bangladesh Academy for Rural Development.
- Joshi, I. Asian women in the Information Age: Technology, Democracy and women, Singapore: Asian Media Information and Community Centre (AMIC)
- Kakchi, T. Y.Momikura and K. Saito, 2000. Some Aspects of rual development in Japan, Tokyo, Japan, FAO Association.

Annex 9: Summary outcome of selected development organizations

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
Blue Gold	Establish and empower /water management organizations (WMOs) to sustainably manage their water resources and to make these resources more productive	Reduce poverty for 150,000 households living in 160,000 ha area of selected coastal polders by creating a healthy living environment and generating sustainable socio-economic development.	file:///C:/Users/HP/Downloads/Bangladesh_Blue+Gold+FS%20(2).pdf
	Economic development Microcredit	Provides collateral-free loans to mostly poor, landless, rural women, enabling them to generate income and improve their standards of living	
	Education Non-formal primary education- poor, rural, or disadvantaged children		
	Public health	Bettering maternal, neonatal, and child mortality	
	Promoting gender equality and empowering women	Providing training to local administrators on issues important to the poor, particularly women, and seeks to increase the accessibility, transparency, and accountability of local government. It addresses forms of gender inequality and violence against women such as child marriage, dowry, polygamy, oral divorce, acid throwing, domestic violence, and rape	
	Disaster relief	Focusing on long-term rehabilitation, which will include agriculture support, infrastructure reconstruction and livelihood regeneration	
	Annual Reports	Food security for sustainable household livelihoods (priority on women involvement)	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	Annual Report 2006		
	Gender Equity	Ensuring women's participation in identifying and prioritizing problems, in project design and in project implementation	
	CARE BANGLADESH CURRENT PROJECT INFORMATION - FY'15 (Total 28)		
	Agriculture Extension Capacity Building Activity Project (Oct 23, 2012 to Oct 22, 2017)	The aim of the project is to strengthen the existing agricultural extension system in 20 districts in South-West and Central Bangladesh in order to sustainably improve food security and nutrition for 200,000 vulnerable women and smallholder farmers	
	Emergency response for Flood affected Communities in Northwest Bangladesh II (September, 2014 - January 2015)		
	Global Women Economic Empowerment Initiative (GWEEI) Phase II- (February 1, 2014 to January 31, 2016)		
	Improving Delivery and Uptake of Essential Nutrition through the Health and Food System and in the Community (June 01, 2013 to May 31, 2015)	The initiative seeks to improve the delivery, monitoring and uptake of essential nutrition interventions and practices through the local health and food system and the community	
	Nutrition at the Center (N@C) (May 2013 to December 2017)	The project aims to significantly improve nutrition outcomes for mothers and children in resource poor areas by decreasing stunting in young children (6->24 months) by decreasing maternal and child anaemia (6->24 months)	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	Women's Empowerment (Total 28)		
	Food Security (Total 9)		
	Health and Nutrition (Total 25)		
CARE Summary	Strategic Programming Framework focused on women exercising greater choice in decision affecting their lives; reduced violence against women; and the emergence of strong social movements built on women's solidarity and participation of men		
	<p>Vision In the light of the Social Teachings of the Church, Caritas Bangladesh envisions a society which embraces the values of freedom, justice, peace and forgiveness allowing all to live as a communion and community of mutual love and respect.</p> <p>Mission Caritas Bangladesh tries to function in partnership with people – especially the poor and marginalized, with equal respect for all – to attain integral development, to live a truly human life in dignity and to serve others responsibly and with love</p>		
	Momota- (Improving the Health, Nutrition and Social Security of Babies and Working mothers of Dhaka City Suburbs)	Supported nutrition and health care for children	
Caritas Summary	Caritas is operational in Integrated Development, Disaster Management and Human Resource Development, under a central management		

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
Catholic Relief Services	<p>Mission statement Catholic Relief Services carries out the commitment of the Bishops of the United States to assist the poor and vulnerable overseas.</p>		
	<p>Nutrition and Food Security for People Living with HIV and AIDS</p>	<p>Applies the Integral Human Development (IHD) framework to nutrition and food security for people living with HIV and AIDS. In addition, several programming options and best practices with nutrition and food security for this target group are highlighted. The best practices and recommendations sections exemplify what is possible through a multidisciplinary approach.</p>	<p>www.crs.org/our-work-overseas/research-publications/nutrition-and-food-security-people-living-hiv-and-aids</p>
	<p>Through its local partner, Caritas Bangladesh, CRS responds to these emergencies with lifesaving aid. CRS helps survivors start over after storms, rebuild homes and replace lost assets such as rickshaws or cows so that people can earn a living. CRS-supported Disaster Risk Reduction programs prepare villagers to save their families and assets during future storms. CRS also funds educational and food security programs for disadvantaged Bangladeshi children, including those from tribal communities.</p>		
	<p>CGIAR Research Programs (Total 15 approved programs) Research on rural poverty, food security, nutrition and health, sustainable management of natural resources</p>	<p>CGIAR research is dedicated to reducing rural poverty, increasing food security, improving human health and nutrition, and ensuring sustainable management of natural resources The vision of the CGIAR is to: Reduce poverty and hunger, improve human health and nutrition, and enhance ecosystem</p>	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		resilience through high-quality international agricultural research, partnership and leadership	
	Research on CCAFS - Climate Change, Agriculture and Food Security		
	Gender equality and social inclusion Research areas: from climate-smart agriculture, to climate risk management, low emissions development, and policies and institutions	women and men, including youth, can participate in, and benefit from, the research process and results to increase their control of productive assets, participate in decision making, and decrease their labour burdens	
	Using information to enhance the adaptive capacity of women and ethnic minorities in Southeast Asia	To enhance the adaptive capacity of W&EM smallholder farmers to better anticipate and respond to risks and opportunities from climatic variability	
	Participatory tools for gender and social inclusion research under climate change	To better capture and better understand how men and women smallholder farmers affect and are impacted by climate change, while taking into account age, wealth, ethnic identification	Download the latest Gender and Inclusion Toolbox Download the original FAO Gender Research Training Guide in English, Spanish and French
	Gender and climate change	Enabling people to reach their full potential in adapting agriculture to climate change	
	Global Alliance for Improving Food Security and the Livelihoods of the Resource-poor in the Developing World		
	More Meat, Milk and Fish by and for the poor		
	Agriculture for Nutrition and Health		with WorldFish

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
CGIAR Summary	Research for a food secure future among four strategic objectives <ul style="list-style-type: none"> • Improving food security • Improving nutrition and health 		
	Country Policy Country Policy 2013 – 2017	Work to strengthen gender equality and ensure women’s and girls' rights	Country Policy Paper for Bangladesh 2013-2017 (English)
	Programmes within human rights and good governance; agriculture; water supply and sanitation and business partnerships The development programme includes specific or mainstreamed activities for improving gender equality and for promoting the rights of indigenous peoples	Contribute to poverty reduction Promote democracy, human rights, rule of law and good governance Promote commercial cooperation between Denmark and Bangladesh Strengthen collaboration on global issues	
	Agricultural Growth and Employment Programme (AGEP) One of the components among 3 -Agriculture and Food Security Project in the Chittagong Hill Tracts (AFSP in CHT)	The immediate objectives of AGEP are: Agricultural production of female and male marginal and small farm households increased and diversified through Integrated Farm Management (IFM) Farmer Field Schools (FFS) and Strengthening of the competitiveness of the agricultural and agro-business sectors	
	Strategic Framework For Gender Equality, Rights and Diversity In Danish Development Cooperation (2014)	Progress on gender equality and women’s rights	
	Food Processing in Bangladesh (2009)	Finding opportunities within fishery, vegetables and fruits	
DANIDA Summary	Strategy <ul style="list-style-type: none"> • "The Right to a Better Life" 		

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	<ul style="list-style-type: none"> • Sectors-Business, food, human rights, governance, water and sanitation • Human Rights and Democracy • Human Rights component is divided into three sub-components: • Support to human rights-advocating NGOs; • Support to the National Human Rights Commission; and • Support to the Violence against Women program 		
	<p>Vision DAM visualizes a society that fosters humanity, spirituality, humility, equality and caring the nature.</p> <p>Mission DAM provides high quality services towards unity, peace and development of social and spiritual life for the human community in general and for the disadvantaged and suffering humanity, in particular.</p>		
	Gender Policy	The Gender Policy aims at facilitating narrowing the gender gap and strives for attaining an equitable social and economic development by integrating gender perspectives in development programs. Gender mainstreaming is increasing gaining prominence in DAM's policies and programs. It is now believed that gender inequity is still a reality and it has to be removed to bring about a positive change in the lives of women and girls.	
	Annual Report 2014-15: Health and WASH	<p>Maternal Health Care: A total of 32,551 clients received anti-natal care services</p> <p>Nutrition Services: A range of services encompassing nutritional counselling,</p>	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		prevention of malnutrition and food supplementation were ensured for mother and children - based on findings from BMI -for adults and adolescents; and growth monitoring chart for under-five children were maintained.	
	VGD Program	<p>The targets of development support service are as follows</p> <ul style="list-style-type: none"> • Awareness of VGD women • IGA training to the VGD women • Saving collection • Access to credit to those who are interested to take micro-credit for the NGO 	
	Country Programming Framework (2014-2018) Five year plan	<p>1.Reduce poverty and enhance food security and nutrition (access and utilization)- focus part of its activities on supporting to policy development on food security and nutrition, special focus goes to women as primary carers, primary and mass education on nutrition and food production, ensuring women’s participation as a key to tackling food insecurity and under-nutrition is a major part of the priority, improving women’s access to productive resources</p> <p>2. Enhance agricultural productivity through diversification/intensification, sustainable management of natural resources, use of quality inputs and mechanization</p>	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		3. Improve market linkages, value addition, and quality and safety of the food system 4. Further improve technology generation and adaptation through better producer-extension-research linkages 5. Increase resilience of communities to withstand ‘shocks’ such as natural disasters, health threats and other risks to livelihoods	
	Projects under CPF (2014-2018) priorities		
	Priority 1: Reduce poverty and enhance food security and nutrition (access and utilization)		
	OSRO/BGD/401/EC:	Strengthening the Food Security Cluster in Bangladesh through Improved Cluster Coordination, Information Management, Needs Assessment and Integrated Phase Classification.	
	OSRO/BGD/404/EC:	Increased food and nutrition security in remote areas of CHT through resilience building measures.	
	GCP/BGD/037/MUL:	National Food Policy Capacity Strengthening Programme (NFPCSP) EC - (Phase II).	
	MTF/BGD/052/RBK:	Linking School Milk with Smallholder Dairy Development in Tala, Satkhira, Bangladesh.	
	GCP/BGD/048/USA:	Improving Household Food and Nutrition Security of Women and Children through improved Backyard and Small-Scale Poultry Production.	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	GCP/BGD/049/USA:	Integrated Agriculture and Health-based Interventions for Improved Food and Nutrition Security in Selected Districts of Southern Bangladesh-(Joint Nutrition Project-FAO and UNICEF).	
	To save and improve the sight and lives of the world’s vulnerable		
	Nurturing Connections in Bangladesh	Nurturing Connections offers a participatory approach to challenging gender norms and building equality and constructive communications skills with every member of a community to create the best environment for improving nutrition. The program is designed to empower women to make the decisions needed to improve nutrition for themselves and their children, and enable women food farmers to engage on more equal terms in the marketplace so they can gain more fairly from their labour and investments.	www.hki.org/our-impact/stories/nurturing-connections-bangladesh#.V64QrhL8tkh
IFDC	IFDC is focusing on a broad spectrum of activities related to advance input technologies, soil nutrient management and resource conservation.		
	Accelerating Agriculture Productivity Improvement in Bangladesh	AAPI Strengthening and reorienting agricultural production systems in Bangladesh. The goal is to achieve sustainability through technology diffusion and the development of support systems.	https://ifdc.org/aapi

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		The AAPI project (2010-2016), funded by the U.S. Agency for International Development (USAID), is improving food security and incomes in rural areas of Bangladesh.	
ICDDR	<p>Vision A world in which more people survive and enjoy healthy lives</p> <p>Mission To solve key public health problems through innovative scientific research</p>		
	<p>Research Theme: Maternal and childhood malnutrition</p>	Study the biological and non-biological mechanisms underpinning maternal and childhood malnutrition, develop innovative interventions to prevent and treat these conditions, and evaluate the efficacy, feasibility and scalability of new interventions.	www.icddr.org/research/research-themes/maternal-and-childhood-malnutrition
	<p>Research Theme: Maternal and neonatal health</p>	We discover, develop, and evaluate new interventions, and help improve the delivery and scale-up of interventions to prevent and treat maternal complications, adverse birth outcomes and life-threatening neonatal conditions.	www.icddr.org/research/research-themes/maternal-and-neonatal-health
IFPRI (a CGIAR centre)	<p>The International Food Policy Research Institute (IFPRI) provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition in developing countries.</p> <p>Vision and Mission IFPRI's vision is a world free of hunger and malnutrition. Its mission is to provide research-based</p>	<p>Research at IFPRI focuses on six strategies areas:</p> <p>Ensuring Sustainable Food Production: IFPRI's research analyses options for policies, institutions, innovations, and technologies that can advance sustainable food production in a</p>	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	policy solutions that sustainably reduce poverty and end hunger and malnutrition.	<p>context of resource scarcity, threats to biodiversity, and climate change.</p> <p>Promoting Healthy Food Systems: IFPRI examines how to improve diet quality and nutrition for the poor, focusing particularly on women and children, and works to create synergies among the three vital components of the food system: agriculture, health, and nutrition.</p> <p>Improving Markets and Trade: IFPRI's research focuses on strengthening markets and correcting market failures to enhance the benefits from market participation for small-scale farmers.</p> <p>Transforming Agriculture: The aim of IFPRI's research in this area is to improve development strategies to ensure broad-based rural growth and to accelerate the transformation from low-income, rural, agriculture-based economies to high-income, more urbanized, and industrial service-based ones.</p> <p>Building Resilience: IFPRI's research explores the causes and impacts of environmental, political, and economic shocks that can affect food security, nutrition, health, and well-being and evaluates interventions designed to enhance resilience at various levels.</p> <p>Strengthening Institutions and Governance: IFPRI's research on institutions centres on collective action in management of natural</p>	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		resources and farmer organizations. Its governance-focused research examines the political economy of agricultural policymaking, the degree of state capacity and political will required for achieving economic transformation, and the impacts of different governance arrangements.	
	Getting to specifics: Bangladesh’s evolving nutrition policies	This publication tells the story of nutrition change in Bangladesh, drawing on primary research into nutrition-relevant policies and programs and 293 life history interviews, carried out in 2007, that reflect community-level changes in the country.	www.ifpri.org/publication/getting-specifics-bangladeshs-evolving-nutrition-policies
	Strengthening the contribution of aquaculture to food and nutrition security: The potential of a vitamin A-rich fish in Bangladesh	to conduct a benefit–cost analysis of a national household pond Mola Promotion Program (MPP) in Bangladesh	www.ifpri.org/publication/strengthening-contribution-aquaculture-food-and-nutrition-security-potential-vitamin
	MQSUN baseline report: Impact evaluation of the DFID programme to accelerate improved nutrition for the extreme poor in Bangladesh, Phase II	The DFID Programme to Accelerate Improved Nutrition for the Extreme Poor in Bangladesh aims to improve nutrition outcomes for children, mothers and adolescent girls by integrating the delivery of a number of nutrition-specific (or direct) interventions with the livelihood support provided to extremely poor people by three existing programmes in Bangladesh.	
	How does women’s time in reproductive work and agriculture affect maternal and child nutrition?	This paper examines whether an increase in women’s time in agriculture adversely affects	www.ifpri.org/publication/how-does-womens-time-

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	Evidence from Bangladesh, Cambodia, Ghana, Mozambique, and Nepal	maternal and child nutrition, and whether the lack of women’s time in reproductive work leads to poorer nutrition. Using data from Bangladesh, Cambodia, Ghana, Mozambique, and Nepal, we find that on the whole, in poor households, reductions in women’s reproductive work time are detrimental to nutrition, especially for children.	reproductive-work-and-agriculture-affect-maternal-and-child
	Gender, headship, and the life cycle: Landownership in four Asian countries	To inform the formulation of policies and interventions to strengthen women’s land rights, this paper analyses nationally representative data from Bangladesh, Tajikistan, Timor-Leste, and Vietnam to understand the processes by which men and women acquire land; the social, cultural, and legal institutions surrounding gender and landownership; and the role of individual and household characteristics influencing an individual’s ability to own land.	www.ifpri.org/publication/gender-headship-and-life-cycle-landownership-four-asian-countries
	2015 Nutrition country profile: Bangladesh	The 193 individual country profiles capture the status and progress of all UN Member States, and the 80+ indicators include a wealth of information on child, adolescent and adult anthropometry and nutritional status, in addition to intervention coverage, food supply, economics, and demography. This tool is particularly useful for nutrition champions at the country-level, as it presents a wide range of evidence needed to assess country progress in	www.ifpri.org/publication/2015-nutrition-country-profile-bangladesh

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		improving nutrition and nutrition-related outcomes.	
Islamic Relief	<p>Vision We envisage a caring world where communities are empowered, social obligations are fulfilled and people respond as one to the suffering of others.</p> <p>Mission: Exemplifying Islamic values, Islamic Relief will mobilise resources, build partnerships, and develop local capacity, as the organisations works to: Enable communities to mitigate the effect of disasters, prepare for their occurrence and respond by providing relief, protection and recovery. Promote integrated development and environmental custodianship with a focus on sustainable livelihoods. Support the marginalised and vulnerable to voice their needs and address root causes of poverty. We allocate these resources regardless of race, political affiliation, gender or belief, and without expecting anything in return.</p>	<p>Programmes often encompass many interlinked areas. These include livelihoods, food security and community development – as well as child protection and welfare, health and nutrition, water and sanitation, education, disaster risk reduction and climate change adaptation.</p>	
	Health and nutrition program	<p>Providing access to healthcare and medication is fundamental in the fight against poverty. Islamic Relief, Bangladesh aims to improve the health and nutritional status of poor people through increasing access to health and nutritional facilities and improving knowledge on health and hygiene awareness. Islamic Relief’s health and nutrition programs include providing supplementary nutrition,</p>	http://islamicrelief.org.bd/programmes/healthandnutrition

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		medication, mobile healthcare (health and eye clinics) and carrying out health and hygiene training. The program mainly extends preventive awareness interventions among the community.	
Oxfam	<p>Vision: Oxfam’s vision is a just world without poverty: a world in which people can influence decisions that affect their lives, enjoy their rights, and assume their responsibilities as full citizens of a world in which all human beings are valued and treated equally.</p> <p>Nine billion people will live equitably and free from the injustice of poverty, on a planet that has the natural resources to sustain them.</p>	<p>Objectives</p> <p>Gender justice – Empower women to make meaningful decisions concerning themselves, their families, their community and their country, through their realization of their rights, their control of resources, their freedom from violence, and their access to, and influence within, social and political space.</p> <p>Education – Enhance the quality of education for all, and enabling more girls and young women to have sustained access to quality education.</p> <p>Secure livelihoods – Increase the food and income security for the most marginalized people through increased resilience of their communities and livelihoods to change and disaster.</p> <p>Humanitarian response – Help vulnerable women, men, boys and girls, their communities, government and humanitarian actors so they will be better able to cope with and adapt to shocks. We achieve this through preparedness and improved policy, resulting in reduced negative impact for women and men, more</p>	<p>http://oxf.am/Hgv</p>

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		rapid and effective gendered response, and more rapid long term recovery.	
	Oxfam Annual Report 2014-15	The report covers the work of the Oxfam confederation, illustrating work from our affiliates and country offices but also joint campaigns and financial figures.	www.oxfam.org/sites/www.oxfam.org/files/file_attachments/story/oxfam_annual_report_2014_-_2015_final.pdf
	Oxfam Strategic Plan, 2013-2019 : The Power of People Against Poverty	Oxfam’s Strategic Plan to 2019 has a vision that sets local communities and the voices of women, men and young people at the centre of change. Empowering women When women have power, they can thwart the violence and exploitation that oppresses them. Human development is driven by empowered women. We will continue to place the highest priority on supporting women and girls to become leaders and to ensure that their roles in society and the economy are properly valued and recognized.	www.oxfam.org/sites/www.oxfam.org/files/file_attachments/story/oxfam-strategic-plan-2013-2019_0.pdf
Shushilan	Fundamental Philosophy The fundamental philosophy of Shushilan is that the Human potential is infinite. The point is to explore its multi-dimensional manifestations and harness it to promote human welfare. Basic Principles Equality and neutrality Upholding national interest.		

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	<p>Safe-guarding the interest of the backward, socially disadvantaged and hard core poor community. Democratic culture, transparency and accountability. Ensuring a secure homeland for future generation.</p> <p>Core values of Shushilan</p> <ul style="list-style-type: none"> • Shushilanharbours profound confidence in people’s wisdom and traditional knowledge and attaches enormous importance in learning from the people. • Shushilan believes in equality of mankind irrespective of race, religion, caste, creed, gender and age. • Shushilan is accountable to her development partners and community people as a whole. • Shushilan is socially committed to deliver quality services out of missionary zeal. • Shushilan upholds the family values in administrative culture securing individual freedom for each and every member. • Shushilan deems it her principal responsibility to work for the development of the most backward, socially disadvantaged and hard core poor community. <p>Vision A congenial society for economic and socio-cultural development.</p> <p>Mission</p>		

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	<p>Create opportunities and enable the society especially underprivileged/socially excluded community.</p> <p>Strategic Priority</p> <p>The strategic priorities that have been identified for Shushilan's future direction are:</p> <ol style="list-style-type: none"> 1. Improve livelihoods of rural and urban people with special attention to coastal, riverbank, wetlands and hill-tracts. 2. Improve education and health & nutrition condition of vulnerable people. 3. Climate Change and Disaster Management 4. Focus on human rights and good governance 5. Sustainable environmental resources management especially in eco-sensitive areas 6. Value chain and market linkage development 7. Develop people's organization and leadership 8. Use and promotion of Information & Communications Technology (ICT) 9. Contribute to reduce poverty through use & promotion of Information & Communication Technology (ICT). Theme of the Year 2015-16 		
	<p>Education & ICT and Health & Nutrition Program</p>	<p>Health& Nutrition: Primary Health Care Nutrition for child & mother Growth monitoring (Identify SAM & MAM and provide necessary support) Nutritious food distribution</p>	<p>http://shushilan.org/?page_id=1126</p>

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		Strengthening health system including community clinic Reproductive Health Family Planning HIV/AIDS	
	Disaster, Climate Change and Sustainable Environmental Resources Management Program	<ul style="list-style-type: none"> • Vegetables gardening • HYV rice seed production • Fish Culture • Poultry farm & livestock • IPM • Soil & water test • Herbal garden 	
	Human Rights & Good Governance Program	Network for women UP members Protection of Women and Child trafficking	
	Research and Advocacy cell	RAC conducts programme-driven research in poverty, agriculture, education, environment, food security, social safety net, migration, gender, social development and human rights.	
	Gender Cell	Shushilan is supportive in women empowerment with all its program / project / cell and system. To focus on women facilities and encourage women to work with us different initiative has been undertaken like 30% staff should be women, staff security, flexibility in recruitment, etc.	
	Health and Nutrition project	Improve mother and Children Nutritional status Nutrition education	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		Increase nutrition and school attendee Meeting with District Nutrition Management Committee (DNMC), UNMC, UP NMC, MNMC, Community Nutrition Centre Management Committee (703) Contribute in food security	
TMSS	<p>Mission TMSS (Thengamara Mohila Sajub Sangha) provides its best efforts in bringing the poor Women to a better life with dignity in the family and society through their capacity building, adaptability, responsiveness, optimum use of their own/available resource, participation in development activities, good governance, establishment of their legitimate rights on a sustainable footing.</p> <p>Vision Smiling face of women folk.</p>		
	TMSS Agriculture Project	Goals: Ensuring sustainable Food Security of the poor/ultra-poor people.	
	TMSS VGD Project	<p>Goals: The overall objective of this project is to increase income, food security, and livelihoods in impoverished and agriculturally dependent regions of Bangladesh</p> <p>Approach: This programme is effective for the empowerment of the poor women;</p>	www.tmss-bd.org/other-project/tmss-vgd-project

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
		<p>This programme is helpful for sustainable livelihoods of the ultra-poor women.</p> <p>The programme will contribute to the target participants in enhancing their self-confidence and self-sustainability.</p> <p>This program able in ensuring the household food security of target beneficiaries to a great extent.</p>	
	Operational Plan 2011-2016 DFID Bangladesh	Improving the prospects for girls and women in developing countries is a priority	DFID Bangladesh operational plan 2014
	Employer ownership: developing women engineers	to support those employers who are willing to help more women to progress as engineers and the focus of the fund is to support	
	Helping women from disadvantaged backgrounds make new starts	?Ofsted good practice example showing how Women's Technology Training Limited helps women prepare for work, further education or training	Women's Technology Training Limited (Blackburne House Education): good practice example
UKAID Summary	<p>Strategic priorities:</p> <ol style="list-style-type: none"> 1. To strengthen the enabling environment for the private sector and inclusive economic growth, and support Bangladesh's competitiveness as a destination for international investment 2. Strengthen people's ability and opportunity to earn, to improve their quality of life, to participate in decision making, and to increase their resilience to natural disaster and climate change 3. Strengthen state capability and resilience 4. Provide significantly more support for basic social services, in particular to improve maternal health and primary education attainment 		

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	Key themes running through all of the programme: <ul style="list-style-type: none"> • improving the economic and social status of women through all our work, especially relating to jobs, reproductive health, and tackling violence against women. • Support for nutrition activities within wider health, education and livelihoods programmes 		
WorldFish	Mission: Reduce poverty and hunger by improving fisheries and aquaculture. Research Areas <ul style="list-style-type: none"> • Sustainable Aquaculture • Climate Change • Gender & Equity • Nutrition & Health • Policies & Practices for Resilience • Value Chains 		
	Improving income and livelihood of poor farming household in Bangladesh through adoption of improved aquaculture technologies and varieties	Key activities of the project included developing and disseminating appropriate improved agricultural technology and quality fish seeds to improve livelihoods, food security and nutrition.	
	The potential of community fish refuges (CFRs) in rice field agro-ecosystems for improving food and nutrition security in the Tonle Sap region		
	Aquaculture for Income and Nutrition (AIN)		
	Enhanced Coastal Fisheries in Bangladesh (ECOFISH-BD)	Ecofish seeks to strengthen the ability of local communities, especially women, to extract maximum benefit from coastal environments using sustainable best practices and to mitigate the adverse effects of climate change.	

Name of the organization	Project or research Title	Aim/objective or key findings	Remarks, source URL
	Evaluation of production performance and profitability of hybrid red tilapia and genetically improved farmed tilapia (GIFT) strains in the carbon/nitrogen controlled periphyton-based (C/N-CP) on-farm prawn culture system in Bangladesh	The present experiment was undertaken to compare the relative production performance and profitability between red tilapia hybrid and GIFT strain of Nile tilapia in previously tested Carbon/Nitrogen controlled periphyton-based freshwater prawn system in farmers' ponds.	www.sciencedirect.com/science/article/pii/S235251341630076X
	Cereal Systems Initiative for South Asia in Bangladesh (CSISA)	The project aims to promote food and nutrition security through greater crop diversification. WorldFish focuses on the development small-scale pond aquaculture (fish farming) and gher agriculture.	www.worldfishcenter.org/content/cereal-systems-initiative-south-asia-bangladesh-csisa
	Haor Infrastructure and Livelihood Improvement Project (HILIP)	The project aims to help the poor to adapt to climate change, with a focus on improved and sustainable productivity in fisheries. Its biggest component is community-based fisheries management of open water bodies within the Haor Basin in Bangladesh.	www.worldfishcenter.org/content/haor-infrastructure-and-livelihood-improvement-project-hilip
WorldFish Summary	WorldFish is an international, non-profit research organization that harnesses the potential of fisheries and aquaculture to reduce hunger and poverty.		

Annex 10: Name of the institutions and organization that were interviewed

Name of the institution/organization	Nature of the inst./org.	Mandate
Bangladesh Agricultural University (BAU)	Public university	Education and research also do small scale extension services
Sher-e-Bangla Agricultural University (SAU)	Public university	Education and research also do small scale extension services
Sylhet Agricultural University (SAU)	Public university	Education and research also do small scale extension services
Bangabandhu Sheik MujiburRahman Agricultural University, (BSMRAU)	Public university	Education and research also do small scale extension services
Bangladesh Agricultural Research Institute (BARI)	Public- Research inst.	Research and small scale extension services
BRRRI	Public- Research inst.	Research and small scale extension services
BFRI	Public- Research inst.	Research and small scale extension services
BINA	Public- Research inst.	Research and small scale extension services
BLRI	Public- Research inst.	Research and small scale extension services
Rural Development Academy (RDA)	Public- Training and Dev.	Training and pilot research also do extension services
Bangladesh Academy for Rural Development (BARD)	Public- Training and Dev.	Training and pilot research also do extension services
Polli Karma Sahayak Foundation (PKSF)	Public-Training and Deve.	Training and pilot research also do extension services
Department of Agricultural Extension (DAE)	Public-Extension Services	Training and extension services
Ministry of Agriculture (MoA)	Government	Promotion of agriculture sub-sector
Ministry of Fisheries and Livestock (MoFL)	Government	Promotion of fisheries and livestock sub-sector
Ministry of Youth and Sports (MoYS)	Government	Enhancing capacity of young generation
Ministry of Women’s and Children affairs (MoWC)	Government	Promoting women’s and children rights

Name of the institution/organization	Nature of the inst./org.	Mandate
Ministry of Food (MoF)	Government	Monitor the food and nutritional status
Ministry of Social Welfare (MoSW)	Government	Promoting social security- extending support to the vulnerable people
BRAC	NGO	Training, research and extension
Sushilan	NGO	Training, Dev. and extension services
TMSS	NGO	Training, Dev. and extension services
BUREAU Bangladesh	NGO	Training, Dev. and extension services
PATHIKRIT	NGO	Training, Dev. and extension services
CARE- Bangladesh ¹⁴ . (use EKATA model for women's empowerment)	INGO	Training, Dev. and extension services
Oxfam	INGO	Training,Dev. and extension services
iDE ¹⁵	INGO	Training,Dev. and extension services
Heifer	INGO	Training,Dev. and extension services
Helen Keller International (HKI) ¹⁶ (well known for © Nurturing Connections)	INGO	Training,Dev. and extension services
BAT	INGO	Training and extension services
Caritas ³	INGO	Training,Dev. and extension services
Islamic Relief	INGO	Training, R& D and extension services
Catholic Relief Services (CRS) ³	INGO	Training, Dev. and extension services
IFDC ²	INGO	Training,Dev. and extension services

¹⁴ The AESA project is participating in the FAO-INGENAES Piloting of the Gender in Rural Advisory Services Assessment tool (GRAST)

¹⁵Completed the Organizational Dimension of the GRAST. Not participating in Individual Dimension

¹⁶ Completed the Organizational Dimension of the GRAST and is participating in Individual Dimension

Name of the institution/organization	Nature of the inst./org.	Mandate
Worldfish ³	INGO	Training, R& D and extension services
IFPRI	INGO	Training, R& D and extension services
IRRI	INGO	Training, R& D and extension services
IWMI	INGO	Training, R& D and extension services
Katalyst	INGO	Training, R& D and extension services
MCC	Private Organization	Training, dev. and extension services
ACI	Private Organization	
Lai Teer Seed Ltd	Private Organization	Dev. seed business
Gcom	Private Organization	Research and consultancy services
Pran	Private Organization	Agro-process industries

Annex 11: December 2016 Stakeholder workshop presentations

GROUP -1**Identify and Prioritize Means and Pathways Towards a More Gender Responsive and Nutrition Sensitive Agricultural Innovation**

Contributors:

1. Dr. M Serajul Islam, Professor, BAU
2. Dr. M. A. Monayem Mia, BARI
3. Dr. Md. Abdul Majid, RDA,
4. Nazmul Haque, Muslim Aid-UK
5. Md. Mobasher, IFDC
6. Tamiz Uddin Ahmed, CARE
7. Romaza Khanum, SAU, Sylhet
8. Bidyuth K. Mahalder, AESA

Area of Innovation	Activities
Production and Extension	High Valued Crops (Homestead and Field crops)
	Small Scale Poultry and Livestock farming
	Pond fish culture
ICT and Marketing	Seed and vegetables marketing
	ICT led service providing
	Local service providing in agricultural farming
Entrepreneurships in Agriculture	Agro Inputs business
	Agro production selling centers
	Small scale Agro processing business

Area of Innovation	Actionable Recommendations
Production and Extension	Accessibility of improved variety and management practices
	Availability of gender based livestock, poultry, fish culture technology with skill development
ICT and Marketing	Easy access to finance with financial management training
	Support to ICT tools & technology and training
	Access to agri equipment and farmers' information
Entrepreneurships in Agriculture	Government legal support
	Business regulation and operation
	Easy access to capital and credit

Group-2

Identify the way to enhance collaboration among academia, researcher, extension and development personnel

Group Members

- Prof. Dr. Md. Khurshed Alam Bhuiyan- BSMRAU
- Prof. ASM Golam Hafeez-BAU
- Md. Shahidul Islam- BFRI
- Md. Shahid Uddin Akbar-BIID
- Md. Yeaminur Rahman- SSURDA
- Masuma Younus-DAE

Way To Enhance Collaboration

- Policy alignment
- Identify common interest & incentive
- Institutionalization of partnership
- Knowledge sharing-
 - i. Exchange findings & views through workshop, seminar etc.
 - ii. Organize exchange visit
 - iii. Knowledge sharing network-ICT based
- Capacity building
- Monitoring
- Resource availability

Group 3

Team

SUS - Monowar
Shushilan – Bakul
BARI – Dr. Matin
DAE – Enayet
DAE – Mehedi
BAU – Asad
iDE – Afzal
UIUC - Andrea

Developing Organizational Capacity

Review the Mandate of the Organization

- is Gender and or Nutrition in it?
- Should it be?
- Where does the Organization want to go? (Vision for the future in terms of Nutrition and / or Gender integration)

FAO GRAST
INGENAES IRPF

What kind of capacity is required depends on the organization!

- e.g., for a university the process may be: Align mandate and curriculum

Review manpower and HRM.

- What is the existing knowledge, attitude, practice, and skill level of staff, managers, executive? (all people in the organization)
- Identify gaps → train and incentivize as needed, hire new staff, bring in experts

Set targets and measure achievement

- Track whether the organization is getting to where it wants to go
- Ditto for HRM

Developing Community Capacity

Needs ASSESSMENT

Develop the demand side. Is community even interested in nutrition? How to motivate towards changes in gender roles in this community?

- Can also be developing market for more nutrition crops and ASF → strong incentive for the community members to get on the nutrition bandwagon

Identify local leaders

Local Service Provider development

Reach out to all people in the community

Utilize mass communication

Exchange/Learning visits (seeing is believing!) – go to other communities where xyz change is already showing impact

Build partnerships among various organizations already existing in the community.

Engage all stakeholders

Institutional Review and Planning Framework



Institutional Review and Planning Framework
 Helping agricultural extension service providers include approaches that improve gender equity and nutrition outcomes.

Extension professionals often contribute to improving rural households' lives, but does it seem effective to add gender mainstreaming and nutrition integration to their existing (and very full) responsibilities?

This institutional review and planning workshop will guide participants to:

- Reflect on their organizational missions
- Consider how their current work is already contributing to gender equity and improved nutrition
- Identify how work in these areas will create greater impact
- Address common organizational challenges
- Propose strategies to improve delivery of quality services
- Identify concrete ways in which existing services can incorporate gender and nutrition
- Develop a plan for making the changes required
- Gain resources for further information

This workshop will empower organizations to better support healthy, well-nourished farming households that produce more diverse foods for robust markets, benefiting both men and women.



Helping agricultural extension service providers include approaches that improve gender equity and nutrition outcomes.



Developing Individual Capacity

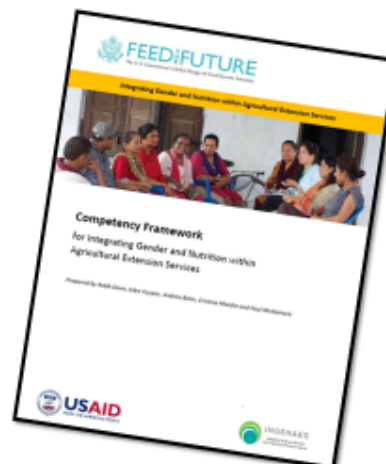
Competency Development –
 Training to change KSAP

Incentives for learning and
 practicing new skills

Supportive Supervision and
 feedback on performance

Learning visits for staff, too

Demonstrations



Database of training material (indicative)



FINALIZING THE CRITERIA FOR GOOD PRACTICE & APPROACH

GROUP-4

MEMBERS:

- Md A. K. Azad**
- Mr. Mahanam-brota**
- Ms. Rezoyona Kabir Rasha**
- Ms. Aklima Parvin**
- Md. Masud Rana**
- Dr. Ashoke Kumer Roy**

Good Practice selection Criteria

Sl. No	Description	Five Point Likert Scale
12.	WEAI (women's empowerment in agriculture Index)-production, resources, income and time etc.	4
13.	Dietary diversity score of children and women, stunting, wasting, underweight and BMI	4
14.	Approach: demand driven, ICT base, agriculture, gender and nutrition targeting both man and women	5
15.	Nutrition BCC (behavior change communication), safety net program, TMRI,	4
16.	Identification challenge (s)	5
17.	Climate smart	5

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Good Practice selection Criteria

Sl. No	Description	Five Point Likert Scale
1.	Production, Gender and nutrition issue is addressed within the project/research title	4
2.	There is at least one specific objective covering gender and nutrition issues	5
3.	Significant and positive difference observed/documentated between base line and final survey (using gender segregated data)	5
4.	Specific indicators are used to evaluate the project performance	5
5.	Outreach statistically representative-randomly selected.	2
6.	Project findings disseminated through mass media	5
7.	Project findings disseminated through academic publication	5
8.	Monitoring and supervision procedure explained well (using LFA and RBM)	5
9.	Replication /scale up is carried out in other areas	5
10.	Sustainability and institutionalization taken care	5
11.	Project duration and cost benefit analysis	4

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Annex 12: Checklist for Key Informant Interviews

(General format)

Research Theme: **Synthesize the current situation of gender-responsive and nutrition-sensitive agricultural development initiatives in Bangladesh with special focus on the role of extension (public, private, NGO);**

General Note: Gender should be defined clearly to the key informant

Date of Conducting

KII: Location where conducting the KII:

Institution/Organization:

Name of the KII:

Position within the Org/Inst.:

- 1. General observation about gender-responsive and nutrition sensitive Agricultural Extension services in Bangladesh** (Main player, nature of services, sources of funds etc.).
- 2. How does your organization contribute to/support/or promote gender-responsive and nutrition sensitive Agricultural Extension services in Bangladesh?** (Nature of work (education, research and extension), mission of vision, how do you do it, documentation and monitoring systems, funding sources)
- 3. Have your organization faced any challenges to integrate gender programs?** (What are those challenges, how you overcome them etc.)
- 4. Have your organization faced any challenges to integrate nutrition programs?** (What are those challenges, how you overcome them etc.)
- 5. How do you see the importance of integration and collaboration among education, research and extension services in promoting gender and nutrition programs?** (evaluate individual organizational achievement or group of organizational achievement considering all organizations are working for the betterment of the farmers)
- 6. How the integration and collaboration can be strengthened?** (Nature of MoU, level of collaboration (between and among faculties or organization to organization), sharing published and un-published documents, inter org. meeting, inviting guest speaker/reviewers, research partner etc.)
- 7. Overall challenges and constraints for integration and collaboration among education, research and extension programs particularly in promoting gender-responsive and nutrition sensitive programs**
- 8. Potential and prospects for integration and collaboration among education, research and extension programs in Bangladesh**
- 9. Suggestion and recommendation**