



NORWEGIAN EMBASSY



United Nations Entity for Gender Equality
and the Empowerment of Women



Final Evaluation

Reducing Vulnerability Of Women Affected by
Climate Change through Livelihood Options

UN WOMEN IS THE UN ORGANIZATION DEDICATED TO GENDER EQUALITY AND THE EMPOWERMENT OF WOMEN. A GLOBAL CHAMPION FOR WOMEN AND GIRLS, UN WOMEN WAS ESTABLISHED TO ACCELERATE PROGRESS ON ACHIEVING WOMEN'S RIGHTS WORLDWIDE.

UN Women supports UN Member States as they set global standards for achieving gender equality, and works with governments and civil society to design laws, policies, programmes and services needed to implement these standards. It stands behind women's equal participation in all aspects of life, focusing on five priority areas: increasing women's leadership and participation; ending violence against women; engaging women in all aspects of peace and security processes; enhancing women's economic empowerment; and making gender equality central to national development planning and budgeting. UN Women also coordinates and promotes the UN system's work in advancing gender equality.

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Executive Summary

UN Women is working to reduce vulnerability of women affected by climate change. In December 2011, UN Women launched the project, **“Reducing Vulnerability of Women Affected by Climate Change through Livelihood Options”** which was supported by the Royal Norwegian Embassy in Dhaka. The two implementing partners were BRAC and Bangladesh Centre for Advanced Studies (BCAS).

The goal of the project was to ensure that women in communities vulnerable to the impact of climate change access sustainable livelihoods and are agents of change in climate change risk mitigation policy. To understand the results/contributions and lessons learned in the areas of gender equality and climate change the evaluation was planned which is also expected to feed learning into UN Women’s efforts to promote gender equality in Disaster Risk Reduction and Climate Change Adaptation in the post-2015 development scenario in Bangladesh.

Mixed methods were applied to meet the evaluation objectives and to compare baselines & qualitative inputs. Therefore, a combination of sources of data has been utilized for the data collection. Among 10 districts; the project areas, final evaluation was conducted in 5 districts, using a purposive selection method where the mixture of coastal districts, flood-prone districts and drought-prone districts was

maintained. A total of 400 beneficiary women were interviewed. For qualitative data, Key Informant Interview (KII), Focus Group Discussion (FGD), Observation, and Case Study were done.

In a nutshell, the project has succeeded in several ways. The trainings and hardware support provided to the target women have been really appreciated by them and the women have started their journey on the way to self-sufficiency and prosperity. The climate vulnerable women have utilized the hardware support and made some positive changes in their livelihoods through generating and increasing income, by acquiring more knowledge and preparing better for any upcoming disasters, etc. Almost all the beneficiary women who received training are utilizing the skills and knowledge gathered. The women have been sensitized of climate change impacts in their lives and are encouraged to plant more trees which is a very good initiative not only

for greening the environment, or protecting them from storms, but also from the carbon sink point of view. The women as well as the community people are now more prepared for any small scale disaster than ever before. However, the overall sanitation and hygiene practice of the target women requires serious attention. The community women can more freely move in the areas than before and are more confident after engaging in income earning activities but the issue of women empowerment and gender discrimination has not been adequately ameliorated, there hasn't been any drastic change in the decision making role on major issues, played by men and women.

The project had significant impacts over policy and stakeholder's decision making. UN Women and the Bangladesh Climate Change Trust (BCCT) initiated a series of training workshops on Mainstreaming Gender Equality in Climate Change for government officials. With improved knowledge of and capacity in gender mainstreaming from the perspective of rights in climate change efforts, relevant actors are sensitized to contributing towards gender equality within their sphere of influence. UN Women has also developed the capacity of practitioners at government, UN, research organizations, and I/NGOs to mainstream gender equality in climate change adaptation, disaster risk reduction and humanitarian

actions. Capacity building happened at the Union Disaster Management Committee level for UDMC male and female members. Moreover; UN Women has contributed in gender mainstreaming in the review of the existing and formulation of the new National Plan for Disaster Management (NPDM) of the Ministry of Disaster Management and Relief, and in DRR & CCA section of the 7th five year plan of the GOB. UN Women supported Bangladesh Bureau of Statistics to integrate gender aspects in their national survey on the 'Impact of Climate change on Human Lives'.

The project initiatives were undoubtedly relevant and appropriate according to local as well as national need, and have showered positive and effective impacts on the community overall. Now the sustainability of the project depends on how efficiently target women utilize their knowledge, skills and livelihood support received through this project. The project can be an exemplary solution for other government and private organizations who can/want to take similar initiatives for the ultra-poor people of the disaster-prone areas of our country.

01

Introduction

1.1 Background

UN Women Bangladesh has been working in the area of Gender and Climate Change since 2011 implementing a flagship project Reducing Vulnerability of Women affected by Climate Change through viable Livelihood Options in cyclone, flood and drought prone regions of the country with generous financial support (USD 2.88 million) from the Government of Norway, through the Royal Norwegian Embassy in Dhaka. This project worked at the grassroots level to build the skills and knowledge of women most affected by climate change, supported them to pursue alternate livelihood options and increased their awareness of climate change and disasters. The project supported government to mainstream gender into its climate change policies and strategies and worked with different key stakeholders and decision makers to influence them to make climate change strategies and actions more gender responsive. The project ended in 2015. The expected outcomes to which the project contributes are:

Outcome 1: Gender-sensitive policy measures adopted to mitigate women's vulnerability to the effects of climate change.

Output 1.1: Policy on social protection measures for women affected by climate change drafted.

Output 1.2: Enhanced capacity to form and use networks to advocate for gender equality to be integrated in climate change policies and programs (networks could include, for example, entrepreneurs from grass roots, local government functionaries, representatives from CSOs/NGOs, experts of gender and climate change and members of academia).

Output 1.3: Policymakers access necessary knowledge and expertise to mainstream gender into climate change policies.

Outcome 2: Enhanced economic opportunities for women living in areas vulnerable to the effects of climate change contribute to women's livelihoods.

Output 2.1: Capacities of women vulnerable to, or affected by climate change, are strengthened to engage in various micro enterprises and green businesses.

Output 2.2: Organizational capacity of women vulnerable to climate change is strengthened to manage natural resources and enable access to available resources.

1.2 Purpose of the Evaluation

The main objective of this final evaluation was to provide an independent assessment of whether the project has been implemented in line with the commitments given in the approved project document.

The final evaluation seeks to demonstrate results achieved by the project and contributes important lessons learned in the areas of gender equality and climate change.

The evaluation was also targeted to feed learning into UN Women's efforts to promote gender equality in Disaster Risk Reduction and Climate Change Adaptation in the post-2015 development scenario in Bangladesh.



Methodology

2.1 Source of Information

Grass-roots level communities as well as the beneficiaries from 5 disaster-prone districts were targeted as primary source of information for the evaluation. Using statistically significant formula, a sample size of 400 respondents for quantitative survey was drawn. Moreover, the project sought to analyse and influence the policy environment to enable gender responsive programmes and strategies of climate change adaptation, mitigation and disaster risk reduction. Therefore, in addition to women groups, the final evaluation also targeted policy makers and experts who were heavily involved in framing country's social protection framework, development plan (five year plan); sector specific plans and have access to the necessary knowledge and technical expertise to address the needs of women affected by climate change. Consequently, study population/source of information was as follows:

- ◆ Project beneficiaries (women of different groups)
- ◆ Partners & stakeholders i.e. representatives from relevant ministries, national & international NGOs, UN, embassy and researchers & experts on gender and climate change

2.2 Data collection

Wide range of methods were applied to collect data required for evaluating the project. Targetted beneficiaries, representative from implementing partners and other relevant stakeholders were surveyed following quantitative and qualitative approaches. List of relevant documents including study reports produced under the project, relevant studies on vulnerability of women affected by climate change has also been reviewed.

For quantitative sampling; statistical formula was used.

$$n = \frac{(Z^2 pq)}{e^2} \times \text{Deff}$$

p = Expected value of the indicator= 50%
q = (1- p)
e = Margin of error = 5%
Deff = Design effect =1
Z-score = 1.96 at standard of 95% confidence interval

Thus, with the above assumptions the sample size for the final evaluation worked out to be 385 which were then rounded to 400 project beneficiaries out of 19,100 for questionnaire survey. The list of target population in the project areas were provided by BRAC. Nielsen used the list as sampling frame. From the list eligible respondents were selected randomly. In case of non-response (for reasons like unwillingness, unavailability, etc.) the desired sample size covered 'with replacement'.

Different qualitative techniques such as Key Informants Interview (KII), Focus Group Discussion (FGD), Observation and Case Study were employed for collecting data from different types of target groups and stakeholders to have an understanding of the project impact. Individuals who were assumed to provide the key information regarding the the project was considered as respondents and were selected through purposive sampling technique.

2.3 Sample Distribution

The programme was implemented in 80 unions of 40 upazilas under 10 disaster-prone districts. Among the 10 districts, final evaluation was conducted in 5 disaster-prone districts using a purposive random selection method where representation of eco-zones (coastal, flood-prone and drought-prone) was ensured. In this regard, 3 districts out of 5 coastal districts, 1 district from flood-prone districts, and 1 from the drought-prone districts were randomly selected.

Table 1: Area-wise sample distribution among the target women beneficiarie

Eco Zone	District Name	Upazila Name	Union Name	Sample Size
Coastal	Patuakhali	Kalapara	Dholashar	40
			Latachapli	40
	Satkhira	Shyamnagar	Munshigonj	40
			Gabura	40
	Cox's Bazaar	Teknaf	Sabrang	40
			Nhila	40
Flood-prone	Sirajganj	Raiganj	Brammagacha	40
			Nalka	40
Drought-prone	Natore	Sadar	Kafuria	40
			Satni	40
Total				400

As per the programme design there are 10 women groups in each union. Each group consists of 25 beneficiaries among whom 1 woman received leadership training, 1 woman received psychosocial training, 5 women received livelihood inputs as well as livelihood trainings and rest are general group members. At least 4 women groups were covered in each union where 50 beneficiaries who received leadership training, 156 who received livelihood trainings and inputs, 25 beneficiaries who received psychosocial trainings and 169 general group members were interviewed.

Table 2: Sample distribution for the qualitative approaches

Tools & Techniques	Target Respondent	Sample
KII	Representative from BRAC	5
	Representative from BCAS	2
	Representative from Royal Norwegian Embassy	1
	Representative from UNDP	1
	Researcher/Sectoral Expert	1
Total KIIs		10
FGD	With project beneficiaries	5
	With community members (both female & male)	5
Total FGDs		10
Observation	Targeted project areas (5 districts)	5
Total Observations		5
Case Study	Project Beneficiary	10
Total Case Studies		10





Findings

3.1 Household and Beneficiary Information

Before implementing the project, research and a gender study of climate impacts on livelihoods was done in the project areas (coastal areas of Satkhira, Khulna and Bagerhat district on the south-west coast Patuakhali district on the south-center coast and Cox's Bazar district on the southeast coast of Bangladesh, flood areas of Shariatpur, Sunamganj and Sirajganj, flood areas of Natore and Singra which have been affected by droughts and river bank erosion as well as other climate change factors such as nor'westers and autumn storms, hail storms and severe cold waves during winter).

According to the briefing sheet based on the research and a gender study of climate impacts on livelihoods performed, the coastal belt of Bangladesh is highly exposed to various climatic factors including variations in temperature, erratic behavior of rainfall, cyclonic events, droughts and salinity intrusion. These climatic factors are what make the lives of the coastal people vulnerable to climate change. Women from these coastal areas stated that they regularly suffered from more frequent cyclones, salinity intrusions, higher tidal surges, coastal flooding, extreme temperatures, lack of rainfall, or droughts, coastal erosion and water logging.

On the other hand, most of Bangladesh lies in the delta of three of the largest rivers in the world. These rivers have a combined peak discharge in the flood season of 180,000 m³/sec (the second highest in the world, after the Amazon) and carry approximately two billion tons of sediment each year. Floodplains occupy 80% of Bangladesh making it susceptible to river and rain water flooding and, in lower-lying coastal areas, to tidal flooding during storms (MoEF, 2009). According to the study, the women in the flood prone areas claimed that they faced more and sometimes earlier flooding, higher

flood water levels, sudden floods and round the year river erosion. Some other climate factors such as erratic rainfall, hail storms, cold waves, fog and droughts in the summer are also prominent.

Again, droughts have become a recurrent natural phenomenon of northwestern Bangladesh in recent decades. Droughts in Bangladesh are seasonal and can devastate crops, causing great hardship to agricultural laborers. In recent decades, the hydro-climatic environment of north-western Bangladesh has been aggravated by environmental degradation. According to the study, the women in the drought prone areas are the most vulnerable to the impacts of climate change. Due to changing weather patterns and frequent disasters women face new challenges every day. They suffer prolonged and recurrent droughts, sudden hail storms, nor'westers, severe cold and fog during winter and floods and erosion due to erratic rainfall which aggravate shortage of fresh water, irrigation water, and shortage of fodder, diseases, pest attacks and most of all food insecurity.

From the effectiveness study done by BCAS, titled "Immediate Effectiveness of the Project 'Reducing vulnerability of women affected by climate change through viable livelihood options'", it came out that before the project started, women in the areas were mainly confined to household duties and chores. While some women worked as day laborers, their numbers were very few. Growing vegetables on homesteads and raising poultry and cattle for eggs and milk were also parts of the daily lives of women in the areas. In Teknaf, in the district of Cox's Bazaar, most of the women interviewed explained that they never disobeyed the decisions of their husbands. The Teknaf area is a heavily religious area, and several women said that a person in the area felt working outside the house was 'going against religion'. Mossammot Begum from the Sabrang Union of Teknaf said, "My husband told me that if I went to BRAC's meetings and got involved in their project I would become a Christian."

So considering the situations of the project areas, the selection of project implementation areas seems completely relevant. The large women group vulnerable to frequently occurred natural calamities received assistance under the project which helped them not only to reduce their vulnerability to climate change impacts but also to improve their socio economic condition by adapting viable livelihood options.

The target respondents were aged 15 years and above for the final evaluation. This was not considered as any criteria for respondent selection. The beneficiaries were selected randomly where the youngest of all appeared to be aged 15. The average age of the respondents in the three evaluation areas ranges between 34-38 years. Most of the respondents came from the age group of 45+ years (24.75%) and 30-34 years (21.75%). (See table 1 in annex)

Among the 400 beneficiaries (of the project) interviewed, 78.75% were found to be married during the final evaluation; the remaining consist of widow, separated and single group of women. So the project reached out all types of beneficiaries who are really vulnerable like widow, separated and single and were highly in need of the project assistance. (See table 2 in annex)

In the survey questionnaire an attempt was taken to find out what percentage of households are led by female heads. Among the targeted households, 77.50% of the household heads were male while 22.5% were female. (See table 3 in annex) The respondents had an average family member of 4-5 including 2-3 children per household. In terms of religion, majority of the respondents were Muslim (93%). Only 6.75% were Hindu women and 0.25% Christians. (See table 4 in annex)

Usually the village women are not expected much to be educated. Most of the rural girls in remote

areas do not get chance to go to school and even if they somehow manage to go to school, their education ends mostly within the range of primary education. From the evaluation it came out that 36.75% of our respondents were illiterate, 20.30% were able to sign their names and 28.25% women either completed primary level of education or dropped out from school before completion. 14.0% read from class 6-10 while only 0.5% of the targeted women passed SSC (Secondary School Certificate) examination or similar examinations. (See table 5 in annex)

One of the goals of the project was to introduce the women beneficiaries with new viable livelihood options that will enable them to become self-sufficient and help them to become more disaster resilient. So the occupational status of the respondents is an important indicator in this evaluation. The highest percentage of respondents in all the evaluation areas mentioned homemaking as their primary occupation; in drought-prone area (Raiganj) the highest 77.50% respondents chose homemaking as their primary occupation while in the flood-prone area the lowest 25.0% respondents mentioned it as their primary occupation. Except from homemaking, respondents also mentioned about other income generating activities as their primary and secondary occupation. The livelihood options of the respondents will be discussed in a more detailed way in section 3.2 and 3.3. (See table 6 in annex)

From the quantitative survey it is found that 64.25% beneficiaries interviewed under the evaluation have monthly average household income between BDT 5,001 – 10,000 which is less than the amount found in Household Income and Expenditure Survey (HIES) 2010. As per HIES-2010; monthly income per HH in Bangladesh is BDT 11,479 and this income is for rural and urban areas are BDT 9,648 and BDT 16,475 respectively. More than one-fourth of the households had income below or equal to BDT

5,000. Only 7.50% households had income level between BDT 10,001 – 15,000 and rest of the 1.75% households had income level between BDT 15,001- 30,000. No household under the study in flood-prone area (Raiganj) and drought-prone area (Natore Sadar) had income above BDT 15,000 and only 1-5% of the households in these two study areas had income level between BDT 10,001 – 15,000 (See table 7 in annex). Comparing to the baseline study of the programme it is found that annual average income of the households has increased significantly after the programme intervention which is shown in the below table:

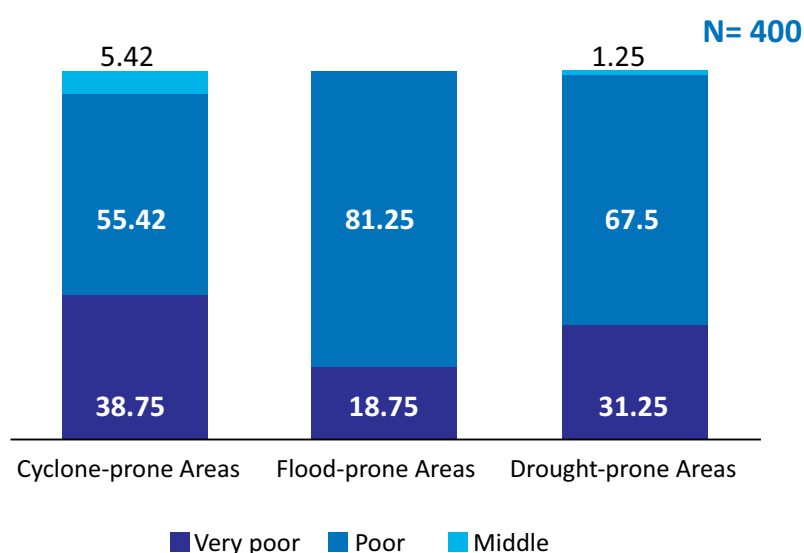
Table 3: Comparison of annual income of households during baseline and evaluation

	Total income during Baseline in BDT (2011)	Total income during final evaluation in BDT (2015)	Increase in Income in BDT	Increase in %
Male headed household income	75, 673	90,072	14,399	19.03
Female headed household income	46, 985	65,040	18,055	38.43
Household annual income	71, 833	84,636	12,803	17.82

As the table shows, in all the three categories the total annual income actually raised in a significant portion compared to the baseline. The most interesting point is that in case of female headed households the annual income increased by the highest percentages (38.43%) after the project intervention whereas income of male headed households increased by 19.03%. It may imply that the beneficiary women are contributing to their household income with the help of their own earning which became possible for the financial as well as technical support received from the project. Those households that are run by female head may be utilizing their resources more efficiently since they can influence their household decisions more.

Income level indicates the socio-economic status of the households. The beneficiaries were also asked, according to them, at which socio-economic category they think they fall into.

Figure 1: Perception Of Respondent On Hh Class Wealth-Wise (%)



According to the baseline, 42.25% households in the drought-prone area and 42.93% respondents in the flood-prone area said that they were very/extremely poor whereas from the above figure (after programme intervention) it is found to be 31.25% and 18.75% respectively which means in drought-prone areas extreme poverty is reduced by 11.0% and in flood-prone areas it is reduced by more than double. In coastal areas the situation hasn't varied much though. So the extreme poverty level in the beneficiary households has been declined significantly and they now think them to be better-off than before the project intervention situation.

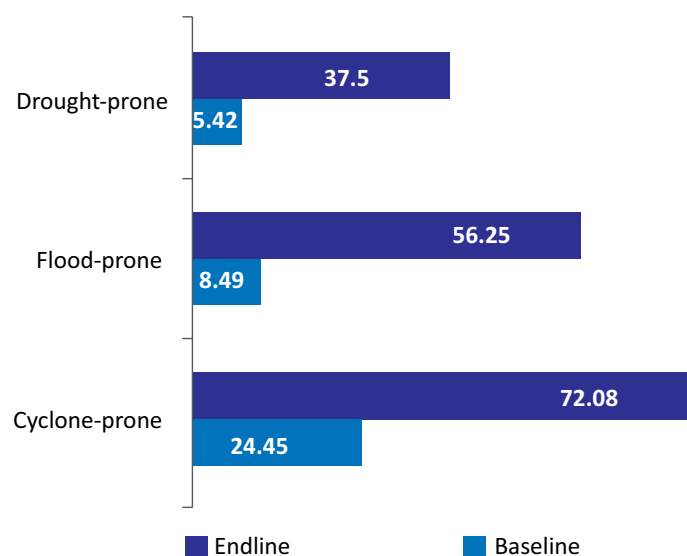
3.2 Capacity Building Activities

The “Reducing Vulnerability of Women Affected by Climate Change through Viable Livelihood Options” project covered 80 unions of 40 upazilas under 10 districts among which 5 were cyclone-prone or coastal areas (Khulna, Satkhira, Bagerhat, Cox’s Bazar, and Patuakhali), 3 were flood and flash flood-prone areas (Sirajganj and Sunamganj), and 2 were drought-prone areas (Natore and Chapainabaganj). In total 19,100 women were the direct beneficiaries of the project forming 768 groups in three eco-zones where the women were selected on the basis of being most vulnerable and highly affected by climate change who do not have access to any other programme or institution. Before the project began, awareness-raising programmes were held, mainly among the extreme poor people of each area. From these programmes potential female candidates were selected. After selection, an orientation program was held with the women. Each union contains 10 groups of beneficiary women and each group is

comprised of 25 group members. Among 25 members, 5 were selected for providing grants and livelihood training to start alternative livelihoods. Each woman was provided with a grant of 14,000 taka in the form of raw materials or assets like sewing machine, livestock, poultry, seeds, paddy, etc. so that they can start up a new business or become involved into new viable livelihood options based on their preference.

While the quantitative survey was conducted, around 72.0% respondents out of 240 in coastal areas said that they received training while 56.25% respondents in Raiganj and 37.50% respondents in Natore Sadar out of 80 in each area said that they received such training under the programme. The beneficiary women mentioned about around 15 types of trainings. Mostly among the respondents of the quantitative survey, women received training on homestead gardening, small poultry, horticulture, tailoring, small business or shop, and cattle fattening. (See table 8 in annex) The figure below illustrates the comparative analysis of percentage of women receiving livelihoods or Income Generating Activities (IGA) training before and after the project.

Figure 2: Female members in households receiving IGA trainings (%)



As the figure above shows, percentage of IGA or livelihood training receivers have increased at significant level in all three areas after the

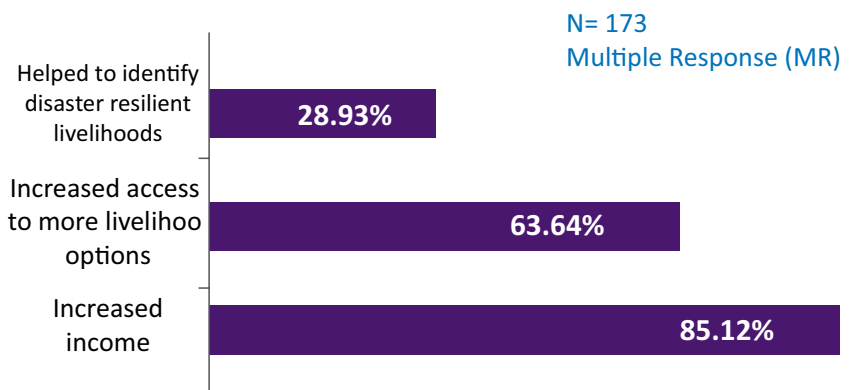


After this training provided by BRAC, now we can earn something and contribute to the family along with our husbands.
-A beneficiary from Cox's Bazar

project intervention compared to the baseline situation. For example, it was found during the baseline that in the drought-prone area 5.42% respondents received trainings on IGA activities (from other programmes) and during the evaluation 37.50% respondents said that they received such trainings under the project. The percentage increase significantly implies that the selection of the beneficiaries under the project was appropriate since most vulnerable women were selected and majority of them did not come under any training sessions or other similar programmes.

97.58% of the respondents who received training agreed upon the fact that the trainings contributed to better livelihood activities. On one hand the beneficiaries have become able to manage viable livelihood options with these trainings and financial grants which led to reduction of poverty and on the other hand their increased earning helped them to become more prepared for disasters incidents which led to reduction in their vulnerability to climate change impacts. While many of them earlier wanted to get involved with such activities, they couldn't do so since they neither had the skill nor had the capital since they were the left out group from any financial support like micro credit and similar programmes.

Figure 3: Contribution of trainings (%)



According to 85.12% respondents out of 173 training receivers, these trainings increased their income; 63.64% women think that they have now increased access to more livelihood option and 28.93% women think that these trainings helped them to identify disaster resilient livelihoods. The women beneficiary group said in the FGDs that they spend their earnings for their family and children's education. Some women have even opened DPS (Deposit Premium Scheme) with their earnings.

Beside alternative livelihood training, from each women group one woman was provided with leadership skills training and another one was provided with psychosocial training both of whom in turn trained the remaining women of the their group.

The leadership training focused on several issues like dealing with disaster situations, teamwork to accomplish tasks, teamwork during disasters, leading from the front through examples and guidance, respecting the opinions of others, etc. This training increased their confidence level to great extent and it raised the realization among them they can also play an important role during critical times. They can not only save their own life and family from disasters but others' as well. Kabita Rani Mandal, a beneficiary from Shyamnagar, said,

“Before receiving this training I used to wait for other people’s help to save my and my children’s life during disaster periods. In fact my husband faced great difficulty to look after all the members of our family alone. But now in such situation I can provide immense support to my husband and try to help other people as well. This training also taught me how to convince other people in times when a unified decision making is needed on some issue”.

On the other hand, the psychosocial training taught them how to become more resilient to the common disasters frequently occurred in their areas, and how to help others become more resilient as well. The trainees came into learn from the training sessions how to keep oneself calm during stress, anxiety and disasters, how to counsel people affected by disasters, and the do’s and don’ts during disasters.

“We are told to move the children, pregnant women, and aged people to safe place during disasters at first; pregnant women should be especially taken care of. We have to always keep dry foods, fuel, and light ready at home. As soon as any danger signal is shown, we should not be panicked, instead, we should immediately go to shelter home and take the livestock and poultry to safe place as well. Before going to shelter home, we must take dry foods and other necessities along with us and dig some of the foods under the yard so that we can use them in case of emergency after the disaster is over”.

a training receiver from Teknaf Upazila said.

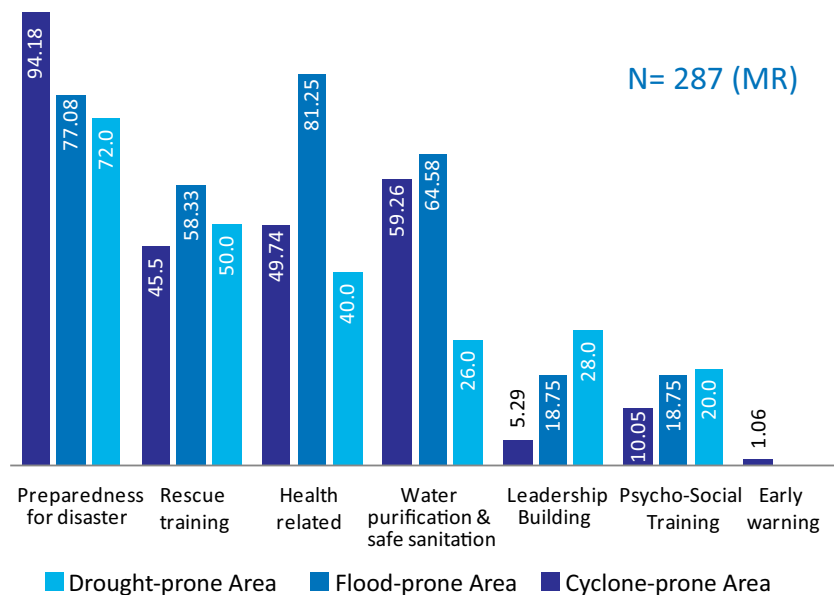
The training also raised awareness among the participants on violence against women and girls; it taught them to raise their voice against such crimes instead of silently accepting them as their misfortune.

Among the 400 respondents in the quantitative survey, 71.75% said that they received training on disaster management in the three regions. In the cyclone-prone areas, 78.75% beneficiaries received training on disaster management while two-third of the beneficiaries in flood-prone and drought-prone areas received such training.

Among the 400 respondents in the quantitative survey, 71.75% said that they received training on disaster management in the three regions. In the cyclone-prone areas, 78.75% beneficiaries received training on disaster management while two-third

of the beneficiaries in flood-prone and drought-prone areas received such training.

Figure 4: Types of trainings received on disaster management (%)



From figure 4 it is found that most of the beneficiaries in the cyclone-prone areas received training on disaster preparedness (94.18%) while almost half of the beneficiaries received training on rescue, health related issues and two-third of the beneficiaries received training on water purification and safe sanitation. In case of flood-prone area (Raiganj), 77.08% beneficiaries received training on disaster preparedness and 81.25% beneficiaries received training on health issues. Besides, 58.33% beneficiaries received training on rescue and 64.58% and received training on water purification and safe sanitation. In case of drought-prone area (Natore Sadar), 81.25% beneficiaries received training on health related issues, 72.0% beneficiaries received training on disaster preparedness and 64.58% beneficiaries received training on water purification and safe sanitation.

Moreover, 77.08% respondents in cyclone-prone areas and 93.75% respondents in flood-prone areas admitted that special initiatives have been taken through this project for women to cope with disasters. In contrast, according to 97.50% beneficiaries in drought-prone area (Natore Sadar) no such initiatives have been adopted.

There are varieties of issues that the respondents mentioned regarding the initiatives taken by the project to cope with climate change and natural disasters. More than 25.0% respondents mentioned about creating awareness about carrying dry food and safe water during disaster periods; 14.50% respondents said that they have learned about taking people to

safe shelter from the project; 11.07% respondents said that the project arranged training sessions for women to make them more disaster resilient and made them aware of climate change. Among the other initiatives mentioned by the respondents were learning how to protect homestead and life from disaster, provided training on making house in higher places and raising the plinth of the houses, learning to keep cattle and poultry in higher places, created awareness on raising plinth of their houses, provided higher training to the women on life skill development, provided training on tree plantation, provided useful training on capacity building, provided training on post flood preparation, give financial help, helped to increase confidence through training, raising awareness on disaster management, and women, specially pregnant women, children, and older people should get first priority to take shelter. (See table 9 in annex)

While conducting the baseline, the respondents mentioned about several barriers reducing their capacity of disaster preparedness. The most frequent problem stated by them was financial problem since absence of proper financial stability constraints them from saving to buy and store foods for times of crisis. Lack of awareness was the second prevalent cause. Among the other causes there were religious barriers, mismanagement, underdeveloped road, etc. During the final evaluation, respondents in the evaluation area were asked if those barriers to disaster preparedness have been reduced after the programme intervention.

In the quantitative survey, 88.75% beneficiaries in cyclone-prone areas, 98.75% beneficiaries in flood-prone area and 93.75% beneficiaries in drought-prone area have admitted that the barriers to disaster preparedness in their family have been reduced after the programme intervention.

In the qualitative study, the beneficiaries said that they didn't know that it is possible to reduce the amount of loss incurred by natural disasters to large extent following proper disaster preparedness and management plan. Earlier a disaster hit their area and used to destroy all their belongings, and take away thousands of valuable lives. Now they are aware of what to do when disaster comes and how to protect their lives and assets from these disasters. Women who are engaged into income generating activities can save a portion of their earnings for disaster periods. This increase in their awareness and saving capacity has reduced the barriers to disaster preparedness in their community. One participant in the FGD in Kazipur in Sirajganj during conducting the effectiveness study of the project said that during floods, her husband would take all the decisions, and more often than not, since he was not well versed on household matters, things would go wrong and they would lose a sizeable amount of their property to things such as river bank erosion. "After receiving the training from BRAC, I am now able to take sound decisions for myself and my family and now we are better off in this regard." Shahida Begum stated that becoming economically independent has given her the confidence she needed to tackle the adversities of nature and the disasters that accompany the hindrance that is climate change. "I must admit that I did not know a whole lot about climate change and the impact it was having in our area and our lives. It was only during the project that I found out about it and was able to link all the changes including weather variations that were being observed in our region. Previously, I used to think that people are incapable of shielding themselves from the bad impacts of these adversities, but now I know that a little preparedness can help you not only cope through them, but also stand back on your feet quite easily after they are gone."

Besides providing training to beneficiary women on disaster management and psychosocial issues, the

representative UDMC members of selected unions were also provided training which was aimed at providing female members capacity building training and making them realize the importance of their own and other female members' participations. The women now are able to raise their voice during meetings of respective UDMCs. The male members who took part in the training have become much more cooperative to female members, and are taking steps to ensure that all other male members of the committee also do the same. They have already put their training into action and initiating activities in their communities through their UDMCs that might benefit the women in their communities.



Case Story Setara Begum, Teknaf

I have 5 members in my family. For last few years, my husband could not work due to having an injury in his leg. Moreover, due to various climatic disasters, my family was suffering a lot from poverty. We couldn't even have a proper meal. Under such circumstances, I took training from BRAC. We started a grocery shop with the money we got from BRAC after that training. And after meeting up all the needs of my family, we managed to buy a auto-rickshaw from the money we earned from the grocery shop. This auto-rickshaw is helping our family a lot. I would like to mention about the training on disaster preparedness. We learnt how to take our cattle in shelter, how to protect our homestead and assets etc. from that training. Now I know how to start fresh even after a disaster. This project has made us self-dependent and self-sufficient.

3.3 Improvement in Beneficiaries' Socio-economic State

As described in the previous section, the beneficiaries under this project were also given such supports and the success rate is found to be almost 100.0%. As the respondents in the quantitative survey during the evaluation were asked if they or any female member of their household is involved with income generation or livelihood activities, 90.42% respondents in coastal areas, 90.0% respondents in flood prone area and 61.25% respondents in drought prone area said that they are involved with IGA activities. The income generating activities of the respondents are listed below with along with percentage.

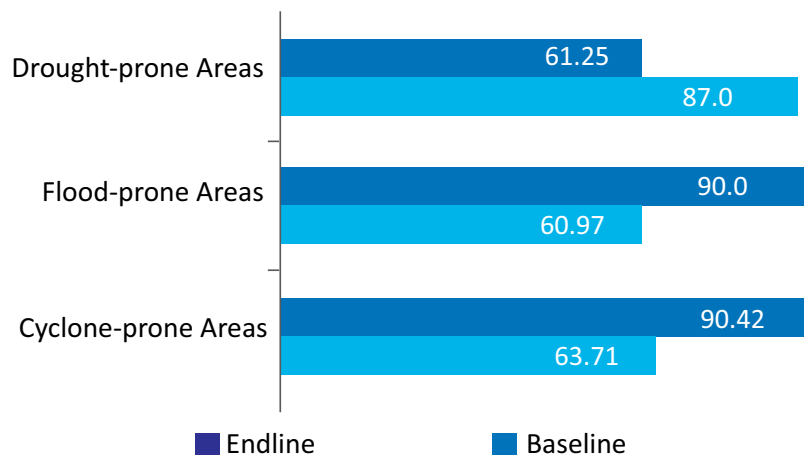
It is found through the quantitative survey that the beneficiary women and/or other female members of their family are involved with a wide range of income generating activities. There are total 24 types of activities mentioned by the respondents (See table 10 in annex). Most of the respondents are involved with small poultry, homestead gardening, small poultry, tailoring, livestock rearing, small business and horticulture. Some work as day laborers and handicraft producers. Others are involved in different activities like dry fish processing, agriculture, cap making, fishing, etc. Area wise there isn't much variation but in Raiganj Upazila most of the women are involved in tailoring and small business while in the three coastal areas small poultry and homestead gardening is much practiced.

If someday my husband fails to earn anything, I arrange the meal for my family with my own earning.
-A beneficiary from Nhila, Cox's Bazar

I was given 3 goats. The goats gave kids. Now I have 7 goats. Now I earn more money than before.
-A beneficiary from Shyamnagar

The figure below illustrates the comparative change in percentage of women involved with income generating activities (IGA) and livelihood earning between the baseline and end line evaluation.

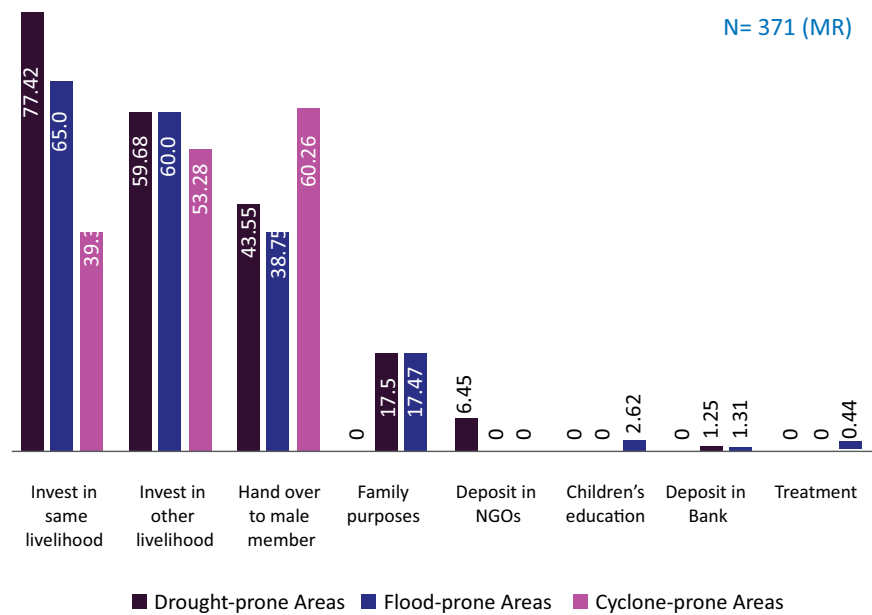
Figure 5: Females involved in household IGA & livelihoods



As the figure above shows, except from involvement in IGA by beneficiaries in the drought-prone area (Raiganj Upazila), all other percentages for both the indicators have increased at significant level after the project intervention compared to the baseline.

The monthly income level of the households, number of earning members in the family are important indicators of the current socio-economic status of the respondents. On an average, there are 2 income earning members in the beneficiaries’ households(See table 11 in annex). The interpretation becomes clear from the statements of the respondents in the qualitative study. According to Laila Akter from Nhila union of Teknaf Upazila, “Previously I used to depend on my husband’s income for all the household expenditures. If he fell sick or didn’t go to work any day, the whole family had to keep fast for that day. But now, after I’ve got livelihood support from BRAC (which was the implementing partner of UN Women in this project), I earn myself 1500-2000 taka per month and can support my husband in bearing our family. If someday my husband fails to earn anything, I arrange the meal for my family with my own earning.” All other respondents in qualitative study agreed with Laila Akter at this point. So the livelihood support provided to the beneficiary women through this project has played a vital role in increasing the number of income earning members in their respective families which in turn reduced their poverty level.

Figure 6: Spending of earning (%)



The figure shows that most of the women still hand over their earnings to the male member of their family. On the other hand, it is also noteworthy that more than half of the women are re-investing their earnings in the livelihood activities, either in the same activity or in some other activity. This means that the women are trying to continue the prosperity they achieved through these livelihood options. They are trying to improve their economic condition more. And this will enable them to become less vulnerable to climate change impacts than before.

When people earn more, they tend to save more. So savings is an important indicator to see whether the beneficiaries are on the way of achieving economic prosperity or not. As the beneficiaries were asked if they have any savings, 11.25% beneficiaries said that they do have savings. In the flood-prone and drought-prone areas 22 beneficiaries said that they have savings while 57 beneficiaries in coastal areas said that they have savings. The figures might seem too small but the saving scenario of the beneficiaries was even worse before the project intervention which is reflected from a concerned PO of the programme area during KII while mentioning about the positive effects of the project who said that women now have a tendency to save. Before the project intervention neither they had the ability to save nor they realized the need of savings. But now the women have become much more conscious and have started this savings practice. And this has been possible because the beneficiary women are

Now the beneficiary women save; earlier they couldn't even imagine about maintaining any savings after all their monthly expenditures. -KII with PO in Kalapara

now able to support their husbands in earning their livelihood and they contribute to their family earning which creates surplus which is further turned into savings.

Out of 79 beneficiaries who said that they have savings, 67.09% of the beneficiaries have saved for the purpose of their children's education and 41.77% for their children's marriage. Around one-fourth of the beneficiaries have saved money as precaution to reduce vulnerability – this purpose is found to be the highest in cyclone-prone areas i.e. 33.33% (See table 12 in annex). So saving for disaster risk reduction or vulnerability to disaster is practiced in the communities though in lower percentages. But since the project has made the beneficiary women more aware of the climate change and the incidence of various natural disasters as a result of climate change, the community people now at least feel the need for maintaining a part of their earnings as savings for the purpose of disaster preparedness. As the practice of maintaining savings for disaster preparedness and management has been initiated among the beneficiaries, a larger portion of the community people is expected to do the same following the others. And this is the part where the programme hits its goal- growing realization among the beneficiaries as well as other community people to save for disaster preparedness which can play a vital role in reduction of their vulnerability to climate change impacts like frequent small scale natural disasters. As their income will rise, the percentage of saving practices and amount of savings is also expected to rise.

The respondents were also asked if they received any credit during last 12 months. Almost 87.0% of the beneficiaries have not taken any credit/ loan in the last 12 months which indicates the improvement of their socio-economic condition; they are no more dependent on the credit sources of Mohajon, Dadon, Foria, etc. which actually croak all their belongings instead of doing any good to them.

We, the community women, contribute 10 taka each week to raise fund so that one day we can use it for a greater purpose.
-Participant in FGD in Dhulishar, Kalapara

Case Story

I used work as a day labourer before Aila (cyclone). After Aila, I lost my house. I did not receive any relief even. One day some project personnel suggested me to go to Munsiganj and attend a meeting. In that meeting, we were taught about water and sanitation, how to boil water etc. After 25 days, I was given paddy worth BDT14000. I learnt how to make rice from paddy and did so after going back home. I started selling rice and saving money for myself. In last 3 years, I managed to knit a fish net and a boat.



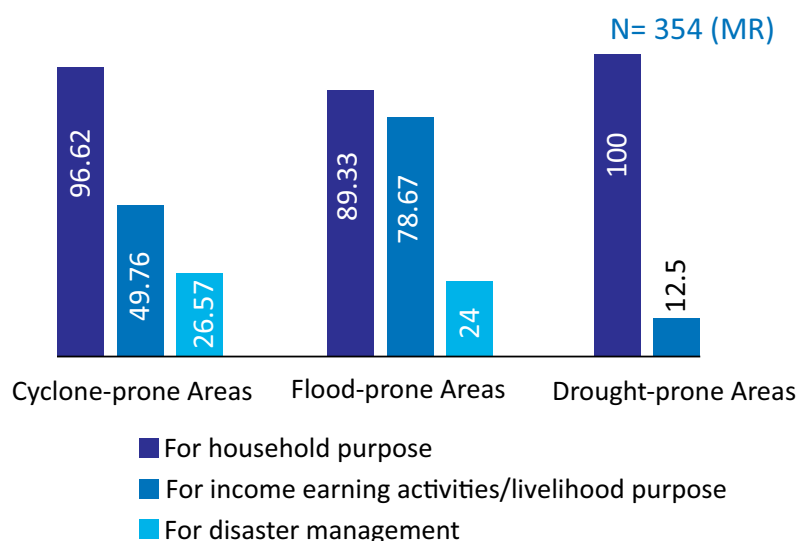
Layla Khatun
Shyamnagar

I made the fish net from the money I received by selling rice. I started fishing and selling fishes. Now I can earn up to BDT12000 per month. I also received training on disaster preparedness. Now I know how to take shelter in a higher place, how to keep important papers in safe place, how to keep house clean after a disaster etc. I also learnt about women empowerment from these trainings. Now we can earn and our husbands also value us. My family helps me in various household works. We are very happy now.

3.4 Improvement in Knowledge and Existing Practices

As it is already mentioned in the project background, one of the expected outcomes of the project was to strengthen the organizational capacity of women vulnerable to climate change so that they can manage natural resources and enable access to available resources in their locality. The respondents in the quantitative survey during the evaluation were asked if they utilize the natural resources available in their area. About 88.50% of the beneficiary women said that they utilize natural resources (minerals, tress and forests, river/pond/natural springs, stone/soil/sand etc.) in their respective areas. The major purposes for using natural resources mentioned by the respondents have been shown in the following figure:

Figure 7: Purposes of utilization of natural resources (%)



As the figure shows, almost all of the respondents in the three ecozones mentioned about household purpose. In cyclone-prone areas (Teknaf, Shyamnagar and Kalapara) nearly half of the respondents mentioned about income earning activities while in flood-prone area (Raiganj) more than three-fourth of the respondents mentioned about it. In both of the cyclone-prone and flood-prone areas around one-fourth of the respondents mentioned about the purpose disaster management. On the other hand, in drought-prone area (Natore Sadar) no respondent mentioned about disaster management whereas only 12.50% respondents mentioned about IGA activities. Participants in the FGDs said that through the courtyard meetings and discussion sessions they have become aware of how they can use the various natural resources scattered around them for household chores as well as for income earning activities and disaster management purposes while not degrading the environment. They were not concerned about preserving natural resources before like planting trees. Now they know that planting more and more trees is necessary for environmental protection and deforestation is highly responsible for climate change which in turn results into frequent natural calamities. So now they are more conscious of planting trees and protecting them as well.

Another expected outcome of the project was to enhance economic opportunities for women living in areas vulnerable to the effects of climate change to contribute to women's livelihoods.

During the quantitative survey, 95.75% women said that women in the study areas are involved in different income generating activities.

In total the respondents mentioned about around 22 types of IGA activities. The leading income generating activity in the study areas is livestock and poultry farming with 69.45% of women mentioning

about it. Other major income generating activities include tailoring (69.45%), handicraft (54.05%), food for work (42.82%), small shop (39.16%) and small business (19.84%) (See table 13 in annex). Out of the first five income generating ways that obtained highest percentages, four of them are those on which activities the project provided training to the beneficiary women. Besides, a significant percentage of women also mentioned about rice processing, crab fattening, etc. on which the project provided training as well. So the project actually helped the community women get out of the boundary of their house and become involved in IGA activities that not only can contribute to economic prosperity but also can play a vital role in reducing their vulnerability to climate change impacts.

Women are more vulnerable to the effects of climate change than men—primarily as they constitute the majority of the world's poor and are more dependent for their livelihood on natural resources that are threatened by climate change. Furthermore, they face social, economic and political barriers that limit their coping capacity. Coupled with unequal access to resources and to decision-making processes, limited mobility places women in rural areas in a position where they are disproportionately affected by climate change.

Since women fall under the threat of climate change more than the men do, they must know about it and its overall impact on their lives so that they can take preventive measures before any serious hazard shatters their life.

While the evaluation was conducted, 96.0% of the total respondents claimed that they have heard about climate change. Analyzing the baseline study it is found that 89.47% respondents knew about climate change so the knowledge level increased by almost 6-7% in last three years.

More than 90% of the respondents heard about climate change from NGO workers (not necessarily from UN Women partner NGO but also from other NGOs working in those areas) while only 8.31% from local government institutions. There was a time when these people depended solely on their past experience and observations for any kind of prediction regarding climate change and natural calamities but now they are able to receive more reliable and accurate information from NGO services.

While the respondents were asked if they found the project helpful in any way to recover or prepare themselves in advance from the climate change impacts,

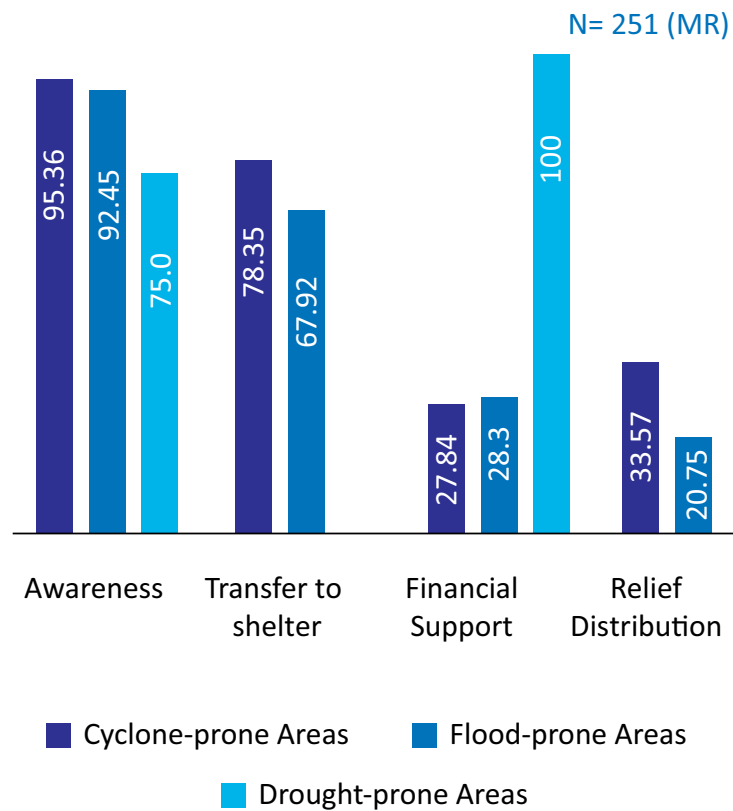
89.75% respondents in total felt that the project has helped them to recover or prepare in advance for climate change impacts;

in the drought-prone area almost 99.0% beneficiaries think so while in the other two regions around 90.0% beneficiaries think so. In the qualitative study the beneficiaries said that many of them received training on disaster preparedness under the project. They are told during the training sessions what to do when disasters come like going to safe shelter with family, to pack valuables, to keep polythene bags, etc. They are also told to raise the plinth of their houses to prevent them from going under water. They are suggested to take their livestock and poultry animals to a safe place (Killa) before any disaster strikes. Those who received trainings shared their learning with other community people. Thus the community people are now better prepared to face frequent and small scale natural disasters than ever before. And they are confident if any natural calamity suddenly bursts upon them, the loss that may occur will be less than before.

A Disaster Management Committee (DMC) plays a vital role in the community at all stages of disasters. It is a responsibility of a DMC to perform and monitor all the tasks from making the community people aware about the coming disaster to take them to safe shelter and providing them all kind of assistance in recovering from the disaster impact. As the respondents were asked, 80.83% respondents in the cyclone-prone area and 66.25% respondents in the flood-prone area said that there exists disaster management committee in their respective areas. But in the drought-prone area 95.0% respondents said that they have no DMC in their community while there must be a DMC in each union formed by government. This implies that the UDMCs in the respective unions are not well-functioning since most of the community inhabitants are not even aware of their existence.

On the other hand those who said that they have DMC in their respective area were asked about the role played by the DMC at different stages in disaster periods. The figure below illustrates the result.

Figure 8: Initiatives taken by the Disaster Management Committee (%)



According to most of the respondents who said that disaster management committee is formed in their area, DMC makes everyone aware of disaster when it tends to come. In the cyclone-prone areas 78.35% respondents and in flood-prone area 67.92% respondents said that DMC helps them to go to shelter home but in drought-prone area no respondent mentioned about this activity. Same is the case for relief distribution; no respondent in the drought-prone area mentioned about relief distribution by DMC while 35.57% respondents in cyclone-prone areas and 20.75% respondents in flood-prone area mentioned about it. Nearly one-third of the respondents in cyclone-prone areas as well as flood-prone area said that they received financial help from DMC while all of the respondents having DMC in their area said that they received financial help from DMC.

A dynamic initiative taken under the project was to arrange periodical courtyard meetings with the beneficiary women group in each union so that they can discuss their problems and share their insights and ideas, plan, and activities they are practicing with each other. The objective of initiating this meeting is to keep the beneficiaries in touch with one another and to sustain the project impacts in the community so that the

beneficiaries can identify and solve their problems by themselves through discussion. During the quantitative survey, 88.0% respondents said that their community had periodic courtyard meetings. In Raiganj and Natore Sadar almost 100.0% of the beneficiaries said that they had courtyard meetings whereas in the coastal areas around 82.0% beneficiaries said that they had courtyard meetings. And those meetings are held mostly in monthly basis.

As the beneficiaries were asked about the topics usually discussed in the courtyard meetings, they mentioned about variety of issues.

Table 4: Topics discussed in the monthly courtyard meetings (%)

Topic	Cyclone-prone area	Flood-prone area	Drought-prone area
WASH	92.89	93.75	90.91
DRR	89.85	86.25	77.92
Raising awareness on violence against women	32.99	67.5	49.35
Child marriage	0.51	0	2.6
About dowry	0	0	1.3
Income generating activities	0.51	0	2.6
Discuss about poultry and cattle	1.02	0	0
AIDS	0.51	0	0

Above table demonstrates that more than 92% beneficiaries mentioned about WASH (Water, Sanitation and Hygiene) issues followed by DRR (Disaster Risk Reduction) (86%), and raising awareness on VAW (44%). Though small in percentage, some respondents in coastal areas and Natore Sadar mentioned about issues like child marriage, dowry system, income earning method, poultry, cattle breeding, AIDS, etc. as well but in Raiganj no respondent mentioned about any of these issues. In Raiganj a large percentage of respondents mentioned about raising awareness against VAW (67.50%) compared to the other two regions.

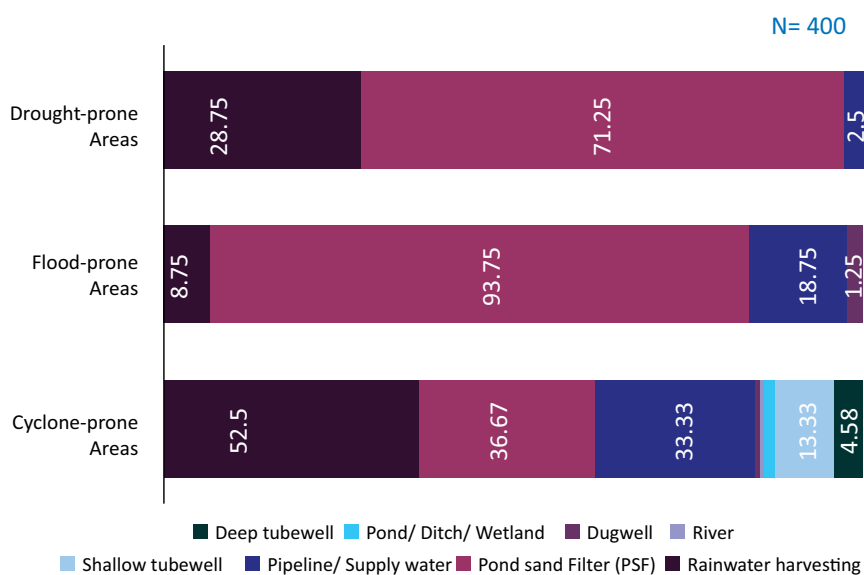
According to the beneficiary women in FGDs, they sit in monthly courtyard meetings for nearly 2-2.5 years which is initiated by the project concerned authority and a coordinator from the programme in their respective areas regularly monitor this meeting. Saleha Akter, a beneficiary women in Nhila, Cox's Bazaar said, "We have become aware of health and sanitation, childcare, etc. issues through these meetings". Khurshida Begum from Kafuria said,

“We have learnt in the courtyard meetings about domestic violence against women. We have also learnt what to do if anyone falls under acid attack. Awareness on different issues like land, rights and responsibilities, hygiene and sanitation, etc. are also discussed in the courtyard meetings”.

There is no doubt that the initiative of monthly courtyard meetings is really a good one. Those who received trainings on leadership building, psychosocial issues, and livelihood options, share their learning with other community women in these meetings so that other women may bring improvement in their situation by following them. The women share the discussed topics with other women who were not present in the meeting. So the meetings play a fruitful role in spreading the knowledge earned by the beneficiary women through the project, for instance, if someone adopts a good technique in livelihood earning or builds sanitary latrine in her house other women can follow it as well. It also enabled the beneficiary women to continue and, in fact expand, the progress made through the project even after its termination.

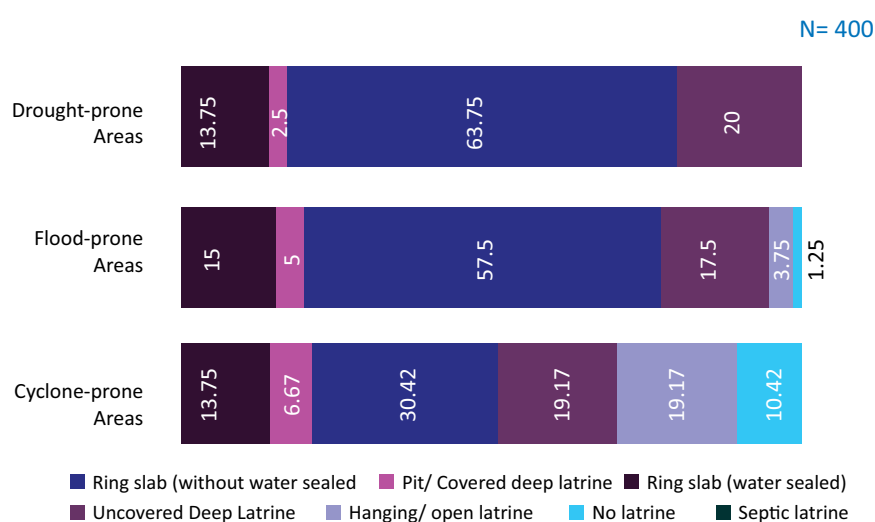
The respondents were asked some questions about their practices regarding their use of source of collecting waters and latrines to find out the increase in their knowledge and awareness about WASH issues after project intervention. The following figure shows the sources of drinking and domestic water used in the beneficiary households and the later shows the types of latrines used by them.

Figure 9: Sources of domestic and drinking water (%)



52.50% of the households under evaluation in cyclone-prone areas use deep tube well while 36.67% use shallow tube well. In the flood-prone area 93.75% households under evaluation uses shallow tube well for the purpose of drinking and domestic water; deep tube well water is used by a very small percentage of beneficiaries. In the drought-prone area 71.25% households under evaluation uses shallow tube well and 28.75% households uses deep tube well. The baseline shows that 46.53% households in coastal areas had access to deep tube wells while the percentage has increased to 52.50% after project intervention. On the other hand, the access to shallow tube well by the beneficiaries has been increased compared to the baseline in all the three evaluation areas. Use of surface water has been decreased to 33.33% in the coastal areas compared to the baseline value (39.90%).

Figure 10: Types of latrines used in the HHs (%)



The sanitation condition in the project areas is still quite poor. Around 16.0% beneficiary households use safe latrines (Ring slab (water sealed), Septic latrine and Pit covered deep latrine) while around 70-75% beneficiary households use unhygienic latrines.

It is to be noted that beneficiaries during FGDs said that they have been taught about wash, sanitation, and hygiene issues by the programme representatives of their respective areas. They have been told to use safe latrines and drink safe water, to wash hands after defecation and before having meal, etc. They have also been told to keep their house and yards clean and dry. In fact they said that they share these information with other people of their community. So it is a dichotomy that the beneficiaries are acknowledging the learning they have obtained from the project but not implementing them in practice which demands further investigation in the evaluation areas regarding these issues.

Results of the quantitative survey says that almost 100% women beneficiaries in Raiganj and Natore Sadar feel that the climate change/ disaster risk has been reduced through new kind of livelihoods whereas around 80% respondents in the three coastal areas under evaluation think so. Nearly three-fourth of the respondents think that this programme has made women aware of the climate change impact while nearly half of the respondents think that the programme has managed new livelihood options for women. 32.75% women beneficiaries think that it has established participation of women in climate risk management and it has formed new small entrepreneurs. Besides, 10.25% women think that the programme has established participation of women in local government activities as well.(See table 14 in annex)

3.5 Changes in Decision Making Role and Social Security Situation

The aim of the project was not only to make the beneficiary women less vulnerable to climate change impacts through introducing them with viable livelihood options but also to establish significant role to play in decision making of the household issues as well as in disaster preparedness and management by them. Since the women have received different trainings on disaster management and viable livelihood options and have become self-sufficient with the financial support they received under the project, it is reflected in their roles played in home and outside as well. Their voice is no more suppressed under the male voices of the family. Their decisions are in fact valued by their husband and in laws. They have gained the strength to raise their voice against any injustice done to them and are able to fight for their own rights and dignity. This is not a mere interpretation but a fact that has been expressed by the beneficiary women themselves during the qualitative study. Some changes in the decision making role in the households are apparent in the tables presented below.

Table 5: Roles played in meeting up food deficit according to sex (%)

Different Periods	Male	Female	Both	N/A	N
Normal period	20.5	32.75	45.0	1.75	400
Disaster period	17.5	27.5	53.0	2.0	400
Post Disaster period	17.0	29.0	52.0	2.0	400

During the baseline, the respondents were asked who usually played decision making role in meal preparation, meal distribution, and meeting up food deficit. It is found that in case of meal preparation and distribution,

the traditional role playing is followed where women are mainly assigned to these tasks by default. In case of meeting up food deficit percentage of women have been found to be more than the percentage of men in all three cases (normal period, disaster period, and post-disaster period) while most of the respondents said that both of them take part in this task. So male members of a family are no longer the sole bread earner of the family; women share this responsibility equally.

In terms of household and communication decisions, women in rural areas are not usually permitted to give their opinion in important decision making like choosing occupation, getting their children married, children's education, conceiving a baby, etc. because of the patriarchal societal structure of our country. But in the areas where the evaluation took place was found a radical change in this type of decision making pattern. Most of the respondents in the quantitative survey during evaluation said that household decisions regarding engaging in new income generating activities, giving marriage, conceiving baby, use of savings, and obtaining VGD/VGF are usually taken by both of the male and female members of the family. In fact, except from conceiving baby and male going to work, all other decisions in the list shows that the percentages are higher for those who think that the decisions are taken by mainly female members than those who think that the decisions are taken by the male members (See table 15 in annex). From the qualitative study it came out that this change has become possible because of the increasing participation of women in outside and income generating activities arranged under the project. This project has made them not only less vulnerable than before but also made their way to become more self-reliant smoother.

Table 6: Roles in family regarding disaster related issues (%)

Roles	Drought Prone				Flood Prone				Coastal			
	NR	M	F	B	NR	M	F	B	NR	M	F	B
Going to shelter	97.47	1.27	1.27	0	73.8	13.75	1.25	11.25	2.08	2.50	21.25	74.17
Engage in alternative livelihood activities	28.75	15	11.25	45	55	27.5	7.5	10	7.08	1.67	21.67	69.58
Collection of relief materials	97.47	0	1.27	1.27	91.3	0	2.5	6.25	5.83	2.50	22.50	69.17

In case of disaster related issues like going to shelter home, engaging in new livelihood opportunities, collecting relief materials, etc., most of the respondents said that both male and female members of their family take part in these activities and higher percentages of respondents think that women

usually carry out these tasks than the respondents who think that men usually do these tasks in all the evaluation areas (Note: The Table only consists of the replies those responded to the question; the remaining percentages go to the Not Applicable (N/A) category). From the baseline record it is found that only 11.48% women in total actually played role in such kinds of activities. So women are now, after the project intervention, more involved into pre- and post disaster activities. Very few percentage of women now depend on the help of the male members of the family while most of them, in fact, look after themselves as well as their family during disaster times.

During the quantitative survey the pattern of ownership of household assets according to sex was tried to be explored whether any change in it has occurred. The result is shown in the figure below.

Table 7 : Comparative scenario of ownership of household assets by male and female members of family (%)

Asset	Coastal			Shyamnagar			Teknaf			Rajganj			Natore		
	M	F	B	M	F	B	M	F	B	M	F	B	M	F	B
Motorbike	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
Rickshaw/ Van	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
Radio	100	0	0	98.75	1.25	0	100	0	0	100	0	0	100	0	0
Sewing machine	98.75	1.25	0	100	0	0	96.25	3.75	0	100	0	0	100	0	0
Boat	98.75	0	1.25	100	0	0	100	0	0	100	0	0	100	0	0
TV/VCD	97.5	1.25	1.25	100	0	0	100	0	0	98.75	1.25	0	98.75	0	1.25
Fishing Instrument	90	2.5	7.5	95	5	0	100	0	0	100	0	0	100	0	0
Business/ Shop	83.75	12.5	3.75	85	15	0	91.25	8.75	0	86.25	12.5	1.25	93.75	3.75	2.5
House	82.5	11.25	6.25	81.25	13.75	5	48.75	36.25	15	82.5	17.5	0	65	15	20
Livestock	60	8.75	31.25	61.25	31.25	7.5	83.75	16.25	0	80	11.25	8.75	75	12.5	12.5
Mobile Phone	51.25	18.75	30	73.75	15	11.25	63.75	30	6.25	76.25	10	13.75	88.75	6.25	5
Poultry	16.25	45	38.75	73.75	25	1.25	95	5	0	90	10	0	43.75	41.25	15

As it can be seen from the above figure, almost all the domestic assets (listed in the survey questionnaire) owned by the households are mostly under male domination. A few exceptions are like 45.0% women in Kalapara and 41.25% women in Natore Sadar had the ownership of poultry while 31.25% women in Shyamnagar had the ownership of livestock; 36.25% women had the ownership of their house (Table 16 in annex). The statistics imply that though the beneficiary women said during the qualitative study repeatedly that they have now greater access to household decision making and outside home activities, there is very little change in their ownership of primary household assets which means that the women folk are actually okay with this pattern of asset ownership and they have taken it for granted that men should be the owners of these assets. But it is also to be noted that the listed household assets are mostly long term assets that are consumed for a long period (that is, these assets were perhaps purchased before baseline and still being used) and the project lasted for only three years starting in 2011. So it is a very short period in which it is quite impossible to reverse the pattern of household asset ownership in significant percentages. The beneficiary women have just boarded on the journey to earn their own livelihood and become self-reliant. So it is natural that they it would take time to establish women ownership on these household assets. If the women utilize their skills and earnings in a proper way, it would not be possible for them to buy the household assets with their own earning.

Though any major disaster didn't take place during the project period, the respondents were asked about the problems mostly faced by the women during and after disaster periods to capture a comparative picture between the before and after state of the project beneficiaries. Based on the received results, a comparison is made between the baseline where the respondents mentioned about the problems faced and final evaluation where the respondents said that they now think that they would face these problems. The percentages have been decreased by significant level in case of most of the indicators. The comparison is shown in the table below.

Table 8: Problems faced by community women during and after disasters (%)

Indicators	Baseline value	End line value
Water and sanitation problem	96.70	63.90
Insecurity	69.57	55.60
Healthcare problem	84.76	29.96
Domestic violence	37.95	5.78

The percentages of women who thought that they would face water and sanitation problem during disasters has been reduced by almost 33.0% while in case of insecurity it has been reduced by around 15.0% and in case of domestic violence it has been reduced by nearly 32.0% compared to the baseline value. Percentages of women who thought that they would face healthcare problem has been decreased drastically by 54.80%. The beneficiary women said while participating into the FGDs that they have been made aware of the security and safety issues of women during the disaster periods. They now take extra care of pregnant and aged women in disasters times and pay special attention to children and adolescent girls. They have also been made aware of different water borne diseases that break out especially in the post-disaster periods. They have been told to keep their courtyard and house clean and dry, and to drink purified water so that they do not fall sick. These lessons provided through the training sessions and courtyard meetings helped enabling the community women go through less social insecurity problem as well as health problems during and after disaster time which actually made them less vulnerable to climate change impacts than initial stage.

3.6 Impact on reducing gender discrimination and violence

The women in our country often face discriminatory behavior by the society and even sometimes in their family. Incidents of violence against women in our country like acid throwing, domestic violence for dowry, rape, eve teasing, etc. have become very common news of the daily newspapers. Gender discrimination is faced by them at every stage their life. The women in rural areas go through these problems more frequently as they are usually less educated and therefore less empowered. The lack of their participation in income generating activities makes them more vulnerable to violence. In addition, prevailing prejudices of the rural society

have awarded the male members of a family a superior position to the female members by birth.

The respondents in both the quantitative and qualitative study were asked if they face any kind of discrimination in receiving their payments while selling their goods or production in the market. In the quantitative study, around 52.0% respondents in the coastal area and 72.50% respondents each in Raiganj and Natore Sadar said that they do not face discrimination. In case of getting actual price of the self-priced commodities, around 83.0% respondents in coastal areas and more than 90.0% respondents think that they get the actual price. In the qualitative study the participants said that they faced gender based discriminatory behaviour at home as well as in society much less than before. According to them, they can now move freely in their community and go anywhere as they wish. They no more feel inferior to their male counterparts. In fact, they now act as strength for their husband. As discussed before, the discrimination between men and women is deep rooted in our societal structure which is difficult to be completely eradicated within one or two years. But the progress made during last three years is praiseworthy.

During quantitative evaluation, the respondents were asked if they experienced any incident of violence against women in their community in

I could get the opportunity to go to school but I want my daughter to be educated. That's why I spend my earnings for her education.
-A beneficiary from Shyamnagar

last 1 year. 37.92% respondents in cyclone prone areas, 61.25% respondents in flood prone areas

and 68.75% respondents in drought prone areas said that they have observed such incidents in their community. Among these respondents, more than 80% respondents in all the study areas mentioned about torturing by husband, around half of the respondents mentioned torturing by in laws, and one-fourth of the participants mentioned torturing by family members (See table 17 in annex). Around 12.0% (48 out of 400) respondents, in total, said that they have faced violence in their own life during last 1 year and among these 48 respondents again 79.59% mentioned about torturing by husbands. While conducting the qualitative study, beneficiaries said that domestic violence against women has declined in their community significantly. Decline in child marriage has also declined radically. Through the meetings and discussion sessions, the project personnel have made aware of the eligible age of girls and boys to get married, and the consequences faced by girls as a result of early marriage. So now they realize the demerits of getting their children married at an early age. In fact many of the beneficiary women said that they spend their earnings on their children's education. But the tradition of giving and taking dowry hasn't been diminished yet. No marriage takes place without dowry and the situation is the same for all the three areas. "The representative from BRAC has prohibited us to give and take any kind of dowry; it is prohibited by law and those who demand and take dowry are severely punished by law. But who pays heed to them?! Marriage without dowry is impossible here. The poor ones give one lac and the solvent ones give up to five lac as dowry in their daughters' marriage", said by a beneficiary woman during FGD.



Case Story

Jorina Akhter, Raiganj

I have been living in this area for last 25 years. I can see that the position of women have become better recently. Violence against women, discrimination etc. has reduced. I know about the activities of BRAC in this area and I attended their meetings as well. In those meetings, they discuss about disaster preparedness, protecting oneself during a disaster etc. These meetings are held once in every month. My husband was Hindu and he became Muslim after we got married. We faced many difficulties then and our economic condition became worse. From BRAC, I received 5 goats. By looking after those, I managed 5 more and by selling them I bought a cow. Now my economic condition is better than before and I believe that by the next 5/6 years, it will be even better. Now I am earning freely. But it was not that easy before. I faced many obstacles. Now we know about dowry and most of the marriages are now done without any dowry here. I am treated equally in my family and most of the women are now concerned about their rights after receiving training from BRAC.

3.7 Impacts over Policy level and Institutional capacity building

Women's well-being and life choices are highly influenced and undermined by many socio-economic, political and environmental forces including climate change. The climate change impacts are affecting women disproportionately and making them extremely vulnerable. In addition to that, they face gender inequity and various forms of discriminations in economic and social lives, which again lead to higher rate and deeper level of poverty, environmental and social insecurity. Hence, appropriate policy and institutional measures are required to empower them and reducing their vulnerability to climate change. In Bangladesh, set of policies are in place in the realms of environmental management and conservation, climate change and economic development, but the existing policies and strategies do not address adequately the climate change impacts on women, adaptation needs of women and gender dimensions (equity, fairness and justice) in addressing climate change. Policies and programmes are to be reviewed and reformed to make these gender-sensitive and pro-poor. There is also urgent need for capacity building of the actors and stakeholders who are engaged in women's empowerment for reducing their social and environmental risks and vulnerabilities.

Impacts over policy level

At policy/advocacy level; UN Women and the Bangladesh Climate Change Trust (BCCT) initiated a series of training workshops on Mainstreaming Gender Equality in Climate Change for government officials from 32 ministries/departments/agencies. Key government officials have been sensitized about gender and climate change and capacitated with necessary skill so that they can contribute in gender mainstreaming of climate change initiatives of their respective Ministries and Departments. The training programme acknowledges the need

for and importance of gender responsive climate-smart development. With improved knowledge of and capacity in gender mainstreaming from the perspective of rights in climate change efforts, participants committed themselves to contributing towards gender equality within their sphere of influence.

In addition; a symposium was held in Dhaka titled: "CCA & DRR for Gender Sensitive Frontier" where different stakeholders including respective government high officials from different Ministry, representative from Royal Norwegian Embassy, practitioners had attended. Several researches and documents such as Baseline Study, the Needs Assessment report, and the Master Class training Manual were disseminated during a critical period while the seventh five year plan, National Plan for Disaster Management were being formulated. Thus they got to appreciate the gender aspects which hopefully would have a positive impact in terms of integration of gender equality in the national policy instruments.

UN Women also engaged climate vulnerable women in several side-events where they shared their experience of engaging in alternative livelihoods. These initiatives helped the policymakers to understand the ground reality of the vulnerable women and struggle for changing their livelihoods with positive notion. Lessons learned from the sessions contributes to sensitize different stakeholders about relevance of the project "Reducing Vulnerability of Women Affected by Climate Change through Viable Livelihood Options" and way forward.

Moreover; UN Women has contributed in the review of the existing and formulation of the new National Plan for Disaster Management (NPDM) of the Ministry of Disaster Management and Relief. This has resulted in incorporating gender aspects for the first time in the NPDM 2016-2020, which was in the

draft form till 2015. UNDP approached UN Women to provide the technical support for gender inputs.

Institutional capacity building level

The Bangladesh Centre for Advanced Studies (BCAS), research partner of “Reducing Vulnerability of Women Affected by Climate Change through Viable Livelihood Options” project, has increased capacity for gender-sensitive research. This will increase the overall knowledge base on the gendered impacts of climate change and contribute to gender-responsive policies and programmes. With the technical support and close collaboration of UN Women over the years; BCAS is integrating issues of gender equality in their research processes, including how they conceive and design research projects, as well as data collection protocols.

UN Women has developed the capacity of practitioners at government, UN, research organizations, and I/NGOs to mainstream gender equality in climate change adaptation, disaster risk reduction and humanitarian actions. Moreover; the capacity of Union Disaster Management Committee (UDMC) to address gender issues in their risk reduction and response initiatives have been assessed and training module drafted to increase their capacity in light of the capacity gaps identified.

UN Women has provided substantive feedback and contributed in national consultation on HFA2 (Sendai Framework for DRR) led by the Department of Disaster Management to include GE perspective in it. As a result government’s position paper did include gender aspects. UN Women also tried engaging MOWCA in the national consultation on draft HFA2 doc; which has been sent to Department of Disaster Management.





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Conclusions & Recommendations

4.1 Conclusions

It is mentioned earlier that the project was initiated with a three-fold purpose of establishing viable alternative livelihood options for the most vulnerable women of the three disaster prone eco-zones to reduce their vulnerability to climate change like frequently occurred natural calamities as well as to establish a strong role of women in decision making both inside and outside home activities. The recommendations made above are some areas where there is scope of further intervention, but the attempts taken to implement the objectives of the project have been proved to be really fruitful. The project played a role to make target women come out the confines of their households breaking the barriers usually faced by rural women. Their participation in IGA and disaster preparedness & management activities has been increased significantly. Awareness regarding climate change and its impact, how to cope with climate change, disaster preparedness and management, and WASH issues have been raised than that of past among the direct beneficiaries of the project and the community people through sharing. The beneficiary women can now take part in important decision making of the family in many occasions and their male counterparts value their decisions as well. The project also achieved some remarkable progress in terms of integrating gender aspects in some of the key DRR/CCA tools, making some of the key practitioners from different sectors sensitized about the importance of gender mainstreaming in DRR/CA agenda, and have produced some robust evidence through series of critical studies.

In hindsight; it is evident that the project initiatives were inevitably relevant and appropriate according to local as well as national need, and have showered positive and effective impacts on the community overall. More projects like this should

be implemented in our country and greater portion of the population especially the women from remote, neglected, disaster prone areas need to be supported through such interventions.

4.2 Recommendations

As the project comprised of three interlinked issues i.e. climate change, vulnerability of women and viable livelihood options; the evaluation was designed to measure its relevance, effectiveness and results/impacts through a combination of quantitative and qualitative techniques. There are lots of initiatives have been taken to reduce vulnerability of women and adopting their viable livelihood options in last few decades in Bangladesh. However; gender issues itself is a cultural phenomenon and if we want to see through a gender lens, it's not very easy to understand the changes as well as the role of women in climate change issues.

Therefore, this final evaluation tried to understand how much resilient are women in climate change preparedness. It is observed that the initiatives taken for women under the project intervention have somewhat similarities with other stakeholder's initiatives to reduce vulnerability of women. However, unveiling the vulnerability of women due to climate change and initiatives to reduce them through viable livelihood options itself was a distinguishing feature. Subsequently, new areas of women's livelihoods could be considered in intervention design; needs of the target people could be contextualized and climate adaptive livelihood options i.e. floating gardening, use of disaster resilient seeds in agriculture could be explored in this regards.

Regarding disaster preparedness information, this project tried to make community people aware about it; it is very important to develop women friendly early warning system. Keeping in mind

about the cultural barrier to women's mobility, early warning system for women could be designed keeping in mind their restricted participation and mobility outside home. Moreover, in disaster issues, school component (especially girl's school) could be added as girl students can be the frontline actors of making women aware about vulnerability of women due to disasters and the measures mitigating those. In this connection, institutional capacity building could be an important area to focus on.

In this era of shifting of development paradigm, participatory approach in any project is a must and there should be an exercise to collect expectations of the target population during project design so that ownership can grow within the people for its sustainability. Local governance system should come up with an effective action plan to improve gender and DRR governance and make UDMC more accountable in this regards. Participatory approaches should be designed in such a way so that it gets a pro-people outfit eventually which will enable people contribute in sustainability of the project.

It is obvious that the vulnerability of women has been reducing due to multilayer interventions of multi stakeholders such as government, NGO and private organizations at the community level in health sector, education sector, training, IGA as well as self-dependence of women over the period. There should be a link with different activities performing in the specific community to have coordination so that project intervention could leverage those positive effects.

Government should be encouraged to incorporate gender perspectives into their national policies, action plans and other measures on sustainable development and climate change, through carrying out systematic gender analysis; collecting and utilizing sex and age disaggregated data; establishing gender-sensitive benchmarks and indicators; and developing practical tools to support increased attention to gender perspectives.

The main points emerging from this evaluation are summarized as recommendations in the section below that could be followed if such programmes are initiated in future:

- The coverage in terms of target women can be more diversified considering marital status, head of household, ethnicity and religion. The divorced, widow and separated women could be brought under the programme intervention in greater portion since they are usually more vulnerable to any kind of problems, be it socio-economic or disaster events. A comprehensive list of such disadvantaged group of people could be developed in every Union Parishad, Upazilla and District and take appropriate adaptation actions.

- Since most of the target women were illiterate or less educated, if the trainings were provided in local dialect by some local expert then it would have been easily understood by the training participants. Field level project staffs have also suggested this.
- In the project curriculum there could be some adult education programme, at least for the women aged between 20-30 who consist of around one-fourth of the respondents, so that the capacity of the women is enhanced much more and they can utilize the knowledge and support, gained through the project more efficiently.
- Usage of safe sanitation and drinking water from deep tube-well found to be very poor in all the project areas. Either the beneficiaries are not applying their knowledge about WASH in practice or they cannot afford to do so. The project has further scope to work in this issue in future to improve the hygiene and sanitation practice of the community people. Therefore, Behavior Change Communication (BCC) component could be added in the project design, if possible. In light of BCC; following issues could be considered during developing message on WASH:
 - > Messages could highlight the diverse consequences of not drinking safe water and using sanitary latrine specially loss of income, relationship, cost for medication, communication, treatment, negative effect on people's health and development, educational outcomes of community people linking with getting different disease (diarrhea, pneumonia, other hygienic related diseases) for not adopting WASH.
 - > Message could contain demonstration of proper of hand washing with soap with special focuses on the benefit to growth and development of children as well as the community people under WASH component.
 - > Communication messages may also give equal emphasize on all critical parts of WASH i.e. safe drinking water, use of sanitary latrine, personal hygiene and cleanliness of all category of community people.
- The selection of livelihood options on which the beneficiaries have been trained could be something more disaster resilient like technology based agriculture. Adaptation activities can be empowering if it initiate women's engagement in productive sectors that connects women to different productive activities, beyond the domestic sphere. So future programme should promote livelihoods that are empowering and climate resilient.
- Home-based livelihoods for women vulnerable to climate change can reinforce gender norms about 'women appropriate' work. Those increase women's income but might not further their empowerment.
- To improve women's participation and leadership in local level disaster management committees, UN Women should work with UDMC committees



as well as the women members. Working with the women would build their capacity and confidence, and working with UDMC builds more capacity to think and work on gender to help creating more enabling environment for women UDMC members.

- The gap between the community people and the UDMCs has to be removed. The participation of women in UDMCs has to be increased and their active role needs to be ensured. Therefore; a group could be formed consisting of proactive and/or efficient women who will maintain communication with women and UDMC on a regular basis to remind them about their role and responsibilities and help them to participate in UDMC provided activities.
- It is essential to address the stigma of inequalities and recovery actions should be taken in women's representation and leadership at all levels of CCA/DRR to create transformational changes.
- The evaluation data indicates that 10% of the children have been school drop-outs and engaged in IGA. If scholarships or educational stipends could be offered for these poor children, then probably the dropout rate could be decreased. Education for girls could be enhanced in these disaster-prone areas by building more girls' schools which could be utilized also as shelter centers during disasters like floods and cyclones.
- The target women were asked what type of training they want in future, nearly half of them asked for microfinance for better/expanding livelihoods. Since the project activities are subject to both time and budget limitations, to continue the progress earned through the project, micro finance with low interest rate could be initiated for the inhabitants of these disaster prone areas.
- It is evident that violence against women increases during and after disaster situation, but the issue was not included in the project. It is recommended to take this issue seriously and shape future gender focused DRR programme in such a way that would contribute in preventing violence against women.
- These remote disaster prone areas will remain deprived of many facilities that people of other parts of Bangladesh enjoy unless the infrastructure of these areas is not improved. Schooling of children, selling self-produced goods to Upazila or district markets, carrying patients and pregnant women to hospitals in emergency, conveying relief materials in disaster periods, etc. are highly disrupted due to infrastructure problem here. In fact, one of the factors that constrained the project activities to some extent is the poor infrastructure condition. This problem needs to be solved.
- At the national level MOWCA should take the lead on gender mainstreaming in CCA/DRR agenda and actions

ANNEX



Annex 1: Tables

Table 1: Age of the respondents (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
15-19 years	0.83	0	1.25	0.75
20-24 years	6.25	6.25	16.25	8.25
25-29 years	15.83	12.5	22.5	16.5
30-34 years	24.17	18.75	17.5	21.75
35-39 years	19.58	15	10	16.75
40-44 years	9.58	17.5	10	11.25
45+ years	23.75	30	22.5	24.75
Avg. age (in years)	36.3	38.2	34.7	36.4
N	240	80	80	400

Table 2: Marital status of the respondents (%)

Category	Cyclone-prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Single	0.42	1.25	0	0.5
Married	75.42	83.75	83.75	78.75
Widow	14.58	12.5	8.75	13
Separated	6.67	1.25	6.25	5.5
Divorced	2.92	1.25	1.25	2.25
N	240	80	80	400

Table 3: Relationship of the respondents with the head of the households (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Self	23.33	16.25	22.5	21.75
Wife	68.33	82.5	76.25	72.75
Daughter	1.25	0	0	0.75
Sister	0.83	0	0	0.5
Mother	5.42	1.25	1.25	3.75
Daughter-in-law	0.83	0	0	0.5
N	240	80	80	400

Table 4: Religion of the respondents (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Muslim	91.67	92.5	97.5	93
Hindu	7.92	7.5	2.5	6.75
Christian	0.42	0	0	0.25
N	240	80	80	400

Table 5: Educational qualification of the respondents (%)

Category	Cyclone-Prone Areas	Flood-Prone Area	Drought-Prone Area	Total
Illiterate	40.42	36.25	26.25	36.75
Signatory	17.5	31.25	18.75	20.5
Class 1-5	31.25	25.0	22.5	28.25
Class 6-8	7.92	5.0	22.5	10.25
Class 9-10	2.5	2.5	8.75	3.75
SSC/Dakhil	0.42	0	1.25	0.5
N	240	80	80	400

Table 6: Primary and secondary occupation of the beneficiary women (%)

Occupations	Cyclone-prone Areas		Flood-prone Area		Drought-prone Area	
	Primary occupation	Secondary Occupation	Primary occupation	Secondary Occupation	Primary occupation	Secondary Occupation
Agricultural crop production	1.25	6.25	1.25	1.25	0	2.50
Agricultural wage labor	0.83	6.25	2.50	1.25	0	0
Non- farming day labor	12.08	17.08	3.75	1.25	5	7.50
Livestock and poultry	6.25	32.08	13.75	10.0	1.25	18.75
Food/cash for work	0.83	4.17	3.75	0	1.25	0
Fry collection	0.42	8.33	0	0	0	0
Crab collection	0.42	4.17	0	0	0	0
Handicraft	1.25	9.17	15.0	11.25	0	2.50
Business	13.33	4.17	16.25	2.50	3.75	7.50
Service	0.83	0	1.25	0	3.75	1.25
Housewife	56.67	24.58	25.0	51.25	77.50	17.50
Housework (paid work)	0	0.42	5.0	5.0	5.0	2.50
Tailor	3.75	5.83	11.25	0	2.5	12.50
Teacher	0.83	-	0	-	0	-
Nurse	0.42	-	0	-	0	-
Beggar	0	-	1.25	-	0	-
Shrimp collection	0.42	-	0	-	0	-
Fish farming	-	0.83	-	0	-	0
Fruit/timber production	-	0	-	1.25	-	1.25
Tuition	-	0.42	-	0	-	0
Fish processing	-	0.42	-	0	-	0
Weaving fish nets	-	0	-	1.25	-	0
Not applicable	-	7.50	-	20.0	-	36.25
N	240	240	80	80	80	80

Table 7: Household income level of the respondents (%)

Category	Cyclone-Prone Area	Flood-Prone Area	Drought-Prone Area	Total
Up to BDT. 5,000	26.25	28.75	25.0	26.50
BDT. 5,001 - 10,000	60.0	70	71.25	64.25
BDT. 10,001- 15,000	10.83	1.25	3.75	7.5
BDT. 15,001- 20,000	1.25	0	0	0.75
BDT. 20,001- 25,000	1.25	0	0	0.75
BDT. 25,001-30, 000	0.42	0	0	0.25
Avg. income of male headed households	-	-	-	5420
Avg. income of female headed households	-	-	-	7506
Avg. income (estimated)	7388	6413	6688	7053
N	240	80	80	400

Table 8: Trainings received by the respondents under RVWACC project (%)

Received Trainings	Cyclone-prone areas	Flood-prone area	Drought-prone area	Total
Homestead gardening	65.32	35.56	26.67	55.24
Small Poultry	49.71	24.44	13.33	40.73
Horticulture	36.42	24.44	23.33	32.66
Tailoring	32.37	28.89	33.33	31.85
Small shop/business	21.97	46.67	23.33	26.61
Cattle fattening	20.23	4.44	13.33	16.53
Rice Processing	6.36	0	10	5.65
Dry Fish Processing	6.94	0	0	4.84
Handicrafts	5.2	4.44	0	4.44
Net Making	2.31	0	0	1.61
Handloom	0	4.44	0	0.81
Cattle	0	0	6.67	0.81
Day labor	0	0	3.33	0.4
Crab cultivation	0.58	0	0	0.4
N	173	45	30	248

Table 9: Initiatives taken for women under project (%)

Initiatives	Cyclone-prone Areas	Flood-prone Area	Drought-prone Area	Total
How to take people in safe shelter	17.3	6.66	50	14.5
Created awareness about carrying dry food and safe water	18.38	44	50	25.96
Women get training on disaster resilience	15.68	-	-	11.07
How to protect homestead and life from disaster	12.97	-	-	9.16
Provide training on making house in higher place	3.78	20	-	8.4
Raising awareness on disaster management	3.24	6.67	-	4.2
Learn to keep cattle in high place	2.16	9.33	-	4.2
Women, specially pregnant women, children, and older people should get first priority to take shelter	9.72	-	-	6.88
Created awareness on raising plinth of the house	-	8	-	2.29
Provide higher training to the women on life skill development	3.24	-	-	2.29
Provide training on tree plantation	0.54	4	-	1.53
Provide useful training on capacity building	0.54	2.67	-	1.15
Provide training on post flood preparation	-	4	-	1.15
Give financial help	0.54	-	-	0.38
Increasing confidence through training	-	1.33	-	0.38
N	185	75	2	262

Table 10: Involvement in IGA by the women of the evaluation areas (%)

Category	Cyclone-prone area	Flood-prone area	Drought-prone area	Total
Small Poultry	37.33	22.22	28.57	32.84
Homestead gardening	35.48	23.61	14.29	29.88
Tailoring	25.81	40.28	30.61	29.59
Livestock	26.73	33.33	20.41	27.22
Small business	21.66	44.44	16.33	25.74
Horticulture	23.04	15.28	12.24	19.82
Day labor	15.67	1.39	2.04	10.65
Handicrafts	10.14	12.50	4.08	9.76

Category	Cyclone-prone area	Flood-prone area	Drought-prone area	Total
Dry Fish Processing	5.99	0	2.04	4.14
Rice Processing	4.15	1.39	4.08	3.55
Fish and shrimp cultivation	4.61	1.39	0	3.25
Embroidery/ Batiks and printing	0.92	11.11	0	2.96
Net Making	0.92	1.39	2.04	1.18
Domestic worker	0.46	0	6.12	1.18
Fishing	1.84	0	0	1.18
Agriculture	0.92	0	4.08	1.18
Service	0.46	1.39	2.04	0.89
Collect wood	1.38	0	0	0.89
Knitting	0	2.78	0	0.59
Loom work	0	2.78	0	0.59
Tuition	0.92	0	0	0.59
Sewing cap	0	1.39	0	0.3
Digging	0	1.39	0	0.3
N	217	72	49	338

Table 11: Average earning members of the beneficiary households (Frequency)

Category	Cyclone-prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Avg. Male	1.2	1.1	1.1	1.1
Avg. Female	1	1	1	1
Avg. Total	1.9	1.7	1.5	1.8
N	239	78	80	397

Table 12: Purposes of savings by the respondents (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
To reduce vulnerability	33.33	7.69	11.11	26.58
To buy assets	8.77	38.46	0	12.66
To invest into a new business	7.02	23.08	22.22	11.39
For the purpose of children's education	77.19	46.15	33.33	67.09
For son/daughter's marriage	42.11	53.85	22.22	41.77
No plan yet	1.75	0	22.22	3.8
Those responded	100	100	100	100
N	57	13	9	79

Table 13: IGA activities by the respondents and/or female members of their household (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Agricultural crop production/farming	59.32	28.75	11.94	44.65
Livestock and poultry	72.03	58.75	73.13	69.45
Tailor	60.17	67.5	77.61	64.75
Food/cash for work	50.85	30	29.85	42.82
Dry Fish Processing	22.03	0	0	13.58
Crab collection	24.58	0	0	15.14
Fish farming	3.39	1.25	0	2.35
Shrimp culture	2.97	0	0	1.83
Handicraft	55.51	55	47.76	54.05
Rice Processing	5.08	6.25	4.48	5.22
Fruit/timber production	2.12	1.25	0	1.57
Business	22.03	13.75	19.4	19.84
Service	4.66	1.25	26.87	7.83
Work abroad	0	1.25	1.49	0.52
Housewife	6.78	11.25	0	6.53
Housework (paid work)	5.93	12.5	28.36	11.23
Small Shop	44.07	23.75	40.3	39.16
Teacher	8.05	1.25	2.99	5.74
Forest resource collector	0.42	0	0	0.26
Day labourer	0	0	1.49	0.26
Shrimp collection	0.42	0	0	0.26
Producing salt	0.42	0	0	0.26
N	236	80	67	383

Table 14: Project impacts on beneficiary women's lives (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Made women aware of the climate change impact	77.5	65	73.75	74.25
Established participation of women in climate risk management	31.25	55	15	32.75
Formed new small entrepreneur	34.17	75	25	40.5
Established participation of women in local government activities	11.25	17.5	0	10.25
Managed new livelihood options for women	43.33	35	58.75	44.75
Ran new income generating project for women (Handicraft or others)	25.42	25	45	29.25
Formed local people based organization (C.B.O) in participation of women	1.67	1.25	0	1.25
Don't know	0.42	0	0	0.25
N	240	80	80	400

Table 15: Role played in household decision making based on gender (%)

HH Decision (Normal period)	Male	Female	Both	N/A	N
Engage in new income generating activities	14.25	17.25	44.0	24.50	400
Give marriage	3.25	10.5	36.0	50.25	400
Conceiving a baby	5.0	3.75	64.75	26.5	400
Use saving	2.0	4.0	18.25	75.75	400
VGD/VGF	3.25	8.75	23.5	64.50	400
Female going outside the homestead	16.25	28.0	45.25	10.50	400
Female going to work	14.50	25.75	46.5	13.25	400
Male going to work	47.75	3.50	22.0	26.75	400
Education of Children	3.0	16.75	64.0	16.25	400

Table 16: Household assets ownership according to sex (%)

	Natore Sadar				Raiganj				Teknaf				Shyamnagar				Kalapara			
	M	F	B	NA	M	F	B	NA	M	F	B	NA	M	F	B	NA	M	F	B	NA
Going to shelter	1.27	1.27	0	97.47	13.75	1.25	11.25	73.75	0	38.75	58.75	2.5	6.25	13.75	76.25	3.75	1.25	11.25	87.5	0
Engage in alternative livelihood activities	15	11.25	45	28.75	27.5	7.5	10	55	0	31.25	50	18.75	3.75	13.75	67.5	15	1.25	12.5	82.5	3.75
Collection of relief materials	0	1.27	1.27	97.47	0	2.5	6.25	91.25	0	13.92	36.71	49.37	6.25	15	66.25	12.5	1.25	13.75	82.5	2.5

Table 17: Perpetrators of violence against women (%)

Category	Cyclone-Prone Areas	Flood-prone Areas	Drought-prone Areas	Total
Torturing by husband	83.52	81.82	97.96	86.67
Torturing by in laws	60.44	41.82	14.29	43.59
Torturing by family members	24.18	32.73	18.37	25.13
Acid throwing	2.2	1.82	0	1.54
Demand of Dowry	36.26	63.64	24.49	41.03
Eve teasing	9.89	10.91	0	7.69
Harassment	2.2	3.64	14.29	5.64
Those responded	100	100	100	100
N	91	55	49	195

Table 18: Comparative scenario of ownership of household assets by male and female members of family (%)

	Coastal			Shyamnagar			Teknaf			Rajganj			Natore		
	M	F	B	M	F	B	M	F	B	M	F	B	M	F	B
Motorbike	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
Rickshaw/ Van/ Related others	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
Radio	100	0	0	98.75	1.25	0	100	0	0	100	0	0	100	0	0
Sewing machine	98.75	1.25	0	100	0	0	96.25	3.75	0	100	0	0	100	0	0
Boat	98.75	0	1.25	100	0	0	100	0	0	100	0	0	100	0	0
TV/VCD	97.5	1.25	1.25	100	0	0	100	0	0	98.75	1.25	0	98.75	0	1.25
Fishing Instruments	90	2.5	7.5	95	5	0	100	0	0	100	0	0	100	0	0
Business/ Shop structure	83.75	12.5	3.75	85	15	0	91.25	8.75	0	86.25	12.5	1.25	93.75	3.75	2.5
House	82.5	11.25	6.25	81.25	13.75	5	48.75	36.25	15	82.5	17.5	0	65	15	20
Livestock	60	8.75	31.25	61.25	31.25	7.5	83.75	16.25	0	80	11.25	8.75	75	12.5	12.5
Mobile Phone	51.25	18.75	30	73.75	15	11.25	63.75	30	6.25	76.25	10	13.75	88.75	6.25	5
Poultry	16.25	45	38.75	73.75	25	1.25	95	5	0	90	10	0	43.75	41.25	15



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