

Research Article

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Vulnerable Women of Northern Bangladesh can Adapt to Climate Change through Sustainable Livelihoods

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ABSTRACT

Climate change has made the people of Bangladesh vulnerable environmentally, culturally, and socially. The northern areas of the country have also been affected by climate change and different types of climatic impacts like floods, changes in seasonal pattern and effects on agricultural products have been visible in recent times. In Bangladesh, women comprise half of the total population and their empowerment is closely related to the sustainable economic development and prosperity of the country. But climate change is responsible for making women's livelihood opportunities vulnerable. The study was conducted in a community of Nilphamari district located in northern Bangladesh. The study revealed that the sustainable livelihood options can help the women to be resilient to climate change. If different types of livelihoods, support, and orientations are provided to the targeted women beneficiaries, and they utilize the support to increase their income their situation can be changed. Their access to markets can also be established which can increase their resilient capacities to cope with the climate change induced risks at community level. The study found that if the women are engaged in economic activities and they have earnings and savings, then they can cope with the climate change risks.

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Introduction

The geo-graphic location and climate change made Bangladesh as one of the most vulnerable countries in the world. The country has been ranked as the seventh vulnerable country of the world by the Global Climate Risk Index (CRI) consecutively in the last three years. The average temperatures in Bangladesh would rise by 1.4°C by 2050 which will affect agriculture and livelihoods of the communities and will increase the threat of internal displacement (Amnesty International Report 2021/22). Due to climate change; temperature rise, and drought will be acute in north-west region; sea level rise and salinity intrusion will further increase in coastal, and islands and floods will be severe in central, north, north-east region and char land of Bangladesh. Heatwaves will increase in urban areas and drainage congestion will be seen in the south-west areas (UN Report 2021). Climate change will further increase river and groundwater salinity in the coastal areas where an additional 2.5 million people will face a safe drinking water crisis (World Bank 2019). Climate change will increase the respiratory illnesses and Dengue fever in the urban areas and depression among residents of Bangladesh (World Bank 2021). Both economic and non-economic loss and damages will be visible in Bangladesh. Climate induced disasters will affect children of Bangladesh with dislocation, child labour, trafficking, and unsafe migration (UNICEF 2021) [1-5].

Bangladesh made its gains on gender equality and women's empowerment during the Millennium Development Goals (MDGs)

(1990–2015) now the country is working for the achievement of the Sustainable Development Goals (SDGs), with their stronger emphasis on inclusion, equality, and “leaving no one behind”. (The SDGs and the Empowerment of Bangladeshi Women, Hossain. N, 2020) [12]. Around 50% of the world population is represented by women and they have immense contribution in all sectors of the development (Gender ratio in the world 2022). However, women's hard work and contribution remain undervalued, and their position is not the same as their men counterparts. The Global Gender Gap Report 2022 published by World Economic Forum showed the performance of eight regions where South Asia ranks the lowest, with only 62.3% of the gender gap closed in 2022 [6].

The impacts of climate change have been visible in the countries like Bangladesh and around the world and have made different communities vulnerable to frequent disasters like floods, cyclones, river erosion, and rising sea levels. The northern areas of the country have also been affected by climate change and different types of climatic impacts like floods, changes in seasonal pattern and effects on agricultural products have been visible in recent times due to natural and anthropogenic reasons. The Northern areas of Bangladesh are affected firstly when flood occurs as water comes from upstream through Teesta River. The people living around Teesta River are dependent on the natural resources and ecosystem centric the river. Besides, in recent years the northern areas of the country have been vulnerable to climate change and affected by different types of disasters in the last few years which are affecting the people's life and livelihoods.

The Kachukata Union of Nilphamari district is a rural area of northern Bangladesh, with a low literacy rate. The community people used to depend on agriculture for their livelihood purposes. The women had very few opportunities for income-generating activities. Though some of the portions of women used to work, these works were based on home services, and they had very little mobility to the other areas. They did not have any savings and had social constraints, household restrictions, lack of social networking and limited access to the labor market. Climate change has also added vulnerabilities and threats to their livelihood options. So, special initiatives were required for the women of this Union to change their vulnerability and cope with the impacts of climate change [7-11].

Research Objectives

The study was conducted following the research objectives:

- To assess the livelihood challenges due to climate change faced by the venerable women of Kachukata Union of Nilphamari district.
- To identify how the sustainable livelihood options among the women, especially the widow and female-headed households helped them to earn money and savings.
- To see the achieved success by the vulnerable women that has increased their resilient capacities to adapt to climate change.

Study Area

Kachukata Union is located 13 kilometers from Nilphamari Sadar Upazila. The total area of the Union is 21 Square kilometers. The Union is surrounded by two rivers. One namely Charalkata River passes by the north side and another namely Burikhora River passes by the west side of the Union. Bangladesh Water Development Board (BWDB) conducted the excavation and embankment protection, and preservation works of some rivers of Nilphamari including Charalkata and Burikhora to contribute to providing irrigation facility to the local farmers, controlling flood and creating extra opportunity to get abundant fish in the rivers as well as to improve the livelihoods of the surroundings people. Recently, as per the updated data of Union Parishad, there were a total 27,526 people including 13,757 men and 13,769 women of 5,619 households of the Union. The community people of the Union were mainly dependent on agriculture, and they used to produce products like paddy, wheat, maize, potato, and vegetables. There was no existence of any medium or small-scale industry at the Union. Less mobility was seen among the community people to seek work by going to others compared to the other area's people of Bangladesh.

Material and Methods

The study was conducted from both qualitative and quantitative methods. A survey was conducted based on 95% confidence level with 5% margin of error. Key In-depth Interview (KII), Success Stories/Case Studies and Focus Group Discussion (FGD) were conducted for completing the study. National and international documents, policy papers, books and articles and peer-viewed documents on climate change, women empowerment, adaptation papers and materials were reviewed for completing the research.

Results and Discussion

Vulnerability of women's livelihoods due to climate change:

The study found that only 8% of the respondents had good ideas about climate change and disaster risk reduction, and only 5% of the respondents had good ideas about community resilience. But the respondents and community people understand that climate change is visible in the last 15 to 20 years in this area/community. In recent years, it is seen that unnecessary rainfalls are happening

in the winter season, but the farmers do not get sufficient water for agriculture when they require for crop reaping. The length of the winter season has shortened compared to previous years. The hot weather has been severe for the last 8-10 years ago. The winter does not come at the right time, and it seems that it is late, which was normal in previous years. The flood tendency has increased recently compared to previous years. The flood is happening almost every year in the community which has impacts on the life and livelihoods, safe drinking water, communication system, crops, and agricultures. The respondents and their household members of the four communities who had received information idea/knowledge about climate change from different sources and means like mike, TV, and neighbor, mobile, Union Parishad, radio, newspaper, and different meetings, various trainings, NGOs, and Upazila/district Parishad.

The study found that around 69% of the respondents had mentioned that community people's livelihoods were hampered by disaster and flood as disaster has negative effects on their livelihoods. And during the last flood the community people tried to earn by an alternative way. But most of the people did not get the opportunities because they had very limited options of earnings and they were forced to spend their savings. About 58% of the respondents mentioned that violence against women used to increase at the targeted area during the disaster period like flood or seasonal storm seasons.

The study found that women and girls face most problems during the flood and disaster period. Because it is seen that most of the guardians (father and mother) do not want to take their girls to the shelter center because of the fear of social stigma. The same thing seems for the women of this community and Union. This culture must be changed because if any households have girls and women, they never want to leave their homes when a heavy flood hits and they stay in their own houses. This fastens the vulnerability of the households during the flood period. Besides, the community people have negative ideas whether the women and girls can stay at the shelter centers.

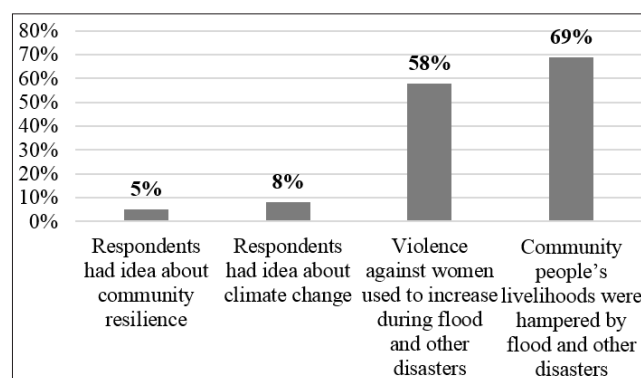


Figure 1: Community situation and vulnerability of women to climate change

It was found that the rate of education was low among the respondents. About 39% of the respondents had literacy knowledge and about 27% of the respondents had no formal education from any educational institutions. It indicated that about 66% of the respondents were out of formal education. It was found that the child marriage was reduced than the previous period due to increasing rate of education and other social awareness of community people, but it was not satisfactory at all. Only 25% of the women of the households were involved in earning and the women had little mobility to the other places like out of the Union

for income generation activities. About 83% of the respondents had no idea about the term “gender equality” and only 22% of the respondents had idea about violence against women and children. About 25% of the respondents had experiences to see the violence against women at the community. About 43% of the respondents thought that sustainable livelihood options and opportunities for women are very essential to improve their situation and to make them economically empowered as well as adapt to climate change.

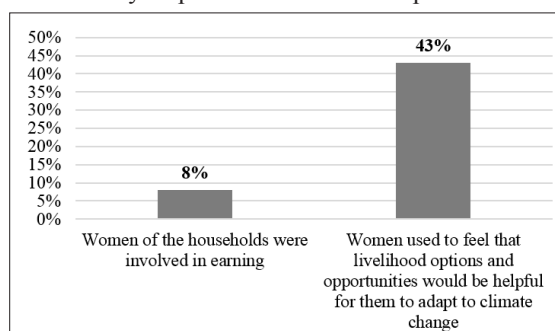


Figure 2: Community’s women involvement in livelihood activities

Sustainable Livelihood Options will have impacts on the community people

The study identified different types of sustainable livelihood options in the study area. According to Chambers and Conway (1992:9): “a livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base”. Sneddon (2000) described that the livelihood can be classified as sustainable, when it is resilient in the face of external shocks and stresses, when it is not dependent upon external support, when it is able to maintain the long-term productivity of natural resources and when it does not undermine the livelihood options of others. The people can use their own resources within their community and areas to improve their situation [13]. mentioned that the sustainable livelihood means when income is more than the expenditure and there is a handsome saving of households.

The study found that different types of livelihoods like small business, homestead gardening, poultry rearing, cattle rearing (cow and goat), tailoring, fish cultivation, nursery seeds support, and handicrafts can help the women to earn and utilize the money for their living purposes. It was found that relevant livelihood training and cash grant support can improve the livelihood conditions of the women considering the impacts of climate change. If the women are linked to the local market so that they can sell their products and have a comprehensive idea about the market to get the justified prices by their endeavors. Participation of the women can be ensured through different types of sustainable livelihood options if the women can be engaged in different types of activities.

Women can adapt to Climate Change through Sustainable Livelihood Options

The study found that some significant changes may come among the women of the community through sustainable livelihood options which can help them to adapt to climate change. It was found that about 86% of the direct women beneficiaries mentioned that they can enhance their income opportunities and change their livelihoods if their capacity is enhanced through training and providing necessary support. About 41% of the direct women mentioned that their income can be increased through this process.

About 80% of the respondents mentioned that if their skills are enhanced on income generating activities then they can earn their money and contribute to the development of the society.

In Bangladesh, the women face a broad range of discrimination and disadvantage because of their gender and its intersections with poverty and other factors. Violence against women and early marriage remain key concerns, and women and girls experience routine violations of their political, civic, and economic rights. Bangladesh faces significant challenges in meeting its SDG commitments, and these are being exacerbated by an apparent rise in the influence of political Islam [12]. Due to a lack of progress in gender equality, presence of Sexual and Gender Based Violence and absence of women empowerment, Bangladesh is also facing gender discrimination like many other developing countries. So, the access of women to economic activities is limited and they are socially marginalized. The recent impacts of human induced climate change and frequent disasters is also making the women of Bangladesh more vulnerable. But women need to be economically and socially empowered to reduce SGVB and contribute to the goals of sustainable development of the country.

In the study area, more than 80% of Sexual and Gender Based Violence (SGBV) related services and information were available at the local Government level. about 70% of the women had access to services and information that were available at the local government level. Women’s participation in economic decision making would effectively be improved by about 35% of the women if they were trained on this issue. Market linkage to women could motivate women to take initiatives as entrepreneurs and make them engaged in income generating economic activities. Advocacy meetings and related day observations can increase the awareness of women on their proper rights and way of involvement in economic activities. the study revealed that economic engagement of women can help them to reduce the child marriage and dowry at the community. For this, sustainable livelihood options are essential for women to adapt to climate change and disasters.

Interpretation and Conclusion

The research has the following interpretation

- If women are involved in economic activities, then they can be economically empowered which can help them to face the impacts of climate change impacts.
- The livelihood supports cash grants, training and orientations under various projects and programmes undertaken by the government. organizations, non-government agencies and different development stakeholders can be effective to enhance the income of the targeted women beneficiaries and make them resilient.
- The gender-based violence can be reduced before, during and after disasters if women can earn and they have access to properties.
- Context-specific sustainable livelihoods should be designed for the women considering different geo-physical areas while designing any type of climate change adaptation project or programme.
- If the women are linked with local markets, then they can be more engaged in different economic activities and they can enhance their earning by utilizing their own resources.
- Small and medium scale enterprises are helpful for the women to enhance their income if they can be skilled in working in this area. For this, the women should be introduced and trained with small and medium scale enterprises considering the climate change issues. Then they can increase their income from this sector and adapt to climate change vulnerabilities.

- Proper training and orientation should be provided to the beneficiaries while providing any type of support. And these training and orientations must include climate change and disaster management aspects so that the beneficiaries can cope with the disaster situation by utilizing their knowledge and resources.

Finally, it can be said that climate change is one the biggest challenges of the century, pushing the human being and environment to different troubles. The adverse impacts of climate change are being experienced across Bangladesh and many communities continue to become more vulnerable to these negative consequences. The women of the country are facing the challenges of climate change and their livelihoods are being affected by climate induced reasons. The study revealed that the income of the women of the study area was higher than the expenditure of the households in the research area. Besides, the women benefited from the sustainable livelihoods of the study area. But this type of sustainable livelihood options should be promoted in the different parts of Bangladesh. As the inhabited women in different parts of the country require climate resilient livelihoods and innovative approaches so that they can adapt to climate change and use their resources.

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References

1. Ayeb Karlsson S, van der Geest K, Ahmed I, Huq S, Warner K (2016) A People- Centred Perspective on Climate Change, Environmental Stress, and Livelihood Resilience in Bangladesh. *Sustainability Science* 11: 679-694.
2. Chopra D, E Zambelli (2017) No Time to Rest: Women's Lived Experiences of Balancing Paid Work and Unpaid Care Work, Brighton, International Development Studies, UK. <https://www.bond.org.uk/resources/no-time-to-rest-womens-lived-experiences-of-balancing-paid-work-and-unpaid-care-work/>.
3. Domingo P, R Holmes, T O Neil, N Jones, K Bird, et al. (2015) Women's Voice and Leadership in Decision Making: Assessing the Evidence. London, UK. <https://gsdrc.org/document-library/womens-voice-and-leadership-in-decision-making-assessing-the-evidence/>.
4. Economic Empowerment of Rural Women, Gender Economic Equity (2018), Williams. M, World Bank; Muller. B. N, Human Sciences Research Council; Branisa. B, INESAD; Cadenhead. L, We Scotland; Currie. C, We Scotland; Hjar. G, Women's Economic Imperative; S. Sandhya, Tata Institute of Social Sciences; Magnelli. M, CIPPEC; Thomas. M, Women's Economic Imperative; Walbey. H, Welsh Government Panel for Women's Enterprise.
5. Eck R (2014) Economic Empowerment of Rural Women in Bangladesh, How the Social System Limits Economic Empowerment of Women in Rural Areas. Dortmund, Germany.
6. Fostering Women's Economic Empowerment through Special Economic Zones, The Case of Bangladesh (2011), International Finance Corporation and The World Bank. 1818 H Street NW Washington DC. <https://elibrary.worldbank.org/doi/abs/10.1596/27441>.
7. Food and Agriculture Organization of United Nations, Tackling Climate Change Through Rural Women's Empowerment (2017), Corporate Climate Change Strategy of FAO. GoB. (2009). Bangladesh Climate Change Strategy and Action Plan 2009, Ministry of Environment and Forests (MoEF), Government of the Peoples Republic of Bangladesh (GoB). <https://www.fao.org/climate-change/action-areas/fao-strategic-framework/en>
8. Golla M A, Malhotra A, Nanda P, Mehra (2011) R Understanding and Measuring Women's Economic Empowerment Definition, Framework, and Indicators. International Center for Research on Women (ICRW) North Washington DC, USA <https://www.icrw.org/wp-content/uploads/2016/10/Understanding-measuring-womens-economic-empowerment.pdf>
9. Halsnaes K, Traerup S (2009) Development and Climate Change: A Mainstreaming Approach for Assessing Economic, Social, and Environmental Impacts of Adaptation Measures. *Environmental Management* 43: 765-778.
10. Htun M, Weldon S L (2014) Progressive policy changes on women's economic and social rights. Background Paper for the UN Women Progress of the World's Women. New York: UN Women. <https://malahtun.files.wordpress.com/2015/03/2014-htun-weldon-un-paper.pdf>
11. M Mahmud, K Otsuka, Y Sawada, M Tanaka, T Tanaka (2017) Women Empowerment in Bangladesh: Household Decisions under Development of Non-Farm Sectors and Microfinance Institutions no. 154. https://www.jica.go.jp/jica-ri/publication/workingpaper/175nbg00000a06zu-att/JICA-RI_WP_No.154.pdf
12. Nazneen N, N Hossain, M Sultan (2011) National Discourses on Women's Empowerment in Bangladesh: Continuities and Challenges, IDS Working Paper 368, Brighton, www.ids.ac.uk/files/dmfiles/Wp368.pdf.
13. Sati P Vishwambhar (2014) Sustainable Livelihood Strategies and Options: A Case Study of the Upper Minjiang River Basin, China. Department of Geography and Resource Management Mizoram University (Central) Aizawl-796004, India. https://www.researchgate.net/publication/265687682_Sustainable_Livelihood_Strategies_and_Options.

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