

Biodiversity Congress 2018: Vulnerability of women's livelihoods and their coping mechanisms in the face of climate change in coastal regions of Bangladesh

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Abstract

Bangladesh is frequently cited as a country that is most vulnerable to climate change. In Bangladesh, most of the adverse effects of climate change occur in the form of extreme weather events, such as cyclone, flood, drought, salinity ingress, river bank erosion and tidal surge, resulting in large scale damage to crops, employment, livelihoods and therefore the national well-being. Although it is generally stated that women are relatively more vulnerable than men in the context of climate change, few studies have been conducted to closely examine this statement, especially in Bangladesh. The present study, investigates the structure of women's livelihoods, livelihood vulnerabilities and coping capacity in the context of climate variability and change in a disaster vulnerable coastal area of Bangladesh. Utilizing the concepts of Sustainable Livelihood Framework (SLF) and Disaster Crunch Model (DCM), this study allows for a greater understanding of these issues on the ground. The results show that the distribution of 5 livelihood capitals (human, natural, financial, social and physical) of girls are heavily influenced by several climatic events, like cyclones that periodically affect the region. Women also face several vulnerabilities in their livelihoods, including income, household assets, health, food security, education, water sources, sanitation and transportation systems, due to ongoing global climate change impacts. The results indicate that it is extremely important to instigate strategies to help build the adaptive capacity of women to reduce the burden created by their livelihood vulnerability. Very few studies have been conducted to explore the vulnerability of women in the context of climate change. This research addresses this absence by investigating the structure of women's livelihoods and coping capacity in a disaster vulnerable coastal area of Bangladesh.

Definition of the Concepts

Vulnerability:

Vulnerability is that the condition determined by physical,

social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards (UN 2009). Vulnerability is 'insecurity, the reverse of security'; it reflects "the characteristics of an individual or group in terms of their capacity to anticipate, cope with, resist, and get over the impact of a natural hazard." It involves a mixture of things that determine the degree to which someone's life and livelihood is put in danger by a discrete and identifiable event in nature or in society. Vulnerability refers to exposure to contingencies and stress and difficulty in dealing with them. It has two components: i) an 'external' side of risks, shocks and stress to which a structure, individual, household, community or nation is subject; and ii) an 'internal' side of lack of resources to cope without damaging loss. A human condition is resulting from physical, social, economic and environmental factors which determine the livelihood and scale of damage from the impact of a given hazard.

Coping Strategies: In disaster management, coping means the trends and techniques where people gain their expected results by using their property. It is very much related with capacity. Strategies are often defined as a group of activities or mechanism by which individuals attempt to survive in disasters, recover their situation and develop their conditions after disaster.

Coastal Area: In this study, coastal area means the places situated beside the Bay of Bengal and many rivers of Bangladesh. The coastal areas of Bangladesh are facing the Bay of Bengal with an area of 47,201 sq. km. covering 19 districts: Bagerhat, Barguna, Barishal, Bhola, Chandpur, Chittagong, Cox's Bazar, Feni, Gopalganj, Jessore, Jhalokati, Khulna, Lakshmipur, Narail, Noakhali, Potuakhali, Pirojpur, Satkhira and Shariatpur.

The research findings suggest that the distribution of livelihood capitals of vulnerable women in rural Bangladesh is heavily influenced by several climatic events, such as cyclones, floods and seasonal droughts that periodically

affect the region. Women face several challenges in their livelihoods, including vulnerability to their income, household assets, lives and health, food security, education, water sources, sanitation and transportation systems, because of ongoing climate change impacts. The findings have important policy relevance for all involved in disaster and risk management, both within Bangladesh and the developing countries facing climate change impacts. Based on the research findings, it recommends to improving the livelihoods of women in the coastal communities. Impacts of global climate change on the livelihoods of coastal people within the south-western a part of Bangladesh. This study has been conducted by using quantitative method with semi-structured interview questionnaire for data collection in purposive manner. The paper examines the impacts of global climate change on agricultural productivities, food securities and institutional challenges that the coastal people face. This paper finds that the frequency and severity of climate change have increased in recent years, that threat on food securities by inundating low agriculture land, restricting economic activities, decreasing employment opportunities, expanding different health diseases, destructing houses, crops and other infrastructures in Bangladesh. The findings indicate that the foremost global climate change induced vulnerable and risky people are women, children, elderly and disabled people as they can't easily deal with the unfavorable environment during climate change. There has not been conducted much inquiry about the impacts of global climate change, so policy makers can get comprehensive view about this concern by this study and implement policy for the survival of the climate change induced affected coastal people.

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