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Population and Community Based Adaptation to Climate Change: Bangladesh Experiences

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Abstract

Climate Change is a reality now and implications on future development are very significant. Adverse effects of climate change including variability and extreme are already being felt in many regions and communities. The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) has reported that the average global surface temperature has increased by 0.74°C during last 100 years; sea level rose at an average rate of 1.8 mm per year over 1961 to 2003 and mountain glaciers and snow cover have declined on an average in both hemispheres. It is clear that climate change will bring changes in characteristics of extreme events and gradual changes phenomenon of the physical and natural systems and impacts during the 21st century would very likely be larger than those observed during the 20th century.

Due to higher level of dependency on natural resource base, overall impacts of climate change on Bangladesh would be significant. Key factors contributing to its vulnerability are geographic location, low elevation, high population density, poor infrastructure, high levels of poverty and dependency on natural resources. It is also recognised that impacts varied both spatially and socio-economically, and in poor and disadvantaged communities. Therefore, vulnerability and adaptation to adverse impacts of climate change is context specific as well as complex due to multiple drivers. It is argued that better management of existing climate related problems would help to address future problems. Many actions and measures those are being undertaken to deal with current climate and extreme events such as drought, floods, salinity and cyclones and storm surges have potential to deal with future climate change.

Community Based Adaption (CBA) to climate change including variability and extreme events is an emerging concept and measures to address adverse effect of present and future climate change. Many CBA projects are being implemented and numbers are gradually being increased in the developing countries. Many organizations have started implementation of CBA to Climate Change in Bangladesh. It is revealed that CBA initiatives are around a) livelihood diversification and making existing livelihood options more resilient to present and future climate, and b) enhance capacity to deal with disaster – preparedness (awareness raising, information dissemination etc.).

This paper assessed and analysed exposure and vulnerability of different livelihood groups primarily depend on natural resource base to climate change extreme and gradual change phenomenon. It has also made an attempt to assess scale of Community Based Adaption measures against scale of vulnerable communities and climate change problems. Based on initial assessment, it has also made some suggestions and recommendation to make Community Based Adaptation more effective in future.