Bangladesh is ranked lower in Human Development Index (HDI) with a huge population of which a large number live under poverty line. Despite of various interventions and policies from local institutions and foreign agencies, people are struggling to set them in a better place to sustain. Climate Change will make this situation worsen for those who are poor and live in rural areas. Having a high density of population and located at estuary of some mighty rivers like Ganges, Brahmaputra and Meghna, Bangladesh is now being considered as one of the most vulnerable countries for the impacts of climate change as predicted by Inter-Governmental Panel for Climate Change (IPCC). If any effective, sustainable and integrated measures are not adopted soon, it will face unavoidable situations which may damage Bangladesh geographically, economically and socially. Among these, rural livelihood of the people of this region is in susceptible situation which needs immediate attention.

This study has been conducted attempting to unveil the status of the rural people’s livelihood against the climate change factor and to provide suggestions to help them to sustain. A coastal district of Bangladesh, Narail has been taken as a case study. The main focus of this study is to prescribe a sustainable livelihood approach (SLA) based upon the future condition considering the access to livelihood capitals availed by the local people. SLA provides a framework developed by the DFID having the livelihood capitals in the centre addressed by the impacts of vulnerability/seasonality and effects of direct/indirect measures by institutions. It includes an integrated management system to help the rural people of all groups reaching the livelihood outcomes for better well being as well as to conserve the natural resource base. Three livelihood groups; farmers, fishermen and laborers have taken under this study. Moreover, the women group has been included in this study as a vulnerable group due to climate change. A Regional Climate Model (RCM) has been used for generating the future climatic conditions for the study area using A1B SRES Scenarios declared by IPCC. It comprises the change in the annual and monsoon rainfall and temperature of the nearest available hydro-meteorological stations. The RCM prediction was delivered and interpreted to the rural people so that they can provide the local climate change scenario and also give information regarding the adaptation measures in the local context. Some participatory rural appraisal (PRA) tools have been applied to assess the livelihood resource accessibility and vulnerability due to climate change. These tools have been applied on the local livelihood assets which forms the livelihood pentagon prescribed by DFID. The individual affects on the affected assets have been figured out by PRA tools which ultimately give the deformed livelihood pentagon to visualize the impacts of climate change. The adaptation measures have been found discussing the different livelihood groups of the area and integrated adaptive measures have been set.