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“Solidarity in a competing world —  
fair use of resources”

## Climate Change Adaptation with Community Based Management in the Village Common Forest of Bangladesh

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### Abstract

This research was conducted in the village common forest - VCF of Komolchari, Kha-grachari, by community based management - CBM to assess the adaptation process for climate change. As a framework for the present analysis, the priority themes for climate change adaptation of the FAO (FAO-Adapt) were taken into account: (i) knowledge for impact and vulnerability assessment; (ii) institutions and financing to strengthen capacities for adaptation; (iii) sustainable management of land, water and biodiversity; (iv) practices and processes for adaptation; and (v) disaster risk management. Household and forest surveys were conducted to collect data. For the household surveys, 11 settlers and 30 families from Komolchari village and 30 families from Jaduram Para and Thana Chandra Para villages were selected. Forest surveys consisted of 57 10 m × 10 m, plots in which the tree species were determined in order to estimate the forest health. In general terms, community people were receptive to the idea of VCF conservation and 87% of the respondents were willing to get involved in the conservation efforts. The communities report the use and importance of various edible species of flora and fauna, timber species, medicinal plants, animals and birds species, plant species for construction and crafts like cane and bamboo, and some tree species of religious importance like *Ficus religiosa* L. and the *Ficus benghalensis* L., among others. Regarding the forest surveys, the parameters measured provide an idea of the forest health in Komolchari VCF. The tree density (1420 trees ha<sup>-1</sup>), the Shannon-Weiner Index (2.91), the species diversity Index (50.62), and the index of dominance (0.09) suggest a relative good state of conservation of the forest. This is considered as a result of the creation of the VCF committee and the collaborating programme with a local NGO, which regulates the use of the resources in order to avoid the over-exploitation. Nevertheless, a formal forest management system, the assurance of an alternative income source, and a strong linkage with the government, among other aspects, are required for an effective CBM along with climate change adaptation.

**Keywords:** Climate change adaptation, community based management, village common forest