Environmental, economic and agricultural surveys of an ecologically important forest hamlet in Darjeeling district, West Bengal, India

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Forest cover in the hill regions is essential to maintain environmental, economic and ecological balances. North Bengal accounts for 3,086 sq km (26%) of the 11,876 sq km area of classified forests in the state and for nearly 5,000 sq km (40%) of all land under tree cover. Khumani Forest Village is situated (26.84° N, 88.60° E) in Gorubathan Block in Darjeeling District of West Bengal State, India. The survey work was done in December, 2014 by visiting the Khumani Forest Village (established in 1949) of upper Kumai and the primary data were gathered through field survey and direct contact with common people and authorized centers of the region. Surveys on the demography, agriculture, livestock management, water management, education, culture, health, waste management, disaster management, transport, biodiversity, human animal conflict were done in this area. Topographic map of the area was prepared by using the database of National Atlas and Thematic Mapping Organization (NATMO), Kolkata office. Demographic information was collected from the village area and the Panchayat. Census report was collected from the local Panchayat office. There are 115 houses in the village with total population of 724. Religious and social festival information was collected from the local people. Environmental activities of the local NGO (Water and Environment Conservation Committee) were documented. This NGO established in 2011 (with government registration) by the local inhabitants and 15 local villagers are currently operating the NGO. They used to conduct the afforestation programs, mitigate soil erosion in the hills, manage plastic wastes and are also involved in rural developmental activities. Human animal conflicts were studied in the village area, as the area is periodically disturbed by the encroachment of elephant, rhinoceros and leopard. Biodiversity of the region was documented by visiting the adjacent forest areas. In every phase of the survey work, pictorial documentation was done. In spite of being positioned in a diverse and sensitive ecological zone, the village is not adequately managed. There is an urgent need for implementing sustainable management systems in the areas for the betterment of the socio-environmental structures. Some of the possible management strategies have been suggested for maintaining the social, environmental, economic and ecological balance of the region.

Biography

Sayan Bhattacharya has completed his BSc in Zoology, MSc in Environmental Science and PhD in Environmental Biotechnology from University of Calcutta. He has completed two years of Post doctoral research in Environmental Chemistry from Presidency University. Presently he is working as an Assistant Professor in the Department of Environmental Studies, Rabindra Bharati University, India. He has published more than 100 international journal papers, book chapters, international conference proceedings and science articles. He has received Young Researcher Award from Government of India. He is in the Reviewers’ committees of many international journals and in the Editorial Boards of international journals with high impact factors. He has over 8 years of teaching experiences in 5 colleges and universities of West Bengal.

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