

IDENTIFICATION AND VALUATION OF DIRECT ECOSYSTEM SERVICES FROM PROTECTED FOREST AREAS IN BANGLADESH: A CASE STUDY

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Forest resources collection is the major livelihood option for majority of the people living in or around the Chunati Wildlife Sanctuary (CWS) providing direct ecosystem services to them on one hand, and degrading the forests and biodiversity on the other. This study aimed to identify the nature, type and amount of forest resources collected by different resource collectors, and to quantify them and evaluate their value.

Market based approach was used to estimate the value of the collected resources by interviewing the resource collectors and cross checking the selling price of that particular resource from the adjacent local markets. A total of 28 forest trails (out of 56 used by local communities as entry or exit points for forest resource collection) were selected randomly for this study.

The study showed that 481 resource collectors per day enter the CWS through surveyed trails before noon and get back before evening. Of them 104 (22%) were female. Higher numbers of resource collectors harvested fuel wood (30%), followed by NTFPs: fruits (13%), timber (11%), agricultural products (11%), bamboos or bamboo shoots (10%), sungrass (10%), etc. The mode of carrying forest resources was by shoulder load (63%) followed by head load (30%). Among the resource collectors 84% are adults and the rest 16% are minors. The resource collectors on average spend 5.71 hours in the forest to collect resources and travel 6.41 km on each visit within the CWS. The average value of the resources gathered by each collector on each visit is BDT 301 (USD 3.84), which may be calculated as BDT 289,562 (USD 3,697.16) for the whole of CWS per day. This may again be calculated as BDT 104.24 million (USD 1.33 million) per year.

The findings of this study will be useful to-managers and policy makers for valuation of total ecosystem services provided by CWS, and it gives a better insight to the problem of forest degradation in Bangladesh, particularly in the CWS.