CASE STUDY

FOREST & ECOSYSTEM VALUATION: A CASE STUDY OF MELGHAT LANDSCAPE

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Abstract: The present study attempts to quantify the value of tangible and intangible benefits of Melghat landscape. For timber and growing stock (GS) quantification market cost approach was adopted and value of GS in Melghat was calculated as Rs. 80221 crore. Carbon sequestration was calculated based on IPCC carbon factor 0.47. The NTFP and grazing benefits were calculated from departmental sale records and domestic consumption. To work out land value the compartments were divided in land zones as per market value and adjoining lands market value was assigned to the forest compartment land. The recreation benefits were quantified based of travel cost method (TCM) and benefit cost approach by analysing consumer's surplus from similar landscape. Water conservation value was worked on the basis of rainfall data and removing losses of runoff and evapo-transpiration through empirical equations. The soil conservation and other values worked out from studies available in similar landscapes. The faunal biodiversity value was based on 'willingness to pay principle'. This report quantifies Total Economic Value of landscape as Rs. 1,70,020 crores, which means Rs. 57.26 lakhs/ha, which is much higher than Net Present Value (NPV) cost Rs.7.5 lakhs per hector prescribed by Ministry of Environment & Forests. The revision in NPV cost on landscape basis giving weightage to floral diversity and faunal peculiarity is very much required for conservation of forests. If feasible, precious forests should not be sacrified so that this generation will bequest better forest to further generations for sustenance.

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