

ANALISIS BIAYA MANFAAT PENGELOLAAN HUTAN DAN USAHATANI KONSERVASI DI SUB DAS PRAMBANAN KECAMATAN KEJAJAR KABUPATEN WONOSOBO PROVINSI JAWA TENGAH

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INTISARI

Analisis biaya-manfaat berperan penting sebagai dasar memudahkan pemahaman terhadap kerugian finansial dalam pengambilan kebijakan lingkungan. Penelitian dilakukan di Sub DAS Prambanan, Kejajar, Wonosobo, Jawa Tengah didasarkan hasil pra-observasi lapangan yang menunjukkan bahwa telah terjadi intensifikasi pertanian namun masih terdapat area hutan milik PERHUTANI. Penelitian ini bertujuan untuk: (1) menganalisis bentuk pengelolaan hutan dan tingkat UK; (2) mengkaji pengaruh faktor sosial ekonomi dan kondisi fisik lahan terhadap tingkat penerapan UK; (3) mengkaji pengaruh sosial ekonomi, kondisi fisik lahan, dan tingkat penerapan UK terhadap penerimaan petani; (4) menghitung biaya-manfaat langsung dan tidak langsung hutan dan penerapan UK; (5) menganalisis kelayakan pengelolaan hutan dan penerapan UK.

Metode penelitian adalah survei dan uji laboratorium. Data terdiri atas kondisi fisik dan sosial ekonomi. Pengambilan data fisik menggunakan teknik *purposive sampling* berdasarkan penggunaan lahan. Data sosial ekonomi menggunakan teknik sensus dengan 222 responden. Teknik pengumpulan data menggunakan pengukuran lapangan, wawancara dan dokumentasi. Analisis data secara kualitatif dan kuantitatif. Uji pengaruh menggunakan regresi logistik ordinal dan regresi linear OLS (*Ordinary Least Square*). Uji kelayakan menggunakan metode CBA (*Cost Benefit Analysis*) dan analisis sensitivitas.

Hasil penelitian menunjukkan bahwa pengelolaan hutan dalam bentuk reboisasi, pemeliharaan dan ekowisata. Tingkat penerapan UK tingkat tinggi 49 petani (22,1%), tingkat sedang 125 (56,3%), serta tingkat rendah 48 petani (21,6%). Faktor sosial ekonomi dan kondisi fisik lahan mempengaruhi tingkat penerapan UK sebesar 25,1%. Faktor sosial ekonomi, kondisi fisik lahan dan tingkat penerapan UK mempengaruhi penerimaan petani sebesar 86,4%. Biaya langsung pengelolaan hutan Rp. 55.281.602,-/tahun dan UK Rp. 5.343.998.200,-/tahun. Biaya tidak langsung pengelolaan hutan dari rata-rata erosi 0,64 mm/tahun sebesar Rp. 962.850,-/tahun dan UK 7,25 mm/tahun sebesar Rp. 14.752.096,58/tahun. Manfaat langsung pengelolaan hutan Rp. 903.000.000,-/tahun dan UK Rp. 7.673.805.000,-/tahun. Manfaat tidak langsung pengelolaan hutan dari simpanan karbon 76,04 ton/ha atau Rp. 278.914.720,-/tahun dan UK sebesar 40,5 ton/ha atau Rp. 182.353.000,-/tahun. Berdasarkan sudut pandang keuntungan ekonomi dan lingkungan, pengelolaan hutan dengan konsep ekowisata milik PERHUTANI lebih layak dikembangkan daripada penerapan UK.

Kata kunci: biaya-manfaat, hutan, usahatani konservasi (UK), stok karbon, erosi

ABSTRACT

Cost-benefit analysis plays an important role as basis to facilitate the understanding of financial loss in making environment policy. This study was conducted in the Subwatershed of Prambanan Kejajar Subdistrict Wonosobo Regency Central Java Province based on results of preliminary field observation, indicating that agricultural intensification occurred but there are still forest areas owned by PERHUTANI. The objectives of the study are (1) to analyze the forms of forest management and the levels of conservation farming; (2) to examine the effect of socio-economic factors and land physical conditions on the levels of conservation farming implementation; (3) to examine the effect of socio-economic factors, land physical conditions, and the conservation farming implementation on the farmers's revenue; (4) to calculate the direct and indirect costs-benefits of forest management and the conservation farming program; and (5) to analyze the feasibility of protected forest management and conservation farming implementation.

This study was conducted by using a survey technique and a laboratory test. The data consisted of socio-economic and physical data. The socio-economic data were collected using census technique with 222 respondents, while the physical data were collected using a purposive sampling technique based on land use. The data were collected by field measurement, in-depth interview and documentation. Data analysis was carried out by qualitative and quantitative techniques. The effect factors was examined out by an ordinal logistic regression and an ordinary least squares (OLS) regression. The feasibility was examined using Cost-Benefit Analysis (CBA) and sensitivity analysis.

The results of the study showed that the forms of forest management were reboisisation, conservation, and ecotourism. The conservation farming was implemented at a high level by 49 farmers (22.1%), at a moderate level by 125 farmers (56.3%), and at a low level by 48 farmers (21.6%). Socio-economic factors and land physical conditions affected the levels of conservation farming implementation (25.1%). Socio-economic factor, land physical conditions, and the levels of conservation farming implementation affected the farmers's revenue (86.4%). The direct costs of forest management was IDR55,281,602.-/year and the conservation farming implementation was IDR5,343,998,200.-/year. The indirect costs of forest management with an average erosion rate of 0.64 mm/year was IDR962,850.-/year and the conservation farming implementation with an average erosion rate of 7.25 mm/year was IDR14,752,096.58/year. The direct benefits of forest management was IDR903,000,000.-/year and the conservation farming implementation was IDR7,673,805,000.-/year. The indirect benefits of forest management in view of carbon stock was 76.04 ton/ha or IDR278,914,720.-/year and the conservation farming implementation was 40.5 ton/ha or IDR182,353,000.-/year. In view of economic profits and environmental conservations, the forest management using the concept of ecotourism owned by PERHUTANI was more feasible to develop compared to that of conservation farming.

Keywords: cost-benefit, forest, conservation farming, carbon stock, erosion