

**ECONOMIC ASSESSMENT OF SOIL CONSERVATION
DEMONSTRATION PLOTS IN TONDANO WATERSHED
NORTH SULAWESI, INDONESIA**

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By

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ABSTRACT

Lingkubi, Oktavianus, M.S., Natural Resources Management, Department of Agricultural Economics, College of Agriculture, North Dakota State University, April 1995. Economic Assessment of Soil Conservation Demonstration Plots in Tondano Watershed, North Sulawesi, Indonesia. Major Adviser: Dr. Jay A. Leitch.

The objective of this study was to evaluate the economic impacts of soil conservation demonstration plots (demplots) on farmers and on society using benefit-cost analysis. Data were collected in Tondano Watershed, North Sulawesi, Indonesia, from September to December 1994.

Although the net return of farmland with soil conservation was negative in 1994, the year of establishment, the returns were about 1.5 times greater than costs thereafter. Using a 25-year project life, discounted at 6 percent, the capitalized net return of farmland with soil conservation demplots was Rp6,044,000 (U.S. \$2,811) per hectare, whereas the capitalized net return of farmland without soil conservation was Rp4,060,000 (U.S. \$1,888) per hectare.

Soil conservation demplots affect the condition of Lake Tondano and its surrounding area, hydroelectric production, water supply, fishing, Manado Harbor, inhabitants along the riverbank, and Bunaken Marine Park. The off-site benefit of the soil conservation demplots was estimated at Rp45 million (U.S. \$20,930) annually. This estimation was based on the assumption that soil conservation in the whole critical area of Tondano Watershed may reduce the off-site (or downstream) damages by 10 percent.

Soil conservation demplots are beneficial for farmers and for society. However, the adoption of soil conservation practices by farmers outside the demplots is still low. Farmers are still either unable or unwilling to integrate soil conservation practices in their farmland.