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“Development on the margin”

## Economic Analysis of Agroforestry in the Visayas, Philippines under Consideration of Conservation of Natural Resources

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### Abstract

Increasingly, people in the Visayas, Philippines are migrating from fertile lowland areas, where land is scarce, to more remote hillside areas. Such migration, together with inherent high population growth, is forcing a transformation in land use from subsistence to permanent agriculture on fragile slopes and is creating a new suite of social, economic, and environmental problems.

The economic activities of the Visayas people are mainly agriculture, either for self-consumption or commercial sales on the local market. These people belong to the poorest people in the Philippines. Figures for their annual income range from 15000 (approx. 240 Euro) to 25000 Pesos (approx. 400 Euro) per household. Their standard of living is often low and is highly vulnerable due to exploitative land cultivation. The areas where they settle are former forest areas with important environmental functions such as water and carbon storage and biodiversity. Agricultural practices are often unsustainable such as slash and burn practices or mono-cropping practices. The effects are high deforestation and natural resource degradation rates (soil erosion and reduced watershed function).

Community forestry and agrarian reform programs have been developed as a means of addressing the links between forest degradation and poverty by granting households limited access to government-owned forest lands. Reviews of these programs have suggested the need to better understand rural households and their diversity to improve the design, implementation, and monitoring of (agro)forestry and other development programs in rural areas.

High potential exists in increasing incomes by using agroforestry practices, including a wider variety of different crops and better crop and input management practices.

The development of economically sustainable agroforestry practices is essential in tackling these challenges. Sustainable agroforestry systems have to include high profitable measures to optimise smallholders' income, reduce vulnerability to external events and guarantee a necessary income in the first years after the system is established.

**Keywords:** Agroforestry, external effects, German Development Cooperation, Philippines, profitability analysis, uplands

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