

Garrity, D. et al. 2001. Integrated Natural Resources Management on the Poverty-Protection Interface in an Asian Watershed. Paper presented at the Integrated Natural Resources Management Workshop, Cali, Colombia. August 2001. 14 pp.

Abstract: There are serious methodological and policy hurdles to be overcome in effective integrated natural resource management that alleviated poverty while protecting environmental services in tropical watershed. We review the development of an approach to integrate biodiversity conservation and agroforestry development through the active involvement of communities and their local governments. The work focused on the Kitangaland Range Nature Park in the upper reaches of the Manuplai watershed in central Mindanao, Philippines. Agroforestry innovations were developed to suit the biophysical and socio-economic conditions off the buffer zone, including practices for tree farming and conservation farming with annual crops. Institutional innovations improved resource management, resulting in an effective social contract to protect the natural biodiversity of the Park. Natural vegetative contour strips were installed on several hundred sloping farms. Stream corridor vegetation was restored by the local Landcare groups. The practices decreased soil erosion and runoff, while the buffer strips increased maize yields by an average of 0.5 t/ha on hill slope farms. Fruit and timber tree production dramatically increased, re-establishing tree cover in the buffer zone. The scientific knowledge base guided the development and implementation of a natural resource management plan for the Municipality of Lantapan. A dynamic grassroots movement of farmer-led Landcare groups evolved in the villages near the park boundary. It has had significant impact on natural resource conservation in both the natural and managed ecosystem. Encroachment in the natural park has been reduced 95% in the past four years. This integrated approach has been recognized as a national model for local natural resource management planning and watershed management in the Philippines. Currently, the collaborating institutions are evolving a negotiation support system to resolve the interactions between the three management domains: The park: the ancestral domain claim, and the municipalities. The consortium that evolved this integrated systems approach operated effectively with highly constrained funding, suggesting that commitment and impact may best be stimulated by a “drip-feed” approach rather than by large, externally funded efforts.

Key words: Integrated conservation-development projects, Sustainable agriculture, Agroforestry, Soil conservation, Buffer zone, Protected national park, Biodiversity, Landcare, Timber