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## Landscape Management Strategies for Rural Livelihoods and Ecosystem Service Protection in Sulawesi, Indonesia

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### Abstract

Reconciliation between community livelihoods and sustainable natural resource utilisation is urgent. Recent approach embraced ecosystem service principles, where the connection between the needs for conservation and the livelihoods importance is established via the functions of the ecosystems to the human needs. Ecosystem services are managed in a landscape context where socio-economic-cultural conditions of the actors are involved. We exercised an approach that covered diagnostic steps up to multistakeholder forum to develop landscape management strategies that formed the basis for the formulation of government regulations and government-community agreements for collaborative management. The approach was applied in seven landscapes in three provinces (South Sulawesi, Southeast Sulawesi, Gorontalo) in Sulawesi Island, Indonesia. In some instances, the landscape has been well maintained with agroforestry practices, while in other instances, natural resource degradation largely occurs reflecting complex interactions with the utilisation for local livelihoods. The domain of the strategies developed encompass: 1) Rewards for source water provision through downstream-upstream governance, 2) Collaborative land rehabilitation for degraded areas and 3) Community management rights at forest with conservation status. Experience from the processes were observed and assessed to derive lessons learnt based on the five capitals of the sustainable livelihoods framework. From the case studies, it is concluded that issues of ecosystem services versus livelihoods need to be addressed at landscape level since there are interactions in spatial context, across time and across actors. Multi-stakeholder participation needs to be incorporated as early as possible in order to create ownership and continued commitments post strategy development. The biggest challenge during the process represents the social capital, while to some extent challenges also cover human and financial capitals.

**Keywords:** Agroforestry, ecosystem services, landscape approach, Sulawesi, sustainable livelihoods