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Payments for forest ecosystem services: insights from forests in Oceania

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Abstract:

Forests provide a range of important ecosystem services (ES), including the provisioning role of timber production, but also many regulating, supporting, and cultural services (MEA, 2005; TEEB, 2010; UKNEA, 2011). Considerable research has been conducted to estimate the economic value of these services so that more accurate comparisons between alternative land-uses can be made, and ideally so that forest-owners may benefit financially from the services their forests provide (Payments for Ecosystem Services (PES)). Some of these services are easier to value than others.

Despite the advances in ES valuation, developing mechanisms for forest owners to receive the financial value of their forests (with the aim of discouraging deforestation) remains challenging. For some services, notably Carbon storage, markets have been developed in some regions and forest owners are able to benefit to a certain extent from this regulating service. In other cases, forest owners may exploit the recreational value of the forest by charging for their use. There are some emerging niche ES markets for afforestation in New Zealand such as nutrient trading in Lake Taupo. However, for the majority of forest ES, no markets or mechanisms exist for transferring the true value of the forest to the owner and therefore considerable incentives exist for deforestation.

In this paper we review PES schemes, policies, or markets for ecosystem services in the forestry sector in order to identify the services that forest owners most often receive payment for, and those that are the most difficult to transfer value for. We then discuss the necessary enabling conditions for payments and provide insights into the future development of these schemes and markets in Oceania.