

Subproject 8 Upstream-downstream linkages and new instruments in coastal and watershed

governance Despite longstanding investment into watershed management, many of Indonesia's river catchments are degraded, adversely affecting coastal ecosystems, including mangroves. Sustainable management of these ecosystems therefore needs to be combined with effective watershed management. However, the integration of watershed management with management strategies for coastal and near-shore marine ecosystems remains a major conceptual and practical challenge worldwide. It requires mechanisms and instruments that can deal with complex social-ecological processes operating across regions and various scales, balance short-term economic needs and interests with long-term sustainability aims and provide for a fair distribution of the costs and benefits of ecosystem conservation. Payments for Environmental Services (PES) approaches have been shown to provide potentials in this respect and could substantially facilitate integration of upstream, downstream and coastal zone management. However, while these approaches are currently being promoted at a large scale, worldwide experiences in watershed and coastal contexts are still limited to a few cases, and there is a general lack of scientific inquiry. In this context the subproject will explore the potentials of new economic instruments and governance mechanisms aiming at both watershed conservation and sustainable management of mangrove areas. The first part of the research focusses on an assessment of existing Indonesian PES schemes, their institutional arrangements and their effects on resource use decisions and patterns of resource access and control. Based on the insights gained, the research will in a second step explore potentials and possible arrangements of new integrated governance instruments for the mangrove-fringed Segara Anakan lagoon and its catchment area. Building on previous research during SPICE II, the project will also analyse linkages between land use / cover changes and land tenure arrangements in this region.

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