

An Introduction to Behavioural Ecology, 4th Edition

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Protecting ecosystem services and biodiversity in the world's watersheds

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- Abstract
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Abstract

Despite unprecedented worldwide biodiversity loss, conservation is not at the forefront of national or international development programs. The concept of ecosystem services was intended to help conservationists demonstrate the benefits of ecosystems for human well-being, but services are not yet seen to truly address human need with current approaches focusing mostly on financial gain. To promote development strategies that integrate conservation and service protection, we developed the first prioritization scheme for protecting ecosystem services in the world's watersheds and compared our results with global conservation schemes. We found that by explicitly incorporating human need into prioritization strategies, service-protection priorities were squarely focused on the world's poorest, most densely populated regions. We identified watersheds in Southeast Asia and East Africa as the most crucial priorities for service protection and biodiversity conservation, including Irrawaddy—recently devastated by cyclone Nargis. Emphasizing human need is a substantial improvement over dollar-based, ecosystem-service valuations that undervalue the requirements of the world's poor, and our approach offers great hope for reconciling conservation and human development goals.

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