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## Abstract

Researchers generally express the local value of tropical rain forests in dollars/ha/year. The approach is problematic because it produces low values to local users, underestimating the importance of the forest expressed as a share of household consumption or earnings. Here we contribute to valuation studies of rain forests by estimating the financial importance of the forest measured in three ways: (1) the contribution of forests to annual household consumption and (2) earnings; and (3) the value of a hectare of rain forest to villagers measured through the biological goods consumed and sold. We collected panel data on consumption and earnings from 81 households in four villages of two Amerindian societies in two nations (Tsimane', Bolivia; Tawahka, Honduras). Analyses suggest: (1) forests account for a large share of household consumption (median ~38.5%; range 14.65–53.11%); (2) forests contribute more to household consumption than to household earnings (median ~22.69%; range 16.56–44.81%); (3) the relative contribution of forests to household consumption and earnings falls among villages closer to towns; and (4) the range of values/year of rain forest/ha is US\$7.10–9.70 using 1999 dollars or US\$18.46–46.56 using purchasing power parity indexes, below previous estimates. Results show much variation in forest values; valuation methods and stakeholder perspectives affect the variation. Given the variation, a useful strategy to promote forest conservation would transfer income to villagers to compensate them for non-local forest values.

## Keywords

Valuation; Rain forest; Consumption; Earnings; Amerindians; Tsimane'; Tawahka; Bolivia; Honduras; Environmental compensation payments

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