

EFFECT OF ECONOMIC CRISIS ON THE VALUE OF ECOSYSTEM SERVICES IN *ENDANE* BIODIVERSITY CORRIDOR IN SOUTHWESTERN SRI LANKA

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This study aimed to investigate the effects of the Sri Lankan economic crisis on the values of ecosystem services in *Endane* Biodiversity Corridor (EBC) in Southwestern Sri Lanka. The services covering provisioning, cultural, supporting, and regulation categories were collected through a questionnaire survey and field sampling of vegetation and rainfall representing all the households within EBC for 2023. Compared to a baseline survey conducted in 2021, the ecosystem service values were recalculated using the same standard valuation methods. Results indicated that the total value of ecosystem services provided by the EBC amounts to 1,187,015 LKR ha yr⁻¹, reflecting an increase of 43% compared to the pre-economic crisis values. This change was attributed to supporting: 276,214 (+86%), regulation: 355,938 (+26%), cultural: 15,300 (+89) and provisioning services: 539,563 LKR ha yr⁻¹ (+37%). Soared costs of agrochemicals have reduced fertilizer application rates, resulting in low tea yields. Additionally, the use of household LP gas (that experienced a 45% rise in prices) has been phased out, resulting in an increasing supply of fuelwood. The communities have increased extraction volumes of some provisioning services, including forest products (120%). Increased extraction of firewood and timber has reduced carbon sequestration benefits from EBC. This analysis demonstrates the contribution of forest restoration to community resilience during Sri Lanka's economic crisis while revealing possible challenges to forest conservation in the lowland rainforest region of the island.

Keywords: Carbon sequestration, Community resilience, Forest restoration, Rainforest region