FOREST DEPENDENCE AND SUSTENANCE OF RURAL LIVELIHOODS: EVIDENCE FROM THE DRY ZONE COMMUNITIES IN SRI LANKA

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Forests provide wide variety of values for an economy. However, the present National Accounting System only recognizes the benefits, mainly timber and a limited amount of forest products that directly enters into the market and is consumed[1]. Thus, it is essential that all values recognized under the concept of Total Economic Value are identified, valued and incorporated into the System of Environmental Economic Accounting UN-SEEA in order to reflect the true contribution of forests to enable the correct level of investment for the sector[2].

Accordingly, it is essential to expand appropriately the present National Account Estimates of Sri Lanka to have more sub sections under forestry for comparisons and to incorporate SEEA accounts into it smoothly. In fact, the contributions of natural ecosystems to livelihood of rural Sri Lankans are neither precisely evaluated nor incorporated into national accounts due to underestimation of actual levels of forest resource utilization, especially the contribution of non-timber forest products (NTFPs) to income, food, and livelihood security resulting over-exploitation. In this light, this study used the UN-SEEA method to reflect this "hidden" proportional contribution of Dry Zone forest-based ecosystems to the national economy.

Rapid Rural Appraisals, including structured questionnaire-based household surveys, were employed with two diverse sets of households from the Anuradhapura, Polonnaruwa and Trincomalee Districts, including: [1] those adjacent to a Dry Zone forest (<0.5 km from boundary) [n=350], and [2] away from forest (>2 km from boundary), but possess a home garden [n=350] to collect primary information with regard to collection, subsistence use, and transaction of NTFPs.

The results highlighted that almost all households utilized NTFPs, which contributes to over 10% of household income on average, while it acts as the main source of income for 15% of the households. Farming was the main income source for 67% of the households, while rest of the sources contributed in lesser percentages as main income sources. The second most common main income source was to provide casual labour. The collection of the NTFP from the forest was mainly done by the head of the household (45%) or the spouse (44%) and "no hired labour" was used for collection. Nearly 43% and 25% of NTFP are collected for "food" followed by "wood" respectively, where subsistence use of which saves, on average, 55% of food and energy expenditure. In terms of per household income and savings, forest items, including wood and curry leaves saves nearly Rs 16,631 and Rs. 2,844 respectively,with substance use as essential non-timber products, while wood and medicinal plants contributes as the highest income earning items through market transactions on average for these households (Table 1). On the contrary, curry leaves saves these households a considerable amount of spending and honey and landscape items (*i.e.* plants, stones, grass) are popularly traded items due to the significant income earned.

Table 1: Per household value from subsistence use and transaction of NTFPs

Subsistence Use		Transaction	
Forest	Home Garden	Forest	Home Garden
Wood	Curry leaves	Wood	Honey
(Rs. 16631)	(Rs. 8189)	(Rs. 154)	(Rs. 8189)
Curry Leaves	Wood	Medicine	Landscape items
(Rs. 2844)	(Rs. 179)	(Rs. 81)	(Rs. 8189)
Honey	Leafy vegetables	Honey	Coconut
(Rs. 6360)	(Rs. 126)	(Rs. 55)	(Rs. 8189)

The results highlighted that as the percentage income from occupation increased, the percentage income from NTFP transaction reduced. This maybe mainly due to the fact that with the households getting a proportionately higher income from the main source of occupation, the necessity to collect from the forest was relatively low or the lack of houshold labour to collect from the homegardens.

This suggests that there is an obvious, but concealed, interrelationship between human associations with forest ecology, where NTFPs are recognized to have an important poverty mitigation function. Hence, meticulous estimation and need-oriented support led investments are essential for the conservation of forestry sector towards supplementing sustainable livelihoods.

Keywords: *Economic valuation, Forestry sector, National accounting, Non-timber forest products (NTFPs), Rural livelihood*

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