



## ECONOMY AND ENVIRONMENT PROGRAM FOR SOUTHEAST ASIA

### POLICY BRIEF

#### GETTING THE INCENTIVES RIGHT: SRI LANKAN FOREST CONSERVATION

Sri Lanka, like many countries in Southeast Asia, is battling deforestation. However, a recent study has found that the country's current forest conservation strategy could gain vital grass-roots support, provided it is carried out pragmatically and with full regard for local people's needs.

The study, carried out by Cyril Bogahawatte, from the University of Peradeniya, looked at conservation efforts in Sri Lanka's wet zone forests. His main conclusion: that community participation in conservation efforts can only be secured by the provision of appropriate economic and cultural incentives, such as guaranteed access to non-timber forest products.

Bogahawatte's research was carried out to investigate the implementation of the Sri Lankan 1995 Forestry Sector Management Plan (FSMP). This is acknowledged as a people-centered forest conservation initiative - one built upon the fact that government agencies alone cannot protect and manage forests effectively. Its aim is to involve local people in the planning and management of forests - through the formation of forest protection committees for each forest - and to direct the benefits of the conservation efforts towards the local communities.

The FSMP promotes a combination of forestry management projects and activities to create alternative income. One key mechanism for income generation recognized by the plan is the controlled extraction of non-timber forest products (NTFP). Earlier studies have highlighted the importance of NTFPs in the rural economies of Sri Lanka. Some studies found that communities derive up to 53% of their income from NTFPs and that such products play a large role in the livelihood of low income people.

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Mailing address: Tanglin PO Box 101, Singapore 912404.

Visiting address: 7th Storey RELC Building, 30 Orange Grove Road.

Tel: 65 235 1344 Fax: 65 235 1849 Internet: [dglover@idrc.org.sg](mailto:dglover@idrc.org.sg)

Deputy Director: [hermi@laguna.net](mailto:hermi@laguna.net) Website: <http://www.idrc.org.sg/eepea>

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Bogahawatte set out to see if the economic incentives provided by the FSMP - in particular those provided by NTFP extraction - are enough to guarantee community participation in forest conservation and so allow the FSMP to operate as planned.

The study was carried out against the backdrop of rapid forest loss in Sri Lanka. The total area of natural forests in the country has decreased from 1.78 million ha. in 1983 to 1.58 million ha. in 1992. While more than 28% of Sri Lanka's total forest land is reserved and administered by either the Forest Department or the Department of Wild Life Conservation, there has been considerable forest loss within the country's protected forests.

Deforestation and degradation of forest lands are the major causes of this decline. Most of the cases of deforestation are closely related to population growth, poverty, landlessness and poor productivity in peasant agriculture. This is having serious consequences, including biodiversity loss; the siltation of rivers, irrigation channels and reservoirs; soil erosion; and scarcity of timber and non-timber products such as firewood.

Bogahawatte's study aimed to quantify and value the NTFPs obtained from the forests by local communities and to estimate what share of total household income this represents. An assessment was also made of how the formation of forest protection committees will affect the level of NTFP collection in the villages. He also investigated other non-economic functions of the forest that might encourage rural communities to participate in the FSMP.

The study focused on wet zone conservation forests, in particular Knuckles (Kandy District), Gilimane-Eratne (Ratnapura district) and Kekanadura (Matara District). These forests cover a total of over 20,000 hectares. Ten villages were selected and households categorized according to how far they were away from the boundary of the conservation forest.

A field study of village households was done between May 1996 and April 1997 using a structured questionnaire. The survey looked into issues such as extraction of forest resources, household use of these resources, prices, incomes derived from these resources, implementation of forestry policies and other farm and household characteristics.

The researchers found that NTFPs collected and used by the villagers included fuelwood, fruits, vegetables, mushrooms, yams, meat, spices and medicinal plants. Some of these were extracted all year, while others - such as bee honey, thatching and resins - were collected seasonally. The researchers collected detailed information about each resource collected, finding that, for example, the average amount of herbal plants collected daily ranged from 1.2kg in Matara to 3.2kg in Kandy. The distance covered by householders to collect this resource was around 2 km. and occupied about 2.7 hours a day.

In Kandy and Ratnapura, fuelwood contributed the highest net total income from NTFPs. In Matara, the main net income was derived from fruits. Fuelwood and kitul palm fruit contributed 38% of NTFP income. The annual net income gained from all NTFPs ranged from Rs 1,117 per household in Ratnapura to Rs 3,226 per household in the Kandy district.

Despite the large number of NTFPs collected, Bogahawatte found that in all districts income from NTFPs ranked below that from both off-farm income (which was the highest) and farm income. Indeed, income from NTFPs was only some 4.7% of the annual household income. Analysis showed that the annual net incomes derived from NTFPs by the villagers were not significantly different in near, intermediate and far farms.

For Bogahawatte, these initial results indicated that the incomes derived from NTFPs might not be substantial enough for the village communities to participate in conservation efforts in the wet zone forests are required by the FSMP. Further study, however, proved this not to be the case since the majority of those questioned said that they were willing to participate in efforts to manage and protect forest resources. Bogahawatte put this down to the important role he found that the forest and NTFPs in particular play in the life and religious practices of the people. He also found that the forest is also recognized by locals for its recreational, aesthetic and environmental value.

In his analysis of the factors that would make the FSMP a success, Bogahawatte found that local people expect some benefits from their participation in the scheme. Such benefits include employment in forest-management programs and continuous access to those NTFP that are important to their livelihood. They also expected to receive rural infrastructure in the form of roads and assistance in the building of temples. In addition they expect the forestry department to do its share in the implementation of the FSMP, such as giving technical assistance and material support to the people.

It is clear from these findings that local people are keen to participate in forest conservation provided they see tangible benefits and are not cut off from those culturally-important resources that the forest supplies.

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Note: 70 Rs = 1 USD

*The full text of this study is available as an EEPSEA Research Report:  
Forestry Policy, Non-Timber Forest Products and the Rural Economy in the Wet Zone  
Forests in Sri Lanka - Cyril Bogahawatte*

*For further information contact:  
Cyril Bogahawatte  
Department of Agricultural Economics  
Faculty of Agriculture, University of Peradeniya  
Peradeniya, Sri Lanka  
cyril@agecon.pdn.ac.lk*