# Part I

# **OUTLINE OF THE PROJECT ON FOREST CONSERVATION**

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#### 1. Research Objectives and Expected Achievements

Conservation of forests is one of the key issues facing the world today. Although urgent development of strategies for sustainable forest management is required, comprehensive and concrete studies have just started. The IGES Project on Forest Conservation (FC Project) aims to prepare strategies for conservation and sustainable management of forests in Asia and the Pacific Region and to propose the necessary legal and administrative supporting measures, as well as to propose basic principles to be included in a world forest strategy.

To accomplish these objectives, the research will be carried out with close coordination of four sub-teams: structural analysis (ST), participatory forest management (PM), timber trade (TT), and legal and administrative measures (LA). The analytical level of these subteams varies from local, and national, to international levels (see Fig.1). It is essential to conduct field studies in local communities dependent on forests, both in tropical and in temperate and boreal forests, paying special attention to active participation of local people and conservation of biological diversity in forest areas. This is the reason why each subteam is composed of several research collaborators as well as IGES staff.

The results of the project will be circulated among major international forums such as meetings of ECO ASIA, the Intergovernmental Forum on Forests (IFF) and non-governmental organizations (NGOs). This is to enable the results to be properly implemented, as well as to contribute to the development and implementation of international, regional, national and local policies and measures for conservation and sustainable management of forests.

#### 2. Project Plan

#### 2-1. Overview

- Year One, Apr. 1998 - Mar. 1999: Research on the current status and problems related to forests

- Year Two, Apr. 1999 - Mar. 2000: Research on a desirable forest management system

- Year Three, Apr. 2000 - Mar. 2001: Development of necessary forest strategies

# 2-2. ST (structural analysis) sub-team

The ST sub-team aims to develop strategies to overcome the underlying causes of deforestation, and to provide information to the other sub-teams as a basis for the integration of the entire research of the FC project.

Studies to identify economic and social structure in terms of the underlying causes of deforestation, or UC studies, will be conducted at the local/national level and regional/global level. At the local/national level, Indonesia, Thailand, Lao P.D.R., Russia, China, and Japan will be investigated. At the regional/global level, the linkages among trade, investment, and financial flows will be examined. At the same time, the ST sub-team will participate in the IFF/NGO UC process of discussions for the purpose of commitment to

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international forest policy formation and policy dialogue.

In the first fiscal year, the sub-team collected and analyzed existing information through available literature and workshops as well as by carrying out field studies in targeted countries. The first international workshop of the IGES Forest Conservation Project was a good opportunity to reconfirm commitment to the IFF-NGO Process. In the second fiscal year, the sub-team will carry out studies on production and consumption patterns, and trade and investment. In the third fiscal year, at first, underlying causes of forest loss and some elements for sustainable forest management will be identified, then national/regional strategies will be proposed by means of policy dialogue with the main stakeholders in Asian countries.

# 2-3. PM (participatory forest management) sub-team

The PM sub-team is carrying out research activities to achieve two targets. First, the main target is to propose feasible strategies to facilitate participatory forest management at local and national levels. Secondly, the PM sub-team also provides information to the LA sub-team of the Forest Conservation Project for the purpose of developing forest strategy at the global level.

Five Southeast Asian countries will be investigated: Indonesia, the Philippines, Thailand, Lao P.D.R. and Vietnam.

The PM sub-team consists of two main research activities which are combined systematically: policy studies and field studies. Policy studies analyze national land/forest policy from the viewpoint of participation. Field studies clarify actual forest utilization by the local people and identify characteristics of economic, social, and cultural aspects of the research sites of both degraded areas and densely forested areas.

The procedures of the research were scheduled as follows. In the first fiscal year (FY 1998), we clarified gaps between actual forest use by the local people and national land/forest policy. The gap can be regarded as an external constraint on participation. In the current fiscal year (FY 1999), we will clarify economic, social, and cultural characteristics to identify external and internal constraints on participation, while reviewing participatory forest policies in developed countries. In the final fiscal year (FY 2000), we will develop strategies for the five targeted countries to overcome the external and internal constraints, while conducting supplementary field studies.

# 2-4. TT (timber trade) sub-team

The TT sub-team aims to clarify the structure of forest resources and timber trade, as well as to propose strategies and provide information to the LA sub-team. Its target countries are Japan, Korea, Taiwan, Thailand, and the Philippines as importing countries, and Indonesia, Malaysia, Papua New Guinea, and New Zealand as exporting countries.

The TT sub-team will conduct policy analysis and econometric analysis. Policy analysis will examine national forest policy from the viewpoint of the timber market and trade. Econometric analysis consists of three methods. The first one is regional time-series analysis, a kind of econometric analysis using time series data from a few regions. From these actual data, we can numerically estimate factors which are important in economic analysis. The second method is spatial equilibrium analysis. This is a kind of general equilibrium analysis which, by identifying identical commodities or goods located at spatially different places as different commodities or goods, studies equilibrium among these goods. For example, one product located at place A can be produced from the same product at place B with other inputs, such as transportation efforts. These parameters enable us to understand production and trade among spatial regions. The third method is input-output analysis and forest resource accounting.

The schedule for each analysis is as follows:

In the first year, the country-based time series econometrics analysis (TEA) will be conducted with special emphasis on exporting countries. The focus will shift to importing countries in the second year, and we will integrate all the results into a time-series timber trade model in the third year, from which a demand and supply curve will be estimated.

For spatial equilibrium analysis (SEA), the first and second years will be spent collecting data on production costs of timber industries. The coefficients of the time-series timber trade model can be taken as parameters of a spatial equilibrium model of timber trade.

Input-output analysis (IOA) will be conducted mainly in the first and second years in order to understand dynamic movement of timber industries in each country. The third year will be allocated for study on Forest Resources Accounting (NRA) to clarify the state of the forest resources. This analysis can be utilized as parameters for timber trade models.

Finally, we will obtain the full picture of the structure of forest resources and timber trade from the results of those analyses. With this understanding, we will be able to forecast the timber trade of the regions concerned, and work out strategies to build a sustainable forest utilization system.

#### 2-5. LA (legal and administrative measures) sub-team

The LA sub-team aims to develop legal and administrative supporting measures for forest conservation. Target countries are Thailand, the Philippines, Papua New Guinea, Vietnam, Malaysia, and China, which belong to the Asia-Pacific region. The LA sub-team will research not only national law but also international treaties and processes (Convention on Biological Diversity, Convention on Wetlands of International Importance Especially as waterfowl Habitat, Convention Concerning the Protection of the World Cultural and Natural Heritage, and Inter-Governmental Forum on Forest). The development of supporting measures will consider both national and international forest conservation systems.

Legal and Administrative measures are measures to support legal systems. When a legal system is implemented, it might encounter many obstacles to achieving its purpose. Supporting measures are therefore necessary. To achieve the purpose of a forest conservation system, legal and administrative supporting measures are required.

The LA sub-team will develop these measures in three steps. First, the LA sub-team will clarify action required for legal systems in forest conservation. These actions include legal principles in each system. Target countries and international treaties related to forest conservation will be examined. Discussion about Conventions on Forest is still continuing. By researching this discussion, the LA sub-team can identify necessary action for forest conservation at the international level. It will provide helpful information for discussing legal principles. Second, the LA sub-team will identify common legal principles on forest conservation in all systems. Finally, the LA sub-team will take into account the obstacles identified by other sub-team results and develop supporting measures to overcome these obstacles based on the legal principles of forest conservation. Throughout this work, the LA sub-team will identify legal principles on forest conservation and develop legal and administrative supporting measures.

# 3. Overall progress of the project

In general, the FC Project research activities in the first year have been smoothly carried out in line with the original plan.

The FC Project held two international workshops on forest management strategies in Asia. The first workshop was held on 21-23 July in Shonan International Village. The aim of this workshop was to analyze the underlying causes of deforestation and forest degradation, to review the actual status of forest utilization and to examine management systems in Asian countries, as well as to determine a precise work plan for the first year. The workshop also aimed to clarify the role of the FC Project of IGES in the region. Through detailed presentations and ardent discussion, the current situation and problems became clear and participants agreed on a work plan for the first year. The proceedings of the workshop have been published and were distributed at the ECO ASIA- Meeting, COP4 (FCCC) and the APNEC 4 Meeting.

The second international workshop was held with sponsorship from APCEL, on 26-27 November, at the National University of Singapore in conjunction with the Fourth Meeting of the Asia-Pacific NGO Environment Conference. The objective of this workshop was to review and examine various types of participatory forest management systems in Asian tropical and sub-tropical countries, to analyze the relations between international and domestic laws on conservation and sustainable management of forests and to review the progress of consultancy work. With successful presentations and discussions, the necessary supplementary investigation and future activities were agreed upon. The proceedings were published and distributed.

At the end of October 1998, the Governments of Costa Rica and Canada initiated a series of worldwide regional workshops aiming to build consensus for the global forest convention in the IFF 4th session in the year 2000 (Costa Rica - Canada Initiative). In order to cope with such rapid international movement, the FC project changed its original schedule and has organized a series of meetings to identify legal principles for forest conservation. Meetings were attended by members of IGES, the Environment Agency, the Forestry Agency, the Ministry of Foreign Affairs and environmental NGOs. Based on an analysis of relevant existing treaties, necessary and useful measures for active and effective implementation of environmental treaties were examined.

Each sub-team conducted investigation and commissioned research in the first year, as described in this interim report.

#### 4. Future activities

In the second year, 1999, research by sub-teams should be advanced, not only by pursuing research activities in designated areas, but also by pursuing concrete arguments about the integration of research results from these sub-themes on occasions such as the third international workshop held on 7-9 September 1999, etc.

In the third year, 2000, some of the sub-teams will hold a series of workshops in the target countries, to present and discuss the drafts of strategies with stakeholders such as government officers, NGO members, and scientists. Finally, the FC project will release the strategies to conserve forests and manage them sustainably.