Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

【Comparative Analyses of Transitions to Sustainable Forest Management and Rehabilitation】

Project Proposal

Submitted by

Asia Pacific Association of Forestry Research Institutions

(APAFRI)

Asia-Pacific Network for Sustainable Forest Management and Rehabilitation
APFNet

PROJECT PROPOSAL

TITLE:	**Comparative Analyses of Transitions to Sustainable Forest Management and Rehabilitation**
SERIAL NUMBER:	**APFNet-2010-PP-001**
SUBMITTED BY:	**Asia Pacific Association of Forestry Research Institutions (APAFRI)**
ORIGINAL LANGUAGE:	**English**

SUMMARY

The ever worsening global climate and economic crises with their increasingly acknowledgeable impacts on the environment warrant the search for new and better approaches that can help reduce deforestation, induce rehabilitation and foster sustainable forest management. Deforestation and forest transition studies of the last two decades have generally failed to provide workable models and tools that can be effectively used to achieve these objectives. This proposal suggests formulating a set of categorization models using data collected from at least eight economies (tentatively China, South Korea, Japan, India, Indonesia, Malaysia, Philippines and Vietnam) that have already experienced net forest cover increase and economies that are still experiencing net forest cover decline. Concepts and theories from ecology, economy, social sciences and political sciences shall be exploited to explain forest cover change, and possibly also changing forest quality. The expected outputs of this proposed two-year project shall include peer-reviewed authoritative publications, information briefs, and guidelines for practitioners, and educational and training materials. Capacity building and training programmes and activities will be included throughout the project duration. The successful completion of this project should contribute a better understanding of the interrelations of various factors contributing to forest transition, as well as strengthening the capability and capacity in adapting to these transitions.

EXECUTING AGENCY	**APAFRI**
DURATION	24 months
APPROXIMATE STARTING DATE	September 2011

BUDGET AND PROPOSED SOURCES OF FINANCE	**Source**	**Contribution in US$**
	APFNet	**268,000**

PROJECT BRIEF

Forests play a vital role in sustainable development, providing a range of economic, social and environmental benefits, including essential ecosystem services such as mitigation of and adaptation to climate change. The worsening global climate change and other environmental issues have been calling for better understanding and approaches to reduce deforestation, enhance forest rehabilitation and improve quality of forests. In general, deforestation and forest transition were driven by complex of social, economic and political factors, however these studies of the last two decades have generally failed to provide workable models and tools, and leading to the concrete policy recommendation, that can be effectively used to achieve these objectives.

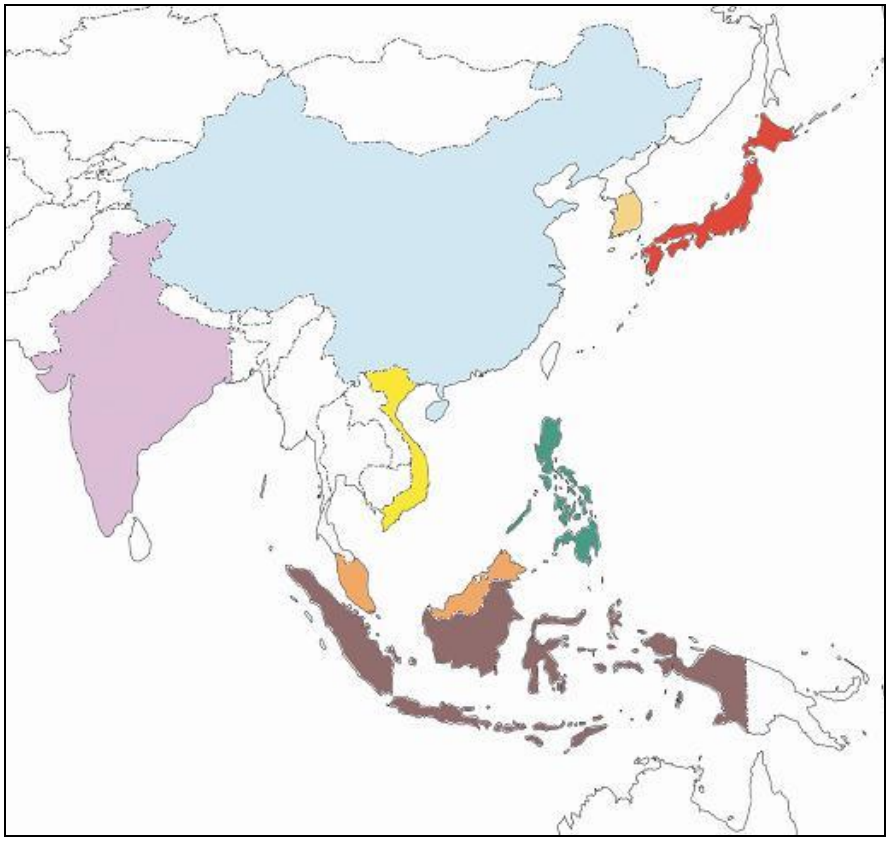
The Asia-Pacific region is rich in forest resources, and experiences diverse and complex of forest deforestation, reforestation and rehabilitation. Some newly industrialized economies, for instance, Japan and South Korean increased their forest resource with the same pace of urbanization process. In some economies, in particular, the Philippines and Indonesia, their forest resource has been declines for three decades, however, in recent years, their forest resource started to increase, or the rate of decreasing has been declined dramatically. In other economies, for instance, in China, India and Vietnam, forest resource has increased rapid and contributing greatly to reverse of global forest resource. This proposal suggests formulating a set of categorization models using data collected from at least eight economies that have already experienced net forest cover increase and economies that are still experiencing net forest cover decline. Concepts and theories from ecology, economy, social sciences and political sciences shall be exploited to explain forest cover change, and possibly also changing forest quality.

The Asia Pacific Association of Forestry Research Institutions (APAFRI) will implement this project in technical collaboration with the Renmin University of China (RUC), National Seoul University (NSU) and Kyoto University (KU). A Project Core Team comprising representatives from these four organizations will oversee and manage this project. Case studies will be commissioned for eight economies: tentatively China, South Korea, Japan, India, Indonesia, Malaysia, Philippines and Vietnam; and a set of categorization models will be formulated with data collected by these case studies. The expected outputs of this proposed two-year project shall include peer-reviewed authoritative publications, information briefs, guidelines for practitioners, and educational and training materials. Capacity building and training programmes and activities will be included throughout the project duration. The successful completion of this project should contribute a better understanding of the interrelations of various factors contributing to forest transition, as well as strengthening the capability and capacity in adapting to these transitions.

LIST of ABBREVIATIONS and ACRONYMS

APFNet	Asia-Pacific Network for Sustainable Forest Management and Rehabilitation
APAFRI	Asia Pacific Association of Forestry Research Institutions
SFM	Sustainable Forest Management
RUC	Renmin University of China
NSU	National Seoul University
KU	Kyoto University

MAP of PROJECT AREA



Case studies will be commissioned for eight economies: tentatively China, South Korea, Japan, India, Indonesia, Malaysia, Philippines and Vietnam

The project will be implemented by the APAFRI with Secretariat currently hosted by the Forest Research Institute Malaysia, in technical collaboration with RUC (Beijing, China), SNU (Seoul, South Korea) and KU (Kyoto, Japan).

TABLE OF CONTENTS

PART I. PROJECT CONTEXT
1.1. Relevance 5
1.2. Conformity with APFNet's objectives and priorities 5
1.3. Target Area 5
1.4. Expected outcomes at project completion 6

PART II. PROJECT RATIONALE AND OBJECTIVES
2.1. Rationale 6
2.2. Objectives 7

PART III. DESCRIPTION OF PROJECT INTERVENTIONS
3.1 Outputs and activities 8
3.1.1 Outputs 8
3.1.2 Activities 8
3.2. Implementation approaches and methods 9
3.3. Assumptions, risks, sustainability 12

PART IV. IMPLEMENTATION ARRANGEMENTS
4.1. Organization structure and stakeholder involvement mechanisms 13
4.2. Reporting, review, monitoring and evaluation 13
4.3. Dissemination and mainstreaming of project learning 13

ANNEXES
ANNEX A. Logical Framework 14
ANNEX B. Project Activities Work Plan 16
ANNEX C1. APFNet Budget by Component 17
ANNEX C2. Executing Agency Budget by Component 18
ANNEX D. Profiles of the Executing and Collaborating Agencies 19
ANNEX E. Tasks and Responsibilities of Key Experts Provided by the Executing Agency 20
ANNEX F. Terms of Reference of Personnel and Consultants and Sub-Contracts Funded by APFNet 20
ANNEX G. Recommendations of APFNet Review Panel and Revisions in Current Version 21

PART I. PROJECT CONTEXT

1.1. Relevance

The importance and contributions of forests have gained much attention and more realistically re-valued in recent years. In the recent half century, forests cover has increased in much of the industrialized world and also in a number of economies with tropical forests. In most of tropical forest economies, however, deforestation and forest degradation still continue. Deforestation is recognized to contribute about 20% of global greenhouse gas emission, and reducing emission from deforestation and degradation is widely considered a cost effective strategy to reduce emission (REDD, Angelsen 2008).

Global forest governance has taken historical leaps during the last three decades (Bass 2003). Key features of this new forest governance are forest tenure reform, multinational forest forums, and national forest policies that emphasize rural development and conservation in addition to expanding the timber sector. In economies where forest governance reforms have been implemented, there are still insufficient means and resources available to reduce deforestation and to facilitate a shift to sustainable forest use and induce forest recovery. Furthermore, economic crisis during the past years has caused a worldwide reversed urban-rural migration which is increasing reliance and pressures on forests (de Jong 2009). These trends point to the need to better understand what are the conditions and mechanisms that could reduce deforestation or lead to sustainable forest use and induce forest recovery.

While there are already extensive studies that documented the underlying causes of forest degradation and deforestation; studies which explain forest transition – the process of initial forest decline followed by forest cover increase – are few and with narrow scope. For example, studies conducted in Europe and the USA had documented 'push factors' which would encourage the generation of necessary means and resources. Mather and Needle (1998), Mather (2004), and Rudel *et al.* (2005) observed that farmers move into economically more attractive opportunities by abandoning agricultural lands to return to forest. In some cases, timber prices or timber shortage encourage tree planting (Rudel 1998). However, there are several problems with these results. The forest transition literature relies mostly on linking forest cover change to macro-economic variables. Forest cover data, which are used in these studies, represent a diverse array of tree covers, which make it difficult to assess their values in terms of biodiversity, environmental functions, or economic benefits. In addition, studies from China, India and Vietnam (Mather 2007) suggest that forest cover increase can only be explained if additional factors are considered, like for instance, tree crop production, compensation for watershed protection (Liu *et al.* 2009; Xu *et al.* 2007), logging bans (Mather 2007), or a cultural inclination to forest gardens (Smith *et al.* 1999).

Summarizing from the above, a more encompassing and comprehensive study which analyse using various concepts and theories in ecology, economic, social and political sciences, would be necessary to provide better understanding of forest transition, especially the complementary contributions of a host of different factors to forest rehabilitation and increased forest covers. The study could provide vital information, which currently not available, for better decision making and policy formulation.

1.2. Conformity with APFNet's objectives and priorities

This project is in line with APFNet's Mission: to promote and improve sustainable forest management and rehabilitation in the Asia-Pacific region through capacity-building, information-sharing, regional policy dialogues and pilot projects.

1.3. Target Area

The project is to cover eight economies in the Asia Pacific region: tentatively China, South Korea, Japan, India, Indonesia, Malaysia, Philippines and Vietnam; and implemented by APAFRI a regional association of research institutions in technical collaboration with three universities in China, South Korea and Japan. The study ranges from economically developed to less developed economies; also covers a wide spectrum of forest types and ecosystems.

1.4. Expected outcomes at project completion

The successful completion of this project should contribute a better understanding of the interrelations of various factors contributing to forest transition, as well as strengthening the capability and capacity in adapting to these transitions.

PART II. PROJECT RATIONALE AND OBJECTIVES

2.1. Rationale

The decade of the 1990s saw an important number of studies on causes of tropical deforestation (e.g. Palo 1987, Bromley 1991, Grainger 1993, Lambin 1994, Brown and Pearce 1995, Palo and Mery 1996, Kaimowitz and Angelsen 1998, Palo and Vanhanen 2000, Angelsen and Kaimowitz 2001, Geist and Lambin 2001, Barbier 2001, Uusivuori *et al.* 2002, Barbier *et al.* 2005). Despite these efforts, yet little consensus has been reached on what drives deforestation. Also a number of studies on transitions from deforestation to forest recovery or sustainable forest use have taken place (e. g. Morin *et al.* 1996, Pfaff 2000, Zhang 2000). However, there is yet to have study that compares post-transition and pre-transition economies by applying specific case study and comparative case study methodologies (Yin 2002, Ragin 1987, 1991, Hellström 2001, Katila 2008).

Since the 1990s a new debate has emerged on forest transition. Mather and Needle (1998) proposed that in Europe productivity increase in agriculture under saturated population growth and stable demand for food released poor soils for natural or artificial reforestation. A second argument was added by Rudel (1998) who observed that wood scarcity and wood prices increase reforestation. In addition, migration to cities decreased the rural labour force resulting in mechanization of agriculture and increased productivity, again leaving marginal lands to forest regeneration. The overall conclusion of forest transition theory is that when economic development proceeds, deforestation gives way to reforestation (Mather 2004). Industrialization and urbanization attract rural migrants, and the subsequent rural exodus leads to retrenchment of agriculture and release of land for reforestation. Empirical studies of forest transition, however, suggest that other causal factors are needed to adequately explain forest transition (Mather 2004).

Mather (2007) returned to this issue with empirical data from China, India and Vietnam, where forest transitions took place under relatively low national income per capita levels. The findings suggest that more than the two pathways of transition reported above by Rudel *et al.* (2005) may exist. Relationships with indicators of modernization and economic development are complex. Forest transitions cannot only be the outcomes of a rural exodus or rising agricultural productivity. In each of the three economies, radical changes in government policies had taken place during the time of transition. These results are corroborated by Meyfroidt and Lambin (2008), who found that total forest area had increased in Vietnam since early 1990s. The increase is explained by new policies that promoted reforestation and afforestation and allocated forest land to households, but also by scarcity of forest products, decrease on hillside cultivation and increases in productivity of paddy and maize fields.

The above review reveals the infancy of theories that adequately explain shifts from forest cover decline and degradation to sustainable forest use and forest recovery. For instance, few researchers have analyzed the roles of different forest owners and how that bears on shifts to sustainable forest use. References is often made to wood prices but without any specification whether this refers to stumpage prices or prices farther along the market chain. In addition, little reference is made to formal and informal institutions and enforcement. Furthermore, in most cases, the data that are available for analysis are of persistently poor quality and present a problem in the type of analyses summarized here.

An answer to addressing the shortcomings in existing models and theories is to better disaggregate the processes that are being assessed and analyzing them separately. A distinction needs to be made between simultaneous occurrence of deforestation and forest degradation, reforestation and afforestation and shifts to sustainable forest use within individual economy. In the research proposed here, detailed analysis of these processes will be undertaken in case study economies and

comparison will be made among economies. The case study economies selected will include economies having experienced net forest cover increase and those experiencing total forest cover loss, according to FAO statistics (FAO 2006). The selected case study economies will differ in climate, economy, environment as well as overall forest governance.

2.2. Objectives

The purpose of this research project is to identify factors that can help to reduce deforestation, induce rehabilitation and foster sustainable forest management. An innovative approach which incorporates a set of independent analyses of simultaneously occurring forest cover decline and increase, in a number of economies is proposed with the following objectives:

1. To assess the underlying processes that explain these forest cover changes;
2. To formulate categorization models characterizing the implications for forests' environmental and economic benefits; and
3. To enhance the regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management.

PART III. DESCRIPTION OF PROJECT INTERVENTIONS

The selection of case studies will include economies having a net forest cover increase and also economies that still experiencing a total forest cover decline. Economies with forest reduction in some parts and forest recovery in others may also be selected. A comparative analyze of case study economies will identify common trends and common factors contributing to the underlying processes that explain these forest cover changes.

The results of the research will be effectively disseminated by various means including workshops and symposium/conferences. A major output of this project will be an authoritative and peer-review compilation of the case studies and their comparative analyses. Other outputs will comprise conference presentations, and educational materials. The project will also pro-actively contribute to human capacity building by involving young scientists from case study economies, graduate research students, and also link with international graduate programmes such as the M.Sc. programme in Renmin University of China.

3.1 Outputs and activities

3.1.1 Outputs

More specifically, the expected outputs/outcomes of the project could be grouped according to the objectives:

Objective 1: To assess the underlying processes that explain these forest cover changes
- Output 1.1: Framework for economy case studies completed.
- Output 1.2: Case studies of forest transition analysis completed

Objective 2: To formulate categorization models characterizing the implications for forests' environmental and economic benefits
- Output 2.1: Comparative analyses framework completed.
- Output 2.2: Categorization models formulated.

Objective 3: To enhance the regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management.
- Output 3.1: Regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management strengthened.
- Output 3.2: Human resources and institutional strengthening increased

3.1.2 Activities

Objective 1: To assess the underlying processes that explain these forest cover changes

Output 1.1: the framework of economy case studies completed.

Activity 1.1.1: Identify case study economies – The Project Core Team will consult with relevant agencies and evaluate the suitability of the tentatively selected eight economies (China, South Korea, Japan, India, Indonesia, Malaysia, Philippines and Vietnam) as case study economies to adequately cover the vast diversity of the economies regarding to the transition of forests in the region.

Activity 1.1.2: Identify leading experts for each economy – The Project Core Team will identify and invite suitable candidate to serve as lead expert for each economy study.

Activity 1.1.3: The project inception meeting and training workshop on forestry transition study – This will be held in Beijing at the first or second month after the project approval. To reduce the travel cost, this activity will combine several sub-activities into one: a) a two-day Project Core Team working meeting – the Project Core Team will discuss the details of the project work plan, management of the project, and roles and responsibilities; b) a one-day inception meeting will be held after the Project Core Team working meeting with invited experts, and the lead experts for the economy case studies; and c) five-days training workshop on forest transition theory and approaches for transition studies.

Output 1.2: Case studies of forest transition analysis completed

Activity 1.2.1: Conducting economy case studies – The lead experts will collect data, conduct analysis and compile the reports for the economy case studies which shall include two components. The first is about forest transition (covering at least the past 30 years) in macro level; and the second part is the life stories on the ground about the forest changes.

Activity 1.2.2: Mid-term review of the economy case studies' progress – The Project Coordinator will visit each case study economy half-way through the project duration to discuss with the lead expert and review the progress of the case study.

Objective 2: To formulate categorization models characterizing the implications for forests' environmental and economic benefits

Output 2.1: Comparative analyses framework completed.

Activity 2.1.1: Framework formulated for comparative study by The Project Core Team.

Activity 2.1.2: Conduct comparative analysis on forest transition study, including Kuznets curves, by reviewing the secondary data for on-going models.

Activity 2.1.3: Three-day Mid-term project meeting – This meeting will be organized in one of the ASEAN economies. The lead experts will report their progress and primary assessment of forest transition in each economy. The Project Core Team will provide recommendation to each economy on how to refine their studies and report their results.

Output 2.2: Categorization models formulated.

Activity 2.2.1: Categorizing models – Based on the primary case study reports, the Project Coordinator will work with the invited experts to develop a set of models for comparative analysis among the economies.

Objective 3: To enhance the regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management.

Output 3.1: Regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management strengthened.

Activity 3.1.1: Policy brief for reducing deforestation, inducing rehabilitation and fostering SFM in the region to be developed by the Project Core Team members coordinated by the Project Coordinator.

Activity 3.1.2: To compile and publish a book on forest transition in the Asia-Pacific Region.

Output 3.2: Human resources and institutional strengthening increased

Activity 3.2.1: Formulate graduation programmes – The Project Core Team will organize joint Master Programmes incorporating components of this project.

Activity 3.2.2: Organize Master students co-sharing learning programme – A three-week programme will be hosted by the Renmin University of China and conducted by the Project Core Team.

Activity 3.2.3: International Conference on Forestry Transition in Asia-Pacific Region – This three-day international conference will disseminate the outputs of this project; and share experiences with other international agencies.

3.2. Implementation approaches and methods

Preliminary Hypotheses for Comparative Analyses

The hypotheses are based on the theoretical framework shown in Figures 1 and 2. These will guide the empirical evidence gathering and the comparative analyses of the case studies. The hypotheses have been defined in order to facilitate finding valid and reliable answers. The number of years should be counted from the year of transition, which varies among the case study economies. In pre-transition economies the counting is done from the most recent calendar year.

The hypotheses are grouped according to Figure 3 and are identified as follows:

Group A: Property or tenure arrangement

1. Strong and clear property rights contribute to low or zero deforestation. Is the majority of the national forest area in private or State ownership?

Group B: State regulatory institutions

2. The stability of government decreases deforestation. Has there been a period of 30 years without wars or military coups?

3. Effective government forest policies decrease deforestation. Has the government effectively implemented any National Forest Programme during the last 30 years?

Group C: Market institutions

4. Increasing market-based real stumpage prices and total value of forests decrease deforestation. Has the real stumpage price increased during the last 30 years?

Group D: Community institutions

5. Low corruption decreases deforestation. Has the annual average Corruption Perception Index by the Transparency International (www.transparency.org) ever lower than the rank of 60 (?) during the last ten years?

6. High social capital allows local and national civil society cooperation and decreases deforestation. Is the social capital relatively high?

Group E: Knowledge institutions:

7. High literacy promotes education, dissemination of research findings and innovations and decelerates deforestation. Has the literacy rate as an annual average been more than 90% (?) during the last 30 years?

Group F: Multiple sector factors

8. Increasing productivity via intensification of agriculture decreases deforestation. Has the productivity in agriculture had an average annual increase during the last 30 years?

9. Decreasing poverty decreases deforestation. Has the average annual growth of GNP/capita been higher than the annual average population growth during the last 30 years?

10. Low population pressure decreases deforestation. Has the population growth been lower than 1.5 % per annum during the last 30 years?

11. Forest-based development decreases deforestation. Have there been viable investments in plantation forests or pulp and paper industries during the last 30 years?

12. Low dependence on wood fuel decreases deforestation? Is the share of wood less than 50% of the total primary energy consumption?

Group G: Ecological factors

13. High ecological moist area decreases deforestation: Is the moist area zone more than 30% (?) of the land area?

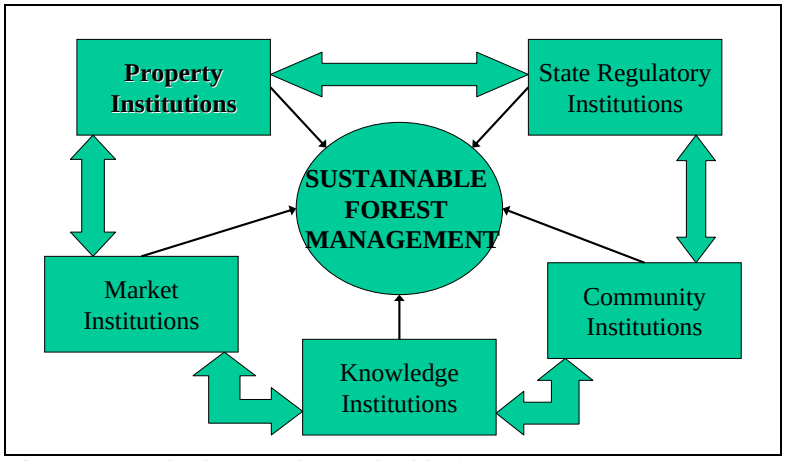
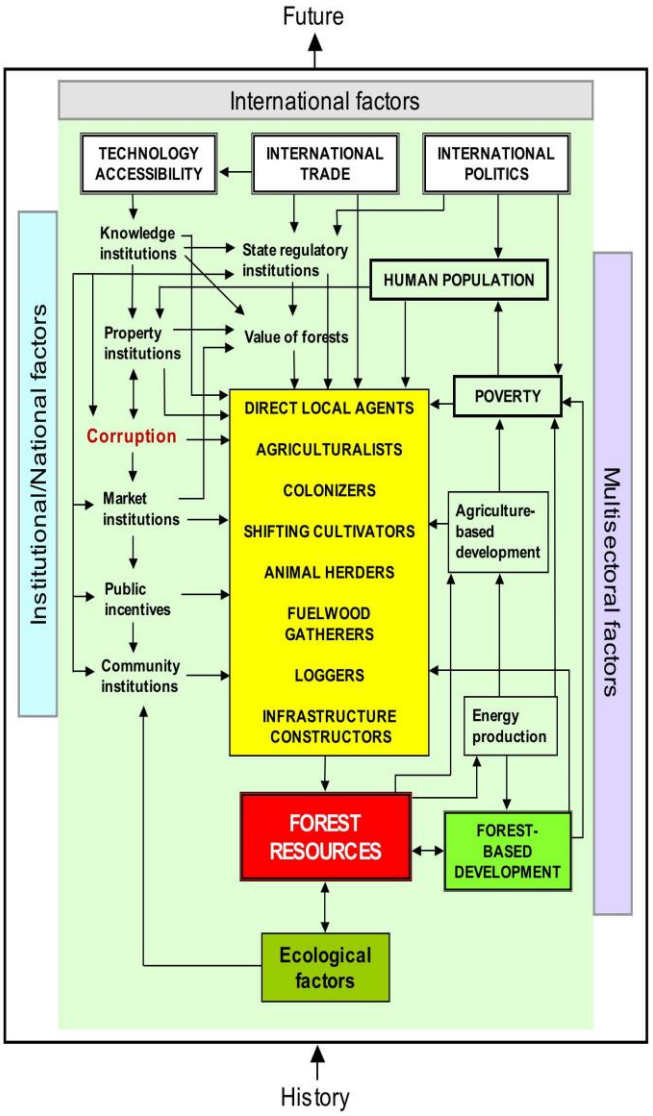


Figure 1. Institutions and sustainable forest management



Source: Modified from Palo (2000)

Figure 2. Global system causality model of changes in forest resources

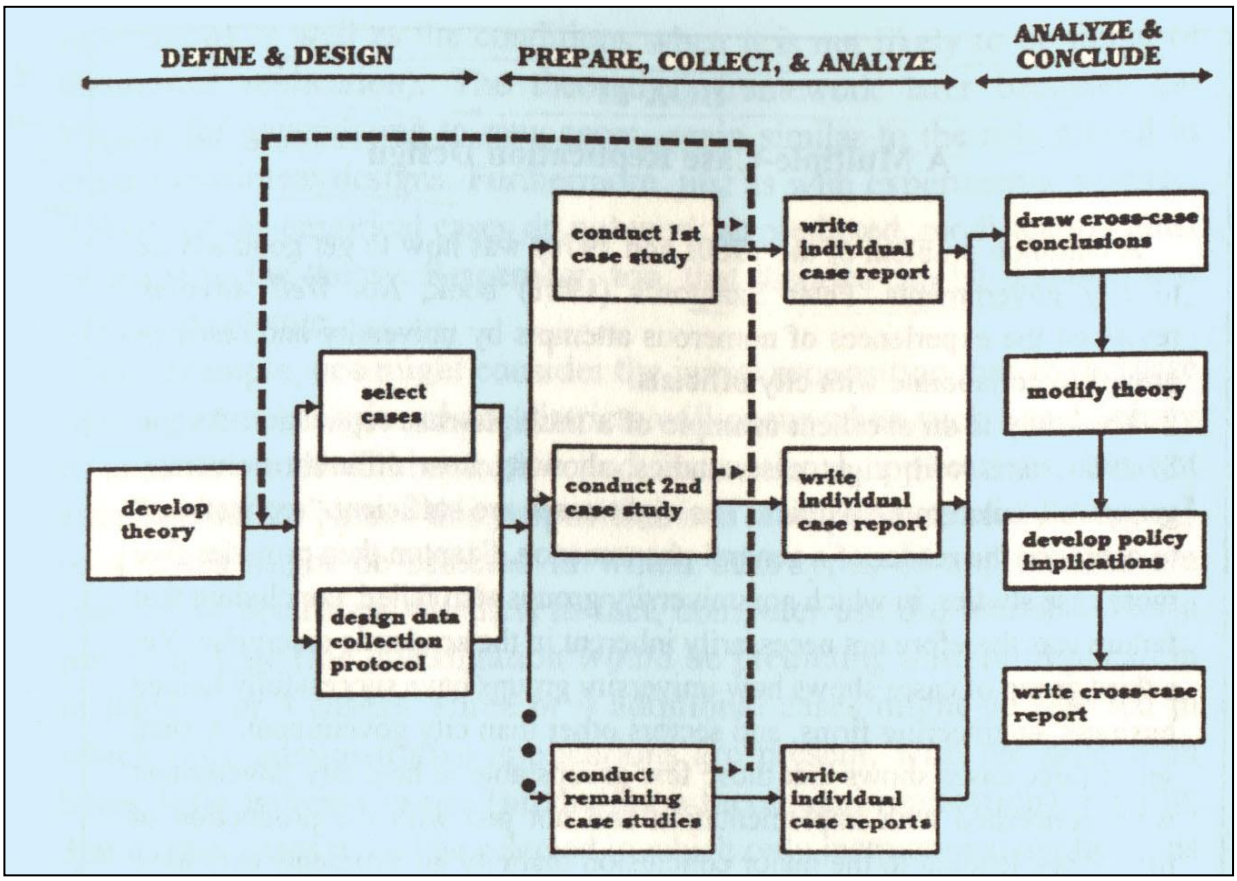


Figure 3. Stages in multiple case studies (Yin 2003, p.50)

3.3 Assumptions, risks, sustainability

The quality of the outputs of this project relies heavily on the lead experts for the economy case studies. Their enthusiasm, commitment and inputs are essential to the successful completion of this project. The lead expert for each economy case study will be carefully identified. The project will invest the majority of its resources on capacity building, including sharing secondary data, training workshops, project progress motoring and review, and compiling of findings of this project.

The competency of the Project Core Team will reduce the risks of non-completion of this project and maintain a certain standard for the outputs. The Executing Agency, APAFRI, has a number of years of experiences on regional project management, which will further ensure the successful completion of this project.

The successful completion of this project with its expected outputs could strengthen the capability and capacity in tackling the various factors contributing to forest transition. This could encourage similar studies to be conducted for other economies in the region and beyond.

PART IV. IMPLEMENTATION ARRANGEMENTS

4.1. Organization structure and stakeholder involvement mechanisms

4.1.1. Executing agency and partners
This project executing agency is APAFRI, with collaboration with School of Agricultural Economics and Rural Development RUC, KU and NSU.

4.1.2. Project management team
Four organizations: APAFRI, RUC Beijing China, SNU Seoul Korea, KU Kyoto Japan, would form the Project Core Team of this project.

The Project Core Team members are as follows:

Dr Sim Heok-Choh (Project Manager) – APAFRI
Prof. Dr Liu Jinlong (Project Coordinator) – RUC Beijing China
Prof Dr Youn Yeo-chang – SNU Seoul Korea
Prof Dr Wil de Jong – KU Kyoto Japan

4.1.3 Project steering committee
The Project Steering Committee will comprise all the members of the Project Core Team. APFNet Secretariat could send representative to join the PSC meeting as observer.

4.1.4 Stakeholder involvement mechanisms
The Project Core Team would identify case study economies and also the focal points for these economies. The Project Core Team members, assisted by the Project Assistant, will carry out the comparative analysis. A copy editor will be engaged later for the last two quarters to finalize the reports and publications. APAFRI will enter separate agreements with the collaborating partners, for the implementation of project activities and the disbursements of funds.

Renmin University of China will assume the additional role as the Project Coordinator. Prof Dr Liu Jinlong, a graduate of Wageningen University and formerly a researcher with the Research Institute of Forestry, Chinese Academy of Forestry, has vast experiences handling international collaborative projects. He also represented China in a number of international forestry related forums.

4.2. Reporting, review, monitoring and evaluation

The Project Core Team will be responsible for all reporting. The Project Coordinator will be responsible for all technical reporting, while the Project Manager will consolidate all reports for submission to APFNet.

The Project Steering Committee shall overlook the project with periodic reviews, constant monitoring and evaluation of the progress of the project.

4.3. Dissemination and mainstreaming of project learning

The expected outputs of this proposed two-year project shall include peer-reviewed authoritative publications, information and policy briefs, guidelines for practitioners, and educational and training materials. These could be disseminated through the proposed conference and joint graduate programmes in the three collaborating universities.

Annex A. Logical Framework

	Indicators	Means of verification	Important assumptions
Goal: Identify factors that can help to reduce deforestation, induce rehabilitation and foster sustainable forest management	• National forest cover status confirmed • Factors contributing to reducing deforestation, inducing forest recovery and foster sustainable forest management identified.	• Economy reports and statistics • Economy case study reports	• Existence of clearly identifiable underlying processes • Economies are interested to increase forest covers • Various national and regional stakeholders are willing to cooperate.
Objective 1: To assess the underlying processes that explain these forest cover changes	• Underlying processes identified and analyzed	• Meeting and progress reports • Comparative analysis reports	• Successful completion of economy case studies • Economies are willing to provide information • National and regional collaboration facilitate better understanding.
Output 1.1: Framework for economy case studies completed	• Case study economies identified • NFP identified • Meeting of NFP and Core Team organized • Case studies completed	• Meeting and progress reports • Workshop reports • Case study reports	• National level stakeholders cooperation and contribution • Statistics and data are insufficient or outdated • Status not well documented.
Output 1.2: Case study of forest transition analysis completed	• Analyses completed	• Technical reports • Meeting reports	• Information adequate
Objective 2: To formulate categorization models characterizing the implications for forests' environmental and economic benefits	• Models formulated • Implications understood	• Technical reports • Meeting reports	• Information adequate • Better understanding improves decision making
Output 2.1: Comparative analyses framework completed	• Assessment completed • 2 models for comparative studies	• Workshop proceedings • Meeting reports • Progress and assessment reports	• Information adequate • Economies are willing to share experiences
Output 2.2: Categorization models formulated.	• Formulation of models completed	• Assessment reports • Meeting reports	• Information adequate • All factors are clearly identifiable and

			quantifiable.
Objective 3: To enhance the regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management.	• Human resources increased • Institutional capacity improved • No. of new policies and guidelines adopted • Relevant training materials developed	• Training course reports • Workshop proceedings • Meeting reports • Training packages	• Lack of awareness on the underlying processes • Better understanding of the underlying processes lead to better decision making in forest management
Output 3.1: Regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management strengthened.	• No. of training courses/workshops organized.	• Training course reports • Workshop proceedings • Meeting reports	• Economies are willing to collaborate • Economies are interested to strengthen capacity
Output 3.2: Human resources and institutional strengthening increased	• No. of researchers trained • No. of graduate students involved	• Training course reports • Workshop proceedings • Meeting reports	• Economies are interested to gain better understanding • Improved understanding leads to policy reform

Annex B. Project Activities Work Plan

		2011			2012				2013
Outputs/Activities	***Responsible* Party**	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Output 1.1: Framework of economy case studies completed.									
A. 1.1.1 Identify case study economies	RUC, SNU, KU, APAFRI								
A. 1.1.2: Identify leading experts	RUC, SNU, KU, APAFRI								
A. 1.1.3: Inception meeting and training workshop	RUC								
Output 1.2: analysis completed									
A. 1.2.1: Conduct case study	Lead experts								
A. 1.2.2: Mid-term review of case studies	RUC, SNU, KU, APAFRI								
Output 2.1: Analyses to assess the forests environmental and economic benefits completed									
A. 2.1.1: Framework for comparative analysis completed	RUC, SNU, KU								
A.2.1.2 Conduct comparative analysis	RUC								
A. 2.1.2: Three-day mid term workshop	RUC, SNU, KU, APAFRI,								
Output 2.2: Categorization models formulated.									
A. 2.2.1: Formulating models	RUC, SNU, KU								
Output 3.1: Regional capability and capacity in reducing deforestation, induce rehabilitation and foster sustainable forest management strengthened.									
A.3.1.1: Policy briefs	RUC, SNU, KU, APAFRI								
A.3.1.2: publish a book.	RUC, SNU, KU, APAFRI								
Output 3.2: Human resources and institutional strengthening increased									
A 3.2.1: Formulating and conduct graduate programmes	RUC, SNU, KU								
A 3.2.2: Organize short term training courses	RUC, SNU, KU, APAFRI								
A 3.2.3: International conference									

RUC – Renmin University Beijing China
SNU – Seoul National University, Seoul Korea
KU – Kyoto University, Kyoto Japan
APAFRI – Asia Pacific Association of Forestry

Annex D. Profiles of the Executing and Collaborating Agencies

Executing Agency

Asia Pacific Association of Forestry Research Institutions (APAFRI) is an association with 65 institutional members and 8 individual members. Most of the national forestry research institutions and many of the forestry schools are members of APAFRI. APAFRI is also registered in Malaysia as a non-governmental organization (NGO), and has been granted a non-profit organization status. Recognizing that there exist sensitivities among the economies where some of APAFRI's members come from, APAFRI has maintained its status as an apolitical, science-based, association. The Secretariat has been constantly seeking advice and endorsement from all members concerned to avoid creating conflicts unintentionally. APAFRI has involved in several multi-national projects since its establishment in 1995, the latest is an ITTO funded project with participating institutions from seven economies.

Collaborating Agencies

School of Agricultural Economics and Rural Development, Renmin University of China (SARD-RUC) was established in 2004 by enlarging the Department of Agricultural Economics, which was firstly founded in 1954. It is the oldest and most influential research programme in the field of the "three dimensional agrarian issues" in China. The school started the Ph.D. programme in 1986. SARD was classified as one of the national key discipline programmes by the Ministry of Education of China in both 1988 and 2007. Currently, SARD has 43 full-time faculty members: 11 professors, 16 associate professors, and 11 assistant professors. We also have two Cheung Kong scholars and four part-time Ph.D. supervisors.

SARD's programme of Agricultural and Forestry Economics and Management has grown into a nation-wide leading teaching and research programme. SARD has obtained outstanding research achievements in the field of "three dimensional agrarian issues", which directly affect the central government's decision for planning and carrying out rural policies in China. Over the past 60 years, SARD has reached significant achievements and got high honor during the rural transformation and development in China.

Committed to doing research on the theoretical and practical issues on China's agricultural and rural development, SARD is the most important research center and training base for agriculture related issues. Currently, the faculty members of SARD are undertaking over 100 research projects, with about 30 projects funded by Chinese National Science Foundation and other national research foundations. More than 20 research projects at SARD have received national or other types of awards. The school has undertaken over 20 significant international research programmes and participated in over 100 international conferences.

Department of forest resources, College of Life Sciences, National Seoul University (NSU) was established almost a century ago and has educated more than 1,400 students. They are now working in the field of forest-related central and local governments, public offices, research institutes, wood-related industries, such as lumber, pulp and paper mills, private companies related to nurseries, landscape and foreign investment. Presently there are ten professors, about 100 undergraduates and about 30 graduate students in this department. The department also has university forest, arboretum, a herbarium which has the largest collection of plant species in Korea, and also an institute of forest sciences and wood technology.

The Center for Integrated Area Studies (CIAS), Kyoto University was established in April 2006 with the primary objectives to promote and conduct Integrated Area Studies and to integrate and share information resources on Area Studies to make them available to other universities and institutions nationwide. CIAS now has 14 faculty members specializing in Southeast Asia, South Asia, Central Asia, Europe, and Latin America; with disciplines range from the humanities and social sciences to the natural sciences and informatics. Aiming at reaching beyond traditional Area Studies approaches, which concentrate on geographically distinct regions, CIAS attempts to understand contemporary issues and problems in particular areas, but by examining phenomena that cut across regional boundaries and by using cross-regional perspectives. Integrated Area Studies is an attempt to

understand this dynamic using innovative approaches in which “comparison” is the key analytical framework. Because they are stored at scattered institutions around the world, CIAS aims to interlink and integrate these resources using the latest informatics tools and to build systems to share them with researchers and others concerned with the contemporary world.

Annex E. Tasks and Responsibilities of Key Experts Provided by the Executing Agency

Dr Sim Heok-Choh, the current Executive Secretary, is a senior researcher with the Forest Research Institute Malaysia (FRIM). He started his career in 1977, and very wide-ranging experiences in forest products research, research management, project evaluation and monitoring, as well as international consultancy assignments.

Dr Sim, or in his absence, an official representative nominated by APAFRI and endorsed by APFNet, shall oversee all aspects of executing this project, specifically be responsible for the followings:

- Ensuring the timely submission of all required technical, progress and financial reports;
- Carrying out the proposed project activities in according to the Project Work Plan;
- Receiving and disbursing funds in accordance to agreed manners and procedures;
- Monitoring and reviewing progress of project activities to ensure timely completion of these activities;
- Maintaining regular communication with all collaboration agencies, and funded experts;
- Maintaining regular communication with APFNet.

Annex F. Terms of Reference of Personnel and Consultants and Sub-Contracts Funded by APFNet

a. Project assistant (based in Beijing)

- Assist Project Coordinator in communicating with economy lead experts in monitoring progress of economy case studies;
- Assist Project Coordinator in compiling all technical reports, including economy case studies, and carrying out comparative analyses;
- Assist in organizing the various meetings, workshops and conference as scheduled;
- Maintain regular communication with the APFNet and APAFRI (executing agency), as well as the other collaborating agencies (RUC, SNU and KU).

b. Economy lead experts

- Conduct research and compile economy case study for each economy;
- Prepare case study reports and all other related technical reports;
- Attend all meetings, workshops and conference as required;
- Assist in organizing workshops and conference;
- Assist the Editor in finalizing the overall compilation of all reports;
- Maintain regular communication with the Project Coordinator.

c. Editor

- Assist Project Coordinator in overall compilation of all reports, including proceedings of workshops and conference;
- Edit (technical and language) all reports and compilations;
- Assist in publishing the outputs of the project: compilation of case studies, proceedings, authoritative reference book, etc.

Annex G. Recommendations of APFNet Review Panel and Revisions in Current Version

Recommendations made by the APFNet Review Panel	Revisions made in current revision
The regional contextual information is needed in order to make the outputs from currently available global categorization models more relevant to regional decision-makers. In addition, factors that influence forest transitions need to be clarified.	Done as detailed in Items 1.1 and 2.1.
Detailed descriptions of the methodology are needed for the assessment of the underlying processes that explain the forest cover changes by conducting economy case studies and comparative analysis	Further elaborations and detailed descriptions have been included in the much expanded Part III in current version.
The criteria for selection of the case study economies/areas need to be clarified. Indicate the other influencing factors rather than the ones in the first paragraph in the *Expected Outputs and Outcomes* section.	Done as detailed in Item 2.1 and Part III.
Indicate how the team will assess the reliability of forest cover data for these case study economies. In addition, some of the preliminary indicators presented in Annex 1 are apparently simplistic and need giving more details.	Detailed as in Item 3.1.2.
Since economy case studies contribute a lot to the achievement of the project objectives, a higher proportion of the funding needs to be allocated to the economy case studies.	Done as in Appendix C1.
Supplement the necessary information on the 'subcontract' to the national focal points who will conduct the case study surveys under the supervision of the core team.	Detailed as in Item 3.1.2 and also in Annex E.

- Partners, including Focal Points, should be indentified early; if at all possible, during the proposal development stage. This would then ensure that once the proposal is approved, activities could start off almost immediately without delays.

- Documentation requirements, including report format and suggested contents should be made known to potential project implementing agencies as early as possible. Perhaps when a project is approved, and during the Inception Meeting which launches the project. Avoid changing the rules and requirements, or even the contact person, to reduce confusion and inconsistencies, which may affect the smooth running of the project activities.

- While regular communication by emails can be effective in keeping the progress on track, face-to-face meetings/workshops are more effective in sorting out conflicting issues and promote better cooperation and collaboration.

- Presence of representative from Funding Agency at project meetings/workshops is important to show that the Funding Agency is serious about the progress of the project, and would keep everyone on their toes.

- Involving students in the project achieves the objective of training the next generation researchers. However, too much dependence on students, including younger researchers, may impair the quality and timeliness of the expected outputs. This requires extra efforts and time to provide the necessary guidance for a satisfactory completion of the project.

- One must recognize there are distinct differences between researchers of research organizations, and academicians attach to educational institutions. Priority in allocating resources and the approaches adopted to resolve challenges are very often different between these two groups of professionals. Reaching compromise and achieving a common understanding are the big challenges in managing a project involving these two groups of professionals. Conflicting issues and differences must be sorted out as early as possible during the project implementation so as to reduce the danger of jeopardizing the successful completion of the project.