

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT DOCUMENT

TITLE	A SCIENTIFIC AND TECHNICAL WORKSHOP FOR S.E. ASIA ON FOREST RESTORATION FOR WILDLIFE CONSERVATION
SERIAL NUMBER	PD 28/99 Rev.2 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF THAILAND
ORIGINAL LANGUAGE	ENGLISH

SUMMARY

The Royal Forest Department of Thailand (RFD) and the Forest Restoration Research Unit (FORRU) of Chiang Mai University are planning a regional workshop in Chiang Mai, in Northern Thailand on 16th – 21st January 2000. The aim is to bring together researchers and practitioners in restoration forestry to produce a research agenda that will most effectively progress the rehabilitation of complex forest ecosystems.

The workshop will focus on the scientific and technical aspects of restoration forestry, specifically in the seasonally dry forest ecosystems of South East Asia. The emphasis will be on biodiversity conservation and the restoration of forests in areas where there will be low impact utilisation by local communities. This workshop will bring together speakers from across the region where seasonally dry forests occur (Northern Thailand, South China, Myanmar, Laos, Cambodia, Vietnam), but participants with particular relevant expertise from other countries will also be invited.

This will be a working event, the resulting major output being the production of a co-ordinated research agenda and a protocol for the sharing of information to ensure that future forest restoration activities will be guided by proven best practice. This workshop will be significant in the subjects of forest establishment and management, and in progressing knowledge by bringing together those scientists and practitioners most active in the field. In addition, the results will contribute to institutional strengthening in the region through networking and provision of information on potential funding opportunities.

EXECUTING AGENCY THE FOREST RESTORATION RESEARCH UNIT (FORRU)

COOPERATING GOVERNMENTS ---

DURATION 18 MONTHS

APPROXIMATE STARTING DATE TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$	Local Currency Equivalent
	ITTO	36,514	
	Gov't of Thailand	1,600	
	FORRU	2,700	
	Other	5,950	
	TOTAL	46,764	



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PART 1: CONTEXT

A. Relevance to ITTO

1. Compliance with ITTO objectives

This project complies with ITTO Article 1 Objectives a), c), f), g), j), l) and m) in the International Tropical Timber Agreement 1994 (ITTA) as follows:

a) This workshop will help contribute to an effective co-operative framework between researchers and practitioners aiming to restore forests that can be managed sustainably. The workshop will foster international co-operation aimed at advancing research and practice in this area by bringing together a caucus of the most significant players.

c) The outputs of this workshop will contribute to the sustainable development process through helping to achieve sustainable forestry.

f) The results of this workshop will directly contribute to the improved management of forests, particularly where reforestation of degraded areas, protection of watersheds and maintenance of biodiversity are key criteria.

g) This workshop will result in increased expertise and thus enhanced capacity for member countries to attain the objectives in the ITTA, particularly those relating to sustainable forestry.

j) The information generated by this workshop will be directly applicable to tropical reforestation through both synthesis of the most recent research on species selection, seedling establishment and rehabilitation of degraded land, and through directing future research.

l) The proceedings resulting from this workshop can be used to inform the development of national policies on sustainable use and conservation of tropical forests and their genetic resources. By bringing together participants from across South East Asia and elsewhere, dissemination of best practice on maintenance of ecological balance can be widely achieved.

m) The workshop will result in technical transfer and co-operation towards implementation of the ITTA objectives.

2. Compliance with ITTO criteria

This project relates to the following areas:

- natural forest management
- reforestation development

The project conforms to the criteria as follows:

a) the workshop is related to the production and use of tropical timber through providing information on the best way of establishing and maintaining biodiverse areas within plantations which will help to achieve sustainability objectives.

b) The new techniques and ideas generated by the workshop will yield benefits to the industry as a whole, as all are trying to achieve sustainable forest management by the year 2000. The information will be relevant both to producers who wish to achieve sustainability and consumers who increasingly demand it.

c) By provision of information on native species, previously largely unresearched, that might be developed for timber usage, this workshop will contribute to maintaining the international trade in tropical timber.

d) The economic returns of forest areas established under the ecological principles developed in this workshop will be positive. This is because of their enhanced function both as sources of pollinators and beneficial predatory invertebrates and their ability to control soil and water movement. In addition, high survival and good growth of species can be expected as they are most suited to the edaphic conditions, thus resulting in cost-savings.

e) By convening such a workshop, it will be possible to identify both areas of potential and actual overlap in existing research, and also to locate any gaps. The research agenda thus produced will therefore maximise the effectiveness of institutions and avoid duplication of work.

3. Relationship to ITTO Action Plan and Priorities

This workshop is in accordance with the Basic Principles as follows:

- A Member State is proposing the workshop in order to facilitate some of the actions in the Plan.
- The workshop will be the result of a partnership between ITTO and other organisations.
- The issue of sustainability in forests is of highest priority and FORRU has unique competence both in terms of technical research and as a co-ordinator and facilitator between other institutions.
- FORRU has already liaised with many relevant contacts to ensure both that there is a real need for such a workshop and that it will not duplicate other events.
- This workshop conforms to both the Thai national forestry strategy and the policies and criteria of ITTO.
- Through supporting this workshop, ITTO can make an extremely effective contribution to meaningful results in the areas of sustainability and maintenance of biodiversity.

This workshop has direct relevance to the functions of the Committee on Reforestation and Forest Management (as defined in the ITTA) as follows:

- a) The workshop will promote co-operation between members in the development of reforestation and rehabilitation activities.
- b) The workshop will encourage technology transfer in the field of reforestation both between developing countries and from the developed countries.

- c) The workshop will identify possible problems and gaps in the field of reforestation and will generate solutions or processes for achieving them.
- e) The workshop will also facilitate the transfer of knowledge of reforestation through the medium of a competent organisation.
- f) The workshop will be an opportunity to bring together relevant players in the area of reforestation and forest management, both at a research and an institutional level. Representatives of FAO, UNEP and other competent organisations will be invited to elucidate their role in progressing research and implementation.

This workshop also has direct relevance to the specific activities of the Committee on Forest Industry (as described in the project formulation manual) as follows:

- the workshop will make available information on new species.
- the workshop will help in the dissemination of new information to training institutes which should result in curriculum improvement.

B. Relevance to National Policies

1. Relationship to sectoral policies affecting tropical timber

In the host country for this workshop the following apply:

The Government of Thailand has been committed to reforestation since the introduction of the 1st National Economic and Social Development Plan (NESDP) in 1961, which set a target for restoring forest cover to 40% of the land area. Initially the Plan categorised the projected cover into 25% production forest and 15% conservation forest, these percentages were reversed in the 7th Plan (1992-6). Since the 5th Plan, provision has been made for enrichment planting.

The RFD is committed to promoting the planting of mixed, native species forest in the National Parks and watershed areas, and native timber and Non Timber Forest Product (NTFP) trees on degraded agricultural land, particularly where it will reduce pressure for illegal logging of trees in National Parks. This policy has gained particular momentum since the launch of the Royal Golden Jubilee Planting Project (1994-9) in honour of His Majesty the King's 50 year reign.

The proposed introduction of the Community Forestry Act will expand the need for native multi-species plantations that will support timber, biodiversity and NTFP uses.

2. Relationship to subsectoral aims and programmes

Under the Thai Forest Master Plan, the Subsectoral Plan for Production and Utilisation (1993) lays down guidelines for protection of forest resources including the promotion of reforestation.

3. Institutional and legal framework

This workshop falls clearly into the legal framework provided the policies described above and will be implemented with the institutional support of the RFD.

PARTII: THE PROJECT

1. Origin

This workshop is the logical extension of both the work that has been undertaken at FORRU since its inception and the change in attitude to reforestation in Thailand (since the 7th NESDP and the King's announced support for use of native species) and elsewhere in the region. In addition this will measure progress since the "International Symposium on Accelerating Native Forest Regeneration on Degraded Tropical Lands" in Washington in 1996 and the "Workshop on Rehabilitation of Degraded Tropical Forest Lands" in Australia in 1997. Both of these conferences promoted innovative techniques for forest restoration that have now been extended and trialled and can be widely applied.

In addition, FORRU was actively involved in technology transfer from developed to developing world when staff attended a training course at the Lake Eacham nursery in Queensland. This was supported by ITTO Fellowship Awards and resulted in considerable progress being made in practice at the FORRU research nursery. This proposed workshop will involve the dissemination of the modified techniques to other countries and will hopefully result in reciprocal information exchange.

2. Project Objectives

2.1 Development Objectives

This workshop will contribute substantially to the objective of advancing research and practice in forest restoration. The development of effective techniques for diverse forest restoration is crucial in the implementation of the Thai Government's proposals for extensive reforestation of National Parks and watersheds with native species. In addition the information generated by the workshop will be of significance in the establishment of varied native species as timber crops on degraded farmland in Thailand and throughout the region.

2.2 Specific Objectives

The objective of the workshop is to achieve the production of a focused research agenda that will make most effective use of available and potential scientific resources in the development of techniques for restoring biodiverse, seasonally dry tropical forests.

3. Project Justification

3.1 Problem to be addressed

In South East Asia more information is urgently needed on how to establish and maintain biodiverse forest plantations utilising native species, the importance of which is highlighted in ITTO's "Guidelines for the Establishment and Sustainable Management of Planted Tropical Forests" (1993). Losses of biodiversity, unsustainable extraction of timber, reduced watershed and soil protection, and the resultant community impoverishment are all problems whose resolution can be aided by this workshop.

A proportion of the knowledge will already be available in research institutes or amongst practitioners, but synthesis is required in order that most effective use be made of the information, resulting in successful implementation on the ground. In

addition, through exchange of information in a workshop environment, new avenues for research may arise and significant gaps in knowledge identified.

3.2 Characteristics of region or area where project will be located

The region is that part of South East Asia in which seasonally dry tropical forest occurs, specifically Thailand, Myanmar, Laos, Vietnam, Cambodia and South China. All these countries are currently suffering extensive deforestation and only some have a focused reforestation programme, the overall result is a substantive nett loss of forest cover. The environmental impacts of this are many and manifest, but principally consist of loss of biodiversity, destruction of watersheds, reduction in long term timber availability and widespread erosion of soil resulting in impoverishment of local communities. All the areas have growing human populations so pressure on remaining forests will increase.

Throughout the region there is a need for reforestation both directly for industrial timber production and for maintenance of ecological function at both local and landscape scale. Many of the countries have programmes to support community forestry where sustainable utilisation of forests for both timber and NTFPs will be undertaken, but knowledge of propagation of the most suitable species and their successful establishment is often limited. Swidden agriculture is still widespread throughout the uplands of the region and clearance of lowland forests for agriculture is still ongoing.

Chiang Mai has been chosen as the location for this Project for several reasons:

- the area is the base for FORRU - the Executing Agency
- the city can be easily reached by participants from all the target countries
- demonstration sites are in close proximity for the purposes of field trips
- costs are substantially lower for hosting such a conference than they would be in Bangkok
- most of the characteristics of forestry that are common to all the relevant countries can be seen in northern Thailand

3.3 Other relevant aspects of "pre-project situation"

If this problem is not addressed, it is probable that initially substantial resources will continue to be committed to reforestation schemes with native species that prove to be unsuccessful or disappointing. This will discourage those involved and may ultimately lead to withdrawal of funds. Consequently it will be harder for member countries to achieve sustainable forestry targets.

3.4 Intended situation after project completion

After completion of this project there will be a proceedings of the workshop divided into 2 main sections. The first will provide a complete overview of the most effective methods currently used to restore forest ecosystems in the region. This should have an immediate impact in improving ongoing forest restoration programmes. The second section will be an agenda for the future aimed at focusing research programmes in order to fill gaps in knowledge identified during the workshop.

The research agenda will have been reached through wide consultation between the relevant institutes and facilitating organisations and so will be pragmatic and representative. The agenda will be used to advance research in this field in the most effective manner given the available resources, thus achieving successful

implementation on the ground more quickly. This will result in more rapid progress towards sustainable forestry targets and the protection of biodiversity, watersheds and soil resources, and consequently improved forestry and agricultural prospects for rural communities.

In addition, for those countries hoping to establish successful community forestry programmes the information will be invaluable.

3.5 Target beneficiaries and others affected

The direct beneficiaries will be all those organisations involved in reforestation for biodiversity and establishment of sustainable timber plantations. This will lead to benefits for communities seeking help with watershed protection, prevention of soil erosion, and long term employment in forestry and agriculture.

3.6 Project Strategy

3.6.1 Reasons for selection

A workshop was considered the most effective way to achieve maximum consultation between a caucus of researchers and practitioners and to rapidly produce a focused agenda. Alternatives, such as trying to achieve the same through correspondence or the medium of a journal, were considered, but would take longer. In addition, there would not be the same potential for the results that can be achieved by direct interaction in small work groups, where new ideas can be generated through “brain-storming“ with peers. Field trips to demonstration sites offer important opportunities for exchange of ideas, and the workshop format also encourages informal contact between participants that can be invaluable for discussing useful experiences.

3.6.2 Lessons drawn from past evaluation

Research into the outcomes of past meetings has been undertaken, both through attendance by FORRU and RFD staff and through study of the proceedings. This has resulted in a carefully planned format and list of potential participants that will maximise the opportunities for a successful outcome. The workshop is intended to be just that, everyone will be expected to contribute substantially in terms of their own research and experiences and be prepared to work hard in a forum of peers to a strict timetable. The programme for the workshop is appended as Annex 4.

3.6.3 Technical and scientific aspects

With regard to the existing literature available, this workshop is the natural extension for forwarding research in this field. This can be seen from the papers at the Washington and Australia conferences and the progression of papers since such as:

All papers in “Catalyzing Native Forest Regeneration on Degraded Lands”. *Forest Ecology and Management* Vol 99, No’s 1-2, December 1997 1-290.

Applegate GB & Robson KJ, "Establishment of Mixed Rainforest Species on Degraded Land - A Case Study from the Coastal Lowlands of Northeastern Australia". *J. of Tropical Forest Science* 7 (1): 8-17 (1994).

Dhar SK, "Rehabilitation of Degraded Tropical Forest Watersheds with People's Participation". *Ambio* Vol.23 No3, May 1994.

Higgs ES, "What is Good Ecological Restoration?". *Conservation Biology*, 338-348, Vol 11, No 2, April 1997.

Janzen DH, "Tropical Ecological and Biocultural Restoration". *Science* 239, (15 January 1998) 243-244.

Kartawinata K, "The Use of Secondary Forest Species in Rehabilitation of Degraded Forest Lands". *J. of Tropical Forest Science* 7(1): 76-86 (1994).

Korpelainen H, et al, "Profitability of Rehabilitation of Overlogged Dipterocarp Forest: a Case Study From South Kalimantan". *Forest Ecology and Management* 79 (1995) 207-215.

Lamb D, "Reforestation of Degraded Tropical Forest Lands in the Asia-Pacific Region". *J. of Tropical Forest Science* 7(1): 1-7 (1994).

3.6.4 Economic aspects

At this stage it would be difficult to assign figures to the benefits of the results of this workshop as they have the potential to be so far reaching. The research agenda itself will make more efficient use of resources by achieving the maximum research results through co-ordination and lack of duplication. In addition, as practitioners apply the new information on species and techniques, there will be direct cost savings made through more successful establishment of trees and faster growth, which will both reduce the need for replanting and for lengthy aftercare. This should outweigh the costs of the workshop itself rapidly. The longer term benefits of biodiversity conservation, sustainable forest management, watershed protection, reduction in soil erosion and continued rural employment are hard to quantify but are actual.

3.6.5 Environmental aspects

The underlying principle of this workshop is to achieve more biodiverse forest restoration and through that many other environmental improvements such as increased sustainable forestry.

3.6.6 Social aspects

No local communities are directly affected by this workshop and indirect detrimental impacts are not anticipated. Indirectly, long term effects on enhanced environment and employment prospects will be beneficial.

3.6.7 Managerial aspects

The choice of FORRU as the Executing Agency reflects both the expertise available within the staff and the close links to Chiang Mai University and the Royal Forest Department. FORRU has a good rapport with staff of other

academic institutions working in the field nationally and internationally and can thus also draw on outside knowledge and expertise. In addition, FORRU has contacts with a number of practitioners in the region.

The timing is mainly influenced by the availability of successful experimental plots that can demonstrate the effectiveness of restoration techniques in northern Thailand. In addition the presence of a native English speaker on a 2 year contract is a significant enabling factor in the implementation of secretariat work.

3.7 Reasons for ITTO support

3.7.1 ITTO aspects

ITTO is being approached as a source of support primarily because the outputs of the workshop are important to ITTO's aim of achieving sustainable forestry in member countries. In addition the support of an international agency is of significance when trying to disseminate information internationally. A further reason is that a workshop does not lend itself to the repayment of loans for implementation, it is more suitable for support by grants. Having set a target of **January 2000** for the workshop, the ITTO timetable potentially fits well with our own.

3.7.2 Relationship to relevant actions supported by other donors

Other donors have also been approached to support part of the costs of this workshop as detailed in the budget section, however there have been no applications for double funding.

3.8 Risks

The timing aspect is the greatest potential risk to this project as funding needs to be secured at a sufficiently early stage to be able to confirm to participants that the workshop will proceed and to allow time for the preparation of papers. Once the participants and papers are confirmed there should be no further risk to the success of this project.

4. Outputs

4.1 Specific Objective 1

To produce a summary of existing methods, a focused research agenda and an information sharing protocol to achieve the most effective restoration of biodiverse seasonally dry tropical forests in South East Asia.

- Output 1.1

The research agenda and protocol which will be agreed on the final day of the workshop.

- Output 1.2

The publication of the proceedings of the workshop, containing the research agenda, the protocol and the papers contributed by the participants.

5. Activities and inputs

5.1 Output 1.1 The research agenda and protocol which will be agreed on the final day of the workshop.

- Activity 1.1 The presentation of project reviews from participating countries describing research to date and identifying gaps in knowledge, followed by papers on the latest research.

Inputs - Country Project Review papers
Papers by participants.

- Activity 1.2 The convening of discussion groups to identify research needs.

Inputs - Participants
Experienced Facilitators

- Activity 1.3 The synthesis and agreement of the results of the discussion groups facilitated during the workshop.

Inputs - Discussion group chairpersons and secretaries
Workshop staff to prepare documentation
Feedback and consensus from participants

5.2 Output 1.2 The publication of the proceedings of the workshop, containing both the research agenda and the papers contributed by the participants.

- Activity 2.1 Collation of the research agenda and the papers

Inputs - Project management staff
Clerical staff

- Activity 2.2 Publication

Inputs - Financial resources

6. Logical framework matrix

See attached Annex 1

7. Workplan

See attached Annex 2

8. Institutional arrangements of execution and operation

8.1 Management Structure

This project will be implemented by the staff of FORRU in conjunction with colleagues from the Royal Forest Department and the Biology Department. This will be achieved through the establishment of a steering group to guide the overall development of the workshop. The steering group will meet monthly to assess progress and review proposed activities for the next period, the membership will comprise:

Representatives of funding organisations

The FORRU Co-Directors and Project Manager

Khun Payong Chatwiroom of the Royal Forest Department

Khun Prawat Wohandee of the Royal Forest Department

Dr Somsak Vanichachiwa, Head of Biology Department

Dr Apichart Kaosa-ard, Forest Resources Department, Faculty of Agriculture.

The day to day implementation including the Secretariat will be undertaken by FORRU staff as follows:

Project Direction - Dr Vilaiwan Anusarnsunthorn, Dr Steve Elliott

Project Management and secretariat - Janice Kerby

Permanent clerical support - Greuk Pakkad and Rungtiwa Bunyayod

Logistics, clerical and reception support immediately before and during the workshop

- Sudarat Zangkum, Cherdasak Kuarak, Puttipong Navakitbumrung

- English speaking students.

8.2 Future operation and maintenance

Once published and distributed there will be no ongoing costs associated with the Proceedings of the workshop.

8.3 Key staff

Dr Vilaiwan Anusarnsunthorn, Co-Director of FORRU and Head of the Chiang Mai University Herbarium

Dr Steve Elliott, Co-Director of FORRU, Lecturer in Biology Department, Chiang Mai University

Janice Kerby, Education Officer of FORRU

Sudarat Zangkum, Nursery Manageress, FORRU

Curricula Vitae are attached as Annex 3.

9. Prior obligations and prerequisites

The only action required to make further progress is the securement of sufficient funds for this workshop. In the meantime potential participants are being approached for expressions of interest, a venue has been costed and a detailed workshop programme developed. All permanent staff are in place, there are no legislative considerations and there is support by the RFD.

10. Possible future actions

Once the Proceedings are published and distributed there will be no need for further assistance for this project.

PART III: MONITORING, EVALUATION AND REPORTING

1. Arrangements for reporting

a) An interim report will be completed in June 1999 which would detail progress on the preparations for the workshop, including the status of the papers, the financial accounts to date and the readiness of the venue.

b) A Project Completion Report will be prepared and submitted to ITTO as soon as possible after completion and certainly no later than 3 months.

2. Arrangements for ITTO monitoring and review

It is expected that an ITTO representative would attend the workshop not only for monitoring but also to explain to participants ITTO's objectives and its potential involvement in future forest restoration programmes. ITTO would be welcome to attend any of the monthly steering group meetings. It is not anticipated that a separate monitoring visit would be necessary until attendance at the workshop itself, however this can be easily arranged as required by ITTO.

3. Evaluation

It is not anticipated that an evaluation will be necessary during the development of the project.

PART IV: PROJECT BUDGET

1. Project budget by activity

2. Yearly project budgets by source

The budget sheets follow as pages 15-17.

The Activities budget sheet methodology has been amended to accommodate the nature of the workshop inputs.

ANNEXES

1. Logical Framework Matrix

2. Work plan

3. Curricula Vitae

4. Workshop programme

BUDGET SHEET 4 – ITTO CONTRIBUTION COMPONENTS		
Code	Item	Input in US Dollars (36Baht/\$1-Mar 99)
10.	Project Personnel	
10.11	National experts Transport	1200
10.16	International Experts Transport Accommodation	18000 5000
10.19	Component total	24200
30	Duty travel	
30.32	Transport costs (field trips)	440
30.39	Component total	440
40	Capital items	
40.43	Proceedings	3500
40.49	Component total	3500
50	Consumable items	
50.55	Printed material	350
50.56	Displays	60
50.58	Film	60
50.59	Component total	470
70	ITTO Monitoring & Admin	
70.71	Monitoring and Evaluation	6000
	SUBTOTAL	34610
70.72	Admin costs @5.5% of total	1904
99	GRAND TOTAL	36,514

BUDGET SHEET 2 – OVERALL BUDGET BY ACTIVITY

Output/Activities	Budget Components								
	Project Personnel	Participants <i>ITTO input</i>	Travel <i>ITTO input</i>	Capital Items <i>ITTO input</i>	Consumable Items	Miscellaneous	<i>ITTO Monitoring & Evaluation</i>	<i>ITTO Admin at 5.5% of Input</i>	Grand Total
Output 1.1									
Activities 1.1, 1.2, & 1.3 all occur during the workshop in totality	3800	1200 <i>1200</i> <i>18000</i> <i>5000</i>	440		1160	1800	5000		
Output 1 sub-total	3800	25,400	440		1160	1800	5000		39,200
Output 2.2									
Activities 2.1 & 2.2 occur after the workshop	1500			3500	60	1200	1000		
Output 2 Subtotal	1500			3500	60	1200	1000		8350
GRAND TOTAL US \$	5300	25,400	440	3500	1220	3000	6000	1904	46,764

BUDGET SHEET 3 -SOURCES OF FINANCE			
Code	Item	Input in US Dollars (36Baht/\$1-Mar 99)	Sources of Inputs
10.	Project Personnel		
10.11	National experts Transport Accommodation	1200 1200	ITTO Other funders
10.12	Admin. personnel Project Manager Project Direction Clerical staff Logistics and temporary staff Steering Group RFD staff Steering Group CMU	1350 1500 1200 700 250 300	Government (DTEC) FORRU FORRU Other funders RFD CMU
10.16	International Experts Transport Accommodation	18000 5000	ITTO ITTO
10.19	Component total	30,700	
20	Sub-contracts		
30	Duty travel		
30.32	Transport costs (field trips)		
30.39	Component total	440	ITTO
40	Capital items		
40.43	Proceedings	3500	ITTO
40.49	Component total	3500	
50	Consumable items		
50.53	Utilities (communication, post, fax etc)	500	Other funders
50.54	Office supplies	150	Other funders
50.55	Printed material	350	ITTO
50.56	Displays	60	ITTO
50.57	AV rental	100	Other funders
50.58	Film	60	ITTO
50.59	Component total	1220	
60	Miscellaneous		
60.61	Sundry		
60.69	Component total	3000	Other funders
70	ITTO Monitoring & Admin		
70.71	Monitoring and Evaluation	6000	
70.72	Admin costs @5.5% of total	1904	
70.79	Component total	7904	ITTO
99	GRAND TOTAL	46,764	

ANNEXES

ANNEXE 1 - Logical Framework Matrix

ANNEXE 2 - Workplan

ANNEXE 3 - Curriculum Vitae

ANNEXE 4 - Workshop programme

ANNEXE 5 - Summary of Amendments

ANNEXE 1 - Logical Framework Matrix

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>Development Objective</u> To advance research and practice in forest restoration	Improved dissemination of information on successful techniques for forest restoration, leading to implementation.	Successful results in nursery and planting programmes.	
<u>Specific Objective</u> To produce a research agenda and protocol for information sharing.	Proceedings of workshop published	The proceedings document.	Availability of funding. Availability of key participants.
<u>Outputs</u> 1. Research agenda and protocol agreed at the workshop. 2. Information collated into a document.	1. Consensus amongst participants 21/01/00. 2. Published document April 2000.	1. ITTO to attend workshop to verify process and consensus. 2. ITTO receives proceedings.	Effective facilitation will achieve information sharing and consensus. Collation proceeds without problems.
<u>Activities</u> 1.1 Presentation of project reviews and research papers. 1.2 Convening of discussion groups. 1.3 Synthesis and agreement of results. 2.1 Collation of papers and conclusions. 2.2 Publication of proceedings	-completed papers, costs of planning paid for by other funders. - attendance by participants paid for by ITTO and other funders. - attendance by participants and facilitators paid for by ITTO and other funders. - participants present - staff of FORRU - staff of FORRU other clerical support undertake collation - staff of FORRU to manage - funding from ITTO and others		

ANNEXE 2 - Workplan

Activities	De 98	Ja 99	Fe	M	Ap	M	Ju	Jul	Au	Sé	Oc	No	Dec	Ja	Feb	Mar	Ap
Seek funding	[Bar chart spanning Dec 98 to May 99]																
Approach speakers				[Bar chart spanning Mar to Sep]													
Reserve venue					□												
Prepare papers								[Bar chart spanning Jul to Dec]									
Confirm venue							□										
Produce workshop pack													[Bar chart spanning Dec to Jan]				
Prepare venue													□				
Presentati on of papers													□				
Discussio n groups													□				
Consensus Output 1.1													□	□ ¹			
Collation Publicatio n Output 1.2														[Bar chart spanning Jan to Mar]			□
Final report																	□

ANNEXE 3

CURRICULUM VITAE

Name : Dr. Vilaiwan Anusarnsunthorn
Date of Birth : 30/7/43, Thailand **Nationality**: Thai
Education : 1966 B. Sc. Botany, Victoria University, New Zealand
1968 M. Sc. (Hons) Plant Pathology, Victoria University, NZ
1990 Ph.D. Plant Morphology and Taxonomy, The University of
New England, Australia

Relevant Work 1995-1998:

I am Head of the Chiang Mai University Herbarium and Co-Director of the Forest Restoration Research Unit. This work has involved both strategic and day-to-day management of these Projects and budgetary planning and control. In addition I have maintained a programme of undergraduate and post-graduate lecturing, supervision of post-graduate student degrees, and management of 10 staff.

Publications since 1995 :

Hardwick, K., J. Healey, S. Elliott, V. Anusarnsunthorn and N.C. Garwood, 1995. Forest Regeneration following shifting cultivation in seasonal forest in Northern Thailand, *Agroforestry Forum*, 6(1):49-50.

Maxwell, J.F., S. Elliott, P. Palee and V. Anusarnsunthorn, 1995. The Vegetation of Doi Khuntan National Park, Lamphun-Lampang Provinces, Thailand. *Nat Hist. Bull. Siam Soc.* 43(2) 185-205.

Elliott, S., V. Anusarnsunthorn, N. Garwood and D. Blakesley, 1995. Research need for restoring the forest of Thailand. *Nat Hist. Bull. Siam Soc.* 43:179-184.

Anusarnsunthorn, V., J.F. Maxwell, and S. Elliott, 1996. Chiang Mai University Biology Department Herbarium Database. *Biotec News* 2(5):4-5.

Kopachon, S, K. Suriya, K. Kardwick, G. Pakkad, J. Maxwell, V. Anusarnsunthorn, D. Blakesley, N. Garwood and S. Elliott, 1996. Forest restoration research in northern Thailand: 1. The fruits, seeds and seedlings of *Hovenia dulcis* Thunb. (Rhamnaceae). *Nat Hist. Bull. Siam Soc.* 44:41-52.

Elliott, S., V. Anusarnsunthorn, S. Kopachon, D. Blakesley and N.C. Garwood 1996. Research towards the restoration of northern Thailand's degraded forest. Paper presented at the International Symposium on Accelerating Native Forest Regeneration on Degraded Tropical Lands, Washington DC, 11-14 th June, 1996.

Elliott, S., D. Blakesley, V. Anusarnsunthorn, J.F. Maxwell, G. Pakkad and P. Navakitbumrung, 1997. Selecting species for restoring degraded Tropical Forest in northern Thailand. Paper presented at the Workshop on Rehabilitation of Degraded Tropical Forest Lands, 3-7 February 1997, Kuranda, Australia.

Maxwell, J.F., S. Elliott and V. Anusarnsunthorn. 1997. The Vegetation of Jae Sawn National Park, Lampang Province, Thailand. *Nat. Hist. Bull. Siam Soc.* 4: 71-97.

Elliott, S., S. Kopachon, K. Suriya, S. Plukum, G. Pakkad, P. Navakitbumrung, J. F. Maxwell, V. Anusarnsunthorn, N. Garwood, D. Blakesley. 1997. Forest Restoration Research in Northern Thailand: 2. The Fruits, Seeds, and Seedlings of *Gluta usitata* (Wall.) Hou (Anacardiaceae). *Nat. Hist. Bull. Siam Soc.* 45, 205-215.

CURRICULUM VITAE

Name: Dr. Stephen David Elliott
Date of Birth: 22/1/60, Kent, United Kingdom **Nationality:** British
Education: 1981 B.Sc. Ecological Sciences (Hons 1st class) Harry Younger Medal for Practical Forestry for best honours thesis awarded June 1981, Aberdeen University, Scotland.
1985 PhD. The effects of monoterpenes on feeding and digestion in ruminants, Aberdeen University, Scotland.

Relevant Work 1995 -1998:

I am Co-Director of the Forest Restoration Research Unit and a lecturer in ecology (foreign expert grade) in the Department of Biology, Chiang Mai University. In my role as Co-Director of FORRU I have been responsible for both strategic planning and the daily supervision of 5 staff. I have substantial experience of managing budgets, particularly those attracted through grants and sponsorship. I also teach a varied lecture programme including tropical plant ecology and wildlife conservation and have supervised many thesis projects from B.Sc. to PhD. level.

Relevant Publications since 1995:

- ELLIOTT, S., V. ANUSARNSUNTHORN, N. GARWOOD and D. BLAKESLEY, 1995. Research needs for restoring the forests of Thailand. *Nat. Hist. Bull. Siam Soc.* 43(2):179-184.
- ELLIOTT, S. and J. F. MAXWELL, 1995. Doi Suthep. pp 210-214 in DAVIS S. D., V. H. HEYWOOD and A. C. HAMILTON (Eds.) *Centres of Plant Diversity A Guide and Strategy for their Conservation Volume 2 Asia, Australasia and the Pacific*. Published by The World Wide Fund for Nature and IUCN - The World Conservation Union.
- ELLIOTT, S., V. ANUSARNSUNTHORN, S. KOPACHON, D. BLAKESLEY and N. C. GARWOOD, 1996. Research towards the restoration of Northern Thailand's degraded forests. Paper presented at the International Symposium on Accelerating Native Forest Regeneration on Degraded Tropical Lands. Washington DC, 11-14th June, 1996.
- ELLIOTT S., V. ANUSARNSUNTHORN, S. KOPACHON, D. BLAKESLEY and N. C. GARWOOD, 1996. Activities of the forest restoration research unit, northern Thailand. p 8 in *World Heritage Tropical Forests Conference, Science for Better Understanding and Management, Handbook and Abstracts*.
- KOPACHON, S, K. SURIYA, K. HARDWICK, G. PAKAAD, J. MAXWELL, V. ANUSARNSUNTHORN, D. BLAKESLEY, N. GARWOOD and S. ELLIOTT, 1996. Forest restoration research in northern Thailand: 1. The fruits, seeds and seedlings of *Hovenia dulcis* Thunb. (Rhamnaceae). *Nat. Hist. Bull. Siam Soc.* 44:41-52.
- BLAKESLEY, D., S. ELLIOTT and V. ANUSARNSUNTHORN, 1998. Low technology tree propagation and the restoration of natural forest ecosystems. In: DAVEY, M. R., P. G. ANDERSON, K. C. LOWE and J. B. POWER (Eds), *Tree Biotechnology: towards the millennium*. Nottingham University Press. 350 pp.
- HARDWICK, K., J. HEALEY, S. ELLIOTT, N. C. GARWOOD and V. ANUSARNSUNTHORN, 1997. Understanding and assisting natural regeneration processes in degraded seasonal evergreen forests in northern Thailand. *Forest Ecology and Management* 99:203-214.
- ELLIOTT, S. S. KOPACHON, K. SURIYA, S. PLUKUM, G. PAKAAD, P. NAVAKITBUMRUNG, J. F. MAXWELL, V. ANUSARNSUNTHORN, N. C. GARWOOD and D. BLAKESLEY, 1997. Forest restoration research in northern Thailand: 2. The fruits, seeds and seedlings of *Gluta usitata* (Wall.) Hou (Anacardiaceae). *Nat. Hist. Bull. Siam Soc.* 45:205-215.
- FOREST RESTORATION RESEARCH UNIT, 1998. Forests for the future: growing and planting native trees for restoring forest ecosystems. Biology Department, Science Faculty, Chiang Mai University, Thailand. Edited by ELLIOTT, S., D. BLAKESLEY and V. ANUSARNSUNTHORN

CURRICULUM VITAE

Name: Janice Marie Ruston Kerby

Date of Birth: 1st February 1968, United Kingdom **Nationality:** British

Education:

B.Sc (Hons) Biological Sciences, Class 2 Division 1. 1989. Nottingham University, UK.

Postgraduate Diploma in Countryside Management. 1994. Manchester Metropolitan University, UK.

M.Sc Countryside Management, Distinction. 1995. Manchester Metropolitan University, UK.

Relevant Work Experience (1995-8)

For the majority of the last 3 years I was the Ecology and Conservation Manager for the UK's biggest coal mining company. In this capacity I was responsible for advising the Company on all aspects of ecology in both working and proposed open-cast and deep-mine sites, including ensuring concurrence with the law. I worked within a multi-disciplinary team preparing planning applications for the development of new sites and the extension of existing sites. I drew-up and supervised ecological survey contracts for external consultants and analysed the information to aid the design of prospective coaling sites. I then undertook environmental impact assessments and devised mitigation packages accordingly.

I designed large scale habitat rehabilitation schemes (up to 600Ha) in accordance with ecological and landscape principles, within the constraints of land ownership and economics, and thus have a high awareness of the realities of forest restoration. These processes involved extensive liaison with statutory and non-statutory nature conservation agencies and planning authorities. In the above capacity I worked within a complex legislative and institutional framework and managed substantial projects and contracts.

In the last 6 months in my post as Education Officer for FORRU I have been responsible for the production and dissemination of educational materials and the design of training events.

Relevant Training:

I have completed training in many aspects of habitat creation and management, particularly related to forestry.

I have attended courses in Health and Safety, Gender Awareness, Disablement Awareness and Equal Opportunities.

I have also completed Continuing Professional Development courses in Project Management, Financial Management and Accounting, and Landscape Management.

Research:

I have undertaken research involving mammals, woodland management and parasitology.

CURRICULUM VITAE

Name : Ms Sudarat Zangkum
Date of Birth : 10/2/74, Thailand **Nationality:** Thai
Education : 1996 B. Sc. Zoology, Chiang Mai University, Thailand
1998 M. Sc. Environmental Science, Chiang Mai University,
Thailand

Relevant Work 1995-1998:

Since completing my Masters degree I have been employed as Manager of the FORRU nursery on Doi Suthep. In this role I am responsible for managing 4 staff in order to achieve nursery production targets. This involves the programming and supervision of seed collection, germination trials and the general nursery practices necessary to produce the correct balance of healthy seedlings at the requisite time for planting. I supervise the organisation of planting events and the monitoring of experimental plots and am involved in the day-to day accounting of the project.

Training and Seminars:

February 1997 - Environmental Risk Assessment for Tropical Coastal Ecosystems, Prince of Songkla University, Songkla.

October 1997 - The International University Exchange Seminar for 1997, University of the Ryukyus, Japan.

November 1998 - FORGENMAP Workshop on Seed Procurement Techniques, KhaoYai National Park, Thailand

Research Since 1995 :

Zangkum, S. 1998. Masters Thesis. "The Effect of Container Type and Media on the Growth and Morphology of Tree Seedlings to Restore Forests".

ANNEXE 4 - Workshop programme

Sunday 16th January

Participants arrive - Registration

Monday 17th January

08.00 - Registration

08.30 - Opening ceremony

Session 1 - Overviews

08.50 – Defining Forest Restoration for Wildlife Conservation

09.00 - The potential for forest restoration programmes in the seasonally dry tropical forests of SE Asia.

09.30 - Applying the principles of restoration ecology to re-establishing SE Asia's seasonally dry tropical forests

10.00 - Questions arising

10.20 - Coffee

Session 2- Project reviews

Implementers of forest restoration projects currently in progress will be invited to present short talks describing their projects, outlining the problems they have faced and their requirements with regard to scientific research and monitoring.

10.45- Introduction followed by 3 project reviews

11.45 - Questions arising

12.15 - Lunch

13.15 - 3 project reviews

14.15 - Questions arising

14.45 - Tea

15.15 – 2 project reviews and/or formal poster session

Tuesday 18th January

Session 3 – The ecology and manipulation of natural regeneration

09.00 - Introduction and 2 papers

10.00- Questions arising

10.30 - Coffee

10.50 - Discussion Group on Research Needs for Forest Ecology and ANR

12.00 - Lunch

Session 4 - Species selection and technologies for growing seedlings

13.00 - Introduction and 3 papers

14.00 - Questions arising

14.30 - Tea

15.00 - Discussion Group on Research Needs for Species Selection and Seedling Propagation.

16.30 - Close

Evening - Presentation of discussion group summaries and comments from the floor.

Wednesday 19th January

Field trip - Session 5 - Planting (seeds or seedlings) and silviculture

8.00 - Leave for Ban Mae Sa Mai (hill tribe village)

9.00 - Visits to demonstration planting plots

11.00 - Discussion Groups on Research Needs for Tree Planting and Silviculture (in village hall)

12.30 - Lunch

13.00 – Leave village to visit the Forest Restoration Research Unit and Wat Prathat Doi Suthep

Thursday 20th January

Session 7 – Interactions between wildlife and forest restoration

09.00 - Introduction and 2 papers

10.00 - Questions arising

10.30 - Coffee

10.50 - Discussion Group on Research Needs for Integrating Wildlife Conservation and Forest Restoration

12.00 Lunch

Session 8 – Community involvement in forest restoration for wildlife

13.00 - Introduction and 2 papers

14.00 - Questions arising

14.30 - Tea

15.00 - Discussion Group on Community involvement in forest restoration for wildlife

16.30 - Close

Evening - Presentation of summaries of discussion groups and further comments followed by dinner.

Friday 21st January

08.30 - Presentation of draft research agenda

09.15 - Final discussion

10.00 - Coffee

10.30 – Implementing and funding the research agenda

11.30 – Establishing a regional contact network for forest restoration

12.00 - Closing ceremony

12.15 - Lunch

13.30 - Depart



ภาควิชาชีววิทยา คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่, จ.เชียงใหม่ 50200

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23/3/99

To: The Secretariat of the ITTO
From: The Forest Restoration Research Unit, Chiang Mai.

Re: Proposal PD 28/99 Rev (F) for a Scientific and Technical Workshop for S.E. Asia on Forest Restoration for Wildlife Conservation

As recommended by the 17th Expert Panel, the following has been taken into account in order to strengthen the above proposal, all amendments are shown in bold type on the revised proposal document (PD 28/99 Rev (F)):

1. The text on page 7, paragraph 2.1, has been amended to remove the reference to ITTO's mandate, which is already stated elsewhere.
2. The budget has been developed in US\$ to simplify administration, the revised figures are shown on page 1 and in budget sheets 1, 2, and 3. The comments of the Expert Panel regarding the budget for regional representation have been taken into consideration when making the revisions, thus there are increases in the costs for travel and accommodation for regional participants. Provision has also been made to produce and disseminate a larger number of the Proceedings.
3. Dr Apichart Kaosa-ard has been invited to join the Steering Group for the workshop, so that he can play an active role in its development, this amendment is shown on page 13. Currently, however, he is abroad and has not yet been able to respond.
4. Further to discussion with staff of RFD and Chiang Mai University, it has been decided to move the workshop to 16th-21st January 2000. This will allow more time for the participants to prepare their papers, particularly for those presenting country reviews. These amendments are shown on pages 1, 11, and in Annexes 1, 2 and 4.