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NATURAL RESOURCES MANAGEMENT PROJECT

PROGRESS REPORT

(AUGUST 1990 - MARCH 1994)

## TABLE OF CONTENTS

GLOSSARY AND ACRONYMS

INTRODUCTION

I. PROJECT ACHIEVEMENTS (PURPOSE LEVEL IN THE NRMP LOGFRAME)

- A. New Economic Policies
- B. High-Level Policy Reforms
- C. Departmental Policy Units
- D. BAPPENAS Support for Policy Studies
- E. Policy Analysis in Government Institutions
- F. Policy Analysis in Non-Government Institutions
- G. New Forest Management and Protected Area Policies
- H. Sustainable Forest Management by Concessaires
- I. Application of Production Forest and Protected Area Policies
- J. NGO Role in Sustainable Forest Management
- K. Public Debate about Sustainable Natural Resource Management

II. PROJECT OUTPUTS

III. PROJECT ACTIVITIES IN PROGRESS

IV. ANNEXES

- 1. NRM Project Reports, Publications, Papers and Seminars
- 2. Summary of NRM Project Policy Recommendations
- 3. Policy Analysts Trained by the Policy Secretariat
- 4. Long-term and Short-term Training
- 5. Implementation Schedule: Policy Secretariat Policy Analysis Studies
- 6. Host Country Contracts Completed
- 7. Long-term NRM/ARD Technical Assistance Team
- 8. Short-term Technical Assistance
- 9. Local Assistants Helping NRM Project Activities in Field Sites (Bukit Baka-Bukit Raya and Bunaken)
- 10. NRMP Administrative Organization Chart
- 11. List of Policy Working Group and Policy Coordinating Committee Members and Meetings
- 12. Status of Policy-related Work under the NRMP
- 13. Policy Studies Topics, 1994-96
- 14. Policy Secretariat Library Holdings

## INTRODUCTION

This report marks the progress achieved to date in the implementation of NRMP activities and is based on the logical framework in the 1990 NRM project paper (see Chart 1). The discussion which follows is separated into several sections which follow this logframe. Briefly, the text follows this outline:

- Part I: Project progress is discussed according to the summary presented under the Objectively Verifiable Indicators in the Purpose section of the NRM project logframe. There are eleven (A through K) verifiable indicators for the NRMP which are intended to provide a means to evaluate the project.
- Part II: In this section project progress is noted according to the narrative summary contained in the Outputs section in the NRM project logframe. There are seven outputs (A through G) by which progress in the project are to be measured.
- Part III: Project activities which are still to be completed and will have an impact on project outputs are discussed briefly here. These are tasks and activities that are in progress and due to be completed in the period of April through July 1994.
- Part IV: This section is comprised of a series of annexes which provide additional data on the NRMP activities completed to date.

It is worth noting that since the logframe was written in 1990 there have been considerable changes during the implementation of the project and thus there is a need to assess the original logframe indicators and outputs. However for the purpose of reporting the progress to date in the project the original log frame format has been followed. Secondly, in matching up the precise project impacts on policy changes it should be noted that the NRM project in agreement with its counterpart agencies in government keeps a low profile and does not widely publicize recommendations made. This follows the normal practice of donor projects assisting government agencies in Indonesia. Consequently, in many cases the policy changes that have taken place as the result of the activities of the NRM project are often the result of a mixture of NRM inputs (ie. discussions, presentations, project reports and briefings) and are not always the result of a single recommendation given at any particular time.

CHART 1. LOGICAL FRAMEWORK MATRIX  
NATURAL RESOURCES MANAGEMENT PROJECT

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>GOAL:</b> To sustain income and employment opportunities for a growing population by adjusting policies and management practices regarding key natural resources</p> <p><b>PURPOSE:</b> To strengthen selected Indonesian institutions so that they can:</p> <p>a. identify natural resource management practice which constrain economic growth, and</p> <p>b. design and implement improved policies to address these constrains.</p>	<p>Continued economic growth -- employment growth and increase in real incomes</p> <p>a. New economic policies addressing natural resource management constraints, incorporated in GOI policy documents such as REPELITA VI</p> <p>b. High level policy forums (e.g. Interministerial Policy Working Group) addressing sustainable natural resources policy issues.</p> <p>c. Several ministries with policy units actively developing and evaluating sustainable natural resource management policies</p> <p>d. BAPPENAS funding natural resource policy studies and pre-feasibility studies for donor investments in sustainable natural resources management.</p> <p>e. Policy analysts conducting economic policy research in other government institutions such as KLH and EKUIN</p>	<p>National and international economic reports</p> <p>a. Project evaluations</p> <p>b. REPELITA VI: National Development Plan: 1993-1998</p> <p>c. BAPPENAS and MOFr records and reports</p> <p>d. Project studies and Reports.</p> <p>e. National and local public media.</p>	<p>Continued political and economic stability, both national and international</p> <p>a. Government continues to become more open and transparent and allows policy process to respond to improved information about natural resource management and the respective roles of the public and private sectors.</p> <p>b. Public debate regarding environmental issues is allowed in national and local flora.</p>

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	<p>f. Private sector/government "think tanks", university departments and local private consultants undertaking sustainable natural resource policy research</p> <p>g. New policies regarding management practices for sustaining natural forests and developing economic potential of protected areas implemented by the Ministry of Forestry</p> <p>h. Private forest concessionaires applying policies and research findings concerning sustainable forest management</p> <p>i. MOFr. applying policies and research findings for improved management of natural production forests and protected areas, including the active participation of local communities.</p> <p>j. NGO's actively involved in public awareness programs regarding sustainable natural resource management.</p> <p>k. Debate regarding sustainable natural resource management issues being openly conducted in national press.</p>		

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>OUTPUTS:</p> <p>a. Policy and pre-feasibility studies concerning natural resource issues.</p> <p>b. Self-supporting Secretariat for the Natural Resource Policy Working Group.</p> <p>c. Trained policy analysts in BAPPENAS, KLH, FIN, MOFr, local universities and private consulting companies.</p> <p>d. Management plans for natural forest production concessions and protected areas.</p> <p>e. Forestry research and training station at Bukit Baka.</p> <p>f. Applied research studies regarding sustainable management of natural production forest and protected areas.</p> <p>g. Discussion organization at national and local level concerning natural resources issues. NGO's and local communities participants in the debate.</p>	<p>a. Fifteen policy analyses of national relevance and recognized value.</p> <p>b. One secretariat, affiliated to BAPPENAS, but able to generate supporting funds through grants and research contracts.</p> <p>c. Five analysts given Master's training in U.S. Fifteen analysts trained.</p> <p>d. Three plans developed for natural production forest concessions. Three management plans developed and implemented for protected areas. Fifteen participants given Master's training in US.</p> <p>e. One forestry research and training station operating and supported by MOFr and private forest concessionaire.</p> <p>f. Ten of national relevance and recognized value.</p> <p>g. Ten seminars, workshops, media presentations based upon Ten seminars, workshops, media presentations based upon project activities.</p>	<p>a. Analyse, studies, organizations trained analysis, plans, research and debate are officially reorganized and permitted to influence sustainable natural resource policies.</p> <p>b. Project Evaluations and Monitoring reports.</p> <p>c. BAPPENAS and MOFr. records and reports.</p>	

## PART I

### PROJECT ACHIEVEMENTS (PURPOSE LEVEL IN THE LOGFRAME) NATURAL RESOURCES MANAGEMENT PROJECT

#### A. NEW ECONOMIC POLICIES

New economic policies addressing natural resource management constraints incorporated in GOI policy documents such as REPELITA VI.

##### Baseline Status

General needs in natural resource policy analysis identified but not specific policy issues. Important planning documents, such as the second 25-year development plan (1995-2020) and REPELITA VI (1994/95-1998/99) envisioned by GOI (1992/93), but not prepared.

##### Accomplishments

Contributions to the formulation of Indonesia's second 25 Year Development Plan/ Repelita VI included:

1. Five special papers prepared at the request of BAPPENAS relating to forestry sector and natural resources management strategies. Distributed to policy analysts and more widely to other policy study institutions (see Annex 1-A -- Briefing Papers 1-5).
2. Dynamic I/O model constructed including natural resources sectors for the processing of basic data for both plans. Model used to extrapolate different economic growth scenarios for BAPPENAS and natural resource policy implications (see Annex 1-D -- Project Reports No. 31).
3. Following No. 2, above, materials were prepared for training with the dynamic I/O model to be carried out by the NRMP with BAPPENAS and BPS with government officials from 10 departments.
4. Individual NRM reports distributed to BAPPENAS and Ministry of Forestry raising relevant policy issues to be addressed in both plans (see Annex 1-D -- Project Reports No. 1 - 32).

5. Policy Briefs prepared on policy recommendations in natural resource field. Distributed to policy analysts in BAPPENAS, Ministry of Forestry, State Ministry of Environment, Ministry of Home Affairs and Ministry of Finance (see Annex 1-C -- Policy Briefs).
6. Seminars organized in BAPPENAS for discussion of major policy issues in natural resource fields for both plans (see Annex 1-F -- BAPPENAS Seminars No. 1-4).
7. General summary of NRM policy recommendations in natural resources area prepared and used for presentations in BAPPENAS (see Annex 2 -- Summary of Policy Recommendations).

## B. HIGH-LEVEL POLICY FORUMS

High level policy forums (e.g. interministerial Policy Working Group) addressing sustainable natural policy issues.

### Baseline Status

Informal natural resource policy forums existing but are not supported by detailed and systematic analysis of natural resource policies.

### Accomplishments

1. The senior level inter-Ministerial NRM Policy Working Group (PWG) officially established.
2. PWG meetings held in 1991 through 1994 to discuss current and planned policy outputs required from the NRM project and to provide overall guidance for the implementation of project activities.
3. Natural resources policy studies agenda approved for 1994-1996 (see Annex 13).

## C. DEPARTMENTAL POLICY UNITS

Several ministries with policy units actively developing and evaluating sustainable natural resource management policies.

### Baseline Status

No active and influential policy units as such existed.

### Accomplishments

1. Setting up and development of the NRMP Policy Secretariat to provide policy analysis on natural resource issues to BAPPENAS for the formulation of natural resource management policies. Group of senior and junior research associates recruited from the private sector and trained as policy analysts in various macro techniques in NRM policy studies working with GOI agencies in natural resource field (see Annex 3 -- Policy Analysts Trained in Policy Secretariat).
2. Ten of the policy analysts trained with the NRMP Policy Secretariat have completed their work and have moved on to upward mobile positions with private sector companies, state and private banks, the World Bank, and NGOs.
3. Cadre of GOI natural resources management policy analysts built up through long- and short-term training:
  - a. Long-term training:

18 Masters degree participants currently in USA doing policy related work (four other participants are leaving for USA in 1994). Participants have been selected from BAPPENAS (3), MoFr (10), Home Affairs (2), universities (4), NGO's (2) and the private sector (1) (see Annex 4-A).
  - b. Short-term training (international):

29 participants have attended 16 international training courses in policy areas; 10 other courses being arranged (see Annex 4-B).

A study tour to Philippines and Thailand for key local government officials (Bappeda, Kanwil Ministry of Forestry, Dinas Ministry of

Forestry, Kanwil Tourism, Dinas Tourism, Sub-office Nature Resource Conservation) looked at marine eco-tourism development policy issues applicable to marine protected areas in Indonesia (see Annex 4-B).

#### D. BAPPENAS SUPPORT FOR POLICY STUDIES

BAPPENAS funding natural resource policy studies and pre-feasibility studies for donor investments in sustainable natural resource management.

##### Baseline Status

Sporadic funding initiatives through Indonesian budget to local universities for BAPPENAS related needs.

##### Accomplishments

1. Macro policy studies being undertaken at BAPPENAS' request by Policy Secretariat relating to natural resource utilization. This included dynamic I/O Modelling, Trade and Exchange Rate Policy, Policy Towards Direct Investment, Forestry Policy, Employment Effects of Sectoral Policy, Policies Towards Protected Areas, Marine Sector study, Integrated Development, Community Development, and Overall Development Strategy (see Annex 5 -- Implementation Schedule).
2. Individual studies under No. 1, above, provide guidelines to BAPPENAS in identifying areas needing donor support.
3. Field level studies carried out in Bukit Baka-Bukit Raya and Bunaken on forestry and marine issues linked to policy analysis at the Policy Secretariat for recommendations to be made to BAPPENAS and the MoFr for further studies and possible donor support (see Annex 2 -- Summary of Policy Recommendations, and Annex 12).
4. Five host country contracts awarded and completed in natural resource policy analysis (see Annex 6). TORs developed for five additional studies.

## E. POLICY ANALYSIS IN GOVERNMENT INSTITUTIONS

Policy analysts conducting economic policy research in other government institutions such as State Ministry of Environment and Coordinating Ministry for Finance.

### Baseline Status

Sporadic, short-term demand-driven initiatives. Some highly confidential analyses conducted by institutions such as Central for Policy Implementation Studies (CPIS).

### Accomplishments

1. Policy study teams working closely with Bureau of Statistics (BPS), Agency for the Application of Technology (BPPT) and other agencies in macro policy studies carried out by the Policy Secretariat.
2. Workshop series training policy analysts from government, universities, private sector and NGOs run by the NRMP Policy Secretariat. These include:
  - Training workshop No. 1 "Planning for Sustainability" (Dec. 93)
  - Training workshop No. 2 "Trade Policy" (Dec. 93)
  - Training workshop No. 3 "Employment Effects" (Jan. 94)
3. Policy relationship established with advisors to EKUIN, involving forestry issues.
4. Policy dialogue with CPIS and other research centers. Support is aimed at both forestry and marine sector studies.

## F. POLICY ANALYSIS IN NON-GOVERNMENT INSTITUTIONS

Private sector/government "think tanks", university departments and local private consultants undertaking sustainable natural resource policy research.

### Baseline Status

Limited policy research in natural resource areas done by government/private think tanks, universities and local communities with very limited impact.

### Accomplishments

1. Close links established for cooperation in sustainable natural resource policy research with Environmental Management Development in Indonesia Project, Development Studies Project, the University of Indonesia, the University of Tanjung Pura and the University of Sam Ratulangi.
2. Close links also established with Institute Economic and Social Research (LPEM) - University of Indonesia focussing on natural resource management. Policy Secretariat building up LPEM's ability to perform such research and advise and train government counterparts.
3. Local consulting firms have increased capacity and experience for research on sustainable natural resource use via host country contract studies (see Annex 6 -- Host Country Contracts Completed).

## G. NEW FOREST MANAGEMENT AND PROTECTED AREA POLICIES

New policies regarding management practices for sustaining natural forests and developing economic potential of protected areas implemented by the Ministry of Forestry.

### Baseline Status

1. Old selective felling scheme, the TPI, replaced by TPTI, including enrichment planting. Nevertheless many concessionaires not following Ministry guidelines for improved forest management, and forest resources continue to be overexploited.

2. Protected areas legislation exists but is inadequate particularly regarding translation from general aims to park management. Role of local communities is poorly recognized.

### Accomplishments

1. The Ministry of Forestry improved its policies for determining annual allowable cuts based on project-supported research.
2. Recommendations to reduce the annual allowable cut proposed by BAPPENAS to Ministry of Forestry based on applied forest ecological research carried out under the project.
3. Supported by project field research and policy analysis, Ministry of Forestry increased stumpage fee from US\$15 to US\$22/m<sup>3</sup>.
4. Guidelines for sustainable forest management laid down, including a role for community participation.
5. Recommendations were provided to the Ministry of Forestry for improving RKL, RKT and RKPH management planning process.
6. Recommendations made to the Ministry of Forestry to reduce avoidable waste associated with logging residues in forest concessions.

## H. SUSTAINABLE FOREST MANAGEMENT BY CONCESSIONAIRES

Private forest concessionaires applying policies and research findings concerning sustainable forest management.

### Baseline Status

1. Few concessionaires managing their forest resource sustainably.
2. Some research inappropriate.
3. Technical improvements discovered by policy incentives to overexploit.

### Accomplishments

1. Greater awareness of concessionaires of need for sound management, largely because of threat of international trade ban on tropical timber.
2. Project concessionaires, SBK, testing recommended improvements to logging practices such as waste reduction (see Annex 1-D -- Project Reports Nos. 4, 10, 28 & 29).
3. Recommendations made to Ministry of Forestry on the setting up of conservation zones within production forests for incorporation into proposed Ministry of Forestry guidelines.

## **I. APPLICATION OF PRODUCTION FOREST AND PROTECTED AREA POLICIES**

MOFr applying policies and research findings for improved management of natural production forests and protected areas, including the active participation of local communities.

### Baseline Status

1. Local community roles neglected.
2. Narrow, technical view of production forest management, and protected areas, e.g. strict, inflexible logging rules, and, complete isolation of protected areas. These over ambitious goals were not practical and often ignored.

### Accomplishments

1. As result of NRMP research, Ministry of Forestry is developing a traditional forest area concept which involves the participation of local communities in the sustainable use of forest resources in a bufferzone of a national park and within a forest concession.
2. Draft 25-year Management Plan, Five and One year operational plans (Indonesian Fiscal Year 1994/95) prepared for the Bunaken National Park. Plans include recognition that community involvement, and integration with local government and non-government institutions are pivotal to success.

3. Draft 25-year Management Plan, Five and One Year operational plans (IFY 1994/95) prepared for the Bukit Baka-Bukit Raya National Park. Plans include recognition that community involvement, and integration with local government and non-government institutions are pivotal to success (see Annex 1-D -- Project Reports No. 20).
4. Improvements to MoFr guidelines for diagnostic studies and implementation of the PT. SBK's "Program Bina Desa" (community development program) made.
5. Ministry of Forestry's policies regarding the preparation of 20-year management plans by forest concession holders strengthened by recommendations for more rational and systematic guidelines (see Annex 1-D -- Project Reports No. 29).
6. Recommendations for logging waste reduction and more rational silvicultural processes incorporated into MoFr thinking on official guidelines for sustainable forest management (see Annex 1-D -- Project Reports No. 4).
7. NRM analyze of local communities profiles and potential for integration in Bunaken and Bukit Baka-Bukit Raya actively used to change MoFr policy (see Annex 1-D -- Project Reports Nos. 5, 12, 14 & 25).
8. New MoFr policy on forest management adapted based on five aspects: national security of forest resources, human resources development, conservation of biological diversity, social participation and institutional development.
9. Recommendations made for improved road and bridge construction based on US Forest Service team visit.
10. Use of better technology for management of natural production forests through training in Global Positioning System (GPS) organized by US Forest Service.
11. Recommendations made for fire prevention and control based on NRM advisors' work and US Forest Service team visit.
12. Guidelines developed for understanding and working with customary laws of local communities surrounding the Bukit Baka-Bukit Raya National Park.

13. Pilot potable water system built by local communities in seven villages with NRM project assistance and with materials supplied by PT SBK. Training also provided in maintenance.

## J. NGO ROLE IN SUSTAINABLE FOREST MANAGEMENT

NGOs actively involved in public awareness programs regarding sustainable natural resource management.

### Baseline Status

1. Great suspicion on the role of government regarding NGO's, especially foreign NGO's.
2. Regarded more as an irritation and obstacle to development than as a resource and partner in development.

### Accomplishments

1. Strategies for environmental awareness prepared and implemented in the two pilot project areas in Bukit Baka-Bukit Raya and Bunaken with involvement of local NGOs (see Annex 1-D -- Project Reports No. 9 & 17).
2. Following No. 1, above, the initial public awareness materials, including calendars and videos, were produced.
3. Orientation and training provided to local NGOs in Kalimantan by Bina Swadaya to assist on implementation of NRMP activities in Bukit Baka-Bukit Raya including public awareness programs (see Annex 1-D -- Project Reports No. 35).
4. A network of NGOs in North Sulawesi set up to inform the public regarding the management of the Bunaken National Park, resulting in numerous publications in local media, workshops, field site training and the production of training and public awareness materials.

K. PUBLIC DEBATE ABOUT SUSTAINABLE NATURAL RESOURCE MANAGEMENT

Debate regarding sustainable natural resource management issues being openly conducted in national press.

Baseline Status

Limited number of environmental articles in national press discussing general environmental issues.

Achievements to date

1. Discussion of natural resource management issues in national media stimulated by Policy Secretariat/BAPPENAS seminars, policy outreach network, and training program.
2. Six papers (6) given by the NRM advisors and five by NRM funded government officials/university staff at international conferences. These with attendances by other NRMP participants at both international and in-country policy related meetings have contributed to the on-going debate on sustainable natural resource management (see Annex 1-G -- Other Seminars).
3. Extensive coverage of environmental issues by regional newspapers in North Sulawesi encouraged by project activities to support the management of the Bunaken National Park. Also programs on local TV to discuss Bunaken National Park Management Plan with PHPA counterparts and NRMP advisors.

## PART II

### PROJECT OUTPUTS NATURAL RESOURCES MANAGEMENT PROJECT

This section presents the outputs from project activities to date (31 March 1994). It summarizes the progress project staff and counterpart agencies have achieved according to the Outputs section in the NRMP logframe. More specifically, the logframe lists seven Objectively Verifiable Indicators to be used as measures of project progress. Briefly, these include the areas of:

- ♦ Policy analysis
- ♦ Development of a policy secretariat
- ♦ Training of policy analysts
- ♦ Natural resource management planning
- ♦ Development of a field-sited forestry research and training station
- ♦ Development of an applied research program
- ♦ Contributing to the development of organized, public discussion and debate regarding natural resource issues

Chart 2, which appears on the following pages details the progress made for specific benchmark targets that are listed as the indicators in the logframe. Brief comments also appear as corollaries to the data presented with the targets. Additional information about work in progress related to the objectively verifiable indicators is also summarized in the next section, Part III.

CHART 2. LOGFRAME NARRATIVE SUMMARY - OUTPUTS

NARRATIVE SUMMARY (1)	OBJECTIVELY VERIFIABLE INDICATORS (2)	MEANS OF VERIFICATION (3)	EVALUATION CATEGORY (4)	BENCHMARK TARGET (5)			COMMENTS (6)
				Nos.	Completed	In progress	
Policy and Pre-feasibility studies concerning natural resource issues	Fifteen policy analyses of national relevance and recognized value	Studies requested by GOI, findings presented and accepted by PCC	A. POLICY ANALYSIS				Ten macro studies being undertaken by NRM Policy Secretariat (three completed/seven in progress). Five studies completed through host country contracting.
			A.1. POLICY STUDIES	15	8	7	
			A.2. DEMAND-DRIVEN POLICY STUDIES		5	-	Five papers prepared at the request of Bappenas. Others will be completed as requested.
Self-supporting Secretariat for the Natural Resources Policy Group	One secretariat, affiliated to Bappenas, but able to generate supporting funds through grants and research contracts	Project Quarterly and Annual Reports, and Progress Reports to PCC	B. SECRETARIAT DEVELOPMENT				Policy Secretariat set up, equipped and staffed. Acts as base for all project policy work, linking in with other government departments and research institutions, NGOs and others
			B.1. SECRETARIAT ESTABLISHED AND FUNCTIONING	1	1	-	
			B.2. SELF-SUSTAINING DEVELOPMENT	1	-	-	Aim of generating independent funding not feasible and needs reappraisal.
Trained policy analysts in Bappenas, LI, FIN, MoFr, local universities and private consulting companies.	Five analysts given Master's training in U.S.  Fifteen analysts trained.	PCC records and reports	C. POLICY TRAINING				Five policy analyst completing MSc. in USA. 29 policy analysts trained through international short-term training courses.
			C.1. OVERSEAS	5	-	5	
			C.2. LOCAL TRAINING	15	5	15	40 trained in Policy Secretariat courses Feb. '93 through April 1994.

NARRATIVE SUMMARY (1)	OBJECTIVELY VERIFIABLE INDICATORS (2)	MEANS OF VERIFICATION (3)	EVALUATION CATEGORY (4)	BENCHMARK TARGET (5)			COMMENTS (6)
				Nos.	Completed	In progress	
Discussion organized at national level concerning natural resources issues. NGOs and local communities and participants in the debate.	Based upon project activities:		G. NATURAL RESOURCE DIALOGUE	10	10	4	Five national level seminars held on Forestry Sector Policy During the Second Long-Term Development Plan, The Role of Natural Resource Management During the Second Long-Term Development Plan, Input-Output Modelling for Environmental Planning, and Employment. Others planned for 1994.
	Ten seminars,		G.1. FORMAL SEMINAR ON SPECIFIC STUDIES				
	Workshops,		G.2. PRESENTATION OF PROJECT REPORTS		27	10	29 NRM project presentations based on completed reports on work on natural resource issues. NGOs and local communities fully involved. 10 further presentations planned for 1994.
	Media presentations						

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**NOTES:**

- (1) - (3) are as found in the original logframe with editorial changes for clearer understanding  
 (4) Breakdown/disaggregation of (2) reflect implementation of NRMP  
 (5) Benchmark targets  
 (6) Comments

### PART III

#### PROJECT ACTIVITIES IN PROGRESS NATURAL RESOURCES MANAGEMENT PROJECT

The data presented in the previous section illustrated project progress to date against benchmark targets established by the project's designers. Some targets remain to be attained and are scheduled to be finished in the next several months. This section of the progress report lists the reports, publications, and studies that are nearing completion in the Policy Secretariat and Ministry of Forestry, in West/Central Kalimantan, and in North Sulawesi. Once complete, each of these reports will also contribute to the outputs established in the NRMP logframe.

A. NRM Policy Secretariat and MoFr
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<u>Draft Title of Output</u>	<u>1st Draft Planned for</u>	<u>Presentation to GOI</u>
<i>Policy Studies</i>		
Trade and Exchange Rate Policy	May 94	May 94
Foreign Direct Investment	May 94	Jun 94
Impacts of Export Marketing Boards the Natural Resource Base	Jun 94	Jul 94
<i>Forestry Studies</i>		
Visibility of Eco-Labeling and Other Initiatives to Ensure Sus- tainable Forest Management	Jun 94	Jul 94
Policy Incentives and Disincen- tives to Efficient and Equitable Production and Trade of Rattan	Jun 94	Jul 94
Integrated Development Study	Aug 94	
Community Development Study	Aug 94	
Overall Development Study	Sep 94	

### *Policy Briefs*

Predicting the Impacts of Future Development	Apr 94	May 94
Conserving National Marine Resources	Apr 94	May 94
Employment and Environment in Natural Resources Policy	May 94	Jun 94
Understanding Biodiversity	May 94	Jun 94
Resource Valuation and Sustainable Management: The Special case of the Forests	May 94	Jun 94
Forestry Development Scenarios: Choosing a Future	May 94	Jun 94

### *Technical Reports*

Pengkajian Lembaga Swadaya Masyarakat (LSM) Terpilih di Kalimantan barat dalam Memperkokoh Proyek Pengelolaan Sumber Daya Alam (NRMP)	Mar 94	May 94
Strategi Produksi Media Penyadaran Masyarakat untuk Taman Nasional Bunkan dan Perancangan/Produksi Prioritas Pertama dan Kedua	Mar 94	May 94
Policy Towards Protected Areas in Indonesia (draft)	Mar 94	Jun 94
Avoidable Logging Waste (Draft Report)	Mar 94	May 94

B. West/Central Kalimantan (Bukit Baka - Bukit Raya)
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<u>Draft Title of Output</u>	<u>1st Draft Planned for</u>	<u>Presentation to GOI</u>
<i>Policy Working Papers</i>		
Barter System in Bukit Baka-Bukit Raya	Dec 93	
Conservation Strategy: Lesson from the Field	Dec 93	May 94
National Park Guidelines	Dec 93	Feb 94
Bina Desa Diagnostic Study	Dec 93	Feb 94
Community Structures	Dec 93	
Working with NGOs	Dec 93	Jun 94
Traditional Forest Areas Concept Outline	Oct 93	Feb 94
Traditional Forest Areas Pilot and Policy Principles	May 94	May 94
Conservation Germplasm Areas	Oct 93	Jan 94
Economic Parameters of Logging Waste Reduction	May 94	Jun 94
Habitat Survey for Biodiversity	Jun 94	Jul 94
<i>Workshops/Seminars</i>		<u>Completed</u>
Training Workshop on Understanding and Working with Customary Laws ( <i>hukum adat</i> ) in traditional forest areas		Apr 94
Training Workshop on Fire Prevention for Bukit Baka-Bukit Raya National Park		Jun 94

C.	North Sulawesi (Bunaken National Park)
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<u>Draft Title of Output</u>	<u>1st Draft Planned for</u>	<u>Presentation to GOI</u>
<i>Field Survey and Technical Reports</i>		
NGOs Participation in the Local Communities Involvement in the Conservation Areas Management	Jul 93	Jul 93
Manado and North Sulawesi NGOs: Their Capabilities and Experiences Towards the Participatory and Integrated Management Plan of Bunaken NP	Aug 93	May 94
Current Local Problems and Issues Maps in the Bunaken NP	Aug 93	May 94
Demographic Profile of Local Communities in the Bunaken NP	Dec 93	May 94
Fishing Grounds used by Local Communities in the Bunaken NP	Mar 94	May 94
Vernacular List of Economic Fish Species in the Bunaken NP	Mar 94	May 94
Traditional Mangrove Harvests by Local Communities at Mantehage Island	Feb 94	May 94
Cost/Benefit Analysis of Fish and Agricultural Products of Local Communities in the Bunaken NP	Mar 94	Jun 94
Local Communities Perception to Tourism Development in the Bunaken NP	Apr 94	Jun 94
Traditional Mangrove Harvest Management ( <i>blok tua</i> ) at Tangkasi Village, Mantehage Island	May 94	Jun 94
Local Communities Proposed Zones: Local Communities Participation in the Bunaken NP Management Plan	May 94	Jun 94
Aerial Survey and Resources Classification Maps of Bunaken NP	Apr 94	May 94

*Training Reports and Manuals*

Mooring Blocks Construction, Installation and Uses Manual	Sep 93	Sep 93
Global Position System Training Manual	Sep 93	Sep 93
Awareness Media Training for Local NGOs and PHPA Field Staff	Jan 94	Jan 94
Community Organizing Training for Local NGOs and PHPA Field Staff	Jan 94	Apr 94

*Public Awareness Materials*

Bunaken NP Exhibition Materials	Mar 94	May 94
Bunaken NP Nameboards	Apr 94	May 94
Bunaken NP Information Boxes	Apr 94	Jun 94
Aerial Mosaic of Bunaken NP	Apr 94	Jun 94

ANNEX 1

NRM Project Reports, Publications,  
Papers and Seminars

- A. Briefing Papers (prepared for BAPPENAS)
- B. Policy Studies
- C. Policy Briefs
- D. Project Reports
- E. Other Publications
- F. BAPPENAS Seminars Held
- G. Other Seminars

## NRM PROJECT REPORTS, PUBLICATIONS PAPERS AND SEMINARS

### A. Briefing Papers

Briefing papers prepared for Bappenas including:

1. Long-term Forestry Development, Objectives and Policies in the Context of the Second Long-Term Development Plan
2. Natural Resources Issues for the Second Long-Term Development Plan
3. Policy Issues in Indonesia's Forestry Sector
4. Rent Capture in Indonesia's Forestry Sector
5. Increasing Employment and Value Added in Indonesia's Forestry Sector

### B. Policy Studies

1. Dynamic Input-Output Modelling for the Second Twenty-five Year Plan and the Sixth Five Year Plan
2. Trade and Exchange Rate Policy (in process)
3. Foreign Direct Investment Policy (in process)
4. Forestry Study:
  - a. Viability of Eco-Labeling and Other Initiatives to Ensure Sustainable Forest Management (in process)
  - b. Policy Incentives and Disincentives to Efficient and Equitable Production and Trade of Rattan (in process)
5. The Employment Effects of a Natural Resources Management Policy
6. Policies Toward Protected Areas (in process)
7. Marine Sector Study

8. Integrated Development Study (in process)
9. Community Development Study (in process)
10. Overall Development Study (in process)

C. Policy Briefs

1. Integrating Spatial Planning and National Parks
2. Commercial Forest Management
3. Improving Species Management in Forest Concessions
4. Forecasting the Impacts of Future Development (in process)
5. Conserving National Marine Resources (in process)

D. Project Reports

1. Procurement Plan for Research Equipment at Bukit Baka and Equipment Installation at Samarinda Forestry Research Station
2. Agroforestry in Bukit Baka/Bukit Raya
3. Pengukuran dan Pemetaan Topografi Sebagian Daerah Taman Nasional Bukit Baka/Bukit Raya (Topography Survey for Research Station Site - Bukit Baka/Bukit Raya National Park)
4. Applied Research Recommendations for Production Forest Management: An Economic and Ecological Review of the Indonesian Selective Cutting and Replanting System (TPTI)
5. Balancing Forest and Marine Conservation with Local Livelihoods in Kalimantan and North Sulawesi
6. Proposal to the GOI and USAID for the Development of Comprehensive Environmental and Natural Resources Accounts (CENRA) for Economic Planning and Management
7. Bukit Baka Mini-Hydraulic System Implementation Plan

8. Final Report: Bukit Baka-Bukit Raya 1992  
Station Protocol: Bukit Baka-Bukit Raya 1992  
Research Protocol: Bukit Baka-Bukit Raya 1992
9. Environmental Education and Awareness in Bukit Baka (Volume 1)  
Environmental Education and Awareness in Bukit Baka Guide to Environment and Fire Campaign (Volume 2)
10. Recommendations for Controlled Timber Harvesting in the SBK Forest Concession
11. Cruiser Identification at SBK and Local Uses of Trees by Local People
12. Community Water Supply Feasibility Study for Bukit Baka-Bukit Raya, Kalimantan
13. Recommendation for Reorganizing NRM Library (Sept. - Dec. 1992)
14. Livelihood Strategies and Marine Resource Use among Residents of Bunaken National Park, North Sulawesi: Recommendations for Local Involvement in Park Management
15. A Competitive Awards Scheme for Applied Forest Management and Nature Conservation
16. Design of a Management Information System for the Natural Resources Management Project
17. Environmental Education and Awareness Strategy for Bukit Baka-Bukit Raya National Park (Vol. 1)  
NGO Training for a Local Environmental Education and Awareness Strategy (Vol. 2)
18. Water Supply and Sanitation (WS&S) Program in Bukit Baka-Bukit Raya, Kalimantan (Program Status Report)
19. The role of Non-Governmental Organizations (NGOs) in supporting the Natural Resources Management Project in Bukit Baka-Bukit Raya National Park
20. Integration of Provincial Regional Development Planning into the Bukit Baka-Bukit Raya National Park Management Plan
21. Communication, Information and Education Strategy for Bunaken National Park
22. Report on the Preparation of a Design for a Study of the Natural Resource Impacts of Marine Sector Policy during the Second Long-term Development Plan Period

23. Management Information System for the Natural Resources Management Project: Report on the Second Mission to Jakarta, July - August 1993 (Vol. 1)  
Management Information System for the Natural Resources Management Project: User Manual and Technical Documentation (Vol. 2)
24. Water Supply and Sanitation Program in Bukit Baka-Bukit Raya, Kalimantan
25. Report on Communities Living Within Reach of the Bukit Raya National Park in Kalimantan Tengah
26. Effective Protection and Natural Resources Management in Indonesia
27. The Role of Conservation Areas in Production Forest (in Draft)
28. Economic Issues Associated with the TPTI Management System (In Draft)
29. A Review of Planning Arrangements for Sustainable Management of Natural Production Forest on Forest Concessions in Indonesia. An Interim Report
30. Eco-tourism Development in Bunaken National Park and North Sulawesi
31. Environment and Development in Indonesia: An Input-Output Analysis of natural Resource Issues (plus 16 working papers and two manuals)
32. Survei Pemakaian Tumbuhan Obat di Nanga Juoi Kecamatan Menukung, Kalimantan Barat
33. Mid Term Report: Guidelines and Implementation Issues Concerning Natural Production Forest Management
34. Village Sketch Mapping at Bukit Baka-Bukit Raya National Park West Kalimantan
35. Pengkajian Lembaga Swadaya Masyarakat (LSM) Terpilih di Kalimantan barat dalam Memperkokoh Proyek Pengelolaan Sumber Daya Alam (NRMP)
36. Strategi Produksi Media Penyadaran Masyarakat untuk Taman Nasional Bunaken dan Perancangan/Produksi Prioritas Pertama dan Kedua
37. Policy Towards Protected Areas in Indonesia (Draft Report)
38. Avoidable Logging Waste (Draft Report)

E. Other publications

1. Abstracts of NRM Project Reports

September 1993

Vol.1 - English version

Vol.2 - Indonesian version

December 1993

Vol.1 - English version

Vol.2 - Indonesian version

2. NRM Project Newsletters

a. General

No. 1 - September 1993

No. 2 - December 1993

No. 3 - April 1994

b. Bunaken

NGO Newsletter - March-January 1994

3. NRM Brochures

a. Project brochure (January 1993)

b. Bunaken brochure (March 1994)

4. Public Awareness Materials

a. Bukit Baka

Calendar (January 1994)

Videos of Local Community Activities (February 1994)

b. Bunaken

Park brochure (February 1994)

Visitor's questionnaire forms (February 1994)

Exhibition materials (May 1994)

Park signboards (May 1994)

No. 1 - September 1993

No. 2 - December 1993

No. 3 - April 1994

F. Bappenas Seminars Held

1. Forestry Sector Policy During the Second Long-Term Development Plan (February 1992)
2. The Role of Natural Resource Management During the Second Long-Term Development Plan (May 1992)
3. Input-Output Modelling of Environmental Planning (May 1993)
4. Eco-Labeling and Forestry Products (July 1993)
5. Trade and Natural Resources Management (December 1993)
6. Planning for Sustainability (December 1993)
7. Employment Effects of Natural Resources Policy: Analysis of Labour Absorption Forecasts to the Year 2020 (January 1994)

G. Other Seminars

1. International Meetings

- Second Biennial International Conference Borneo Research Council, Inc., Sabah in July 13 - 17, 1992. The NRM/ARD Social Forestry Advisor (Mering Ngo) attended and presented a paper entitled: "Structure of the Local communities Within and Around the Bukit Baka - Bukit Raya National Park, West/Central Kalimantan."
- Quality of Life Survey of the ESCAP Region, Seoul, Korea in August 10 - 15, 1992. The NRM/ARD Macro Economist (Erik Scarsborough) attended and presented a paper entitled: "Quality of Life with Respect to the Physical Environment in the Asia -Pacific Region."

- Harvesting and Silviculture for Sustainable Forestry in the Tropics, Kuala Lumpur, Malaysia in October 5 - 9, 1992. This was attended with a paper jointly presented by NRM/ARD short-term Forestry Research consultant (Lisa Curran) and Ir. Nana Supriana from SBK, entitled: "Forest Management Issues in Kalimantan"
- What do Environmentalist Need from Economists, at the University of Tufts, Boston, November 11 - 14, 1992. The NRM/ARD Resource Economist (Clive Hamilton) attended and presented a paper entitled: "Economic Values and Environmental Values: from Coolangubra to Kalimantan."
- Trade, Knowledge, and the network Economy, Australia, December 7 - 16, 1992. The NRM/ARD Project Assistant (Edison Hulu) attended and presented a paper entitled: "The Performance of Inter-Industrial Relationships Between Indonesia and Japan."
- Study on the Quality of Life in the Asia - Pacific Region, UNDP, Bangkok, February 26-28, 1993. Attended by the NRM/ARD Macro Economist (Erik Scarsborough).
- Tropical Rainforest Research Current Issue Conference, Brunei, April 9 - 17, 1993. Attended by the West Kalimantan NRM/ARD Team Leader (Roy Voss).
- International Cocoa Conference, Bali, Indonesia, 1993. The NRM/ARD Forestry Advisor (Chris Bennett) attended and presented a paper entitled:

## 2. In-country Meetings

- Sustainable Tropical Forest Management, Hotel Horizon, Jakarta, December 9 - 10, 1991 (Colin MacAndrews and Tom McKenzie).
- The Role of Natural resource Accounting in Sustainable Development, State Minister for Population and the Environment, July 8, 1992 (Colin MacAndrews & Erik Scarsborough).
- Strategy for the Conservation and Management of Coral Reefs (Terumbu Karang), State Minister for Population and the Environment, August 7 - 8, 1992 (Colin MacAndrews, Graham Usher, and R.M. Rompas).
- Employment Effects of the wood-Based Processing Industry, Palembang, BAPPENAS - ILO, September 25, 1992 (Erik Scarsborough).
- Application of Research Results for Dipterocarpaceae Development, Samarinda, November 8 - 13, 1992 (Lisa Curran and Dwi Astiani (UNTAN) ).
- Peranserta Masyarakat Lokal dalam Pengelolaan Hutan di Indonesia, University of Indonesia & MoFr, February 9, 1993 (Mering Ngo).

- Strategi Nasional dan Aksi Mangrove di Indonesia, LIPI, February 11, 1993 (Colin MacAndrews and Erik Scarsborough).
- Environmental Business Management: Assessment of Threats and Opportunities in Indonesia, LPEM-UI and Lippo Land Development, Jakarta, November 18, 1993 (Ken Leathers)

## ANNEX 2

### Summary of Policy Recommendations from Policy Studies and Short-term Technical Assistance

- A. Macroeconomic and Cross-Sectoral Policies
- B. Sectoral Policies
  - Forestry Sector
  - Marine Sector
- C. Policy Toward Protected Areas
- D. Commercial Forest Management
- E. Supporting Resources
  - The Knowledge Base
  - Human Resource Development
- F. Community Participation
- G. Site-Specific NRM Recommendations
  - Bunaken National Marine Park, North Sulawesi
  - Bukit Baka-Bukit Raya National Park,  
West/Central Kalimantan

## NATURAL RESOURCE MANAGEMENT POLICY RECOMMENDATIONS

Policymaking aimed at promoting sustainable natural resource use occurs in three key dimensions:

- (a) physical management of the natural resource base at the field level,
- (b) policy directed toward natural resource use at the sectoral level, and
- (c) impacts of policymaking at the macroeconomic or cross-sectoral level on the natural resource base.

Policymaking within the first dimension [i.e. (a)] may involve site-specific interventions that impact natural resource use within a localized area (e.g. "To preserve the productivity and natural beauty of Bunaken Island's coral reefs, the uses to which these reefs may be put must be limited."). Or it may aim at management of a specific resource across geographic areas (e.g. "To avoid excessive post-felling damage to the forest, all concessionaires must use wheeled skidders wherever conditions of terrain permit.").

By contrast, policymaking at the sectoral level (e.g. methods of allocating fishing rights or the level at which stumpage fees are set) and the macroeconomic level (e.g. rates of import or export taxes on natural resource-intensive goods) tends by nature to be non-site-specific.

The following summary of the policy recommendations formulated between Project start-up and this writing contains recommendations pertaining to all three dimensions of natural resource management policymaking.

### MACROECONOMIC AND CROSS-SECTORAL POLICIES

Article 34 of the Indonesian Constitution states that the country's natural resources are to be used to benefit all Indonesians. However, the current policy regime tends to distribute the benefits of natural resource use narrowly, and to threaten exhaustion of these resources within a few generations. The following policy changes are recommended to help reorient natural resource use towards a more sustainable pattern:

- (1) Adopt Article 34 of the Indonesian Constitution as the guiding principle of natural resource development.<sup>20</sup>
- (2) Recognize natural resource impacts, constraints, and efficiency in all economic plans and growth targets.<sup>20</sup>
- (3) Formulate a long-term, cross-sectoral natural resource development plan which specifies the role of each natural resource-intensive sector in economic development.<sup>20</sup>

- (4) Introduce natural resource accounting as a tool for assessing the impacts of project investments across diverse sectors.<sup>17,18,20</sup>
- (5) Examine the natural resource implications of the Government's on-going program of tariff reform.<sup>15</sup>
- (6) Revamp fiscal policy (taxes and subsidies) pertaining to natural resource use so as to allow the Government to capture a greater share of economic rent from natural resource exploitation.<sup>19</sup>
- (7) Allocate at least some portion of the economic rents from natural resource use captured by the Government to sustainable development initiatives.<sup>17,18,19,20</sup>
- (8) Eliminate the anti-employment bias inherent in the present natural resource development policy regime.<sup>21</sup>
- (9) Reform policies that underprice natural resources or subsidize their exploitation.<sup>17,18,20</sup>
- (10) Dismantle all export marketing boards in natural resource-intensive sectors, or at least make participation in their activities non-compulsory.<sup>22</sup>
- (11) Strategically plan foreign involvement in natural resource development and screen imported technologies with significant impacts on the natural resource base.<sup>20</sup>

## SECTORAL POLICIES

### Forestry Sector

There are a number of policy changes that would facilitate sustainable development of Indonesia's forestry resource. Important steps in this direction include making forest-based industries technologically more efficient, reforming the structure of incentives within the sector, improving international competitiveness, and decentralizing decision-making. To these ends, the following policy initiatives are recommended:

- (1) Remove price and quantity restrictions on forest-based exports.<sup>15,17</sup>
- (2) Raise government royalties on harvested log volumes by 100%.<sup>17,19,20</sup>
- (3) Shift from a subsidized operating environment to one reflecting increasingly scarce and costly raw materials.<sup>17</sup>
- (4) Introduce waste reduction incentives for wood-processing industries.<sup>17</sup>
- (5) Abolish the requirement that each concessionaire have access to facilities of processing of logs.<sup>17</sup>
- (6) Intensify management of and investment in natural forests and plantations.<sup>17</sup>
- (7) Enhance the economic and ecological benefits of mandated forest management practices as a means of encouraging their adoption by concessionaires.<sup>17</sup>

- (8) Counterbalance incentives that encourage concessionaires to maximize timber volume per hectare harvested with financial incentives that encourage ecological damage during log harvesting to be minimized.<sup>17</sup>
- (9) Require logging companies to post a performance bond equal to 75% of the value of the timber within their concession area. This bond would then be returned when criteria for sustainable management of that particular concession are met.<sup>17</sup>
- (10) Repeal the requirement that each concession have an associated forest plantation (HTI).<sup>4,17</sup>
- (11) Include reclamation and industrial plantation components in the HTI program.<sup>4,17</sup>
- (12) Allow private land rehabilitation companies to assume responsibility for forest reclamation.<sup>17</sup>
- (13) Prevent natural forests with high management potential to industrial plantations from being converted to plantations.
- (14) Limit activities in industrial plantations to producing cost-efficient timber for long-term industrial needs.<sup>4,17</sup>
- (15) Establish a widely representative and independent Forest Products Marketing Institute that advises all parties on industrial policy, strategy, management, and marketing.<sup>17</sup>
- (16) Assign a greater proportion of revenues from forestry royalties to local and provincial governments (perhaps 25% and 20% respectively vs. present levels of 11% and 9%).<sup>17,19,20</sup>
- (17) Establish widely representative Provincial Forestry Development Commissions (PFDCs) that advise the Ministry of Forestry on industrial development, provincial forest management, government forestry investments, and concession management and monitoring.<sup>17</sup>
- (18) Assign private companies, policed by the PFDCs, the responsibility for monitoring concession management and reporting logging volumes.<sup>17</sup>

#### Marine Sector

Policy toward Indonesia's marine sector remains fragmented and dispersed across a large number of government agencies. This results in poorly-coordinated and often inefficient policy. Indonesia's essentially open-access marine development regime biases marine productive activities towards short-term gains in output, income, and foreign exchange earnings. This threatens the sector's prospects for sustainable development. The following policy initiatives are recommended as a first step in marine sector policy reform:

- (1) Use individual transferable catch quotas as the basic mechanism for assigning marine fishing rights.<sup>18</sup>

- (2) Institute a comprehensive plan and set of policies for development of open- water fisheries, aquaculture, and wetlands.<sup>18</sup>
- (3) Make marine sector policymaking the responsibility of a single Governmental agency.<sup>18</sup>
- (4) Integrate the role of traditional communities into marine sector policymaking.<sup>5,14,18</sup>

#### POLICY TOWARD PROTECTED AREAS

In order to preserve Indonesia's unique and rich biodiversity, the Directorate General for Forest Protection and Nature Conservation (PHPA) has designated 366 terrestrial, coastal, and marine protected areas. Integrating conservation with regional development needs within these 49.5 million hectares is an extremely large task.

If PHPA is to fulfill this challenging mandate, it will need to considerably upgrade its institutional capability. It must also enlist private sector support for its initiatives. The following policy initiatives are recommended as initial steps in this regard:

- (1) Establish a widely representative Protected Areas Institute (PAI) responsible for conducting policy analysis and strategic planning for the Protected Areas System (PAS).<sup>23</sup>
- (2) Decentralize protected area management and coordinate park management with local and provincial needs.<sup>23</sup>
- (3) Create Provincial Protected Areas Commissions (PPACs) responsible for advising and supporting PHPA in developing and managing protected areas within their respective provinces.<sup>23</sup>
- (4) Charge the PAI with building the PPACs' capacities to participate fully in protected area development within their respective provinces.<sup>23</sup>
- (5) Formalize PHPA's role as a guiding, steering, and coordinating body.<sup>23</sup>
- (6) Allow private sector contractors to develop and implement protected area management plans under PHPA supervision.<sup>23</sup>
- (7) Develop innovative and flexible guidelines for funding to support protected areas.<sup>23</sup>
- (8) Initiate a Land Status Change Committee that systematically addresses petitions to change protected area status or to undertake restricted activities within protected areas.<sup>20,23</sup>
- (9) Do away with current restrictions that limit PHPA's activities to areas within protected area boundaries.<sup>23</sup>
- (10) Assign the administration of protected areas and their buffer zones to a single administrative entity.<sup>23</sup>

- (11) Encourage PHPA to improve its relationship with local communities.<sup>23</sup>
- (12) Incorporate local community needs into the design of protected area management schemes.<sup>23</sup>

### COMMERCIAL FOREST MANAGEMENT

In addition to a policy environment conducive to sound management practices, sustainable commercial forestry sector development requires an effective regulatory framework. Unfortunately, the Indonesian Selective Cutting and Replanting System (TPTI) has as yet failed to provide a regulatory framework conducive to widespread adoption of sound forest management practices. Major obstacles in this regard are inadequate or inappropriate forest management regulations, a limited understanding of sound forest management practices by field staff, and use of inefficient harvesting technologies. The following policy initiatives are recommended as first steps in filling these gaps:

- (1) Make TPTI directives more transparent to foresters and forestry officials in the field.<sup>4</sup>
- (2) Deploy more staff in implementing the TPTI.<sup>4</sup>
- (3) Ensure that concessionaires, cruisers, and logging crews understand and observe timber cruising directives.<sup>4</sup>
- (4) Use volume, exploitation, and production factors that reflect a stand's predicted regenerative capability in calculating the allowable annual cut.<sup>4</sup>
- (5) Improve the enrichment, replanting, and nucleus tree components of TPTI regulations as a means of improving prospects for natural regeneration.<sup>4</sup>
- (6) Introduce regulations that limit damage from felling, skidding, and road building.<sup>10</sup>
- (7) Encourage replacing trucks with wheeled skidders on branch logging roads.<sup>10</sup>
- (8) Mitigate adverse impacts on the forest associated with existing logging roads.<sup>4</sup>
- (9) Control flammable residual logging wastes and deploy fire-fighting teams.<sup>10</sup>
- (10) Incorporate non-timber forest products into forest management policy.<sup>4,17,20</sup>

### SUPPORTING RESOURCES

Although correct macroeconomic and sectoral policies and an effective regulatory framework are crucial to a sound natural resource management regime, implementation of the latter depends on availability of human and physical resources as well as appropriate

information. The following initiatives relating to research, training, and information management are recommended in order to improve natural resource management in Indonesia:

#### The Knowledge Base

- (1) Collect and use appropriate baseline data when formulating integrated conservation or natural resource development schemes.<sup>4,5,14</sup>
- (2) Identify the fundamental causes of environmental degradation resulting from activities of residents living in areas within or adjacent to designated conservation or natural resource development areas.<sup>5,14</sup>
- (3) Formulate a generic model for sustainable, multiple-use management of wetlands and mangroves that recognizes both traditional and large-scale commercial uses of these resources.<sup>18</sup>
- (4) Test alternative forest management and harvesting methods in experimental demonstration plots.<sup>4,10</sup>
- (5) Equip timber cruisers with appropriate tree identification manuals and tools.<sup>11</sup>
- (6) Perform a survey of the distribution, use, management, and marketing of commercial timber species from Indonesian forests.<sup>4</sup>
- (7) Perform a survey of the distribution, use, management, and marketing of non-timber forest products.<sup>4</sup>
- (8) Inventory rare species of flora and fauna and their distribution.<sup>4</sup>
- (9) Establish herbaria as a means of assisting identification of floral species.<sup>11</sup>
- (10) Build and integrate natural resource and environmental management libraries and information systems.<sup>4,9,10,11</sup>
- (11) Support natural resource management research via appropriate facilities, educational opportunities, training in equipment operation and maintenance and funding.<sup>1,8</sup>
- (12) Introduce a single competitive awards scheme for natural resource management research.<sup>17</sup>
- (13) Focus research on resolution of natural resource management problems and the role of policy in resolving such problems.<sup>20</sup>

#### Human Resource Development

- (1) Develop a cadre of Indonesian scientists skilled in applied conservation and research focusing on resolution of natural resource management problems.<sup>2,4,5,8,9,10</sup>
- (2) Develop a cadre of Indonesian technicians trained in the operation and maintenance of research and resource management equipment.<sup>1,8,11</sup>
- (3) Provide training and equipment to all field personnel appropriate to proper implementation of all phases of the TPTI.<sup>1,4,7,8,10,11</sup>

- (4) Establish forest resource management demonstration centers at which foresters can be trained in improved methods of forest management, logging, and wood-processing.<sup>2,4,8,10,11,17</sup>
- (5) Develop a national cadre of taxonomists or parataxonomists as an aid to the correct identification of species of flora and fauna.<sup>11</sup>

## NOTES

1. "Procurement Plan for Research Equipment at Bukit Baka and Equipment Installation at Samarinda Forestry Research Station", NRMP, January 1992.
2. "Report of the Short-term Agroforestry Advisor", NRMP, March 1992.
3. "Report on Topographic Mapping and Measuring of a Portion of Bukit Baka-Bukit Raya National Park [*Laporan Pengukuran dan Pemetaan Topografi Sebagian Daerah Taman Nasional Bukit Baka/Bukit Raya*]", NRMP, April 1992.
4. "Applied Research Recommendations for Production Forest Management", NRMP, May 1992.
5. "Balancing Forest and Marine Conservation with Local Livelihoods In Kalimantan and North Sulawesi", NRMP, May 1992.
6. "Proposal to the Government of Indonesia and USAID for the Development of Comprehensive Environmental and Natural Resource Accounts (CENRA) for Economic Planning and Environmental Management", NRMP, May 1992.
7. "Bukit Baka Mini-hydroelectric System Implementation Plan", NRMP, June 1992.
8. "Report on a Proposed Organizational Structure for the Bukit Baka Research Station", NRMP, June 1992.
9. "Environment Education and Awareness in Bukit Baka", NRMP, July 1992.
10. "Recommendations for Controlled Timber Harvesting in the PT. Sari Bumi Kusuma Forestry Concession", NRMP, Aug 1992.
11. "Cruiser Identifications at PT. Sari Bumi Kusuma and Local Uses of Trees by Local People", NRMP, December 1992.

12. "Community Water Supply for Bukit Baka Feasibility Study", NRMP, December 1992.
13. "Report on NRM Library Consultancy--September-December, 1992", NRMP, December 1992.
14. "Livelihood Strategies and Marine Resource Use Among Residents of Bunaken National Park, North Sulawesi: Recommendations for Local Involvement in Park Management", NRMP, December 1992.
15. "Trade and Exchange Rate Policy and Natural Resource Management During the Second Long-Term Development Plan (SLTDP) Period", NRMP (in progress).
16. "Policy Toward Foreign Direct Investment and Natural Resource Management During the SLTDP Period", NRMP (in progress).
17. "Forestry Sector Policy During the SLTDP Period", NRMP (in progress).
18. "Marine Sector Policy During the SLTDP Period", NRMP (in progress).
19. "Fiscal and Monetary Policy and Natural Resource Management During the SLTDP Period", NRMP (in progress).
20. "Overall Development Strategy and Natural Resource Management During the SLTDP Period", NRMP (in progress).
21. "The Employment Effects of Sectoral Policy in the Natural Resource-Intensive Sectors During the SLTDP Period", NRMP (in progress).
22. "Export Marketing Boards and Their Impact on the Natural Resource Base", NRMP (in progress).
23. "Policy Toward Protected Areas in Indonesia During the SLTDP Period", NRMP (in progress).
24. "Input-Output Analysis of Natural Resources and the Environment in Development Planning", NRMP, June 1993.

## APPENDIX 1

### RECOMMENDATIONS RELATING TO COMMUNITY PARTICIPATION

Even the best planned natural resource management schemes may fail if local community support for them is lacking. In addition, conservation and natural resource management initiatives developed without input from local residents often result in resource use conflicts. The following generic approaches to facilitating community participation in the design of conservation and natural resource management schemes as a means of ensuring local community support and absence of resource use conflicts are therefore recommended:

- (1) Recognize the diversity and site- and culture-specific nature of natural resource use patterns by residents living within or adjacent to designated conservation or natural resource management areas.<sup>5,14</sup>
- (2) To the extent possible, accommodate these resource use patterns when formulating natural resource management plans or integrated conservation and development schemes.<sup>5,14</sup>
- (3) Build initiatives for removing the fundamental causes of environmental degradation by local residents into conservation or natural resource development schemes.<sup>4,5,9,14</sup>
- (4) Support community initiatives that relieve pressure on the resources targeted by natural resource management schemes. Examples include strengthening distribution chains through which renewable non-timber forest products are marketed, encouraging sustainable agroforestry initiatives on eroded land, upgrading educational services that expand livelihood opportunities, encouraging offshore fishing in areas in which near-shore areas are overfished, and supporting locally-managed small-scale ecotourism initiatives.<sup>5,14</sup>
- (5) Initiate public information campaigns and "community participation committees" when formulating conservation or natural resource management plans.<sup>9</sup>
- (6) Collaborate with both popular and officially-designated community leaders in distributing the benefits of integrated conservation and development among local residents.<sup>5,9,14</sup>
- (7) Initiate sanitation, electrification, education, and other community assistance projects that are consistent with local resource use patterns and capabilities.<sup>12</sup>
- (8) Encourage expansion of opportunities for direct employment and markets for local produce when formulating or implementing conservation or natural resource management initiatives.<sup>4,5,14</sup>
- (9) Build good foundations for collaborative resource development, conservation, and development efforts through communicative and respectful approaches to local communities.<sup>4,5,9,12,14,20</sup>
- (10) Support collaborative natural resource development, conservation, and community-building initiatives via community assistance projects that respond to locally-identified needs, priorities, and capacities.<sup>4,5,12,14</sup>
- (11) Guide community assistance projects towards community self-reliance.<sup>2,4,5,12,14</sup>

- (12) Raise the level of awareness of local residents about the consequences of environmental degradation in areas adjacent to villages or communities via a national environmental awareness program appropriately modified for specific areas.<sup>4,5,9,14</sup>
- (13) In vulnerable communities and the public-at-large, foster the notion that people can individually and collectively preserve the environmental integrity of their surroundings.<sup>4,5,9,14</sup>

## APPENDIX 2

### SITE-SPECIFIC NATURAL RESOURCE MANAGEMENT RECOMMENDATIONS

NRMP field activities have generated a large amount of information relating to the operation of social and ecological parameters in the areas adjacent to its two field stations. These have led to the following site-specific natural resource management recommendations:

#### Bunaken National Marine Park, North Sulawesi

- (1) Collect baseline data relating to the sociological aspects of coastal and marine resource use before finalizing the management plan for Bunaken National Marine Park.<sup>5,14</sup>
- (2) Clarify which agencies or entities have jurisdiction over use of specific lands or resources within the park prior to finalizing marine resource management plans.<sup>4,5,14</sup>
- (3) Resolve the following resource use conflicts: use of materials from live coral reefs for construction, harvesting mangrove resources for commercial purposes, near-shore commercial fishing employing the use of heavy nets, cultivation agricultural crops on sharply sloping terrain in the absence of soil conservation measures, disposal of human waste in near-shore areas, spontaneous informal-sector tourist infrastructure development.<sup>14</sup>
- (4) Address the following socioeconomic conditions leading to environmental degradation: limited supplies of household labor, high population density, skewed distribution of fertile land among local residents, seasonal shortages of fresh water, low or marginal levels of productivity in agricultural activities, poor access to offshore fishing equipment, religious and ethnic barriers to inter-community cooperation, poor representation of local interests by some village leaders, limited educational opportunities, and limited income-generating opportunities for women.<sup>14</sup>
- (5) Examine multiple-use options as means of resolving the above problems.<sup>4,5,14</sup>
- (6) Check speculation in land prices and unplanned development of tourist infrastructure by providing correct information regarding future development of tourism within the park.<sup>5,14</sup>

#### Bukit Baka/Bukit Raya National Park, West/Central Kalimantan

- (1) Recognize the diversity of livelihood strategies within and across local villages.<sup>5</sup>
- (2) Recognize household rice security as the dominant feature of decisionmaking concerning community resource use.<sup>5</sup>
- (3) Resolve the conflicts between commercial and community demands for timber and non-timber resources.<sup>4,5,9</sup>

- (4) Determine how local forest species might be used for development of sustainable community agroforestry, extractive reserve harvesting, and cottage industry.<sup>4,5,14</sup>
- (5) Design a community extractive reserve that accommodates both destructive and non-destructive uses of local resources.<sup>4,5,14</sup>
- (6) Encourage the cultivation of agroforestry and perennial crops via secure land tenure or stewardship arrangements.<sup>2,4,5,9,12</sup>
- (7) Develop marketing networks for the rattan-based cottage industry.<sup>4,5</sup>
- (8) Encourage community initiatives for controlling fire, erosion, and ecological damage via environmental awareness programs.<sup>9</sup>
- (9) Construct community water supply systems in eight communities via cooperation among PT Sari Bumi Kusama, USAID, and local residents.<sup>4,5,9,14</sup>
- (10) Establish an herbarium as a means of supporting the inventorying of local species of flora.<sup>11</sup>

ANNEX 3

Policy Analysts Trained in the Policy Secretariat

## POLICY ANALYSTS TRAINED IN POLICY SECRETARIAT

Name	Degree	University	Age
<b>A. Senior Research Associates</b>			
Soegolo	Industrial Engineering	Inst. of Technology Bandung	43
Edison Hulu	Economics	University of Indonesia	34
Meyer Siahaan	Economics	Univ. of Queensland	42
Fadhil Hasan	Agricultural Economics	Univ. of Iowa (USA)	34
Dedi Nuryana	Statistics	IPB-Bogor	29
Ketty Kadarwati*	Demography	Australian National Univ.	32
Ani Septiani*	Agricultural Economics	IPB-Bogor	31
<b>B. Research Assistants</b>			
1. <u>A. I/O Modelling</u> (December 1992-April 1993)			
Suharno	Agribusiness	IPB - Bogor	32
Clarita Ligaya*	Agriculture	IPB - Bogor	24
Aida Umayah*	Economics	University of Indonesia	27
Jaka Setiawan	Economics	Gajah Mada University	26
Agus Sutiadi	Economics	University of Sriwijaya	25
Irebella*	Economics	University of Indonesia	26
Marlianis*	Economics	University of Indonesia	29
2. <u>A. Trade &amp; Exchange Rate / Employment Effect of Sectoral on the Natural Resource - Intensive Sectors</u> (February-December 1993)			
Bagus T. Nugroho	Economics	Islamic Univ. of Indonesia	27
Gunadi	Economics/Management	UKI	24
Rudianto	Accounting	University of Brawijaya	27
D. Simbolon	Economics	University HKBP Nommensen	29
Nabiha Z. Muhamad*	Mathematics	University of Indonesia	24
3. <u>Foreign Direct Investment</u> (May-September 1993)			
Triasi S. Sibuea*	Mathematics	University of Sumatera Utara	24
Erhash	Economics	Tri Dharma Widya University	24
Tonny Sinaga	Economics	University of Indonesia	27
Evelina Hartanti*	Economics/Management	University of Sebelas Maret	23
Mangasa Sitanggang	Accounting	University HKBP Nommensen	27
4. <u>Export Marketing Boards &amp; Their Impact on the Natural Resources Base</u> (September'93 - January 1994)			
Danang Joko Ismoyo	Economics	University of Krisnadipayana	25
Leonardus S. Pamungkas	Economics	University of Padjadjaran	24
Tommy Martakusuma	Economics	University of Islamic Indonesia	25
Ratih Prabandari*	Mathematics	Inst. of Technology Bandung	30
Arief R. Rasyid	Economics	University of Trisakti	27
Siti A. Damayanti*	Economics	University of Brawijaya	24

\* Female

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ANNEX 4

Training

- A. GOI Participants Undertaking MSc. Degree Training in the Natural Resources Fields in the USA
- B. International Short-term Training Program
- C. In-country Workshops and Training

**GOI Participants Undertaking MSc. Degree Training  
in the Natural Resources Field in the USA**

NAME	DEPT.	UNIVERSITY	FIELD	DEPARTURE	RETURN
<b>A. ALREADY ADMITTED</b>					
1. Sigit Pramono	MoFr.	Purdue University	Forest & Natural Res.	August 1992	1994
2. Agus Sutito	MoFr.	North Dakota University	Natural Resources	August 1992	1994
3. Adi Susmianto	MoFr.	Michigan University	Natural Resources Mgmt	August 1992	1994
4. Asep Sugiarta	MoFr.	University of New Mexico	Wildlife Management	August 1992	1994
5. Sri Yanti W.*	Bappenas	Carnegie Mellon University	Resource Economics	January 1993	1995
6. Sri Winenang	MoFr./Manado	Lousiana State University	Wildlife Management	August 1993	1995
7. Diana A. Barus*	USU Medan	University of Central Florida	Environmental Sciences	August 1993	1995
8. Rahayu Riaha*	MoFr.	Michigan University	Forestry	August 1993	1995
9. Humala Pangaribuan	Bappeda Kalteng	University of Maine	Forestry	August 1993	1995
10. Emmy Endah Suwarni*	PHPA Kutacane	University of Maine	Wildlife Management	August 1993	1995
11. Joko Pramono	Biphut Palembang	Iowa State University	Forestry	August 1993	1995
12. Oktavianus Lingkubi	Kanwil Manado	North Dakota University	Natural Resources Mgmt	August 1993	1995
13. Wahyuningsih Darajati*	Bappenas	University of Illinois	Environmental Science	Jan. 1994	Dec. 1995
14. Tamtama Poerwowinoto	Bappenas	Ohio State University	Environmental Planning	Jan. 1994	Dec. 1995
15. Ahmad Perwira Mulia	USU Medan	University of Florida	Marine Management	Jan. 1994	Dec. 1995
16. Gusti Hardiansyah	PT SBK	Washington State University	Forest Economics	Jan. 1994	Dec. 1995
17. Rusydi	Kanwil Padang	Oklahoma State University	Forest Management	Jan. 1994	Dec. 1995
18. Neil Makinuddin	NGO/Plasma	Duke University	Rainforest Management	May 1994	May 1996
<b>B. UNDER ADMISSION</b>					
1. Izeфри Caniago	University of Andalas Padang	Admission in process	Natural Resources Mgmt	Sept.1994	
2. Ida Ayu Purbasari*	Bappedal/Sibelut	Admission in process	Coastal& Marine Env. Mgmt	Sept.1994	
3. Suraya Afiff*	NGO/Walhi	Admission in process	Coastal/Marine Ecosystem	Sept.1994	
4. Sudarsono Soedomo	IPB Bogor	Admission in process	Forest Resources Mgmt	Sept.1994	
<b>C. RESERVES</b>					
1. Soemardjo	Ditjen RRL/MoFr	In process	Forest Biology	1994	
<b>D. PHD</b>					
1. Dedy Riyadi	Bappenas	Oregon State University	Agriculture and Resource Economics	1988	Jul. 1992
2. Mohammed Prakosa	Univ. Bengkulu	Univ. of California, Berkeley	Forestry Economics	1990	March 1994
3. Hadi Pasaribu	MoFr.	Colorado State University	Resource Economics	1991	Dec. 1995

\* Female

INTERNATIONAL SHORT-TERM TRAINING PROGRAM  
STATUS REPORT - MARCH 1994

NO	TITLE	PLACE	DATES	NO. OF PARTICIP.	PARTICIPANTS	INSTITUTION	AUGU/TOEFL	REMARKS
<u>ASIA BASED</u>								
1.	Workshop on Policy and Legislation in Community Forestry	Bangkok, Thailand	27-29 January 1993	1	Mr. Adjat Sudradjat	RRL	Exemption	Presenting paper
2.	Integrated Coastal Resources Management	Songkhla, Thailand	22 Mar. - 14 Apr. 1993	3	Mr. Sentot Subagyo Mr. Hendra Djayusman Ms. Henneke Pangkey	RRL Diklat UNSRAT	187 165 540	Approved by PCC Approved by PCC Approved by PCC
3.	Tropical Rainforest Research Current Issues	Brunei	9-17 April 1993	1	Mr. Setia Budhi	UNTAN	530	Approved by PCC
4.	Agroforestry	UPLB, Philippines	16 June - 10 Aug. 1993	1	Mr. Sutono	DG PHPA	480/165	Approved by PCC
5.	Reforestation Planning and Plantation Establishment and Management	UPLB, Philippines	19 May - 13 July 1993	1	Mr. Nandang Sunarya	Dit. Ind. Forest Plantation	173	Approved by PCC
6.	Environmental Impact Assessment	Istanbul, Turkey	19-26 June 1993	1	Dr. Dedi Riyadi	BAPPENAS	Exemption	Presenting paper
7.	The Special Area Management for Coastal Env.	Siliman Univ. The Philippines	24 Oct - 6 Nov. 1993	2	Mr. Joudy R. Sangan Ms. Pujati	UNSRAT PHPA	Exemption	Approved by PCC
8.	Forestry for Community Development	UPLB, Philippines	3 Nov - 14 Dec 1993	3	Ms. E. Kusmanni AR Ms. L. Kusumawardhani Mr. Sumantri	PHPA PHPA PHPA	215 225 513	Approved by PCC Approved by PCC Approved by PCC
9.	Manne Tourism Study Tour	Philippines, Thailand	24 Nov - 12 Dec 1993	6	Mr. Jopie Saruan Mr. Franciscus Gromang Mr. Soegeng Widodo Mr. Wayan Laisa Mr. Sam Kindangen Mr. Romon Palete	BAPPEDA Sulut Kanwil Parpostal Sulut Kanwil Kehutanan Sulut Tourism Office Sulut Biro KLH Sulut KSDA Sulut	Exemption Exemption Exemption Exemption Exemption Exemption	Approved by PCC Approved by PCC Approved by PCC Approved by PCC Approved by PCC Approved by PCC
<u>USA BASED</u>								
1.	Modern Methods of Estimating Tree and Log Volume and Increment	West Virginia, USA	14-16 June 1993	1	Mr. Endang Suhendang	IPB	Exemption	Presenting paper
2.	Forest Administration and Management	USA	October 1991	2	Mr. Koesnan Maryono* Mr. Yaya Mulyana	MoFr MoFr		Approved by PCC Approved by PCC
3.	1993 Annual Conference of ASAE	Spokane, USA	20-23 June 1993	1	Dr. Tineke Mandang	IPB	Exemption	Presenting paper
4.	Management for Sustainable Natural Resources and Environmental Protection	Tennessee, USA	27 June - 23 July 1993	3	Mr. Maidiward Mr. Teguh Rahardja Mr. Tachnr Fathonl	DG Forest Utilization Int. Coop. & Investment Bureau DG PHPA	543/225 262 221	Approved by PCC Approved by PCC Approved by PCC
5.	International Seminar on Forestry Admin. & Management	Michigan, USA	12 Sep. - 11 Oct. 1993	1	Mr. Rusydi	Kanwil Padang	543	Approved by PCC
6.	International Wildlife Management Congress	Costa Rica	19-25 Sept. 1993	1	Dr. Jatna Supriatna	University of Indonesia	Exemption	Presenting paper
7.	Environmental Policy Development and Implementation	Washington, USA	1 Feb. - 23 March '94	1	Ms. Iner Ichsana Ishak	KLH	248	

LOCAL IN-COUNTRY TRAINING COURSES  
MARCH 1992 - MARCH 1994

## A. POLICY SECRETARIAT

	COURSE/TRAINING ACTIVITIES	PLACE	TRAINER	DATES	PARTICIPANTS*	MANDAYS
1	Training course in I/O modelling and data manipulation	Jakarta	C. Hamilton	Dec92-Jan93 (7 days)	I/O Case Study Team (5 persons)	35
2	Training in data analysis and manipulation - Macro study on Trade & Exchange Rates	Jakarta	E. Scarsborough	March 93 (7 days)	Macro Policy Study Team (5 persons)	35
3	BPS I/O Training Course	Jakarta	C Hamilton	27-29.04.93 (3 days)	Government Depts. (20 persons)	60
4	Training in Data Analysis and manipulation - Macro Study on Trade & Exchange Rates	Jakarta	E. Scarsborough	14-18.04.93 (4 days)	Macro Policy Study Team (5 persons)	20
5	Training in data analysis and manipulation - Macro study on Foreign Direct Investment	Jakarta	E. Scarsborough	10-14.05.93 (5 days)	Macro Policy Study Team (5 persons)	25
6	Direct Investment Methodology	NRMP	E. Scarsborough	10-12.08.93	6	18
7	Labor Study Methodology	NRMP	K. Leathers	13-14.09.93	2	4
8	Calculation of Weighted Average Tariffs (Theory)	NRMP	E. Scarsborough	23.09.93	8	8
9	Calculation of Weighted Average Tariffs (Theory)	NRMP	E. Scarsborough	24 09 93	8	8
10	Aggregation of Tariff Data HS/BTN/CCLN to ISIC/I-O Sector	NRMP	E. Scarsborough	25.09 93	8	8
11	Ecolabelling & Certification of Timber products	NRMP	E. Scarsborough	00.10.93	4 women 8 men	12
12	Approach to be used in analyzing the natural resource impacts of international exogenous policy effects	NRMP	E Scarsborough	00.10.93 (1 day)	4 women 8 men	12
13	I/O analysis and industrial multipliers	NRMP	K. Leathers	00.10.93 (1 day)	1 woman 2 men	3
14	Trade and Natural Resource Management	BAPPENAS	E. Scarsborough	08.12.93 (1 day)	5 women 23 men	28
15	Planning for Sustainability	BAPPENAS	Dr. H. Haeruman Dr. Sri Indrawati Dr. Tirta Hidayat	10.12.93 (1 day)	11 women 29 men	40
16	Export Marketing Board - methodologies for study	NRMP	C. Bennett	31.01 94 (1 day)	1 woman 4 men	5
17	Export Marketing Board - methodologies for study	NRMP	E. Scarsborough	00.02.94 (1 day)	1 woman 4 men	5
18	Sustainable Forest - methodologies for study	NRMP	E. Scarsborough	00.02.94 (1 day)	5 women 10 men	15
19	Remedial English for Policy Secretariat staff	NRMP	NRMP Consultants	Feb-March (8 days)	3 women 9 men	96
					* Policy Secretariat Staff	
					Total mandays	437
					Total manmonths	14 56

	COURSE/TRAINING ACTIVITIES	PLACE	TRAINER	DATES	PARTICIPANTS*	MANDAYS
	(Trade Policy)			(1 day)	13 men	
21	Technical Training Seminars (Mangrove)	NRMP	Gunadi	25.02.94 (1 day)	5 women 13 men	18
22	Technical Training Seminars (Penyerapan Tenaga Kerja Indonesia)	NRMP	Rudy	28.02.94 (1 day)	5 women 13 men	18
23	Technical Training Seminars (Efisiensi Penggunaan Kayu Gelondongan dalam Produksi Kayu Lapis & Kayu Gergajian)	NRMP	Nabiha	11.03.94 (1 day)	5 women 13 men	18
24	Technical Training Seminars ( Analisis Singkat Atas Pelarangan Ekspor Log Indonesia, 1978-1990)	NRMP	T. Sinaga	25.03.94 (1 day)	5 women 13 men	18

\* Policy Secretariat Staff

Total mandays	72
Total manmonths	2.4
Grand Total M/D	509
Grand Total M/M	16.9

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## B. KALIMANTAN

	COURSE/TRAINING ACTIVITIES	PLACE	TRAINER	DATES	PARTICIPANTS*	MANDAYS
1	Compost production; Tree pruning; Exercise: Qualities of a good forester	Bukit Baka	W.G. Granert Mering Ngo	12.03.92	SBK reforestation workers (10)	10
2	Natural fertilizer production using the composting process	Bukit Baka	W.G. Granert Mering Ngo F.Potess	13-14.03.92	36 farmers	72
3	Planting of elephant grass for seed to support livestock forage	Tanjunga	Mering Ngo F.Potess	02.04.92	6	6
4	Basic Agroforestry Techniques	Nanga Landau Mumbung	Mering Ngo	04.04.92	30	30
5	Soil conservation, Fire prevention, Social forestry activities to promote nature conservation	N.Apat Nanga Landau Mumbung	F.Potess	04.04.92	26	26
6	"A" frame and level contour lines for rubber planting, soil retention strategies, fire prevention belt	Nanga Apat	F.Potess Mering Ngo	04.04.92	24	24
7	Social forestry alternatives for conservation strategy	N.Apat Nanga Landau Mumbung	F.Potess Mering Ngo	05.04.92	26	26
8	Making the A-frame; Making the contour; Soil conservation; Local social structure; Village mapping; Listing local needs and problems done by themselves	N.Apat Nanga Landau Mumbung	Mering Ngo	05.04.92	48	48
9	Local names of wildlife	Tanjunga	F.Potess	07.04.92	8	8
10	Introducing formal NRMP objectives; Village mapping; Listing local needs and problems done by themselves; Schedule for training	Belaban Ella	F.Potess Mering Ngo	08.04.92	75	75
11	Fire prevention; Listing some community development needs and problems	Nanga Nuak	F.Potess Mering Ngo	10.04.92	25	25
12	Making rows; Monitoring the growth of some legumes; Village mapping; Collecting data on local dispute settlement procedure; Soil conservation strategies on hillside agriculture	Nanga Siyai	F.Potess Mering Ngo	11.04.92	24	24
13	Basic Agroforestry Techniques	Nanga Apat	F.Potess	11.04.92	19	19
14	Basic Agroforestry Techniques	Nanga Siyai	F.Potess	11.04.92	20	20
					Total mandays	413
					Total manmonths	13.7

\* PHPA, NGOs and Local communities

	COURSE/TRAINING ACTIVITIES	PLACE	TRAINER	DATES	PARTICIPANTS*	MANDAYS
15	Strategies for fire prevention on invended areas and alternative setting for rubber tree plantings on hills to strengthen regional resource conservation	Nanga Siyai	F.Potess Mering Ngo	02.05.92	13	13
16	Planning of cover crops under already established rubber gardens minimize fire hazards/ease pest control	Nanga Siyai	F.Potess Mering Ngo	02.05.92	13	13
17	Training and demo. "A" frame/contour beds on a.a. hillside to support conservation on land-use system/fire preventing strategies	Belaban Dalam	F.Potess Mering Ngo	05.05.92	8	8
18	Training of vegetable gardens and basket composting to support home garden land-use system and trial cash crops	Belaban Dalam	F.Potess Mering Ngo	06.05.92	8	8
19	Teratak socioeconomy activity cycle data	Belaban Dalam	Mering Ngo	06 05.92	4	4
20	Overall NRMP activities	Belaban Ella	F.Potess & M.Ngo	08.05.92	67	67
21	Training and demonstration activities on trial planting of additional nutrition and possible alternative income generating cash crops to support nature conservation	T.Kaburai	F.Potess Mering Ngo	11.05.92	12	12
22	Development & implementation of environmental education and awareness campaign	Bukit Baka	N.Bergau, M.Ngo F.Potess, E Drilling Principal of B.Ella Elementary School	1-13.07.92	70	910
23	Demonstration and practice on creating 17 long vegetable beds of 90 cm X 3-9 m long	T.Kaburai	F.Potess Mering Ngo	05.07.92	23	23
24	Vegetable bed maintenance, demonstration and practice on compost basket and trench compost for vegetable gardens	T.Kaburai	F.Potess Mering Ngo	07.07.92	11	11
25	Fruit tree grafting (Durian & Jackfruit)	Pontianak	M. Ngo	28.02.93 (1 day)	Local Village Heads (4 persons)	4
26	Home gardens and tree crops	Bukit Baka	F. Potess	02/03.03.93 (2 days)	Local farmers (4 persons)	8
27	Field follow-up on home garden and tree crops training	Bukit Baka	F. Potess	05-07.03.93 (3 days)	Local farmers (4 persons)	12
28	Conservation awareness NGO trainer training	Bukit Baka	N.Bergau, R.Voss F.Potess, N.Ngo	07-17.03 93	16	160

\* PHPA, NGOs and Local communities

Total mandays	1253
Total manmonths	41.7

	COURSE/TRAINING ACTIVITIES	PLACE	TRAINER	DATES	PARTICIPANTS*	MANDAYS
29	Participatory Sketch Mapping	Sungkup	M. Ngo	19-20.03.93 (2 days)	Local people (8 persons)	16
30	Global Positioning System	Pontianak	D. Luepke C. Sumpster	08-11.06.93 (4 days)	NRMP SBKSDA MoFr BIPHUT Alas Kusuma (17 persons)	68
31	Identification & Monitoring Extension Programs	B. Baka	M. Ngo	01-02.10.93	2 men	4
32	Compost & green manure making	B. Baka	M. Ngo Yuliantini Karim	07.10.93	9 women	9
33	Compost & green manure making	B. Baka	M. Ngo Yuliantini Karim	09.10.93	7 women	7
34	Sketch mapping	Belaban Luar	A. Flavelle M. Ngo	03-07.11.93 (5 days)	1 woman 4 men 2 SBKSDA	35
35	Sketch mapping	Belaban Dalam	A. Flavelle M. Ngo	11-15.11.93 (5 days)	1 woman 5 men 2 SBKSDA	40
36	Sketch mapping	Nanga Juoi	A. Flavelle M Ngo	17-21.11.93 (5 days)	4 men 2 SBKSDA	30
37	Vegetable garden development program	Pontianak	Pak Subiyanto	03.09.93 - 15.12.93 (3.5 months)	4 men	336
38	Video Production	BB-BR Pontianak	N.Bohot & Y.Bedus	21-25.02.94 (5 days)	6 men	461 30
39	Video Editing	BB-BR Pontianak	N.Bohot & Y.Bedus	26-27.02.94 (2 days)	4 men	8
40	Fauna Survey	Pontianak	J.Jarvie & Yuda	1-3.03.94 (2 days)	2 women 11 men	26
41	Flora Survey	Pontianak	J.Jarvie & Yuda	7.03.94 (1 day)	2 women 12 men	14
42	Database Management	Pontianak	J.Jarvie & Yuda	8-9.03.94 (2 days)	9 men	18

\* PHPA, NGOs and Local communities

Total mandays	1102
Total manmonths	36.7
Grand Total M/D	2768
Grand Total M/M	92.9

ANNEX 5

Policy Analysis Studies Implementation Schedule



ANNEX 6

Host Country Contracts

## HOST COUNTRY CONTRACTS COMPLETED BY DECEMBER 1993

NO.	TITLE OF STUDY	CONTRACTOR	INTERIM REPORT PRESENTED	FINAL REPORT PRESENTED
1.	DEVELOPMENT OF A PROCEDURE FOR EVALUATING THE POTENTIAL OF NATURE-BASED TOURISM DEVELOPMENT WITH TEST APPLICATION IN NORTH SULAWESI	PT. UNISYSTEM	Presented 14 July 1993	Final Report completed (in English and bhs Indonesia)
2.	EVALUATING INSTITUTIONAL ARRANGEMENT AND POLICIES FOR MULTIPLE-USE CONSERVATION AREA MANAGEMENT: PILOT APPLICATIONS FOR THE BUKIT BAKA/BUKIT RAYA AND THE BUNAKEN NATIONAL PARKS	PT. INDOCONSULT	Presented June 21, 1993	Final Report completed (in bhs Indonesia) (no English version)
3.	DEVELOPING REGULATIONS AND GUIDELINES FOR PROTECTED AREAS IN INDONESIA	PT. INDRRA DEVELOPMENT CONSULTANT	Presented June 21, 1993	Final Report completed (in English and bhs Indonesia)
4.	ENHANCING THE ROLES OF LOCAL COMMUNITIES IN THE DEVELOPMENT OF FORESTRY RESOURCES	PT. ARDES PERDANA	Presented 14 July 1993	Final Report completed (in bhs Indonesia) (no English version)
5.	DESIGN OF A HUMAN RESOURCES DEVELOPMENT STRATEGY TO SUPPORT IMPROVED ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT	PT. NAKARYA SEMBADA CONSULTANTS	Presented June 22, 1993	Final Report completed (in bhs Indonesia) (no English version)

ANNEX 7

Long-term NRM/ARD Technical Assistance Team

## NRM/ARD TECHNICAL ASSISTANCE – LONG TERM ADVISORS (SEPTEMBER 1991 – JUNE 1994)

NO.	NAME	POSITION	LOCATION	1991				1992				1993				1994	
				SEP	OCT	NOV	DEC	I	II	III	IV	I	II	III	IV	I	II
1.	COLIN MACANDREWS	CHIEF OF PARTY	BAPPENAS														
2.	ERIK SCARSBOROUGH	MACROECONOMIST	BAPPENAS														
3.	CLIVE HAMILTON	RESOURCE ECONOMIST	BAPPENAS														
5.	KEN LEATHERS	RESOURCE ECONOMIST	BAPPENAS														
4.	THOMAS MCKENZIE	FOREST ADVISOR	MOFR														
6.	CHRIS BENNETT	FOREST ADVISOR	MOFR														
7.	FERNANDO POTESS	NATURE CONSERVATION ADV.	BUKIT BAKA														
8.	JOE PROFFITT	NATURAL FOREST MANAGEMENT ADV.	BUKIT BAKA														
9.	ELMO DRILLING	NATURAL FOREST MANAGEMENT ADV.	BUKIT BAKA														
10.	MERING NGO	SOCIAL FORESTRY ADVISOR	BUKIT BAKA														
11.	ROY VOSS	RESEARCH STATION ADV.	BUKIT BAKA														
12.	GRAHAM F. USHER	NATURE CONSERVATION ADV.	MANADO														
13.	R.M. ROMPAS	MARINE CONSERVATION ADV.	MANADO														
14.	ARIEF WICAKSONO	COMMUNITY DEVELOPMENT ADVISOR	MANADO														
15.	JAMES TAYLOR	FOUNDATION ADVISOR	JAKARTA														

ANNEX 8

Short-term NRM/ARD Technical Assistance

NO.	NAME	POSITION	COUNTERPARTS	M/M	DATES
1	ROY VOSS	FORESTRY RESEARCH/PROCUREMENT	BUKIT BAKA	3	1 Nov. - 20 Dec '91
2	LISA CURRAN *	FORESTRY RESEARCH	BUKIT BAKA	3.5	20 Nov. '91 - 5 May '92
3	MONITA KUSNETI *	FORESTRY RESEARCH	BUKIT BAKA	3	18 Nov. '91 - 5 Mar. '92
4	STEVE DENNISON	PROJECT MANAGEMENT	BAPPENAS	0.5	January '92
5	JILL BELSKY *	RURAL SOCIOLOGIST	BUKIT BAKA	1	Jan - Mar. '92
6	WILLIAM GRANERT	AGROFORESTRY/COM. DEVELOPMENT	BUKIT BAKA	1.5	19 Feb. - 2 Apr. '92
7	MIKE JOHNSON	MINIHYDRO ELECTRICITY STATION	BUKIT BAKA	0.5	1 Mar. - 15 Apr. '92
8	SAHRI DENNY, cs	TOPOGRAPHY SURVEY	BUKIT BAKA	1.5	10 Mar. - 24 Apr. '92
9	HENRY PESKIN	NATURAL RESOURCE ACCOUNTING	BAPPENAS	0.5	20 Apr. - 2 May '92
10	JOY HECHT *	NATURAL RESOURCE ACCOUNTING	BAPPENAS	1	20 Apr. - 2 May '92
11	JOHN HENDRISON	FORESTRY HARVESTING	BUKIT BAKA	1	1 Jul. - 6 Aug. '92
12	SUPARMAN	FORESTRY INDUSTRY	BUKIT BAKA	1	July - Sept. '92
13	SUPRIYO AMBAR	ENVIRONMENTAL ASSESSMENT	BUKIT BAKA	1	July - Sept. '92
14	KUNKUN GURMAYA	ENVIRONMENTAL ASSESSMENT	BUKIT BAKA	1	July - Sept. '92
15	LISA CURRAN *	FORESTRY RESEARCH	BAPPENAS	3	July - Sept. '92
16	ISKANDAR	TPTI STUDY	BAPPENAS	3	July - Sept. '92
17	HENRY PESKIN	NATURAL RESOURCE ACCOUNTING	BAPPENAS	0.5	17-27 Sept. '92
18	SEAN FOLEY	INPUT-OUTPUT MODELLING	BAPPENAS	1.5	14 Sept. - Oct. '92
19	GLENN MARIE LANGE *	INPUT-OUTPUT MODELLING	BAPPENAS	0.5	1-15 Oct. '92
20	JIM JARVIE	TAXONOMIST	MoFr.	10	Sept 92 - June 94
21	JILL BELSKY *	RURAL SOCIOLOGIST	PHPA	1	18 Sept. - 17 Oct. '92
22	DAHLAN CARTWRIGHT	LIBRARY	NRMP	1	Sept. - Dec. '92
23	RICK MACGOWAN	POTABLE WATER SUPPLY	BUKIT BAKA	2	Nov.-Dec'92 & May'93
24	ALFONSO RIEWPASSA	POTABLE WATER SYSTEMS	BUKIT BAKA	7	Nov 92 - May 94
25	SOEGOLO	INPUT-OUTPUT MODELLING	BAPPENAS	4	17 Dec 92 - Apr 93
26	FAYE DUCHIN *	INPUT-OUTPUT MODELLING	BAPPENAS	0.5	1 - 15 Aug 92
27	MIKE JOHNSON	MINIHYDRO ELECTRICITY STATION	SBK	0.5	1 - 15 Apr 92
28	PETER BURBRIDGE	COMPETITIVE RESEARCH AWARDS	MoFr.	0.5	4 - 21 Jan 93
29	JOY HECHT *	MANAGEMENT INFORMATION SYSTEM	NRMP	0.75	10 Jan - 6 Feb 93
30	A. MATJIK	MANAGEMENT INFORMATION SYSTEM	NRMP	1	28 Jan - 28 Feb 93
31	NANCY BERGAU *	ENVIRONMENTAL EDUC. & AWARENESS	PHPA	2	Feb - Mar 93
32	MEYER SIAHAN	TRADE & EXCHANGE RATE POLICY	BAPPENAS	2	Mar - May 93
33	NANCY BERGAU *	ENVIRONMENTAL EDUC. & AWARENESS	PHPA	2	5 Apr - 9 Jun 93
34	MARCEL DE BRUNE	COMMUNITY DEVELOPMENT	NGOS	1.5	12 Apr - 31 May 93
35	KATHRYN QUICK *	NRM NEWSLETTER EDITOR	NRMP	3	Apr 93 - Apr 94
36	EDWARDS - MCKINNON	REGIONAL PLANNING	MOFR, KANWILS	1	29 Apr - May 93
37	TIM G. O'BRIEN	FIELD SKILLS TRAINING	PHPA	0.5	18 Apr - 1 May 93
38	MARGARET KINNAIRD *	FIELD SKILLS TRAINING	PHPA	0.5	26 Apr - 8 May 93
39	KEN LEATHERS	MACRO POLICY - EMPLOYMENT STUDY	BAPPENAS	1	5 Jun - 5 Jul 93
40	RUTH CAHILL *	ACCOUNTING	NRMP	0.5	14 - 30 Jun 93
41	ANDREA KATZ *	MACRO POLICY - MARINE SECTOR	BAPPENAS	1	5 Jul - 5 Aug 93
42	JOY HECHT *	MANAGEMENT INFORMATION SYSTEM	NRMP	0.5	18 Jul - 8 Aug 93
43	HASRAT MADIADIPURA	DBASE PROGRAMMER (MIS)	NRMP	1.5	21 Jul 93 - 31 May 94
44	MIKE HEPELL	SOCIO-ECONOMIC SURVEY	PHPA	1	4 Aug - 2 Oct 93
45	IAN ARMITAGE	FOREST MANAGEMENT SPECIALIST	MoFr	5	4 Aug-17 Oct 93 & Apr-Aug 94
46	JONATHAN HODGKIN	POTABLE WATER SYSTEMS	BUKIT BAKA	0.5	3 - 17 May 93
47	JANIS TOGASHI *	TARIFF SPECIALIST	BAPPENAS	0.75	13 Sep - 9 Oct 93
48	STEVE DENNISON	FORESTRY (TPTI)	MoFr	1	11 Sep - 9 Oct 93
49	ARTHUR KLASSEN	FOREST MANAGEMENT SPECIALIST	MoFr	5	19 Sep-3 Dec 93 & Jan-Apr 94
50	RICHARD SANDLER	ECO-TOURISM DEVELOPMENT	PHPA	1	26 Sep - 25 Oct 93
51	DEDI NURYANA	TRADE & EXCHANGE RATE POLICY	BAPPENAS	9	1 Oct 93 - 31 May 94
52	JOACHIM METZNER	PROTECTED AREAS POLICY STUDY	BAPPENAS	3	9-28 Oct, 8-27 Nov 93 & May 94
53	FADHIL HASAN	PROTECTED AREAS POLICY STUDY	BAPPENAS	2	1 - 27 Nov 93 & Jan 94
54	MIKE HEPELL	MANAGEMENT PLAN - BB-BR	PHPA	1	25 Oct - 19 Nov 93
55	KUNKUN GURMAYA	MANAGEMENT PLAN - BB-BR	PHPA	0.5	25 Oct - 8 Nov 93
56	HARIJANTO SUWARNO	PUBLIC AWARENESS MEDIA	PHPA	3.5	15 Nov - 15 Mar 94
57	REINER OINTOE	PUBLIC AWARENESS TRAINING	PHPA	0.5	17 Nov - 3 Dec 93
58	SUWIRYO ISMAIL	PUBLIC AWARENESS TRAINING	PHPA	0.5	17 Nov - 3 Dec 93
59	OZAY MEHMET	EMPLOYMENT EFFECT POLICY STUDY	BAPPENAS	1.5	Sep - Dec 93
60	SIH YUNIATI *	COMMUNITY DEVELOPMENT	NGOS	0.5	22 Nov - 3 Dec 93
61	HARYONO	COMMUNITY DEVELOPMENT	NGOS	0.5	22 Nov - 3 Dec 93
62	ALIX FLAVELLE *	SKETCH MAPPING BUKIT BAKA	PHPA	3	25 Oct - 5 Dec 93 & May-June 94
63	WISMOYO SUHARDI	FORESTRY SECTOR STUDY	BAPPENAS	3.5	9 Dec - 30 Apr 94
64	KUNKUN GURMAYA	ECO-TOURISM ENVIRONMENTAL IMPACT	PHPA	0.5	17 Jan - 3 Feb 94
65	DEDY SYAHPUTRA	COMMUNITY ORGANIZING TRAINING	MoFr	0.5	21 Jan - 14 Feb 94
66	NICOLAAS GARA	COMMUNITY ORGANIZING TRAINING	MoFr	1	21 Jan - 20 Feb 94
67	MAWARDI SULTON	FORESTRY STUDY	BAPPENAS	0.5	11 Feb - 25 Feb 94
68	NAWIR MESSI	FORESTRY STUDY	BAPPENAS	0.5	18 Feb - 10 Mar 94

\* Female

120

NO.	NAME	POSITION	COUNTERPARTS	M/M	DATES
69	KETTY KADARWATI *	FORESTRY STUDY	BAPPENAS	2	14 Feb - 31 May 94
70	ANI SEPTIANI *	ECO-LABELLING	BAPPENAS	2	14 Feb - 31 May 94
71	JOANNA ELLIOTT *	ECO-LABELLING	BAPPENAS	1.5	9 Mar - 31 May 94
72	SHARON KIRSCHENBAUM*	PROJECT EDITOR	NRMP	2.5	April - August 94
73	MARCEL DE BRUNE	IMPLEMENTATION SPECIALIST	Pontianak	3	15 Apr - 15 July 94
74	MARCEL HOAR	ENGLISH INSTRUCTOR	KANWIL, SBKSDA	0.5	5 April 94
75	MIKE HEPPELL	COMMUNITY DEVELOPMENT	PHPA	1	21 Apr - 31 May 94
76	TRI NUGROHO	COMMUNITY DEVELOPMENT	PHPA	0.5	22 Apr - 31 May 94
77	DARIUS TETER	AVOIDABLE LOGGING WASTE	MoFr	1	27 Apr - 30 June 94
78	STEVE DENNISON	PROJECT MANAGEMENT	NRMP	0.5	25 Apr - 6 May 94
				14.5	
		TOTAL		134.5	

\* Female

ANNEX 9

Local Assistants Helping Project Activities in the Field Sites

LOCAL ASSISTANTS – ASSISTING PROJECT ACTIVITIES IN THE FIELD SITES  
(BUKIT BAKA/BUKIT RAYA AND BUNAKEN)

POSITION	LOCATION	ORGANIZATION	NAME	DATES
<b>A. WEST KALIMANTAN</b>				
<u>Bukit Baka Support Staff</u>				
Field Assistant (Biodiversity)	Bukit Baka	Pontianak	Izefri	1992 – ongoing *
Field Assistant (Conservation)	Bukit Baka	Pontianak	Ali Hayat	July 93 – on-going 94
Field Assistant (Agronomist)	Bukit Baka	Pontianak	Yuliantini**	Dec.93 – on-going 94
Field Assistant (Forest Management)	Bukit Baka	Pontianak	Herry Noveriawan	Jan.94 – July 94
Field Assistant (Forest Management)	Bukit Baka	Pontianak	Imanul Huda	Jan.94 – July 94
<b>B. MANADO</b>				
Field Assistant (Community Development)	Bunaken	Manado	Verrianto	July 93 – on-going 94
Field Assistant (Community Development/NGOs)	Bunaken	Manado	Zohan	Sep.93 – on-going 94

\* in English language training for NRM overseas scholarship (Jan–July 94)

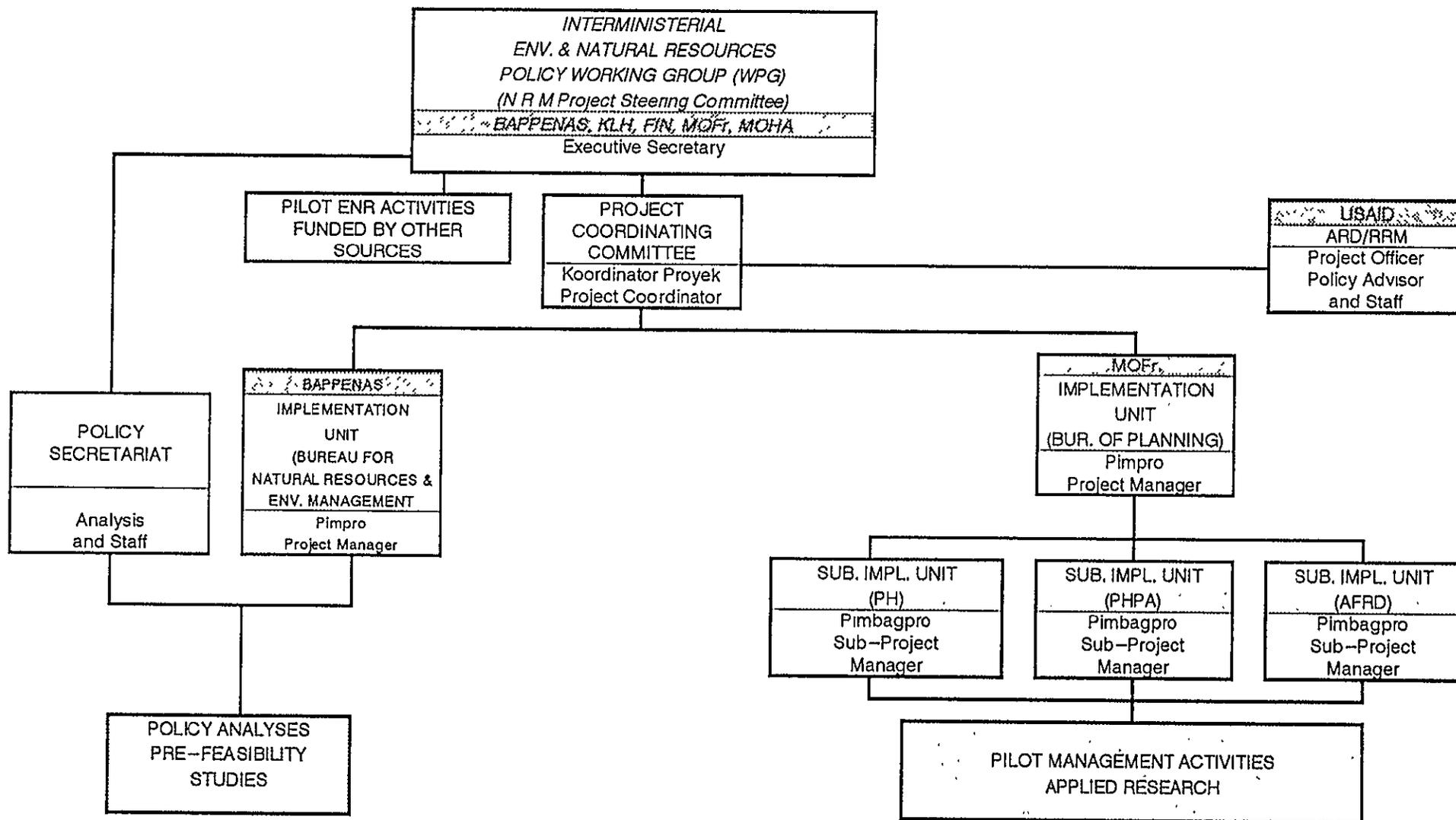
U:\prog-may\annex-9\may94

\*\* Female

ANNEX 10

NRMP Administrative Structure

NATURAL RESOURCES MANAGEMENT PROJECT  
ADMINISTRATIVE STRUCTURE



ANNEX 11

List of Policy Working Group  
and  
Policy Coordinating Committee Members and Meetings

I. POLICY WORKING GROUP (PWG)

MEMBERS :

1. Dr. Sayuti Hasibuan
2. Dr. Herman Haeruman
3. Ir. Aca Sugandi
4. Sugeng Notosaputro
5. Ir. Sutisna Wartaputra
6. Dr. Dedi M. Riyadi
7. Dr. Ali Kodra
8. Dr. Ir. Moh. Ikhwanuddin
9. Dr. Ngaloken Ginting
10. Dr. Agus Pakpahan

LIST OF MEETINGS :

- 5 March 1991
- 21 September 1992
- 19 January 1994

II. PROJECT COORDINATING COMMITTEE (PCC)

MEMBERS :

1. Dr. Herman Haeruman
2. Ir. Tamtama Purwowinoto
3. Ir. Bambang Soekartiko
4. Ir. Harsono
5. Ir. M. Ari Soedarsono
6. Ir. Waskito Suryodibroto
7. Mr. Jerry Bisson
8. Ir. Moh. Kuswanda, MF
9. Ir. Idar Nasution
10. Dr. Ombo Satjapradja

MEETINGS :

- 27 February 1991
- 10 September 1991
- 21 October 1991
- 20 December 1991
- 11 March 1992
- 9 July 1992
- 8 December 1992
- 31 August 1993
- 16 December 1993

ANNEX 12

Status of Policy-related Work under the NRMP

## STATUS OF POLICY RELATED WORK UNDER NRMP 1990 - 1994

ANNEX 12

SUBJECT AREA 1	TITLE 2	EXECUTED BY 3	STATUS 4	RELATIONSHIP WITH NATIONAL POLICY AND PLANNING FOR SUSTAINABLE DEVELOPMENT 5	MECHANISM FOR INTEGRATION INTO GOI POLICY MAKING 6
SUSTAINABLE ECONOMIC DEVELOPMENT PLANNING	1. I-O Dynamic Modeling (P/S)	NRM Policy Secretariat	Completed/training in progress	Provide forecasts of NR use rates under alternative growth scenarios	Recommendations made & utilized in Repelita VI; new phase started
	2. Labor Absorption (P/S)	NRM Policy Secretariat	Final Report Preparation	Recommendations for reducing pressure on NR base/employment	Presentation to GOI counterparts - Jan. 27
	3. Trade/Exchange Rate Policy (P/S)	NRM Policy Secretariat	Final Report Preparation	Recommendations for speeding growth, improving NR management	Presentation to GOI counterparts completed
	4. Protected Areas (P/S)	NRM Policy Secretariat	Revision of Draft Final Report	Recommendations for improving natural policy toward protected areas	Presentation to GOI counterparts - Jan. 27
	5. Foreign Direct Investment (P/S)	NRM Policy Secretariat	Analysis of Data/Info.	Recommendations for speeding growth, improving NR management	Presentation to GOI counterparts - end February
	6. Export Marketing Boards (P/S)	NRM Policy Secretariat	Data/info gathering	Recommendations for improving efficiency of NR use by institutional means	Recommendations made to GOI mid May 1994
	7. Forestry Sector Study (P/S)	NRM Policy Secretariat	Data/info gathering	Recommendations for making dev. of forestry res. more sustainable	Recommendations made to GOI end June 1994
	8. Overall Development Study (P/S)	NRM Policy Secretariat	Detailed Formulation	Recommendations for making long term growth more sustainable	Initial sections completed first July 1994
URBAN/INDUSTRIAL ENVIRONMENT	Market Oriented Approaches to Pollution Control	USAID	Completed	Developing strategies for Ind'l pollution control	Report to GOI
	Urban Impacts on the Environment and Sustainable Economic Growth in Manado, North Sulawesi	USAID	Underway	Developing strategies for Waste minimization at national level	
CONSERVATION AREAS	1991/92-5 studies (HCC)	MoFr.	Completed	Improve field management of NR base	
	1992/93-5 studies (HCC)	MoFr.	Proposed	Improve field management of NR base	
	PHPA Guidelines Commentary for Reporting National Park Management Plan	MoFr.	Draft for submission (2nd quarter 1994)	Recommendations for improving NP Management Plan process	Report to GOI. Input for MoFr.
FORESTRY CONSERVATION	Biodiversity in Conservation Areas of Forest Concessions	NRM West/Central Kalimantan	Final Report submitted	Recommendations for setting criteria for biodiversity conservation	Report to GOI. Input for MoFr. SK for Germ Plasm Areas in Forestry Concession
SUSTAINABLE PRODUCTION FOREST MANAGEMENT	Diagnostic Studies for Bina Desa	NRM West/Central Kalimantan	First Draft under submission	Comments on official guidelines for diagnostic studies in the light of actual experience	Reports to MoFr. Input for SK on Bina Desa
	20 Year Management Plan	NRM West/Central Kalimantan	Final Report submitted	Recommendations for improvements	Reports presentation, input for MoFr. for official guidelines

(continued page 2 - ANNEX 12)

SUBJECT AREA 1	TITLE 2	EXECUTED BY 3	STATUS 4	RELATIONSHIP WITH NATIONAL POLICY AND PLANNING FOR SUSTAINABLE DEVELOPMENT 5	MECHANISM FOR INTEGRATION INTO GOI POLICY MAKING 6
SUSTAINABLE PRODUCTION FOREST MANAGEMENT	5 Year Management Plan	NRM West/Central Kalimantan	In progress	Recommendations for improvements	Reports presentation, input for MoFr, for official guidelines
	1 Year Management Plan	NRM West/Central Kalimantan	In progress	Recommendations for improvements	Reports presentation, input for MoFr, for official guidelines
	Traditional Forest Areas	NRM West/Central Kalimantan	In progress	Recommendations for improved management	Reports presentation, input for MoFr, for official guidelines
	TPTI Guidelines	NRM West/Central Kalimantan	Initial Report submitted and on-going	Recommendations for improvements	Report presentations, input to MoFr for official guidelines
	Logging Waste Reduction	NRM West/Central Kalimantan	First draft under submission	Recommendations to reduce logging waste increase overall yields	Report presentations, input to MoFr for official guidelines to concession holders

P/S = Policy Secretariat

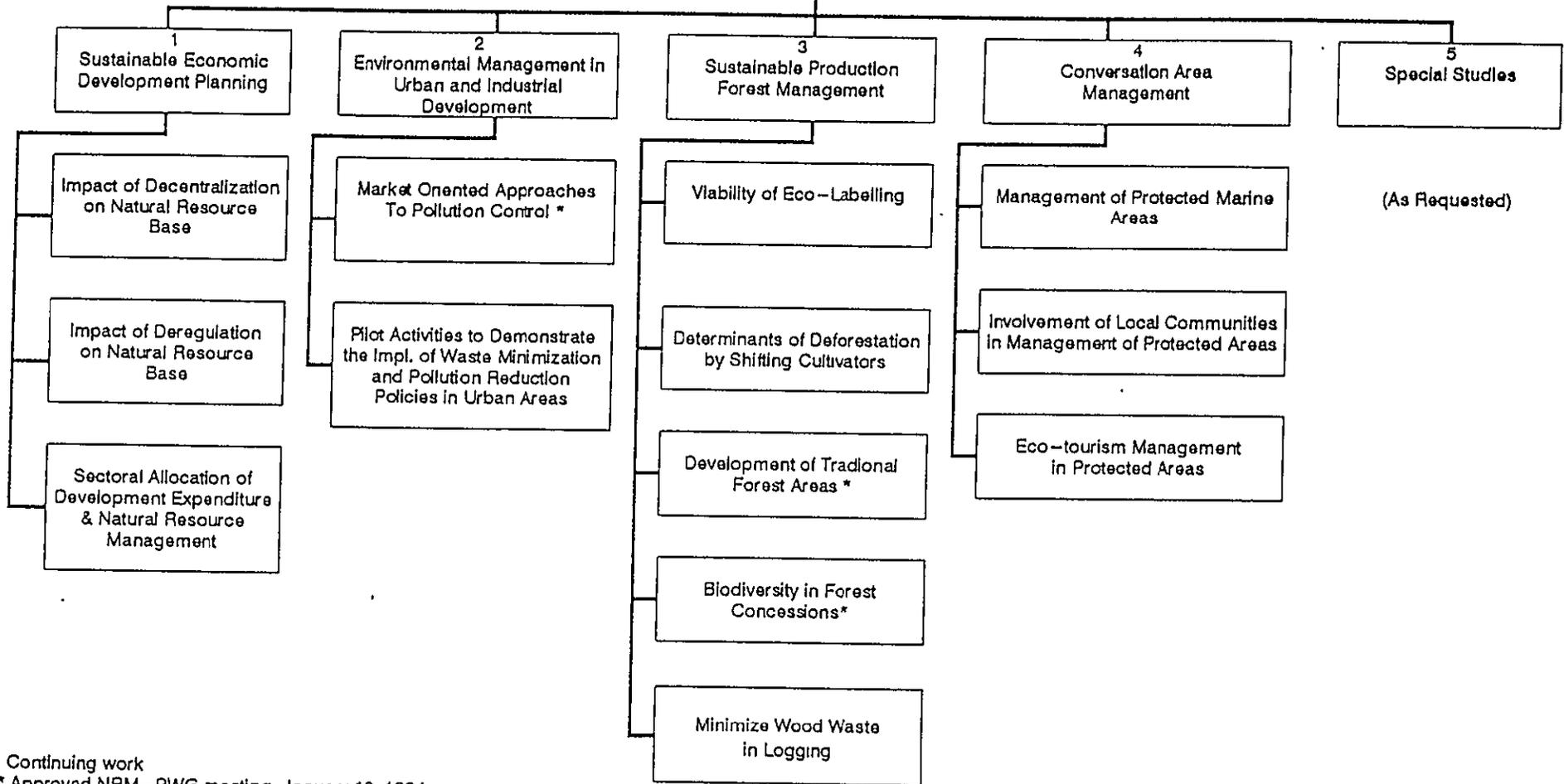
HCC = Host Country Contract

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ANNEX 13

Policy Studies Topics, 1994-96

NEW TOPICS FOR NRM POLICY STUDIES\*\*  
AUGUST 1994 - AUGUST 1996



\* Continuing work

\*\* Approved NRM-PWG meeting, January 19, 1994

ANNEX 14

Policy Secretariat Library Holdings

NRM LIBRARY HOLDINGS INCLUDING  
AUDIO VISUAL AIDS

Library

Books, reports, etc.	1961
Videos	20
Slides	1515
Photographs	1321
Maps	50*

\* see attached list

## LIST OF MAPS IN NRMP LIBRARY

CALL NO	NO.	TITLE	SCALE	DATE OF ACQUISITION	QUANTITY	SOURCE	REMARKS
KL0032	1	KALIMANTAN BARAT/TENGAH Landsat Imagery map	1:100,000	Nov. 1993	1 (large) 5 (small)	ARD	ARD
KL0033	2	General Information Map	1:250,000	Dec. 1993	1	Biphut/MoFr.	BB/BR Management Plan
KL0034	3	Topography Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0035	4	Geology Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0036	5	Hydrology Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0037	6	Soils Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0038	7	Vegetation Distribution Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0039	8	Fauna Distribution Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0040	9	Climatology Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0041	10	General Land-use Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0042	11	Regional Settlement Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0043	12	Park Zonation Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0044	13	Park Threats Map	1:250,000		1	Biphut/MoFr.	BB/BR Management Plan
KL0045	14	Land System within Bukit Baka/Bukit Raya National Park	1:250,000	Jan. 1993	1	BPN Kalbar	Environmental Assessment Report
KL0046	15	Present land Use in and Around Bukit Baka/Bukit Raya National Park	1:250,000		1	BPN Kalbar	Environmental Assessment
KL0047	16	Logging Concession Around Bukit Baka/Bukit Raya National Park	1:250,000		1	BPN Kalbar	Environmental Assessment
KL0048	17	Cutting Areas in the SBK Logging Concession	1:250,000		1	BPN Kalbar	Environmental Assessment
KL0069	18	Bukit Baka/Bukit Raya National Park	1:250,000		1	BPN Kalbar	Environmental Assessment
KL0050	19	Topography Map for Bukit Baka/Bukit Raya Research Station	1:1,000	Jan. 1992	1	NRMP	
KL0050	20	Topography Map of Bukit Baka National Park Kabupaten Sintang	1:50,000	1987	1	Reppprot	
KL0028-31	21	Peta Situasi Penyebaran HPH (KaBar)	1:500000	1987	1		
KL0013-14	22	Rencana Pengembangan Pembangunan Wilayah Daerah Dati I Kalteng					
KL0001-11	23	Tebangan di Areal HPH PT SBK Kalteng	1:250000	1987			
KL0070	24	Gunung Palung National Park and its Surrounding Forest Status	1:250,000	Jan. 1993	1	BPN Kalbar	Environmental Assessment
KL0071	25	Concession Areas Around the Gunung Palung National Park	1:250,000	Jan. 1993	1	BPN Kalbar	Environmental Assessment
KL0051	26	Belaban Ella Topographic Base Map	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0052	27	Belaban Ella Sejarah Lokasi Ladang	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0053	28	Belaban Ella Gupung/Kebun Buah	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0054	29	Belaban Ella Vegetasi	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0055	30	Belaban Ella Potensi Pemanfaatan Hutan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0056	31	Belaban Ella Hasil Hutan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0057	32	Belaban Dim Topographic Base Map	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0058	33	Belaban Dim Sejarah Lokasi Ladang	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0059	34	Belaban Dim Gupung/Kebun Buah	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0060	35	Belaban Dalam Vegetasi	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0061	36	Belaban Dim Potensi Pemanfaatan Hutan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0062	37	Belaban Dim Hasil Hutan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0063	38	Nanga Juoi Topographic Base Map	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0064	39	Nanga Juoi Sejarah Lokasi Ladang	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0065	40	Nanga Juoi Gupung/Kebun Buah	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0066	41	Nanga Juoi Vegetasi	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0067	42	Nanga Juoi Potensi Pemanfaatan Lahan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
KL0068	43	Nanga Juoi Hasil Hutan	1:10,000	Dec. 1993	1	NRMP	Village Sketch Mapping
		SULAWESI UTARA/BUNAKEN					
SL0072	44	Aerial Photography of Bunaken National Marine Park	1:10,000	March 1994	1	Enlopos	
SL0073	45	Bunaken National Park	1:250,000	Jan. 1993	1	BPN Sulut	Environmental Assessment
SL0074	46	Topography Manado Tua Island	1:50,000	1989	1	Bakosurtanal	
SL0075	47	Topography. Wori Island	1:50,000	1989	1	Bakosurtanal	
SL0076	48	Topography. Tawangko Island	1:50,000	1989	1	Bakosurtanal	
SL0021-23	49	Bagian Arakan Wawontulap Taman Nasional Bunaken	1:250,000		1		
SL0024&27	50	Bagian Utaman dari Taman Nasional Bunaken	1:50,000		1		