

ADDENDUM
TO
MEMORANDUM OF UNDERSTANDING
BETWEEN
THE UNITED NATIONS ENVIRONMENT PROGRAMME
AND
THE INSTITUTE OF MANGROVE RESEARCH AND DEVELOPMENT, IN ITS CAPACITY AS THE
SPECIALISED EXECUTING AGENCY FOR INDONESIA'S MANGROVE COMPONENT OF THE
UNEP/GEF PROJECT ENTITLED:
"REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN THE SOUTH CHINA SEA AND
GULF OF THAILAND"
(Ref.: UNEP GEF/SCS/Ind/MoU 2a)

OPERATIONAL PLAN¹ FOR THE EXECUTION OF
THE BATU AMPAR DEMONSTRATION SITE ACTIVITIES

This document is drafted under the terms of item xix of the Second Amendment to the original Memorandum of Understanding, signed on 4th November 2004, between the United Nations Environment Programme (UNEP) and the Institute of Mangrove Research and Development (IMReD) in its capacity as the Specialised Executing Agency for the Indonesia Mangrove Sub-component of the UNEP/GEF Project entitled

"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"

I. TASKS BY DESIGNATED INSTITUTION. The Institute of Mangrove Research and Development – (IMReD) is responsible as the Specialised Executing Agency for the execution of the activities at the Batu Ampar Demonstration Site, following the approved Operational Plan, which forms part of this Addendum (Annex 1). The tasks and responsibilities are outlined as follows:

1. Direct the execution of the activities at the demonstration site in accordance with the approved work plan, schedule of activities and budget approved by the Project Director;
2. Provide to the PCU by, the due dates (31st July and 31st January) all information regarding progress of activities at the Demonstration Site, that will be included in the sixth month and annual progress reports, expenditure reports, and cash advance requests following the formats provided in Annex 2, 3 and 4 of this document;
3. Take full responsibility for the contents, including data and information in all reports and publications regarding the substantive activities of the demonstration site; Provide the PCU with five hard copies, and an electronic file in word, of all reports and publications regarding the substantive activities of demonstration site;
4. Participate in the site exchange programmes organized by the Regional Working Group on Mangroves;
5. The IMReD shall report the end year expenditure accounts at 31 December, certified by a duly authorised official, but, in addition, UNEP requires that the end of year expenditure account for cash advances received by the IMReD, should be reported in an opinion by a recognised firm of public accountants, which shall be dispatched to UNEP by 31 March. In particular, the auditors should be asked to report whether, in their opinion:
 - Proper books of account and records have been maintained;
 - All project expenditures are supported by vouchers and adequate documentation; and,
 - Expenditures have been incurred in accordance with the objectives outlined in the Operational Plan;

¹ This document constitutes Annex 1 of Second Amendment to the Memorandum of Understanding between UNEP and IMReD, as detailed in footnote # 4 of that amendment.

6. Ensure that all activities relating to the Batu Ampar Demonstration Site for Mangroves under the framework of the UNEP/GEF Project entitled "*Reversing environmental degradation trends in the South China Sea and Gulf of Thailand*" are conducted by IMReD and/or its staff, and/or the third parties in accordance with Indonesia laws and International Conventions/agreements that Indonesia has signed, or to which it is a party.

II. TASKS BY UNITED NATIONS. UNEP agrees to perform the following tasks:

1. Provide the financial resources according, to the agreed schedule, detailed in the Operational Plan attached to this document; and
2. Provide financial support to enable the Demonstration Site Manager to travel to such regional meetings as may be agreed from time to time

Mr. Nyoto Santoso
Institute of Mangrove Research & Development,
Jakarta, Indonesia

Dr. John Pernetta, Project Director
UNEP/DGEF Project Co-ordinating Office
United Nations Environment Programme
Bangkok, Thailand

Date:_____

Date:_____

Witness

Mr. H. Usman Jafar
Governor of West Kalimantan Province

ANNEX 1 - OPERATIONAL PLAN

DEMONSTRATION SITE SUMMARY

1. SITE NAME GEOGRAPHIC CO-ORDINATES

Batu Ampar Demonstration Site is located between 0.84– 0.87 SL and 109.65 –109.68 EL

2. COUNTRY IN WHICH THE SITE IS LOCATED

Indonesia

3. STATE OR PROVINCE (SUB-NATIONAL ADMINISTRATIVE UNIT) IN WHICH THE SITE IS LOCATED

West Kalimantan Province

Local government approval (yes or no) **yes, since March 18th, 2003**

Local government involvement (yes or no) **yes**

Local government co-financing (yes or no) **yes, in kind and cash**

4. LINKAGE TO NATIONAL PRIORITIES, ACTION PLAN AND PROGRAMMES

According to the Law No.41/1999 on Forestry and Law No. 24/1992 on Spatial Land Used, the Batu Ampar Mangrove Forest Area (65,585 ha) consists of 33,401 ha (Forest Protection) and 32,183 ha (Forest Production and Culture Area). The plans of both the Department of Forestry and Local Government state that the Batu Ampar mangrove area will become a Sub Center of Mangrove Information Center (MIC) in Indonesia. The management regime is designed to ensure that the environmental condition of the Batu Ampar mangroves remains in its present state and that use of the area should be on a sustainable basis.

As one demonstration site for South China Seas (SCS) project, all related stakeholders at the both Local and Central Government will be involved in the execution of activities designed to result in a model of Sustainable Mangrove Management based on local community based co-management.

Central government involvement (yes or no) **yes**

Central government co-financing (yes or no) **yes, in kind and cash**

5. DATE OF NATIONAL TECHNICAL WORKING GROUP MEETING WHICH CONSIDERED THE PROPOSAL AND RECOMMENDATIONS

March 18th, 2003

6. NATIONAL FOCAL POINT AND/OR NATIONAL TECHNICAL FOCAL POINT ENDORSEMENT AND/OR COMMENTS

Comment: Batu Ampar mangrove forest is still natural/virgin conditions (primary forest). Local community has used mangrove forest as charcoal material for more than 100 years and still in good condition now. Beside the specific protected area, part of the are have been managed by forest concession for wood (seed trees methods).

Physiographic condition of the area is unique where the traditional fisherman depend on mangrove environment service. The mangrove location directly in front of South China Sea, so Batu Ampar mangrove forest as a demonstration site will have higher role to restore environment ecosystem in the South China Sea

Signature:

Dra. Masnellyarti Hilman., M.Sc

DEMONSTRATION SITE PROPOSAL

7. SITE DESCRIPTION (Site characterisation as appendix 1)

7.1 Location

Geographically, the Batu Ampar mangrove forest area is located between -0.84° – 0.87° S and 109.65° – 109.68° E in the Batu Ampar, Kubu, and Teluk Pakedai districts. It borders the Karimata Strait to the West; Sanggau Regency to the East; Ketapang Regency, to the South and the Kakap River district on the northern side. The area of the Batu Ampar mangrove forest is 65,585 ha or 36% of the total area of the Pontianak Regency (Project of Coastal and Marine Resources Management, Bappeda West Kalimantan, 2002)

7.2 Environment

In general, soil composition in the Batu Ampar mangrove area is 10.5% sand, 50.06% fines and 39.45% clay. The soils are generally acidic with a pH in the range of 5.50 – 6.70, due to the high organic content and low oxygen concentration.

The climate type of the forest area is A (Schmidt and Ferguson, 1951). Annual rainfall is 3,887 mm and there are on average 132 rainy days. Rainfall average in the dry season (March – July) is 126 mm/month and during the rainy season (August – February) 465 mm/month. Pontianak Regency is located very close to the equator and has year round high air temperatures of 26.7°C (31.8°C maximum and 24.50°C minimum) mean monthly air temperatures range between 26.2°C and 27.8°C . The Batu Ampar mangrove area encompasses the Kapuas and Mendawah catchments with: Keluang, Lida, Jenu, Sapar, Kelabau, Bunbun, Kemuning, and Limau River sub-watersheds.

River water discharge in the Batu Ampar District area is around 120,0 – 278,0 during low tides and $95,0 - 382,5 \text{ m}^3/\text{s}$ at high tide. In general, water quality of the area is good, except for some marsh and high-density settlement areas. The water is non-potable due to salinities ranging from brackish 7.6 ‰ to saline 22 ‰. The pH ranges from 7.4 – 7.9, with an average of 7.0 mg/l dissolved oxygen and 0.78 – 2.3 mg/l BOD, resulting from high rates of water exchange and high tidal amplitude reaching 2 m; suspended solids range from 4.2 to 395mg/l.

The characteristic tidal regime in the Batu Ampar mangrove forest is diurnal; annual tidal range shows an average difference between high and low tides of 0.94 m. Highest tidal height is 1.70 m, with an average high tidal height of 1.41m; mean water level of 0.90 m; and average low tides are 0.46 m and the lowest low tides reach 0.20 m

7.3 Habitats

The Batu Ampar District mangrove forest area forms part of the Kapuas river estuary with a low slope and a few some small hills covering about 15 – 40% of the total area. Slopes range from 0 to 40%; less than 15% in the South, and between 15-40% in the northern portion of the area. Soil types in the mangrove forest area comprise grey alluvial hydromorf; grey alluvial association; and grey brown. Mangrove vegetation consists of an *Avicennia* sp. zone; *Sonneratia* sp. zone; mixed *Rhizophora apiculata* & *Bruguiera* sp. zone; mixed *Rhizophora* & *Nypa fruticans* zone; and *Nypa fruticans* monospecific stands. There are 21 true mangrove species and 17 associate mangrove species, including the endemic species (*Kandelia candel*). *Rhizophora* spp., *Bruguiera* spp. and *Nypa fruticans* are the dominant tree species over most of the mangrove forest area extending further inland along the watercourses.

The fauna identified from the Batu Ampar mangrove forest includes mammals, reptiles, birds and a wide diversity of aquatic fauna (fish, crustacea, gastropods, bivalves, polychaetes, phytoplankton and zooplankton). There are 11 species of mammals found in this area of which two are endemic (*Nasalis larvatus* and *Orcaela brevirostris*) and two, *Nasalis larvatus* and *Helarctos malayanus*, are listed as vulnerable species according to IUCN 1990. Total population of mammals in Batu Ampar mangrove area (65,585 ha) is estimated at between 144,489 – 24,099 individuals giving a density of around three individual/ha. There are 6 species of reptiles recorded, two of them being listed in Appendix I of the Convention on Trade in Endangered Species (CITES 1995), namely the endangered hawksbill turtle (*Eretmochelys imbricata*) and the vulnerable salt water crocodile (*Crocodilus porosus*). The monitor lizard, *Varanus salvator*, is listed in Appendix II of CITES 1995 together with other species such as the mangrove snake (*Boiga dendrophylla*), many-lined sun skink (*Mabouya multifasciata*) and the south east Asian soft-shelled turtle (*Trionyx chertilaginous*). There are 46 bird species known to occur in this area, comprising 35 resident and 11 migrant species. One species, *Ptilocichla*

leucogrammica is endemic to Kalimantan, eight species are protected and two species are listed in Appendix II of CITES 1995 (*Haliastur indus* and *Buceros rhinoceros*). Bird numbers range from 1,190,400 – 1,413,506 individuals (mean 1,301,953 individuals) giving an average density of 20 individual/ha. The endemic bird population has been estimated at between 63,664 – 152,168 individuals (average 107,916 individuals) giving a density of 2 individual/ha. Migrant species range in number from 242,067 – 349,727 individuals, with an average of 295,898 and a density of 5 individual/ha.

There are 108 fish species, 51 resident and 57 migrant; 11 crustaceans; 15 bivalves with an average density of 13.5 individual/ha (IMReD, 2002); 17 species of gastropod with density of 39 individual/m²; 18 phytoplankton species and 3 zooplankton species have been recorded from the area.

7.4 Present Use

Land use in the Batu Ampar District including Kubu and Teluk Pakedai Districts includes state forest (60%); plantation (8%); rice field (9%); empty land (3%); yards (2%); gardens (1.5%); unplanted swamp (1%); dry rice land (1%); ponds (0.5%); and others (4%) (Aprilwati, 2001).

The community depends directly and indirectly on the mangrove forest resources with the majority of the population being farmers and fishermen. Total population of Batu Ampar District was 35,068 people in 2001 (18,029 males and 17,039 females), 18-ind/km² density. Total population of Kubu District is 32,955 people (16,879 male and 16,076 female), 27 ind/km² density (IMReD, 2003) and of Teluk Pakedai District 20,474 people (1997) (10,412 male and 10,062 female), 70 ind/km². As reported by Statistic Center Bureau, the population growth rate is about 4.45%/year in Batu Ampar Sub District and 1.67% /year in Kubu Sub District.

The Batu Ampar community uses charcoal and annual production was 422.7 tons from 134 kilns in 2000. The production capacity of individual kilns ranges from 1.5 – 6 tons and the process takes 30-40 days. Potential future uses that could be developed include production of nipa salt, nipa sugar, handicrafts, ecotourism, tannin, and alternative foods (api-api and pedada fruit, etc) to improve local incomes and community welfare.

7.5 Management Regime

The Batu Ampar mangrove forest area is a state forest with mangrove vegetation (99.08%) and ponds (0.14%). This forest area comprises a protected area of 33,401.50 ha; a production forest area of 31,940 ha and ponds covering 243.5 ha of which private sector interests manage 233.50 ha under intensive mariculture and Koperasi Panter manages 10 ha under a joint silvo-fishery system.

Related institutions are the Office of Forestry (KPH Batu Ampar) which controls management and utilization of mangrove forest especially the greenbelt (50 meter from riverside to west); PT. Inhutani Unit II West Kalimantan as land owner; Office of Marine and Fisheries who control and direct utilization of water biota and establish permission of *jermal* construction in coastal water area; the Office of Industry that controls mangrove charcoal industries; IMReD and local community (Koperasi Panter).

The Department of Forestry and local government have designated two management units in the Batu Ampar mangrove ecosystem; protected forest, and production forest. Private sector companies (PT. Inhutani II and PT. BIOS) and a community organization, Koperasi Panter manage the production forest and fisheries resources. Management of Batu Ampar mangrove forest needs to be reviewed and enhanced, if management is to be effective. It is necessary to review and strengthen Batu Ampar mangrove area management because its biological diversity is high from a regional and global perspective.

8. STAKEHOLDERS (Stakeholder Involvement Plan as Appendix 2)

The stakeholders involved in mangrove forest area management include the Department of Forestry, Forestry Office of West Kalimantan (KPH Batu Ampar); Marine and Fisheries Office of West Kalimantan; Koperasi Office of West Kalimantan; Industry Office of West Kalimantan; PT Bina Mandah Pratama Industries/PT.Kandelia; PT BIOS; and Koperasi Panter (assisted by IMReD) The list of stakeholders is contained in appendix 2.

Prior to 1982 the Batu Ampar Mangrove forest area was operated as a forest concession of PT. Bumi Indonesia Jaya and PT. Kalimantan Sari. However after the Indonesia Government promulgated its new policy on restriction of log export, mangrove exploitation for logs ceased. In 1994 PT Inhutani II and PT. Bina Mandah Pratama Chip Industries (PT. BMPCI) started to manage the mangrove ecosystem in Batu Ampar. IMReD in collaboration with the Department of Forestry designed a project on Natural Production Forest Management by the Traditional community in West Kalimantan (1997). IMReD also cooperates with the Forestry Office of West Kalimantan and Estate Crops (1999) and (2000) in undertaking trials of mangrove forest management by the Batu Ampar District community, Pontianak Regency – West Kalimantan. Based on IMReD facilitation, it was proposed to establish Batu Ampar Mangrove Forest Management foundation as a low capital enterprise. The government (Office of West Kalimantan Koperasi) legalized the Koperasi Panter low capital firm, No. 1119/BH/KwK 14/IX/2000 via official documents and IMReD continued to assist the development of the community and proposed that permission to manage the mangrove forest management be devolved to the co-operative. Pontianak Regency Decree No. 150/2001 on Exertion Licensing of Forest Timber Utilization (IUPHHK) granted such rights to manage natural production forest of 6,000 ha in Batu Ampar to Koperasi Panter, whose development plan included integrated charcoal and fish production.

9. THREATS (Causal Chain Analysis as Appendix 3)

Currently, the Batu Ampar mangrove ecosystem faces several threats to its sustainability such as conversion, illegal logging and mangrove timber exploitation by community and private sector that lead to the decline in the quality of the mangrove habitat in this area.

Conversion results from unclear land-use planning regarding mangrove management areas; high demand for land for human activities and the lack of community understanding of the functions and benefits of the mangrove ecosystem. Timber exploitation by the private sector is designed to meet the demand for wood chips while that by the community is to provide the raw material for charcoal production. In addition the silviculture system that has been promoted is inappropriate for the local environmental conditions. Illegal logging of mangrove to meet international market demand for timber is still widespread in this area.

A major factor affecting this situation is a lack of human resource capacity at the community level to manage the resource in a sustainable manner; weak mangrove management institutions; and the lack of coordination between stakeholders. This condition has been aggravated by the unavailability of data and information regarding the significance of the mangrove natural resources (see Annex 1) (see Annex 3).

10. GOALS AND PURPOSE

The long-term goals of the Batu Ampar demonstration site are to sustain the functions and benefits of the mangrove ecosystem as the life support system for the local community and to sustain the globally and regionally significant biodiversity of the area. Over the three years, the project aims to establish a participatory management system involving all stakeholders in agreed actions to reduce the rate of mangrove degradation and improve the benefits to the local community derived from the mangrove ecosystem.

11. RATIONALE AND OBJECTIVE

Rationale:

Mangrove forests are unique inter-tidal ecosystems that serve as spawning and nursery grounds for a variety of aquatic organisms; as a barrier to coastal erosion; and as a source of nutrients and energy that supports the coastal food chain. Mangrove forests are susceptible to increased sedimentation, and oil spills both of which interfere with mangrove respiration.

The fisheries productivity of the South China Sea has decreased due to over fishing, pollution and conversion of nursery habitats such as mangroves. The Batu Ampar mangrove ecosystem located on the southern margin of the South China Sea, plays an important role in sustaining aquatic biodiversity, fishery production and water quality.

Total area of Batu Ampar mangrove ecosystem area is 65,585 ha. Its existence and potency have contributed to local and international society. In term of position and condition, therefore, Batu Ampar mangrove has a strategic value for recovery efforts.

The current threats to the mangroves reflect the weaknesses of the current management institutions and arrangements and the lack of stakeholder understanding of the significance and fragility of the mangrove ecosystem that results from the low levels of available data and information on the mangrove resources.

To maintain the function of the mangrove ecosystem in Batu Ampar as a life support system for the local community and as a regionally significant centre of biological diversity, it is necessary to establish a comprehensive knowledge base, as the basis for sustainable mangrove management. It is essential to improve the capacity of the human resources and management institutions, and enhance cross-sectoral collaboration to support sustainable use and management of mangroves in Batu Ampar.

This project will develop a model of sustainable use and management of the mangrove ecosystem through multi-stakeholder participation to reduce the rate of habitat loss and degradation and improve the benefits of the mangrove ecosystem to the local community.

This project forms part of the UNEP/GEF South China Sea Project to reverse the degradation trend in the South China Sea, being one of the highest priority mangrove sites from the perspective of regionally and globally significant biological diversity. This project responds to Indonesia's Biodiversity Action Plan (IBSAP) i.e. conservation and sustainable use. The model of mangrove management developed through this activity may serve as a model mangrove resources management for multipurpose uses that accommodates all stakeholder interests. This model of community based forest management will support the Republic of Indonesia, Department of Forestry program on community forestry that provides opportunities for local communities to manage the forest around their village in a sustainable manner and on their own initiative for their welfare.

Objectives:

To achieve the project purpose i.e. participation of all stakeholders with clear role to reduce degradation rate and improve the benefits of mangrove ecosystem in Batu Ampar, this project determine some targets to achieve. This project purpose will be achieved through 6 main objectives:

1. Establish an Institutional Framework for Sustainable Mangrove Management in Batu Ampar
2. Develop a database of baseline environmental and socio-economic information and a decision support system
3. Develop a Business Plan in support of the implementation of the overall management plan
4. Implement a Programme for Training, Education and Public Awareness to improve the understanding of local communities, regarding the status, functions, benefits and sustainable management of mangrove ecosystems
5. Facilitate the development and approval of local regulations regarding Mangrove Management

12. OUTCOMES

The overall outcome of this project will be the establishment of a qualified Management Board through participation of multi-stakeholders and community representatives from Batu Ampar that has the capacity to manage the mangrove ecosystem in a sustainable manner. Based on this it is anticipated that the model developed and tested in this project will be applied more widely by the Department of Forestry in the community forestry programme.

13. PLANNED ACTIVITIES TO ACHIEVE OUTCOMES (Monitoring and Evaluation Plan as Appendix 4)

Based on project purpose, the planned activities are classified into 5 components as described below:

Component 1. Establish an Institutional Framework for Sustainable Mangrove Management in Batu Ampar

1. Day-to-day Management of Site Level Activities

The purpose of this activity is to develop the management unit for implementation of the project activities consisting of the site manager, assistant site manager and administrative support staff. This activity will be implemented through establishment and operation of the Site Office in Batu Ampar and Pontianak; appointment of staff on-site and preparation of work plans, as well as the detailed site and project work plan (by week) for project personnel; meeting with the local government; and oversight and advice with focal point regularly. Site manager will be help by the assistant site manager and

responsible for reporting all of the project activity to both focal point and management board. The Focal Point will responsible for reporting the overall project activity to Inter Ministry Committee and UNEP (Project Coordinator Unit, RSTC and RWG).

2. *Establishment of Multi-sectoral, Multi-Stakeholder Management Board*

This activity is designed to strengthen the capacity of the existing Mangrove Management Board by improvement of human resources. The actions include preparation of ToR and rules of procedure for the management board (MB); formal establishment of the MB by local government; monthly meetings of the MB; publication of MB meeting reports via website & local press; preparation of detailed MB work plan; and establishment and approval of work plan by all MB members. The Management Board will consist of representatives of appropriate local and central government agencies, the private sector, NGOs and communities that are directly or indirectly involved in mangrove ecosystem management and use in Batu Ampar. It is expected that the Management Board will oversee the development and implementation of the mangrove management plan.

Component 2. Development of Mangrove Management Plan based on inventory of environmental and socio-economic conditions and a decision support system

1. *Development of Site-based, Open Access GIS database*

The database will provide spatial information regarding mangrove resources in Batu Ampar. This is required for developing both spatial plan and regulation in mangrove management. In addition it is important for the local community to be aware of and understand changes in the mangrove ecosystem in Batu Ampar. To implement this activity, it is necessary to purchase the software and hardware; establish GIS system; hire technical assistant for evaluating changes in mangrove ecosystem (1 month/year); procure Landsat Imagery; analyse Landsat imagery, and prepare baseline GIS map of habitat distribution (mangrove resources and degraded areas); and establish Batu Ampar Mangrove GIS-database and distribute initial habitat maps. IMReD, site manager and contractors will take responsibility for implementation.

2. *Field Surveys of Habitats, and Land Use*

The surveys will provide inputs to develop the habitat and land use database for Batu Ampar. To develop a basic open access GIS Database, IMReD in collaboration with site manager and experts will develop ToR and technical working method for field surveys. Contractor under IMReD supervision will take responsibility for conducting field surveys & ground truthing; overlay field data and remote sensing data in order to prepare current habitat and resource map. IMReD and the site manager will take responsibility for publishing maps and detailed reports of habitat resource distribution and abundance.

3. *Flora and Fauna Inventories*

The purpose of this activity is to provide basic data for all mangrove resources (flora and fauna) in Batu Ampar. These data will be entered into the local GIS database. Under this activity sampling and data collecting method will be designed and flora and fauna surveys and inventory will be conducted. Contractors under supervision of IMReD will take responsibility for implementing this activity.

4. *Inventory of Current Uses and Economic Values of Mangrove Resources*

The economic valuation of mangrove ecosystem services is important in decision making with regard to both development of the area and management of the resources. Contractor under IMReD supervision will develop social and economic survey method, resource valuation techniques, protocols and questionnaire for quantitative assessment of use and non use values; and implement field surveys to collect data and information on current mangrove use and values, and compile resource use data for processing and GIS entry. All activities will be conducted by sub-contractors under the supervision of IMReD.

5. *Develop draft of Silviculture System and Environment Management System (ISO 14,000) of Batu Ampar Mangrove Forest*

The purpose of this activity is to modify the existing silviculture system. To implement this activity, contractor under IMReD supervision will review past practices and current silviculture methods in the area, their effectiveness; develop draft of silviculture system of Batu Ampar mangrove forest; conduct series of discussions with stakeholder groups; revise draft of silviculture system in Batu Ampar Site manager, IMReD and MB members will finalize draft of silviculture system and submit to local government. Environment management system will be develop and implemented on mangrove Production Forest in Unit Management

6. *Conflict Resolution in Mangrove Resource Use and Management (CRMRUM)*

Conflict in mangrove resource use and management is one of the main problem in Batu Ampar mangrove management. Conflict resolution is considered as a key factor for success of mangrove management in the future. This activity will accommodate all stakeholder related to sustainable mangrove management in Batu Ampar. A consultant will be asked to identify current conflicts and prepare draft CRMRUM and revise draft for accommodating the stakeholders' suggestions/inputs. Meanwhile, civil society and private sector will discuss and provide inputs; CRMRUM will be socialized to all stakeholders (workshop) for approval and for inclusion in the management plan. This action will be implemented by site manager in collaboration with IMReD, MB and consultant.

7. *Preparation and Approval of Mangrove Management Plan (MMP)*

Management plan will be developed through the process involving all stakeholders to solve conflicts in mangrove management. The Plan will be approved by all stakeholders and socialized to all stakeholders and legalized by management board. Site manager and consultant under supervision of IMReD will prepare a draft MMP; deliver for discussion by civil society and private sector stakeholder and revise the draft to accommodate the stakeholders' inputs. The MMP will be socialized to all stakeholders; realized for formal approval by MB & local government; and published in hard copy and via website and local press.

Component 3. Development of a Business Plan in support of the implementation of the overall management plan

1. *Identification of Alternative Livelihood and Business Opportunities Based on Use of Non-timber Mangrove Forest Products*

The purpose of this activity is to reduce the community dependency on mangrove timber and at the same time provide new job opportunity for improving community welfare. The activity is important in the light of population growth that could lead to increasing the demand for mangrove timber as raw material for charcoal production and building materials, and conversion of mangrove area for other economic activities.

Non-timber mangrove products have not yet been appreciated or developed by the local community in Batu Ampar. Non-timber mangrove products will be identified with local community involvement. The contractor under supervision of IMReD will be asked to identify potential mangrove resources; create a programme of participatory planning for development of alternative income from non timber mangrove forest products and enhancement of values of existing products; introduce required technology for non-timber mangrove forest product use and/or existing product enhancement and provide technical support to the programme. Study visits in Indonesia to see alternative non-timber resource uses, will be implemented by IMReD, site manager and local community representatives.

2. *Sustainable management of charcoal production and enhancement of community income*

The purpose of this activity is to improve the charcoal quality and minimize the negative impacts to mangrove ecosystem in Batu Ampar. Site manager and his staff in consultation with IMReD will manage study visits on the improvement of charcoal quality; identify export opportunities and new markets; improve marketing mechanism through strengthening existing community organizations/institutions; establish a revolving fund for micro-credits to charcoal producers; monitor revolving fund and provide support to strengthening local management of the fund

3. *Management of Community - based Livelihood Development Programme*

Capital aid and market building for non-timber mangrove product produced by local society should be undertaken. To implement this activity, IMReD together with the site manager and staff will establish and develop appropriate markets for new and existing products; establish a revolving fund for micro-credits in order to establish new products; and monitor community activities and provide technical assistance and advice to improve products and manage the fund.

Component 4. Training, Education and Public Awareness

1. *Training*

Initially a consultant will undertake a training needs assessment and identify the training needs and requirements of different stakeholders and community groups; develop a programme for approval by the MB; and prepare the training materials. Site manager and staff in consultation with IMReD will conduct community level training regarding organization development and management in field, training on techniques to improve charcoal quality in the field, training on management of mangrove ecosystems. The target groups might include local NGOs; government institution, staff from private

sector, field researchers and staffs, graduate students; and site manager and his staff (field visit and sort courses).

2. *Develop and Implement an Education and Public Awareness Programme*

The purpose of activity is to increase the community knowledge regarding mangrove ecosystem resources and management. The implementation of environmental education should be based on the environmental school level and field trip. While the public awareness activities will be implemented at the village level in Batu Ampar mangrove area. For supporting the above activities, the basic material will be produced (brochure and poster).

3. *Establish Sustainable Mangrove Utilization Information Centre*

The development of mangrove utilization information center will support and enhance awareness of the public on the potential of mangrove resources and their functions. The contractor under supervision of IMReD will be asked to collect photos/documentation, specimens, and sample of products; plan the layout and displays for the sustainable mangrove utilization information centre; establish information boards on site; ; and publish series of articles in local newspaper.

4. *Establish and Publicise Website for Demonstration Site*

Batu Ampar mangrove website will be established for direct access of communities. So the society can participate to monitor their activity. IMReD will purchase equipments and page web design; provide technical assistance for data monthly updating of website contents; and maintain equipment

Component 5. Facilitate the Development and Approval of Local Regulations Regarding Mangrove Management

Development of regulations regarding community-based mangrove management is critical since the mangrove ecosystem has been managed without legal clarification regarding the rights and obligations of different stakeholder groups. Providing a legal basis for community-based mangrove management is an imperative to safeguard traditional rights and ensure sustainable management in the long-term. The proposed actions include review and evaluation of existing regulations regarding community-based mangrove management; examination of community constraints to successful management, in the light of the training needs assessment; current use and ownership rights; and capacity for local enforcement; development of draft regulations on community-based mangrove management; community level discussions on draft regulations; revision of draft regulations in the light of stakeholder feedback; finalisation of regulations and submission for approval by local government.

14. SUSTAINABILITY ANALYSIS AND RISK ASSESSMENT

Sustainability

This project will improve the capacity of local institutions and communities around the mangrove ecosystem to sustainably manage the resources and provide a basis for local initiatives in mangrove ecosystem management

This project will guarantee participation of all stakeholders in planning and management of the mangrove ecosystem. This will raise the sense of ownership and moral responsibilities of all stakeholders in mangrove management in Batu Ampar.

At the end of this project, a management board that is responsible for sustainable mangrove ecosystem management at the district level will have been established that will have developed an integrated work plan that guarantees long-term mangrove management. The management board including all relevant stakeholders will plan the allocation of resources to achieve sustainable mangrove management in the district.

At the end of this project, the quality of charcoal produced by the community will be enhanced and alternative business opportunities (non-timber mangrove forest product) will have been identified and developed. This will be a basis for community economic improvement, which will encourage community to manage mangrove ecosystem in sustainable way.

Financial sustainability for the development of post harvest activity will be created through cooperation between stakeholders (government, private sector and local community organization) and other funding sources.

Risks

Conflict of interests between government, private sector and community at the present time is a factor that could potentially hamper the implementation of this project. Therefore, to counter this risk, the project will implement an intensive approach to involve all stakeholders in planning and management according to their capacity. This approach will build trust between stakeholder groups to resolve the conflicts of interest between them.

15. ESTIMATED BUDGET

Total estimated budget of the demonstration site project is US\$ **757,504**, including:

- Total GEF Funding: US\$ **367,546**
- Government (GOV) co-funding in-kind: \$US 153,380
- Government Co-funding in cash: \$US 236,578
- Total Government co-funding: US\$ **389,958**

Table 15.1 Summary budget by activity (Detailed budget by activity as Appendix 5.1).

	Components/Activities	GEF	GOV	Total
1.	Establish an Institutional Framework for Sustainable Mangrove Management in Batu Ampar	93,496	91,651	185,147
1.1	Day-to-day Management of site level activities	68,878	65,121	134,000
1.2	Establishment of Multi-sectoral, Multi-Stakeholder Management Board	24,618	26,529	51,147
2.	Development of baseline environmental and socio-economic database and a decision support system	86,639	99,386	186,024
2.1	Prepare site-based, open access GIS database	14,555	17,915	32,471
2.2	Field surveys of habitats, and land use	11,459	7,819	19,276
2.3	Flora and Fauna Inventories	20,012	13,341	33,353
2.4	Inventory of current uses and economic values of Mangrove resources	8,612	5,741	14,353
2.5	Develop draft of Silviculture and Environment Management System of Batu Ampar Mangrove Forest	9,207	34,304	43,512
2.6	Conflict Resolution in Mangrove Resources Using and Management (CRMURUM)	8,043	7,133	15,176
2.7	Preparation and approval of Mangrove Management Plan (MMP)	14,751	13,132	27,882
3.	Development of a Business Plan in support of the implementation of the overall management plan.	22,918	33,641	56,559
3.1	Identify alternative livelihood and business opportunities based on use of non-timber mangrove forest products	11,327	10,761	22,088
3.2	<i>Sustainable Management of Charcoal Production and enhancement of community income</i>	9,286	16,243	25,529
3.3	Management of community based livelihood development programme	2,305	6,636	8,941
4.	Training, Education and Public Awareness	136,488	144,463	280,951
4.1	Training	68,361	48,403	116,764
4.2	Develop and implement an education and public awareness programme	26,239	28,397	54,635
4.3	Establish Sustainable Mangrove Utilization Information Centre	33,100	59,981	93,082
4.4	Establish & Publicise website for demonstration site	8,788	7,682	16,471
5.	Facilitate the development and approval of local regulations regarding Mangrove Management	19,006	20,817	39,824
6.	Monitoring and Evaluation for all activity (Midterm and Ending)	9,000	0	9,000
	Total	367,546	389,958	757,504

Table 15.2 Summary budget by object of expenditure (Details as Appendix 5.2).

COMPONENTS		GEF	GOV	TOTAL
PROJECT PERSONNEL COMPONENT		67,236	59,882	127,118
1100	Project Personal	32,254	29,746	62,000
1200	Consultants	17,438	13,798	31,235
1300	Administrative support	12,274	10,314	22,588
1600	Travel on Official Business	5,270	6,024	11,294
SUB-CONTRACT COMPONENT		98,627	77,544	176,171
2200	Sub-contract with non-profit organisations	98,627	77,544	176,171
TRAINING COMPONENT		142,591	139,919	282,511
3100	Fellowships (total stipend/fees, travel, costs, etc)	11,690	9,780	21,469
3200	Group training (study tours, field trips, workshops, seminars, etc)	79,949	68,133	148,082
3300	Meeting/workshop/Conference	50,952	62,006	112,959
EQUIPMENT AND PREMISES COMPONENT		7,871	20,482	28,353
4100	Expendable equipment	5,224	3,482	8,706
4200	Non-expendable equipment	2,647	14,176	16,824
4300	Premises	0	2,824	2,824
MISCELLANEOUS COMPONENT		51,221	92,131	143,352
5100	Operation and Maintenance of Equipment	1,553	1,976	3,529
5200	Reporting	22,418	25,171	47,588
5300	Sundry	7,662	64,984	72,647
Total		367,546	389,958	757,504

16. IMPLEMENTATIONS PLAN

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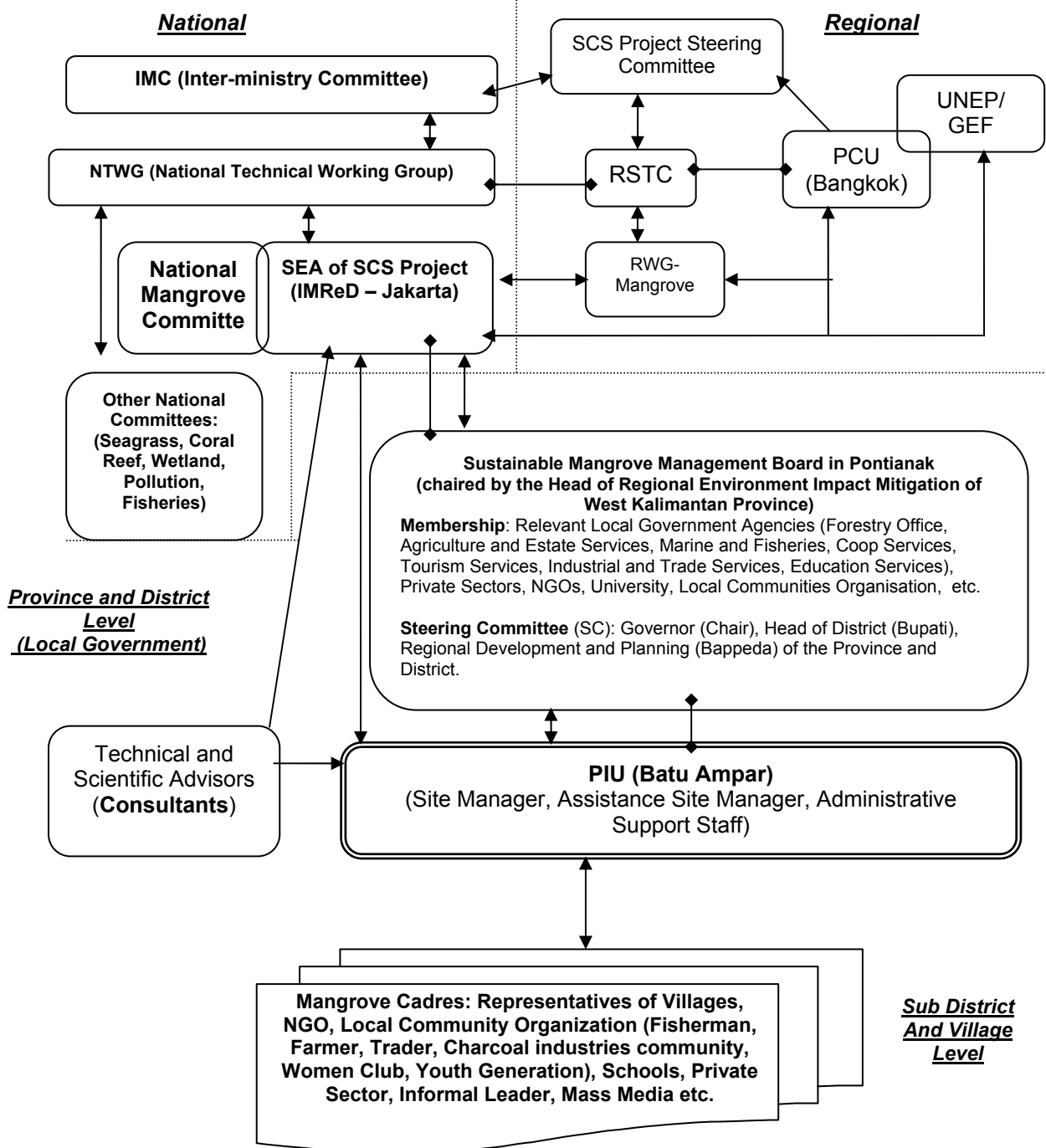
No	Components			Year 1				Year 2				Responsibility
	Sub-components	Activities	Sub-activities	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
												Local Executing Agency
2.	Development of baseline environmental and socio-economic database and a decision support system											
2.1	Prepare site-based, open access GIS database											
2.1.1		Purchase software and Hardware install at site office										IMRED
2.1.2		Establish GIS system (Baseline map and basic information) (1 man-month)										Site Manager & IMRED
2.1.3		Technical assistant to help GIS to evaluate changes in mangrove ecosystem (3 man-month)										Site Manager & IMRED
2.1.4		Procure Landsat Imagery										Contractor under supervision of IMRED
2.1.5		Analyse Landsat imagery, and prepare baseline GIS map of habitat distribution (mangrove resources and degraded areas)										Contractor under supervision of IMRED
2.1.6		Establish Batu Ampar Mangrove GIS-database and distribute initial habitat maps										Contractor under supervision of IMRED
2.2	Field surveys of habitats, and land use											
2.2.1		Develop ToR for the contractor for field surveys to validate the GIS baseline map										Focal Point, IMRED in collaboration with Site Manager with expert
2.2.2		Preparing Technical Working Method for Field Survey										Contractor under supervision of IMRED
2.2.3		Field surveys & Ground Truthing of satellite image interpretation of land cover										Contractor under supervision of IMRED
2.2.4		Overlay field data and remotely sensed data on GIS base map to derive current habitat and resource map										Contractor under supervision of IMRED
2.2.5		Publication of maps and detailed report of habitat resource distribution and abundance (English & Bahasa)										IMRED, Site Manager
2.3	Flora and Fauna Inventories											
2.3.1		Design field survey, and sampling protocols [data collecting method]										Contractor under supervision of IMRED
2.3.2		Conduct flora and fauna surveys, inventory (30 days, 6 persons; survey equipment rent for 28 days, travel cost (air plane and boat; field documentation)										Contractor under supervision of IMRED
2.3.3		Data compilation and entry into GIS system										Contractor under supervision of IMRED & Site Manager
2.4	Inventory of current uses and economic values of Mangrove resources											
2.4.1		Develop social and economic survey methods, protocols and questionnaire for quantitative assessment of use and non use values										Contractor under supervision of IMRED
2.4.2		Field surveys to collect data and information on current mangrove use and values, quantification and valuation										Contractor under supervision of IMRED
2.4.3		Resource use data compilation, processing and GIS entry										Contractor under supervision of IMRED & Site Manager
2.5	Develop draft Silviculture System and Environment Management System of Batu Ampar Mangrove Forest											
2.5.1		Review past practices and silviculture methods currently in use in the area, and evaluate their effectiveness										Contractor under supervision of IMRED
2.5.2		Develop draft of silviculture system of Batu Ampar mangrove forest										Contractor under supervision of IMRED
2.5.3		Series of discussions with stakeholder groups										Site Manager, IMRED and Management Board & Contractor
2.5.4		Revision of draft of silviculture system in Batu Ampar (60 persons, 1 days)										Contractor under supervision of IMRED
2.5.5		Finalization draft of silviculture system in Batu Ampar and submission to local government										Site Manager, IMRED and Management Board & Contractor

No	Components			Year 1				Year 2				Responsibility
		Sub-components		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
		Activities										
		Sub-activities										
2.5.6		Develop and Implementation Environment Management System (ISO 14.000) (2 person's, 2 man month for compile SOP System and 3persons, 3 man month for implementation Environment Management System)										
2.6		Conflict Resolution in Mangrove Resources Using and Management (CRMURUM)										
2.6.1		Identification of current use conflicts and preparation of draft CRMURUM										Consultant under supervision of IMRED
2.6.2		Civil society & private sector stakeholder discussion, input to and agreement										Site Manager, IMRED and Management Board & Consultant
2.6.3		Revision of draft to accommodate the stakeholders input (10 person, 2 times)										Consultant under supervision of IMRED
2.6.4		Socialization of CRMURUM to all stakeholders (workshop) for Approval and inclusion in the Management Plan CRMURUM by All Stakeholders (60 persons, 1 days)										Site Manager, IMRED and Management Board & Consultant
2.7		Preparation and approval of Mangrove Management Plan (MMP)										
2.7.1		Preparation of a draft MMP										Consultant under supervision of IMRED
2.7.2		Civil society & private sector stakeholder discussion, input to and agreement with draft MMP										Consultant under supervision of IMRED, Site Manager and Management Board
2.7.3		Revision of the draft to accommodate the stake holder's inputs (5 persons, 15 days)										Consultant under supervision of IMRED
2.7.4		Socialization MMP to all stakeholders (20 persons, 2 days, 1 times)										Site Manager, IMRED and Management Board & Consultant
2.7.5		Formal approval of MMP by MB & local government (60 persons, 1 days)										IMRED, Site Manager and Management Board
2.7.6		Publish Management plan in hard copy and via website & local press										Site Manager
3.		Development of a Business Plan in support of the implementation of the overall management plan.										
3.1		Identify alternative livelihood & business opportunities based on non-timber mangrove forest products										
3.1.1		Identification of potential mangrove resources to be developed in consultation with the local community										Contractor under supervision of IMRED
3.1.2		Study visits (Indonesia) to see alternative non-timber resource uses										IMRED, Site Manager and staff
3.1.3		Create program on participatory planning of development of alternative income from non timber mangrove forest products and enhancement of values of existing products)										Contractor under supervision of IMRED
3.1.4		Introduce required technology for non-timber mangrove forest product use and/or existing product enhancement and provide technical support to the programme										Contractor under supervision of IMRED
3.2		Sustainable Management of Charcoal Production and enhancement of community income										
3.2.1		Study visits on improvement of charcoal quality										IMRED, Site Manager & staff
3.2.2		In consultation with the community identify export opportunities and new markets for charcoal										IMRED, Site Manager & staff
3.2.3		Improve marketing mechanism through strengthening existing community organizations institution										IMRED, Site Manager & staff
3.2.4		Establish a Revolving fund for micro-credits to charcoal producers (5 units)										IMRED, Site Manager & staff
3.2.5		Monitoring revolving fund and provide support to strengthening local management of the fund										IMRED, Site Manager & staff

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No	Components			Year 1				Year 2				Responsibility
	Sub-components	Activities	Sub-activities	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
												Local Executing Agency
4.2.6			School visit to implement environmental education (3 persons, 1 days, 9 times)									Site Manager and staff
4.2.7			Organization of school fieldtrips to mangrove ecosystem area (24 children, 3 schools, 4 times)									Site Manager and staff
4.2.8			Series discussion with key stakeholder in Sub-district and villages (3 persons,20 times)									Site Manager and staff
4.2.9			Conduct regular programme of awareness activities in local communities									Site Manager and staff
4.3			Establish Sustainable Mangrove Utilization Information Centre									
4.3.1			Collect photos/documentation, specimens, and sample of products									Contractor under supervision of IMRED
4.3.2			Plan the layout and displays for the sustainable mangrove utilization information centre									Contractor under supervision of IMRED
4.3.3			Establish information boards on site (20 Boards)									Contractor under supervision of IMRED
4.3.4			Establish Sustainable Mangrove Utilization Information Centre									Contractor under supervision of IMRED
a			Mangrove information center building									
b			Establish information in MIC (wall display, 20 units; chairs display, 20 units and market, 1 unit)									Contractor under supervision of IMRED
4.3.5			Maintenance of Mangrove Utilization Information Centre									Site Manager & Staff
4.3.6			Publish series of article in local newspaper (1 times/month)									Site Manager, Focal Point IMRED staff.
4.4			Establish & Publicize website for demonstration site									
4.4.1			Purchase equipments and Page web design									IMReD
4.4.2			Technical assistance for data monthly updating of website contents (1week/month)									IMReD
4.4.3			Equipment maintenance & repair									IMReD
5.			Facilitate the development and approval of local regulations regarding Mangrove Management									
5.1			Review and evaluate existing regulations regarding community base mangrove management									Contractor under supervision of IMRED
5.2			Examine community constraints to successful management, in the light of the training needs assessment; current use and ownership rights; and capacity for local enforcement									Contractor under supervision of IMRED
5.3			Develop draft of regulation on community base mangrove management									Contractor under supervision of IMRED
5.4			Community level discussions on draft regulations with stakeholders (20 persons, 1 days, 6 times)									Site Manager, IMRED and Management Board &Contractor
5.5			Revision of the draft regulations in the light of stakeholder feedback									Contractor under supervision of IMRED
5.6			Finalization of regulations on community based mangrove management and submission to local government									Site Manager, IMRED and Management Board &Contractor
6.			Evaluation and Monitoring									Ind. Evaluator& UNEP

17. PROPOSED MANAGEMENT OF THE ACTIVITIES (Arrangement for Coordination and Management as Appendix 6)



Information on Proposed Executing Agency

Institute of Mangrove Research and Development (IMReD) was established in 1992 based on official document No.2 with Warda Sungkar Alurmei as notary. The document has revised in 2002 as No. 1 with Notaris Dina Yulianti as the notary.

IMReD is the only NGO in Indonesia that particularly concern on mangrove conservation base on integrated research. IMReD has experiences in conducting mangrove ecosystem rehabilitation in Northern Coast of Java, Langkat - North Sumatra, Bengkalis, Lampung, Maros and West Kalimantan. Currently, IMReD has two integrated sites in Batu Ampar – West Kalimantan for community - based mangrove forest management and in Muara Angke Wildlife Reserve – DKI Jakarta for environmental education activities. In implementing their program, IMReD developed collaboration with Government in both central and local level, donor institutions and private sector. More detailed information of IMReD can be found in website <http://www.imred.org>.

18. EXECUTING AGENCY CONTACT PERSONS:

Ir. Nyoto Santo, Ms., National Focal Point for Mangroves

Institute of Mangrove Research and Development (IMReD)

Head office :

Address : Kompleks IPB II, Jl Mercurius, C/4 Sindang Barang, Bogor. West Java, Indonesia.
Phone : +66-0251-621672
Fax : +66-0251-621672
Email : imred@indo.net.id
Homepage : <http://www.imred.org>

Branch office :

Address : Multipiranti Graha Lantai Dasar, Jl.Radin Inten II/2. Jakarta Timur
Phone : +66-021-8611710
Fax : +66-021-8611710
Email : imred@indo.net.id
Homepage : <http://www.imred.org>

Mr. Ahmad Faisal Siregar, Site Manager

Indonesian of Institute Mangrove Research & Development

Multi Piranti Graha It 3
JL. Radin Inten II No. 2
Jakarta 13440, Indonesia
Tel: (62 251) 621672; (62 21) 861 1710
Mobile: (62) 08128151790; 0811110764
Fax: (62 251) 621672; (62 21) 861 1710
E-mail: imred@indo.net.id; marucok@yahoo.com

Demonstration site office (Pontianak – West Kalimantan Province)

Address : Governor Office, Jl. Ahmad Yani (Pos Code: 78124) Pontianak, West Kalimantan
Phone : +66-0561-764616
Fax : +66-0561-764616
Email : marucok@yahoo.com

Appendix 1

ENVIRONMENT MANGROVE DATA IN THE BATU AMPAR DEMOSITE PONTIANAK DISTRICT – WEST KALIMANTAN PROVINCE

Location: - 0.84– 0.87 SL and 109.65 –109.68 EL

Table 1. Physical Environment

	Category	Unit	Data	Remark
Physical Environment (Present Status)				
1. Average Soil Texture	Sand	%	Primary forest = 8.58 – 10.68 Secondary forest = 6.82 – 15.91	
	Silt	%	Primary forest = 48.56–50.95 Secondary forest = 47.13 – 53.61	
	Clay	%	Primary forest = 40.07–41.14 Secondary forest = 34.45 – 42.11	
2. Average cross sectional slope		Degree	0 – 5%	
3. Present area (Year 2000)		hectare	65,585	
4. Average rate of change the last decade area cover		Hectare/year	Not available data	

Table 2. Vegetation

	Category	Unit	Data	Remark
Vegetation (Present status)				
1. Number of zone (by dominant species)		Number	6	(1) Avicennia, (2) Sonneratia, (3) <i>Rhizophora apiculata</i> & <i>Bruguiera</i> , (4) <i>Rhizophora</i> & <i>Nipah</i> , (5) <i>Nipah</i> , & (6) <i>Pandan</i> & <i>Nibung</i> (ecoton).
2. Total number of tree species		Number	21	Include <i>Nipah</i>
3. Average height (all species)	(1) Primary Forest (2) Secondary Forest	m	(1) = 21 (2) = 17.61	
4. Average height of dominant species (by species)	Primary Forest : <i>Rhizophora apiculata</i>	m	21	
	Secondary Forest: <i>Rhizophora apiculata</i> <i>Bruguiera gymnorhiza</i>	m	17.77 14.46	
5. Average diameter (all species)	(1) Primary Forest (2) Secondary Forest	cm	(1) = 31.29 (2) = 40.00	
6. Average diameter of dominant species (by species)	<i>Rhizophora apiculata</i>		22,52	
	Primary Forest: (1) <i>Rhizophora apiculata</i> (2) <i>Bruguiera gymnorhiza</i> (3) <i>Xylocarpus granatum</i>	cm	(1) = 31,5 (2) = 33 (3) = 28	
	Secondary Forest: (1) <i>Bruguiera gymnorhiza</i> (2) <i>Rhizophora apiculata</i> (3) <i>Xylocarpus granatum</i>	Cm	(1) = 42 (2) = 32.67 (3) = 36	
7. Tree density (all Species)	(1) Primary Forest (2) Secondary Forest	Number/ hectare	(1) = 1303 (2) = 3479	
8. Density of dominant tree species (by species)	1. Primary forest:			
	(a). PT Inhutani II <i>Rhizophora apiculata</i> <i>Nipah Panjang</i> <i>Rhizophora apiculata</i>	Number/ hectare	186 1840	
	2.Secondary Forest			
	(a). 0 YAL - PT Inhutani II <i>Rhizophora apiculata</i>	Number/ hectare	615	YAL = year after logging

	(b). 1 YAL - PT Inhutani II <i>Xylocarpus granatum</i> <i>Rhizophora apiculata</i>	Number/ hectare	100 56	
	(c). 1 YAL - Ht.Mgrv P. Empat <i>Rhizophora apiculata</i>	Number/ hectare	289	
	(d). 3 YAL - PT. Inhutani II <i>Xylocarpus granatum</i> <i>Rhizophora apiculata</i>	Number/ hectare	343 143	
	(e). 3 YAL - Ht. Mgrv. S. Kadir <i>Rhizophora apiculata</i>	Number/ hectare	292	
	(f). 4 YAL - Ht. Mgrv. S. Limau <i>Rhizophora apiculata</i>	Number/ hectare	340	
	(g). 5 YAL - PT Inhutan II <i>Xylocarpus granatum</i> <i>Bruguiera gymnorhiza</i>	Number/ hectare	1257 86	
	(h). 7 YAL - PT Inhutani II <i>Rhizophora apiculata</i>	Number/ hectare	2757	
	(i). 9 YAL - Ht. Mgrv. S. Aman <i>Rhizophora apiculata</i>	Number/ hectare	210	
	(j). 14 YAL - P. Nipah Pjg <i>Rhizophora apiculata</i>		251	
	(k). 20 YAL - S. Kemuning <i>Rhizophora apiculata</i>		241	
	(l). 25 YAL - S. Belat <i>Xylocarpus granatum</i> <i>Rhizophora apiculata</i>		89 185	
9. Present (year 2000) vegetation canopy cover (all species)	(1) Covered by vegetation (2) Pond	%	(1) = 99.86 (2) = 0.14	
10. Present (year 2000) vegetation canopy cover (by species)	Species (1) <i>Nypa fruticans</i>	%	15	
	Species (2) <i>Bruguiera</i> sp., <i>Rhizophora</i> sp., <i>Xylocarpus</i> Sp. dll	%	85	
	Species (3).....	%		

Table 3. Other Organisms

	Category	Unit	Data	Remark
1. Number of phytoplankton's genera & species		Number & number	18 / 18	
2. Density of phytoplankton's	(1) Range (2) Average	Number/m ³	(1) = 24000 – 561420 (2) = 316547	
3. Number of zooplanktons genera & species		Number & number	3 / 3	
4. Density of zooplanktons	(1) Range (2) Average	Number/m ³	(1) = 4000 – 160000 (2) = 68000	
5. Number of macrobenthos genera & species		Number & number	Not available data	
6. Density of macrobenthos		Number/m ²	Not available data	
7. Number of crustacean genera & species		Number & number	7 / 11	
8. Density of crustacean	Primary Forest	Number/m ²	3.75x10 ⁻²	
	Secondary Forest (1) 0 year after logging (2) 1 year after logging (3) 3 year after logging (4) 5 year after logging		(1)= 5.00 x10 ⁻² (2)= 4.00 x10 ⁻² (3)= 1.50 x10 ⁻² (4)= 5.00 x10 ⁻² Average = 3.88 x 10 ⁻²	
9. Number of bivalve genera & species		Number & number	5 / 6	

Table 3. cont. Other Organisms

	Category	Unit	Data	Remark
10.Density of bivalve	Primary Forest	Number/m ²	6	
	Secondary Forest (1) 0 year after logging (2) 1 year after logging (3) 3 year after logging (4) 5 year after logging (5) 7 year after logging	Number/m ²	(1) = 8 (2) = 12 (3) = 13 (4) = 16 (5) = 55 Average = 21	
11.Number of gastropods genera & species		Number& number	17 / 17	
12.Density of gastropods	Virgin Forest	Number/m ²	20	
	Secondary Forest (1) 0 year after logging (2) 1 year after logging (3) 3 year after logging (4) 5 year after logging (5) 7 year after logging	Number/m ²	(1) = 62 (2) = 51 (3) = 15 (4) = 64 (5) = 97 Average =58	
13.Number of polychaete genera & species		Number& number	2 / 2	
14.Density of polychaete		Number/m ²	Not available data	
15. Number of resident fish genera & species		Number& number	22 / 28	Not identified = 24/27
16.Abandance of resident fish		Ton	Not available data	
17.Number of transient fish genera & species		Number& number	28 / 53	
18.Abandance of transient fish		Ton	Not available data	
19.Number of resident reptiles/amphibian genera/species		Number& number	5 / 5	
20.Density of resident reptiles/amphibian		Number/ hectare	Not available data	
21.Number of resident birds species		Number& number	29 / 35	
22.Abandance of resident bird	(1) Range (ind) (2) Average (ind) (3) Density (ind/ha)	Number	(1) = 1190400 – 1413506 (2) = 1301953 (3) = 20	$\alpha = 0.05$
23.Number of migratory birds species		Number& number	11 / 11	
24.Abandance of migratory birds (at peak)	(1) Range (ind) (2) Average (ind) (3)Density (ind/ha)	Number	(10 = 242067 – 349727 (20 = 295898 (3) = 5	$\alpha = 0.05$
25.Number of resident mammals species		Number& number	10 / 10	
26.Abandance of resident mammals	(1) Range (ind) (2) Average (ind) (3) Density (ind/ha)	Number	(1) = 144489 – 224099 (20 = 184294 (3) = 3	$\alpha = 0.05$

Table 4. The value of Mangrove Ecosystem Services (approximate for year 2000)

	Category	Unit	Data	Remark
1. Landuse type and area	Aquaculture	hectare	-	
	Agriculture	hectare	-	
	Urbanization	hectare	-	
	Other (1) Protection Forest	hectare	33401.5	Already converted around 233.5 ha
	Other (2) Production Forest	hectare	31850	Already converted around 10 ha
	Other (3) Fish/shrimp Pond	hectare	243.5	
	Other (4)	hectare	-	

Table 4. cont. The value of Mangrove Ecosystem Services (approximate for year 2000)

	Category	Unit	Data	Remark
2. Values of direct use	Timber	IDR/years	98,685,998	\$ US 1.00 = Rp. 8,500.00
	Charcoal	IDR/years	452,792.41	
	Living marine resources: (1) Fish (2) Shrimp (3) Crab	IDR/years	(1) = 548,195.36 (2) = 4,057,549.09 (3) = 1,105,002.37	
	Nipah	IDR/years	19,145.80	
	Mangrove Seeds	IDR/years	41,790.13	
3. Values of indirect use	Carbon sequestration	IDR/years	-	
	Ecotourism	IDR/years	-	
	Nursery area for shrimp	IDR/years	-	
	Other (1) Physic	IDR/years	29,851,092.88	
	Other (2) Biology	IDR/years	6,544,942.60	
4. Values from environmental services	Coastal protection	IDR/years	-	
	Sediment stabilization	IDR/years	-	
	Water quality enhancement	IDR/years	-	
	Contaminant sink	IDR/years	-	
	Reduction of wave energy& erosion	IDR/years	-	
	Other (1) Choose value	IDR/years	983,775	
	Other (2) Existence value	IDR/years	40,605,608	
5. Avarage of investment value	Restoration	IDR/years	-	
	Replanting	IDR/years	-	
	Other (1).....	IDR/years	-	
	Other (2).....	IDR/years	-	
6. Average value of potential or sustainable use		IDR/years	-	
7. Total economic value		IDR/years	182,895,892.4	

Table 5. Management

	Category	Unit	Data	Remark
Management				
1. Proportion of natural versus managed area		Ratio	65.585 : 640	
2. Ownership	Federal		<input type="checkbox"/> Yes	
	State		<input checked="" type="checkbox"/> Yes	As owner
	Community		<input checked="" type="checkbox"/> Yes	As organizer
	Private		<input checked="" type="checkbox"/> Yes	As organizer
	Other (1).....			
	Other (2).....			
3. Management regime	Landuse planning		<input checked="" type="checkbox"/> Yes	
	Institutional framework		<input checked="" type="checkbox"/> Yes	
	Stakeholder co-ordination		<input checked="" type="checkbox"/> Yes	
	Forestry practice		<input checked="" type="checkbox"/> Yes	
	Restoration replanting		<input checked="" type="checkbox"/> Yes	
	Stakeholder investment		<input checked="" type="checkbox"/> Yes	
	Fishery practices		<input checked="" type="checkbox"/> Yes	
	Other (1).....			
	Other (2).....			
4. Existing management plans (provide short detail)	- Long term		<input checked="" type="checkbox"/> Yes	Detail
	- Medium term		<input type="checkbox"/> Yes	Detail
	- Short term		<input type="checkbox"/> Yes	Detail

Table 5. cont. Management

	Category	Unit	Data	Remark
5. Existing international recognition	Ramsar site	Established year	-	
	World heritage site	Established year	-	
	Other (1).....	Established year		
	Other (2).....	Established year		
6. Commitment with international agreements/ issues			<input type="checkbox"/> Yes	Specify
7. Existing international recognition (IUCN category) www.iucn.org/themes/marine/pdf/mpaguid.pdf	- Strict nature reserve	Established year	-	
	- Wilderness area	Established year	-	
	- National park	Established year	-	
	- Natural monument	Established year	-	
	- Habitat/species management area	Established year	-	
	- Protected landscape/seascape	Established year	-	
	- Managed resources protected area	Established year	-	
	Other (1).....	Established year		
	Other (2).....	Established year		

Table 6. Stress/pressure information

	Category	Unit	Data	Remark
Stress/pressure information				
1. Intrinsic/internal source of change	Resident human population	Number	88,497	
	Average of typhoon frequency	Number/years	-	
	Change of all octoroons sediment input over last decade	% / decade	<input type="checkbox"/> +>100%	
			<input type="checkbox"/> +50 to 100%	
			<input type="checkbox"/> +10 to 49%	
			<input checked="" type="checkbox"/> -10 to +10%	
			<input type="checkbox"/> -50 to -10 %	
			<input type="checkbox"/> ->50%	
	Average marine based flooding frequency	Number/ year	Not detected	
2. Extrinsic/external sources of change	Dam constructions in the catchments	Number	-	
	Water diversion project in the catchments	Number	-	
	Other (1) legal logging	Number	Not available data	
	Other (2).....	Number		
	Other (3).....	Number		
3. Social and economic drivers of change in environmental state over last decade	Population growth	% year	Bt. Ampar = - 0,74 Kubu = - 0,28 Teluk Pakedai = n.a	(-) Because of factory closing thus indigenous and migrate people moved to other areas
	Immigration	% year	-	
	Average GDP growth	% year	10.80	

1.2. Maps of Demonstration Site

Figure 1 Location of Pontianak District, West Kalimantan Province.

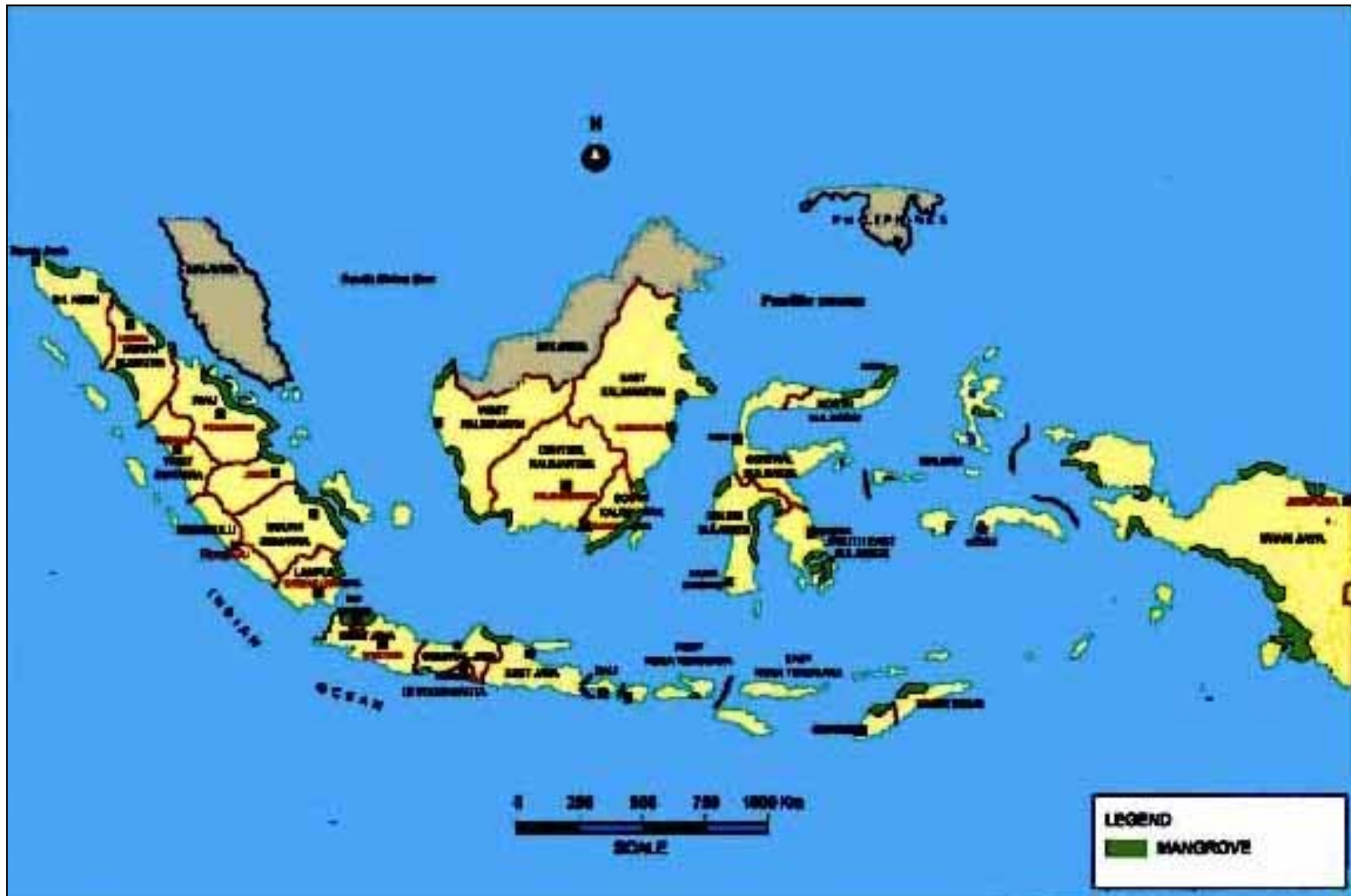
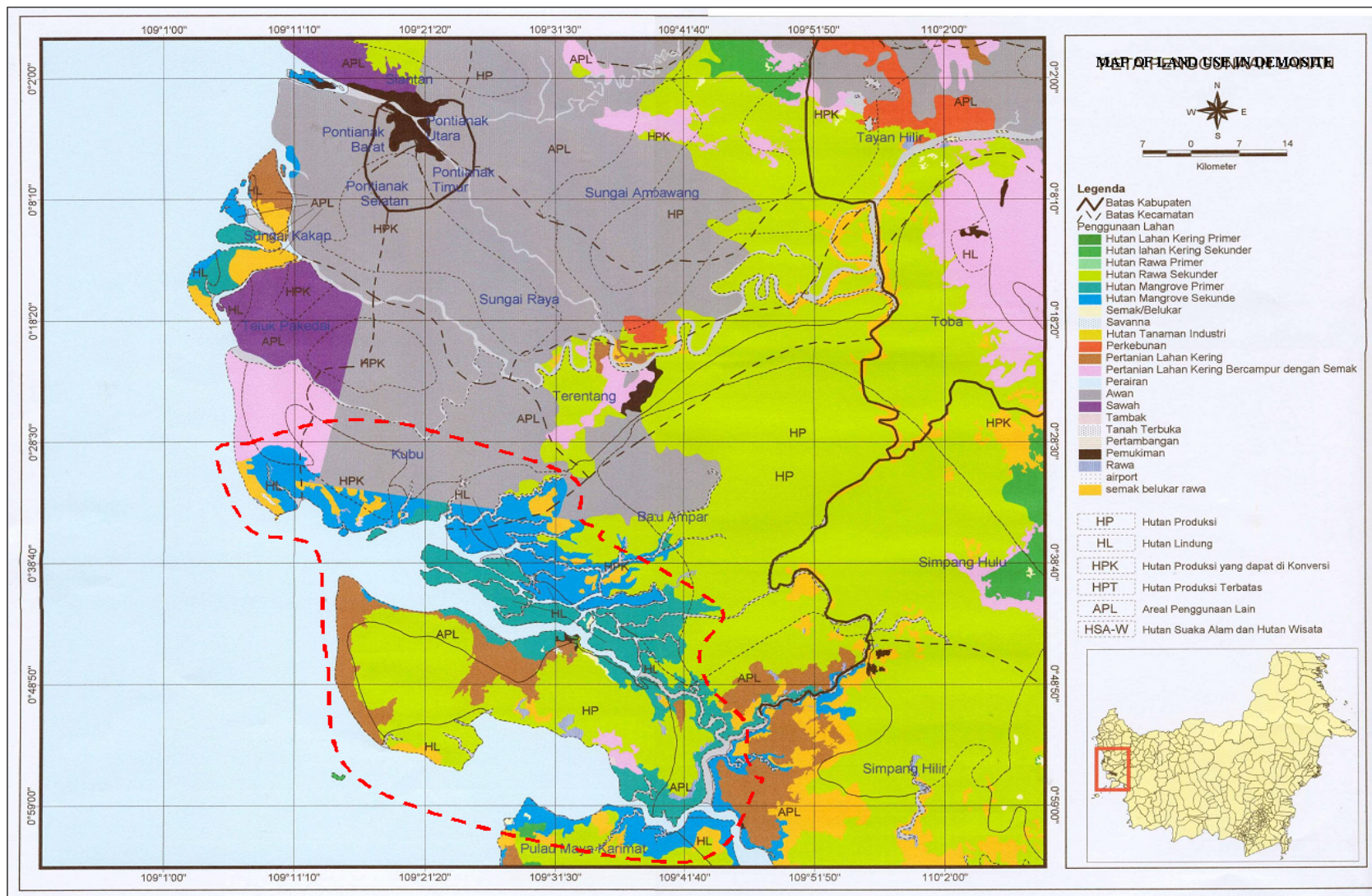


Figure 2 Map showing Demonstration Site location (green and blue colours indicate the primary and secondary mangroves respectively)



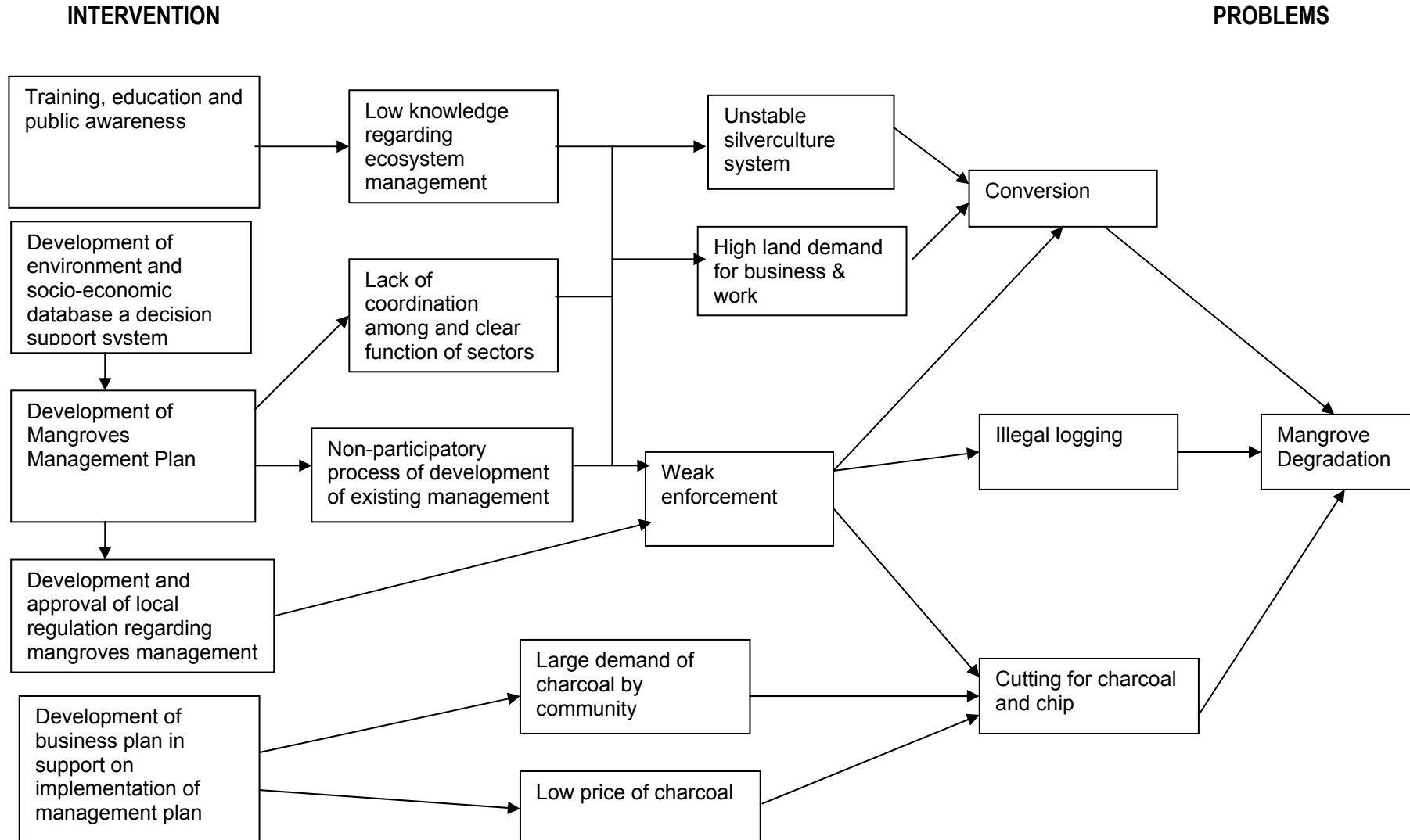
Appendix 2

STAKEHOLDER INVOLVEMENT PLAN

No	Institutions	Stakeholders	Role
1	Government	- Department of Forestry	- Take role as principal advisor for implementation project activities including development of community based mangrove forest management - Take responsibility for creating Indonesian forest area including mangrove forest) as life shelter and natural richness, to maintain, and to do natural protected with community or institution coordination for in the national level.
		- Department of Marine Affairs and Fisheries	- Take role as principal advisor for implementation project activities especially in fishery sector and coastal village community development - Coordinate, integrate, synchronism, and mutual sector synergy, institution and foundation in the sustainable mangrove ecosystem management in the national level.
		- Environmental Impact Mitigation Office (BAPEDALDA) of West Kalimantan	- Take role in maintaining, protecting, conservation, and exploring mangrove ecosystem management eternally to achieve society wealth in the local level. - Take role for providing mangrove management rehabilitation activity, and maintain the association among the stakeholder involved in the project
		- Forestry office of West Kalimantan	- Take role as information center, and management place that related in mangrove forest rehabilitation activities especially in West Kalimantan area.
		- Marine and Fisheries Office of West Kalimantan	- Coordinate and manage the mangroves rehabilitation project implemented especially in West Kalimantan area.
		- Cooperative Office of West Kalimantan and Industry Office of West Kalimantan	- Giving information to support project programme especially in developing the alternative livelihood
2	Private	- PT Inhutani II West Kalimantan	- In general, the private companies take role in mangrove forest exploitation. They will provide information related to logging in Batu Ampar. - They are handling in wood chips production and market to outside. - They take role in maintain good corporation among them in developing sustainable wood chips production.
		- PT.Kandelia (produce wood chips)	
		- PT BIOS (produce wood chips)	
3	Cooperative	- Koperasi Panter	- Koperasi panter has experienced in sustainable charcoal production so that can promote project program especially to minimize environmental impact. - They can take role in market the production and managing all the earnings from mangrove forest.

No	Institutions	Stakeholders	Role
4	Community	- Farmer groups,	- Take strong role for cultivating the mangrove resources and participate in the rehabilitation
		- Traders,	- Take role for marketing and trading the mangrove production
		- Fishermen groups	- Take role for managing the fishery resources directly in the coastal area.
		- Woman groups	- Take role or support, and to participate alternative livelihood on the mangrove rehabilitation
5	Groups	- Local NGOs	<ul style="list-style-type: none"> - Local NGOs is one of importance element for reform forest sector. - They can take role for giving correction and suggestion to the local government. - Take role to motivate local community and participate actively in the project - Support the mangrove cadres in monitoring and evaluation
6	NGO University	- University of Tanjungpura	<ul style="list-style-type: none"> - Take role in conducting research and workshop related to mangrove ecosystem management - Participate as experts in the project which is more understand about all fields that related with mangrove ecosystem management. - Take role for assigning the fresh graduates of University of Tanjungpura into the project activities.
		- Bogor Agricultural University	<ul style="list-style-type: none"> - Take role for conducting research and survey based on their expertise in order to obtain data and information about the mangrove ecosystem management - Provide the expert needed which is not provide in University of Tanjungpura

Appendix 3. CAUSAL CHAIN ANALYSIS



Appendix 4. MONITORING AND EVALUATION PLAN

1. *Collecting and reporting data on performance indicators*

A provisional list of Environmental State and Process Indicators is provided in the table below, which includes indication of the methods to be used and the frequency of collection of information.

Parameter	Method and frequency of collection	Comments
INDICATORS OF ENVIRONMENTAL STATE		
Biodiversity of mangrove forest	Formal surveys of flora and fauna to establish species diversity and numbers conducted at beginning and end of survey using recognized scientific methods. Semi-formal surveys conducted by project participants at six monthly intervals (including enumeration of indicator species).	
Social and economic well-being	Survey of local communities conducted at beginning and end of project using a mixture of participatory methods and questionnaires. Mid point evaluation using participatory methods to establish how participants feel the situation is changing as a result of the project.	
Land use	Survey of areas of mangrove coverage and land uses in designated forest area.	Will need to differentiate between mature / young mangroves and different types of species association.
PROCESS INDICATORS		
Community satisfaction and degree to which project meets community needs	Participatory evaluation activities with community members at the project mid-point and end. At each project event there will be a brief participatory evaluation activity to allow participants to express their views on the value of the event. Participants will choose for themselves factors, which they wish to assess. Numbers of participants at each event will also be recorded.	Quantitative assessment rather than qualitative indicators.
Availability of alternative livelihood	Appropriate markets for new and existing products Availability technical assistance and advice to improve products quality and manage the fund	
Project expenditure against budget	Quarterly financial report by project manager to project team and reporting to the PCU as required under terms of agreement.	Format will depend upon the PCU requirements.
Achievement of key project milestones	Quarterly progress report by project manager to project team and reporting to the PCU as required under terms of agreement.	Format will depend upon the PCU requirements.

2. *Schedule of mid-term review, self evaluation, end-of project evaluation*

Formal independent evaluations of the project will be carried out at the mid point of the project, twelve months after the start of the project, and at the end of the project, three months before the termination date. Both reviews will be led by, an external evaluator with experience in environmental conservation and community development. Each study will take the form of a joint evaluation by project staff and the evaluator into the management and environmental aspects of the project and an independent review of community gains and stakeholder participation by the evaluator.

3. *Description of how monitoring and evaluation activities will involve participants and stakeholders*

Monitoring and evaluation will be an integral part of the stakeholder participation element of the project. For each project activity and event, participants will carry out a simple evaluation activity, wherever possible to meet their own evaluation criteria. Stakeholders will be asked to give their perceptions of the project as part of the formal independent evaluation activities. Formal survey work will be conducted by, project stakeholders, particularly the Ministry of Environment (wherever possible to integrate with their own work programme and involve members of the local community) and universities and research institutes. Local volunteers will be trained in survey techniques so that they are able to lead simple community surveys on a more frequent basis.

4. *Resources that will be allocated to monitoring and evaluation*

Budgetary provision of \$US 9,000 has been allocated to the mid-term and terminal evaluations to cover consultancy fees and expenses for external evaluators. It is estimated that monitoring and evaluation (including preparation of reports required to be submitted to the UNEP/GEF/SCS Project Co-ordinating Unit on behalf of UNEP and the GEF will take between 3-4 weeks per year (on average) of the project manager's time and 3 days per year of management team time.

5. *How will monitoring and evaluation results be used in management?*

A three monthly monitoring report will be presented to the project management team by the Site Manager, who will highlight key issues for discussion at, management team meetings. As far as possible, reporting to the management team will be integrated with reporting to the UNEP as well. The Senior Advisory Group will also receive updates half yearly on key issues and the Specialised Executing Agency will provide such periodic reports to the National technical Working Group.

As part of the mid term evaluation time will be set aside to allow the management team to review progress themselves, and it is anticipated that the findings of the mid-term review will also be discussed with the donor.

Following the final evaluation, an evaluation report will be published to help the donor, participants, managers, and other interested parties such as the global mangrove network learn lessons from the project.

In order to ensure that the project is carefully monitored and that the project derives the benefit of evaluation reviews, it is essential that the project manager and the chair of the project management team have a genuine commitment to evaluation and learning. This should be a factor in selecting appropriate individuals for appointment to these posts.

Appendix 5a. Budget by Activities

No	Component	GEF					Government (Central and Local)					Total	
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
1.	Establish an Institutional Framework for Sustainable Mangrove Management in Batu Ampar	43,093	0	20,538	1,694	28,171	41,613	0	21,079	7,482	21,477	185,147	
1.1	Day-to-day Management of site level activities	43,093	0	3,181	1,694	20,910	41,613	0	4,230	7,482	11,796	134,000	
1.1.1	Establishment of the Site Office, Appointment of staff on-site, and preparation of work plans												
a	Appointment of Site Manager (24 man-month)	11,860	0	0	0	0	13,552	0	0	0	0	25,412	
b	Appointment of Assistant site Manager (24 man-month)	7,550	0	0	0	0	6,568	0	0	0	0	14,118	
c	Appointment of Administrative support staff (24 man-month)	6,136	0	0	0	0	5,158	0	0	0	0	11,294	
d	Office non expendable equipment	0	0	0	0	0	0	0	0	3,529	0	3,529	
1.1.2	Preparation of detailed site and project work plan (by week) for project personnel (10 person, 3 times)	0	0	834	0	0	0	0	1,019	0	0	1,853	
1.1.3	Meeting of the Site Manager and other project personnel by local government (10 person, 9 times)	0	0	2,347	0	0	0	0	3,211	0	0	5,559	
1.1.4	Operation of the site Office												
a	Travel on official Business (24 months, 2 persons, 12 times)	2,635	0	0	0	0	3,012	0	0	0	0	5,647	
b	Office supplies expendables (Papers A4, 72 rims; Papers A3, 8 rims; Ink of Colour Printers, 20 Sets; Ink of Black Printer, 12 sets and Office Stationary, 24 packets)	0	0	0	1,694	0	0	0	0	1,129	0	2,824	
c	Rent and Maintenance of the office (in kind)	0	0	0	0	0	0	0	0	2,824	0	2,824	
d	Communications	0	0	0	0	1,976	0	0	0	0	2,259	4,235	
1.1.5	Oversight and advice from the Focal Point												
a	Travel on business of Focal point (2 person, 12 times)	2,635	0	0	0	0	3,012	0	0	0	0	5,647	
b	Technical assistance for:												
	b.1. Field assistance (24 man-month)	6,138	0	0	0	0	5,156	0	0	0	0	11,294	
	b.2. Administration assistance (24 man-month)	6,138	0	0	0	0	5,156	0	0	0	0	11,294	
1.1.6	Reporting												
a	Printing and translation of Management Board Monthly Report	0	0	0	0	3,953	0	0	0	0	4,518	8,471	
b	Printing and translation semi-annual report to UNEP/GEF	0	0	0	0	2,196	0	0	0	0	2,510	4,706	
c	Printing and translation of annual report to national mangrove sub-committee, regional working group on mangroves	0	0	0	0	2,196	0	0	0	0	2,510	4,706	
d	Preparation of Annual Audit Report for UNEP (Audit expenses 2 times)	0	0	0	0	10,588	0	0	0	0	0	10,588	
1.2	Establishment of Multi-sectoral, Multi-Stakeholder Management Board	0	0	17,357	0	7,261	0	0	16,849	0	9,680	51,147	
1.2.1	Preparation of ToR and Rules of Procedure for the management board (20 persons, 4 times)	0	0	1,482	0	0	0	0	988	0	0	2,471	
1.2.2	Formal establishment of the Management Board by local government (20 persons, 6 times)	0	0	4,553	0	0	0	0	3,035	0	0	7,588	
1.2.3	Monthly Meetings of the Management Board (20 persons, 24 times)	0	0	6,402	0	0	0	0	9,010	0	0	15,412	

No	Component		GEF					Government (Central and Local)					Total
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
1.2.4	Publish Management Board meeting reports via website & local press (24 months)		0	0	0	0	7,261	0	0	0	0	9,680	16,941
1.2.5	Preparation of detailed Management Board work plan for Management Board personnel (10 persons, 3 times)		0	0	1,112	0	0	0	0	741	0	0	1,853
1.2.6	Establishment and Approval of work plan by all Management Board members(20 persons, 6 times)		0	0	3,808	0	0	0	0	3,074	0	0	6,882
2.	Development of baseline environmental and socio-economic database and a decision support system		14,696	41,174	22,616	6,741	1,412	11,128	49,121	25,702	12,494	941	186,024
2.1	Prepare site-based, open access GIS database		9,614	0	0	3,529	1,412	6,621	0	0	10,353	941	32,471
2.1.1	Purchase software and Hardware install at site office (Computer 1 unit, digitizer 1 unit and software)		0	0	0	0	0	0	0	0	8,000	0	8,000
2.1.2	Establish GIS system (Baseline map and basic information) (1 man-month)		0	0	0	0	1,412	0	0	0	0	941	2,353
2.1.3	Technical assistant to help GIS to evaluate changes in mangrove ecosystem (3 man-month)		2,118	0	0	0	0	1,412	0	0	0	0	3,529
2.1.4	Procure Landsat Imagery		0	0	0	3,529	0	0	0	0	2,353	0	5,882
2.1.5	Analyse Landsat imagery, and prepare baseline GIS map of habitat distribution (mangrove resources and degraded areas)		3,685	0	0	0	0	2,668	0	0	0	0	6,353
2.1.6	Establish Batu Ampar Mangrove GIS-database and distribute initial habitat maps		3,812	0	0	0	0	2,541	0	0	0	0	6,353
2.2	Field surveys of habitats, and land use		0	6,918	3,129	1,412	0	0	4,612	2,266	941	0	19,276
2.2.1	Develop ToR for the contractor for field surveys to validate the GIS baseline map		0	0	3,129	0	0	0	0	2,266	0	0	5,394
2.2.2	Preparing Technical Working Method for Field Survey		0	318	0	0	0	0	212	0	0	0	529
2.2.3	Field surveys & Ground Truthing of satellite image interpretation of land cover (20 days, 2 person; survey equipment rent for 20 days, travel cost (air plane and boat; field documentation)		0	5,329	0	0	0	0	3,553	0	0	0	8,882
2.2.4	Overlay field data and remotely sensed data on GIS base map to derive current habitat and resource map (Mangrove Ecology Expert, 27 days; GIS Experts, 27 days)		0	1,271	0	0	0	0	847	0	0	0	2,118
2.2.5	Publication of maps and detailed report of habitat resource distribution and abundance (English & Bahasa)		0	0	0	1,412	0	0	0	0	941	0	2,353
2.3	Flora and Fauna Inventories		0	20,012	0	0	0	0	13,341	0	0	0	33,353
2.3.1	Design field survey, and sampling protocols [data collecting method](Biodiversity Expert, 10 days; Fisheries Expert, 10 days)		0	353	0	0	0	0	235	0	0	0	588
2.3.2	Conduct flora and fauna surveys, inventory (30 days, 6 persons; survey equipment rent for 28 days, travel cost (air plane and boat; field documentation)		0	18,247	0	0	0	0	12,165	0	0	0	30,412
2.3.3	Data compilation and entry into GIS system (Biodiversity Expert, 1 man month and GIS Expert, 1 man-month)		0	1,412	0	0	0	0	941	0	0	0	2,353

No	Component		GEF					Government (Central and Local)					Total
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
2.4	Inventory of current uses and economic values of Mangrove resources		0	8,612	0	0	0	0	5,741	0	0	0	14,353
2.4.1	Develop social and economic survey methods, protocols and questionnaire for quantitative assessment of use and non use values (1 person, 10 days)		0	247	0	0	0	0	165	0	0	0	412
2.4.2	Field surveys to collect data and information on current mangrove use and values, quantification and valuation (30 days, 2 persons; survey equipment rent, travel cost (car, boat); field documentation)		0	7,659	0	0	0	0	5,106	0	0	0	12,765
2.4.3	Resource use data compilation, processing and GIS entry (Socio-Economic Expert, 1 man-month)		0	706	0	0	0	0	471	0	0	0	1,176
2.5	Develop draft of Silviculture and Environment Management System of Batu Ampar Mangrove Forest		0	5,632	3,575	0	0	0	25,426	8,878	0	0	43,512
2.5.1	Review past practices and silviculture methods currently in use in the area, and evaluate their effectiveness (2 person, 20 days; accommodation, travel cost, survey equipment rent, questionnaire)		0	3,750	0	0	0	0	3,603	0	0	0	7,353
2.5.2	Develop draft of silviculture system of Batu Ampar mangrove forest (2 person, 1 man month)		0	1,247	0	0	0	0	1,106	0	0	0	2,353
2.5.3	Series of discussions with stakeholder groups		0	0	875	0	0	0	0	1,578	0	0	2,453
2.5.4	Revision of draft of silviculture system in Batu Ampar (60 persons, 1 days)		0	635	0	0	0	0	1,718	0	0	0	2,353
2.5.5	Finalization draft of silviculture system in Batu Ampar and submission to local government		0	0	2,700	0	0	0	0	7,300	0	0	10,000
2.5.6	Develop and Implementation Environment Management System (ISO 14.000) (2 persons 2 man month for compile SOP System and 3persons, 3 man month for implementation Environment Management System)		0	0	0	0	0	0	19,000	0	0	0	19,000
2.6	Conflict Resolution in Mangrove Resources Using and Management (CRMUM)		1,964	0	6,079	0	0	1,742	0	5,391	0	0	15,176
2.6.1	Identification of current use conflicts and preparation of draft CRMUM (10 person, 4 times)		1,309	0	0	0	0	1,161	0	0	0	0	2,471
2.6.2	Civil society & private sector stakeholder discussion, input to and agreement (20 person, 6 times) ²		0	0	3,835	0	0	0	0	3,401	0	0	7,235
2.6.3	Revision of draft to accommodate the stakeholders input (10 person, 2 times)		655	0	0	0	0	581	0	0	0	0	1,235
2.6.4	Socialization of CRMUM to all stakeholders (workshop) for Approval and inclusion in the Management PlanCRMUM by All Stakeholders(60 persons, 1 days) ³		0	0	2,245	0	0	0	0	1,991	0	0	4,235

² In Cash Co-funding for meeting room, consumption and half facilitator accommodation.

³ In cash Co-funding for room rental, equipment rental, consumption for participants, facilitator accommodation, and half for facilitator transportation.

No	Component	GEF					Government (Central and Local)					Total	
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
2.7	Preparation and approval of Mangrove Management Plan (MMP)	3,118	0	9,833	1,800	0	2,765	0	9,167	1,200	0	27,882	
2.7.1	Preparation of a draft MMP (5 person experts, 0.5 man month)	1,559	0	0	0	0	1,382	0	0	0	0	2,941	
2.7.2	Civil society & private sector stakeholder discussion, input to and agreement with draft MMP (20 person, 4 times) ⁴	0	0	3,192	0	0	0	0	3,279	0	0	6,471	
2.7.3	Revision of the draft to accommodate the stakeholders inputs(5 persons, 15 days)	1,559	0	0	0	0	1,382	0	0	0	0	2,941	
2.7.4	Socialization MMP to all stakeholders(20 persons, 2 days, 1 times)	0	0	1,216	0	0	0	0	1,078	0	0	2,294	
2.7.5	Formal approval of MMP by MB & local government (60 persons, 1 days)	0	0	5,425	0	0	0	0	4,811	0	0	10,235	
2.7.6	Publish Management plan in hard copy and via website & local press	0	0	0	1,800	0	0	0	0	1,200	0	3,000	
3.	Development of a Business Plan in support of the implementation of the overall management plan.	0	6,442	16,476	0	0	0	6,822	17,407	0	9,412	56,559	
3.1	Identify alternative livelihood and business opportunities based on use of non-timber mangrove forest products	0	6,442	4,885	0	0	0	6,822	3,939	0	0	22,088	
3.1.1	Identification of potential mangrove resources to be developed in consultation with the local community (training specialist, 1.5 man-month)	0	1,023	0	0	0	0	859	0	0	0	1,882	
3.1.2	Study visits (Indonesia) to see alternative non-timber resource uses (10 person, 5 days, 2 times)	0	0	4,885	0	0	0	0	3,939	0	0	8,824	
3.1.3	Create program on participatory planning of development of alternative income from non timber mangrove forest products and enhancement of values of existing products)	0	2,243	0	0	0	0	1,727	0	0	0	3,971	
3.1.4	Introduce required technology for non-timber mangrove forest product use and/or existing product enhancement and provide technical support to the programme	0	3,176	0	0	0	0	4,236	0	0	0	7,412	
3.2	Sustainable Management of Charcoal Production and enhancement of community income	0	0	9,286	0	0	0	0	10,361	0	5,882	25,529	
3.2.1	Study visits on improvement of charcoal quality (10 person, 5 days, 2 times)	0	0	4,676	0	0	0	0	4,147	0	0	8,824	
3.2.2	In consultation with the community identify export opportunities and new markets for charcoal (10 person, 10 times)	0	0	2,305	0	0	0	0	3,107	0	0	5,412	
3.2.3	Improve marketing mechanism through strengthening existing community organisations institution (10 persons, 10 times)	0	0	2,305	0	0	0	0	3,107	0	0	5,412	
3.2.4	Establish a Revolving fund for micro-credits to charcoal producers (5 units)	0	0	0	0	0	0	0	0	0	5,882	5,882	
3.3	Management of community based livelihood development programme	0	0	2,305	0	0	0	0	3,107	0	3,529	8,941	
3.3.1	Establish and develop appropriate markets for new and existing products (10 persons, 1 day, 10 times)	0	0	2,305	0	0	0	0	3,107	0	0	5,412	
3.3.2	Establish a Revolving fund for micro-credits to establish new product production (5 units)	0	0	0	0	0	0	0	0	0	3,529	3,529	

⁴ In cash Co-funding for room rental, consumption and half for the expert accommodation.

No	Component		GEF					Government (Central and Local)					Total
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
4.	Training, Education and Public Awareness		9,448	36,908	78,058	4,200	7,874	7,140	12,056	64,458	4,624	56,185	280,951
4.1	Training		4,860	0	63,501	0	0	4,082	0	44,321	0	0	116,764
4.1.1	Identification of stakeholder and community that relevant to mangrove management to be trained		1,023	0	0	0	0	859	0	0	0	0	1,882
4.1.2	Comprehensive training needs assessment of all stakeholders (training specialist, 3 man month)		1,918	0	0	0	0	1,611	0	0	0	0	3,529
4.1.3	Finalise the programme for approval by the Management Board and Prepare training materials		1,918	0	0	0	0	1,611	0	0	0	0	3,529
4.1.4	Conduct Community level training on organization development and management in field (20 person, 3 days, 2 times)		0	0	3,035	0	0	0	0	2,024	0	0	5,059
4.1.5	Conduct training of institution on mangrove management in field (20 person, 3 days, 2 times)		0	0	3,035	0	0	0	0	2,024	0	0	5,059
4.1.6	Training for development of community alternative livelihood												
a	Training on techniques to improve charcoal quality in field (20 person, 3 days, 2 times)		0	0	2,047	0	0	0	0	1,365	0	0	3,412
b	Conduct training on silvofishery technique (10 persons, 2 days, 2 times)		0	0	2,047	0	0	0	0	1,365	0	0	3,412
c	Conduct on techniques moulting crab culture		0	0	2,047	0	0	0	0	1,365	0	0	3,412
d	Conduct training on seafish (Ephinephelus sp) cultivation (10 persons, 2 days, 2 times)		0	0	2,047	0	0	0	0	1,365	0	0	3,412
e	Conduct training on post harvest techniques (10 persons, 2 days, 2 times)		0	0	2,047	0	0	0	0	1,365	0	0	3,412
f	Conduct training on marketing techniques (10 persons, 2 days, 2 times)		0	0	2,047	0	0	0	0	1,365	0	0	3,412
4.1.7	Conduct community level training on management of mangrove ecosystems (20 person, 3 times) (management Board Members)		0	0	6,424	0	0	0	0	4,282	0	0	10,706
4.1.8	Conduct training for local NGOs (20 person, 3 times)		0	0	6,424	0	0	0	0	4,282	0	0	10,706
4.1.9	Conduct training for government institution (20 person, 3 times) (management Board Members)		0	0	6,424	0	0	0	0	4,282	0	0	10,706
4.1.10	Conduct training for staff from private sector (20 person, 3 times) (management Board Members)		0	0	6,424	0	0	0	0	4,282	0	0	10,706
4.1.11	Conduct training for field researcher and Staff, graduate students study												
a	Training for young scientist/fresh graduate and staffs (10 persons,3 times@7 days)		0	0	7,518	0	0	0	0	5,012	0	0	12,529
b	Graduate students research in demo site 3 person per-year		0	0	4,172	0	0	0	0	4,768	0	0	8,940
4.1.12	Conduct training for Site Manager and staff via field visits and short courses (5 persons, 7 days, 3 times)		0	0	7,765	0	0	0	0	5,176	0	0	12,941
4.2	Develop and implement an education and public awareness programme		0	11,047	14,557	0	635	0	7,365	20,137	0	895	54,635
4.2.1	Collection and compilation of data, information, documentation, and photographic materials		0	1,024	0	0	0	0	682	0	0	0	1,706
4.2.2	Design, produce and print 4 posters x 2000 copies		0	5,012	0	0	0	0	3,341	0	0	0	8,353
4.2.3	Design and print 4 brochures x 2000 copies each		0	5,012	0	0	0	0	3,341	0	0	0	8,353
4.2.4	Distribution poster and brochures		0	0	0	0	635	0	0	0	0	895	1,529

No	Component	GEF					Government (Central and Local)					Total	
	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	Sub-activities												
4.2.5	Initial discussions with target schools regarding curricular materials, school visits by project staff and field visits for school children (3person, 1 day, 20 times) ⁵	0	0	1,447	0	0	0	0	1,976	0	0	3,424	
4.2.6	School visit to implement environmental education (3 persons, 1 day, 9 times) ⁶	0	0	2,052	0	0	0	0	2,783	0	0	4,835	
4.2.7	Organisation of school fieldtrips to mangrove ecosystem area (24 children, 3 schools, 4 times)	0	0	6,776	0	0	0	0	10,165	0	0	16,941	
4.2.8	Series discussion with key stakeholder in Sub-district and villages (3 persons,20 times) ⁷	0	0	1,447	0	0	0	0	1,976	0	0	3,424	
4.2.9	Conduct regular programme of awareness activities in local communities (100 person, 6 times)	0	0	2,833	0	0	0	0	3,237	0	0	6,071	
4.3	Establish Sustainable Mangrove Utilization Information Centre	0	25,861	0	1,553	5,686	0	4,692	0	1,976	53,313	93,082	
4.3.1	Collect photos/documentation, specimens, and sample of products	0	4,885	0	0	0	0	3,256	0	0	0	8,141	
4.3.2	Plan the layout and displays for the sustainable mangrove utilization information centre	0	2,153	0	0	0	0	1,435	0	0	0	3,588	
4.3.3	Establish information boards on site (20 Boards)	0	0	0	0	4,365	0	0	0	0	3,871	8,235	
4.3.4	Establish Sustainable Mangrove Utilization Information Centre												
	Mangrove information center building	0	0	0	0	0	0	0	0	0	47,058	47,058	
	Establish information in MIC (wall display, 20 units; chairs display, 20 units and market, 1 unit)	0	18,824	0	0	0	0	0	0	0	0	18,824	
4.3.5	Maintenance of Mangrove Utilization Information Centre	0	0	0	0	1,322	0	0	0	0	2,384	3,706	
4.3.6	Publish series of article in local newspaper (1 times/month)	0	0	0	1,553	0	0	0	0	1,976	0	3,529	
4.4	Establish & Publicise website for demonstration site	4,588	0	0	2,647	1,553	3,059	0	0	2,647	1,976	16,471	
4.4.1	Purchase equipments and Page web design	0	0	0	2,647	0	0	0	0	2,647	0	5,294	
4.4.2	Technical assistance for data monthly updating of website contents (1week/month)	4,588	0	0	0	0	3,059	0	0	0	0	7,647	
4.4.3	Equipment maintenance &repair	0	0	0	0	1,553	0	0	0	0	1,976	3,529	
5.	Facilitate the development and approval of local regulations regarding Mangrove Management	0	14,103	4,903	0	0	0	9,544	11,273	0	0	39,824	
5.1	Review and evaluate existing regulations regarding community base mangrove management	0	6,529	0	0	0	0	4,353	0	0	0	10,882	
5.2	Examine community constraints to successful management, in the light of the training needs assessment; current use and ownership rights; and capacity for local enforcement	0	1,403	0	0	0	0	1,244	0	0	0	2,647	
5.3	Develop draft of regulation on community base mangrove management	0	3,671	0	0	0	0	2,447	0	0	0	6,118	
No	Component	GEF					Government (Central and Local)					Total	

⁵ In cash Co-funding for transportation in land and water, also half of consumption.⁶ In cash Co-funding for land and water transportation, also half for equipment rental.⁷ In cash Co-funding for land and water transportation also half for equipment rental.

	Sub-components	Budget Code	1000	2000	3000	4000	5000	1000	2000	3000	4000	5000	USD
	Activities												
	<i>Sub-activities</i>												
5.4	Community level discussions on draft regulations with stakeholders (20 persons, 1 day, 6 times)⁸		0	0	2,203	0	0	0	0	3,973	0	0	6,176
5.5	Revision of the draft regulations in the light of stakeholder feedback		0	2,500	0	0	0	0	1,500	0	0	0	4,000
5.6	Finalization of regulations on community based mangrove management and submission to local government⁹		0	0	2,700	0	0	0	0	7,300	0	0	10,000
6.	Monitoring and Evaluation for all activity (Midterm and Ending)		0	0	0	0	9,000	0	0	0	0	0	9,000
			67,236	98,627	142,591	12,635	46,456	59,881	77,544	139,919	24,600	88,014	757,504
	Total		67,236	98,627	142,591	12,635	46,456	59,881	77,544	139,919	24,600	88,014	757,504

Appendix 5b. Budget by Object of Expenditure

	= in kind co-funding		= in cash co-funding
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Expenditure		Year 1							Year 2							Total Budget All Year		
		1st Half		2nd Half		Total		Grand	1st Half		2nd Half		Total		Grand			
		GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	Total Budget
PROJECT PERSONNEL COMPONENT																		
1100	Project Personal																	
1101	Site Manager 24 man mths (activity 1.1.1.a)	3,558	2,710	3,558	2,710	7,116	5,421	12,537	2,372	4,066	2,372	4,066	4,744	8,131	12,875	11,860	13,552	25,412
1102	Assistant site Manager 24 man mths (activity 1.1.1.b)	2,265	1,314	2,265	1,314	4,530	2,627	7,157	1,510	1,970	1,510	1,970	3,020	3,941	6,961	7,550	6,568	14,118
1103	Technical assistance for Focal Point: Field assistance (24 man-month) (act 1.1.5.b1)	1,842	1,031	1,842	1,031	3,683	2,062	5,745	1,228	1,547	1,228	1,547	2,455	3,093	5,549	6,138	5,156	11,294
1104	Technical assistance for data monthly updating of website contents (1 week/month) (activity 4.4.2)	0	0	918	612	918	612	1,529	1,835	1,224	1,835	1,224	3,671	2,447	6,118	4,588	3,059	7,647
1105	Technical assistant to help GIS to evaluate changes in mangrove ecosystem (1 month/year)(3-man-month)(activity 2.1.3)	0	0	1,059	706	1,059	706	1,765	0	0	1,059	706	1,059	706	1,765	2,118	1,412	3,529
1199	Total	7,664	5,055	9,641	6,373	17,305	11,428	28,733	6,945	8,806	8,004	9,512	14,949	18,318	33,267	32,254	29,746	62,000
1200	Consultants																	
1201	Short term Consultant: Stakeholder Analysis Training Needs assessment (activity 4.1.1; 4.1.2; 4.1.3.)	3,133	2,309	1,726	1,772	4,860	4,082	8,941	0	0	0	0	0	0	0	4,860	4,082	8,941
1202	Short term Consultant for prepare site based and open Access GIS Data Based (Activity 2.1.5; 2.1.6)	0	0	5,591	3,939	5,591	3,939	9,529	1,906	1,271	0	0	1,906	1,271	3,176	7,496	5,209	12,706
1203	Consultant: Conflict resolution & Mangrove Management Plan (activity 2.6.1; 2.6.3; 2.7.1 ; 2.7.3.) (16 man month)	1,559	1,382	0	0	1,559	1,382	2,941	2,868	2,544	655	581	3,523	3,124	6,647	5,082	4,506	9,588
1299	Total	4,692	3,692	7,317	5,711	12,009	9,403	21,412	4,774	3,814	655	581	5,429	4,395	9,824	17,438	13,798	31,235

⁸ In cash Co-funding for room rental, equipment, consumption and half accommodation for participants.

⁹ In cash Co-funding for room rental, equipment, document reduplication and half for consumption.

Expenditure		Year 1							Year 2							Total Budget All Year		
		1st Half		2nd Half		Total		Grand	1st Half		2nd Half		Total		Grand	GEF	GOV	Total Budget
		GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	GEF	GOV	GEF	GOV	Total			
1300	Administrative support																	
1301	Administration to Site Manager 24 man mths (activity 1.1.1.c)	1,841	1,032	1,841	1,032	3,682	2,063	5,745	1,227	1,547	1,227	1,547	2,454	3,095	5,549	6,136	5,158	11,294
1302	Technical assistance for Focal Point: Administration assistance (24 man-month) (act 1.1.5.b2)	1,842	1,031	1,842	1,031	3,683	2,062	5,745	1,228	1,547	1,228	1,547	2,455	3,093	5,549	6,138	5,156	11,294
1399	Total	3,682	2,063	3,682	2,063	7,365	4,126	11,490	2,455	3,094	2,455	3,094	4,910	6,188	11,098	12,274	10,314	22,588
1600	Travel on Official Business																	
1601	Travel on business of Focal point (activity 1.5.1.a)	790	602	790	602	1,581	1,205	2,786	527	904	527	904	1,054	1,807	2,861	2,635	3,012	5,647
1602	Travel on official Business (Site Manager) (activity 1.4.1.a)	790	602	790	602	1,581	1,205	2,786	527	904	527	904	1,054	1,807	2,861	2,635	3,012	5,647
1699	Total	1,581	1,205	1,581	1,205	3,162	2,410	5,572	1,054	1,807	1,054	1,807	2,108	3,615	5,723	5,270	6,024	11,294
1999	Component Total	17,620	12,014	22,221	15,351	39,841	27,366	67,207	15,228	17,522	12,167	14,994	27,395	32,516	59,911	67,236	59,882	127,118
2200	Sub-contract with non profit organization																	
2201	Sub Contract Field Survey of Habitat and Land Use (activity 2.2.2.; 2.2.3.; 2.2.4.)	1,916	638	2,398	640	4,315	1,278	5,592	2,603	3,334	0	0	2,603	3,334	5,937	6,918	4,612	11,529
2202	Sub Contract Flora Fauna Inventory (Activity 2.3.1.; 2.3.2.; 2.3.3.)	13,126	3,885	6,886	9,456	20,012	13,341	33,353	0	0	0	0	0	0	0	20,012	13,341	33,353
2203	Sub-contract: Public Awareness materials; (activity 4.2.1.; 4.2.2.; 4.2.3.; 4.3.1.; 4.3.2.; 4.3.4b)	21,342	4,317	15,567	7,740	36,908	12,056	48,965	0	0	0	0	0	0	0	36,908	12,056	48,965
2205	Sub-contract for assessment of current use and economic values and development of the business plan (activity 2.4.1; 2.4.2; 2.4.3; 3.1.1; 3.1.3; 3.1.4)	4,946	2,045	4,868	3,682	9,814	5,727	15,541	3,976	4,916	1,263	1,920	5,240	6,837	12,076	15,054	12,564	27,618
2206	Sub-Contract Legal matters & local regulation (activity 2.5.1; 2.5.2; 2.5.4.; 2.5.6; 5.1; 5.2; 5.3. 5.5.)	6,259	9,380	8,374	12,641	14,633	22,021	36,654	3,848	5,751	1,254	7,199	5,102	12,949	18,052	19,735	34,971	54,706
2299	Total	47,590	20,265	38,092	34,159	85,682	54,423	140,105	10,427	14,001	2,517	9,119	12,945	23,120	36,065	98,627	77,544	176,171
2999	Component Total	47,590	20,265	38,092	34,159	85,682	54,423	140,105	10,427	14,001	2,517	9,119	12,945	23,120	36,065	98,627	77,544	176,171
TRAINING COMPONENT																		
3100	Fellowships (total stipend/fees, travel, costs, etc)																	
3101	Graduate students study in demo site (6 students, 2 years@60days/person) (\$25/day/person)(act. 4.1.11.b)	1,502	763	1,001	1,144	2,503	1,907	3,505	1,001	1,144	668	1,716	1,669	2,861	4,530	4,172	4,768	8,940
3102	Training courses for senior research and staff (10 persons, 3 times, 7 days@\$60/ person/time/day) (4.1.11.a)	0	0	2,481	1,002	2,481	1,002	4,962	2,518	2,005	2,518	2,005	5,037	4,009	9,046	7,518	5,012	12,529
3199	Total	1,502	763	3,482	2,147	4,984	2,910	8,466	3,520	3,149	3,186	3,721	6,706	6,870	13,576	11,690	9,780	21,469
3200	Group training (study tours, field trips, workshops, seminars, etc) (give title)¹⁰																	
3201	Conduct Community level training on organization development and management (20persons, 3 days, 2times@\$42/person/day/time)(act 4.1.4)	0	0	1,821	809	1,821	809	2,631	1,214	1,214	0	0	1,214	1,214	2,428	3,035	2,024	5,059
3202	Conduct training of institution on mangrove management in field (20persons, 3 days, 2 times@\$42 /person/day/time) (act. 4.1.5)	1,062	405	1,062	405	2,125	809	2,934	911	1,214	0	0	911	1,214	2,125	3,035	2,024	5,059
3203	Training on techniques to improve charcoal quality (20persons, 3 days, 2 times,@\$28/person/day/time) (act 4.1.6a)	1,024	682	1,024	682	2,047	1,365	3,412	0	0	0	0	0	0	0	2,047	1,365	3,412
3204	Conduct training on silvofishery technique (20 persons, 2 days, 2 times@\$43/person/day/time) (act 4.1.6.b)	0	0	1,024	682	1,024	682	1,706	1,024	682	0	0	1,024	682	1,706	2,047	1,365	3,412
3205	Conduct on techniques moulting crab culture (20 persons, 2 days, 2 times @\$43/person/day/time) (act 4.1.6. c)	0	0	1,024	682	1,024	682	1,706	1,024	682	0	0	1,024	682	1,706	2,047	1,365	3,412
3206	Conduct training on seafish (Ephinephelus sp) cultivation (20 persons, 2 days, 2 times@\$43/person /day/time) (act.4.1.6.d)	1,024	682	0	0	1,024	682	1,706	1,024	682	0	0	1,024	682	1,706	2,047	1,365	3,412
3207	Conduct training on post harvest techniques (20 persons, 2 days, 2 times @43/person/day/time) (act. 4.1.6.e)	0	0	0	0	0	0	0	1,024	682	1,024	682	2,047	1,365	3,412	2,047	1,365	3,412

¹⁰ The government or other institutions will share the budget for room rental, training equipment rental, coach payment, accommodation for committee, and accommodation for coach

Expenditure		Year 1							Year 2							Total Budget All Year		
		1st Half		2nd Half		Total		Grand	1st Half		2nd Half		Total		Grand	GEF	GOV	Total Budget
		GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	GEF	GOV	GEF	GOV	Total			
3208	Conduct training on marketing techniques (20 persons, 2 days, 2 times @\$43/person/day/time) (act. 4.1.6.f)	0	0	0	0	0	0	0	1,024	682	1,024	682	2,047	1,365	3,412	2,047	1,365	3,412
3209	Conduct community level training on management of mangrove ecosystems (20 person, 3 times@\$178/person/time) (management Board Members) (act 4.1.7.)	2,120	728	2,120	728	4,240	1,456	5,696	2,184	2,826	0	0	2,184	2,826	5,010	6,424	4,282	10,706
3210	Conduct training for local NGOs (20 person, 3 times@\$178/person/time) (act 4.1.8)	2,120	728	2,120	728	4,240	1,456	5,696	2,184	2,826	0	0	2,184	2,826	5,010	6,424	4,282	10,706
3211	Conduct training for government institution (20 person, 3 times@\$178 /person/time) (management Board Members) (act. 4.1.9)	0	0	2,184	1,456	2,184	1,456	3,640	2,120	1,413	2,120	1,413	4,240	2,826	7,066	6,424	4,282	10,706
3212	Conduct training for staff from private sector (20 person, 3 times@\$178/ person/time) (management Board Members) (act. 4.1.10)	0	0	0	0	0	0	0	2,184	1,456	4,240	2,826	6,424	4,282	10,706	6,424	4,282	10,706
3213	Conduct training for Site Manager and staff via field visits and short courses (5persons, 7 days, 3 times@\$123/ person/day/time)(act . 4.1.12)	3,727	828	2,485	1,242	6,212	2,071	8,282	0	0	1,553	3,106	1,553	3,106	4,659	7,765	5,176	12,941
3214	School visit to implement environmental education (3persons, 1 day, 9 times@\$179/person/time) (act. 4.2.6)	0	0	677	918	677	918	1,596	687	932	687	932	1,375	1,865	3,240	2,052	2,783	4,835
3215	Organisation of school fieldtrips to mangrove ecosystem area (24 children, 3 schools, 4 times@\$59/child/school /time)(act 4.2.7.)	0	0	0	0	0	0	0	3,388	5,082	3,388	5,082	6,776	10,165	16,941	6,776	10,165	16,941
3216	Conduct regular programme of awareness activities in local communities (100persons, 6 times @\$15/person/time)(act 4.2.9.)	1,139	427	759	641	1,898	1,068	2,967	561	868	374	1,301	935	2,169	3,104	2,833	3,237	6,071
3217	Study visit on improvement of charcoal quality (10pesons, 5days, 2 times@\$88/ person/day/time) (activity 3.2.1)	0	0	0	0	0	0	0	2,338	2,074	2,338	2,074	4,676	4,147	8,824	4,676	4,147	8,824
3218	Together with community seeking export opportunities of charcoal (10persons, 10 times @\$54/person/time)(activity 3.2.2.)	0	0	0	0	0	0	0	1,152	1,553	1,152	1,553	2,305	3,107	5,412	2,305	3,107	5,412
3219	Together with community improving market mechanism through existing institution (10persons, 10 times@\$54/person/time) (activity 3.2.3)	0	0	0	0	0	0	0	1,152	1,553	1,152	1,553	2,305	3,107	5,412	2,305	3,107	5,412
3220	Study visit on development of Alternative Business on Mangrove Utilization (10 persons, 5 days, 2 times@\$88/person /day/time) (activity 3.1.2)	2,931	2,363	1,954	1,576	4,885	3,939	8,824	0	0	0	0	0	0	0	4,885	3,939	8,824
3221	Seeking market for products (10persons, 1 day, 10 times@\$54/ person/day/time) (activity 3.3.1)	0	0	0	0	0	0	0	1,152	1,553	1,152	1,553	2,305	3,107	5,412	2,305	3,107	5,412
3299	Total	15,146	6,844	18,253	10,551	33,398	17,395	50,793	26,346	27,978	20,204	22,760	46,551	50,738	97,289	79,949	68,133	148,082
3300	Meeting/workshop/Conference																	
3301	Preparation of ToR and Rules of Procedure for the management board (20persons, 4times@\$31/person/time) (act 1.2.1)	1,482	988	0	0	1,482	988	2,471	0	0	0	0	0	0	0	1,482	988	2,471
3302	Formal establishment of the Management Board by local government (20persons, 4times, @\$63/person/time) (act. 1.2.2)	911	607	3,642	2,428	4,553	3,035	7,588	0	0	0	0	0	0	0	4,553	3,035	7,588
3303	Monthly Meetings of the Management Board (MB) (20persons, 24times@\$32 /person/time)(1.2.3)	2,497	1,442	1,665	2,162	4,161	3,604	7,765	1,344	2,162	896	3,243	2,241	5,406	7,647	6,402	9,010	15,412
3304	Preparation of detailed Management Board work plan for Management Board personnel (10persons, 3times, @\$62/ person/time)(act 1.2.5)	778	222	334	519	1,112	741	1,853	0	0	0	0	0	0	0	1,112	741	1,853
3305	Establishment and Approval of work plan by all Management Board members (20persons, 6times@ \$57 /person/time) (act 1.2.6)	0	0	3,808	3,074	3,808	3,074	6,882	0	0	0	0	0	0	0	3,808	3,074	6,882
3306	Develop ToR for the contractor for field surveys to validate the GIS baseline map (act 2.2.1)	3,129	2,266	0	0	3,129	2,266	5,394	0	0	0	0	0	0	0	3,129	2,266	5,394
3307	Civil society & private sector stakeholder discussion, input to and agreement (20pesons, 6 times@\$60/person/time) (activity 2.6.2)	0	0	0	0	0	0	0	1,917	1,700	1,917	1,700	3,835	3,401	7,235	3,835	3,401	7,235

Expenditure		Year 1							Year 2							Total Budget All Year		
		1st Half		2nd Half		Total		Grand	1st Half		2nd Half		Total		Grand	GEF	GOV	Total Budget
		GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	GEF	GOV	GEF	GOV	Total			
3308	Socialization CRMURM to all stakeholders (workshop)& Approval CRMUM by All Stakeholder (60 persons, 1 day@\$71/person/day) (activity 2.6.4)	0	0	0	0	0	0	0	0	0	2,245	1,991	2,245	1,991	4,235	2,245	1,991	4,235
3309	Civil society & private sector stakeholder discussion, input to and agreement with draft MMP(20persons, 4times@\$81/ person/time) (activity 2.7.2)	1,915	1,311	1,277	1,967	3,192	3,279	6,471	0	0	0	0	0	0	0	3,192	3,279	6,471
3310	Socialization MMP to all stakeholders (20persons, 2days, 1time@\$171/ person/daytime)(activity 2.7.4)	0	0	0	0	0	0	0	1,216	1,078	0	0	1,216	1,078	2,294	1,216	1,078	2,294
3311	Formal approval of MMP by MB & local government (60persons, 1 day@\$171/ person/day)(activity 2.7.5)	0	0	0	0	0	0	0	5,425	4,811	0	0	5,425	4,811	10,235	5,425	4,811	10,235
3312	Initial discussions with target schools regarding curricular materials, school visits by project staff and field visit for school children (3pesons, 1 day, 20 times@\$57/person/day/time) (activity 4.2.5)	0	0	478	652	478	652	1,130	485	662	485	662	970	1,324	2,294	1,447	1,976	3,424
3313	Series discussion with key stakeholder in Sub-district and villages (3persons, 20times, @\$57/person/time) (activity 4.2.8)	608	237	405	356	1,013	593	1,606	261	553	174	830	434	1,383	1,817	1,447	1,976	3,424
3314	Community level discussions on draft regulations with stakeholders (20 persons, 1 day, 6times@\$51/person /day/time)(act. 5.4)	0	0	0	0	0	0	0	2,203	3,973	0	0	2,203	3,973	6,176	2,203	3,973	6,176
3315	Finalization draft of regulation on community base mangrove management and submission to local government (activity 5.6)	0	0	0	0	0	0	0	0	0	2,700	7,300	2,700	7,300	10,000	2,700	7,300	10,000
3316	Series discussion with stakeholders (activity 2.5.3)	0	0	175	631	175	631	806	350	473	350	473	700	947	1,647	875	1,578	2,453
3317	Finalization draft of silviculture system in Batu Ampar (activity 2.5.5)	0	0	0	0	0	0	0	0	0	2,700	7,300	2,700	7,300	10,000	2,700	7,300	10,000
3318	Preparation of detailed site and project work plan (by week) for project personnel (10 person, 3 times@\$62 /person/time)) (act 1.1.2)	834	1,019	0	0	834	1,019	1,853	0	0	0	0	0	0	0	834	1,019	1,853
3319	Meeting of the Site Manager and other project personnel by local government (10persons, 9times@\$52/person/time) (act. 1.1.3)	0	0	704	642	704	642	1,347	822	1,285	822	1,285	1,643	2,569	4,212	2,347	3,211	5,559
3399	Total	12,154	8,092	12,487	12,432	24,641	20,524	45,165	14,023	16,698	12,289	24,784	26,311	41,482	67,793	50,952	62,006	112,959
3999	Component total	28,801	15,700	34,222	25,129	63,024	40,829	104,425	43,889	47,825	35,679	51,265	79,568	99,091	178,658	142,591	139,919	282,511
EQUIPMENT AND PREMISES COMPONENT																		
4100	Expendable equipment																	
4101	Office expendable supplies for Site Manager (Activity 1.1.4.b)	1,694	1,129	0	0	1,694	1,129	2,824	0	0	0	0	0	0	0	1,694	1,129	2,824
4104	Procurement Landsat Imagery (activity 2.1.4)	0	0	3,529	2,353	3,529	2,353	5,882	0	0	0	0	0	0	0	3,529	2,353	5,882
4199	Total	1,694	1,129	3,529	2,353	5,224	3,482	8,706	0	0	0	0	0	0	0	5,224	3,482	8,706
4200	Non-expendable equipment																	
4201	Office non expendable for Site Manager (activity 1.1.1.d)	0	882	0	882	0	1,765	1,765	0	882	0	882	0	1,765	1,765	0	3,529	3,529
4202	Purchase equipments and Page Web design (activity 4.4.1)	2,647	2,647	0	0	2,647	2,647	5,294	0	0	0	0	0	0	0	2,647	2,647	5,294
4203	Purchase software and Hardware (activity 2.1.1)	0	8,000	0	0	0	8,000	8,000	0	0	0	0	0	0	0	0	8,000	8,000
4299	Total	2,647	11,529	0	882	2,647	12,412	15,059	0	882	0	882	0	1,765	1,765	2,647	14,176	16,824
4300	Premises																	
4301	Rent and Maintenance office (Demosite office) (activity (1.1.4.c)	0	706	0	706	0	1,412	1,412	0	706	0	706	0	1,412	1,412	0	2,824	2,824
4399	Total	0	706	0	706	0	1,412	1,412	0	706	0	706	0	1,412	1,412	0	2,824	2,824
4999	Component Total	4,341	13,365	3,529	3,941	7,871	17,306	25,176	0	1,588	0	1,588	0	3,176	3,176	7,871	20,482	28,353

Expenditure	Year 1							Year 2							Total Budget All Year		
	1st Half		2nd Half		Total		Grand	1st Half		2nd Half		Total		Grand	GEF	GOV	Total Budget
	GEF	GOV	GEF	GOV	GEF	GOV	Total	GEF	GOV	GEF	GOV	GEF	GOV	Total			
MISCELLANEOUS COMPONENT																	
5100 Operation and Maintenance of Equipment																	
5101 Equipment maintenance & repair (activity 4.4.3)	0	0	518	666	518	666	1,184	517	655	517	655	1,035	1,310	2,345	1,553	1,976	3,529
5199 Total	0	0	518	666	518	666	1,184	517	655	517	655	1,035	1,310	2,345	1,553	1,976	3,529
5200 Reporting																	
5201 Printing and translation of Management Board Monthly Report (activity 1.1.6.a)	1,186	903	1,186	903	2,372	1,807	4,179	791	1,355	791	1,355	1,581	2,710	4,292	3,953	4,517	8,471
5202 Printing and translation of semi-annual report to UNEP/GEF and publications (activity 1.1.6.b)	659	502	659	502	1,318	1,004	2,322	439	753	439	753	878	1,506	2,384	2,196	2,510	4,706
5203 Printing and translation of annual report to national mangrove sub-committee, SEPA, regional working group on mangroves and publications (activity 1.1.6.C)	0	0	1,318	1,004	1,318	1,004	2,322	0	0	878	1,506	878	1,506	2,384	2,196	2,510	4,706
5204 Publish Management Board activity via website & local press (activity 1.2.4)	2,614	1,936	1,743	1,936	4,357	3,872	8,229	1,743	2,904	1,162	2,904	2,904	5,808	8,713	7,261	9,680	16,941
5205 Distribution poster and brochures (activity 4.2.4)	0	0	127	295	127	295	422	254	300	254	300	508	600	1,107	635	895	1,529
5206 Establish GIS system (Baseline map and basic information) (activity 2.1.2)	0	0	1,412	941	1,412	941	2,353	0	0	0	0	0	0	0	1,412	941	2,353
5207 Publication of maps and detailed report of habitat resource distribution and abundance (English & Bahasa) (2.2.5)	0	0	0	0	0	0	0	1,412	941	0	0	1,412	941	2,353	1,412	941	2,353
5208 Publish Management plan in hard copy and via website & local press (2.7.6)	0	0	0	0	0	0	0	0	0	1,800	1,200	1,800	1,200	3,000	1,800	1,200	3,000
5209 Publish series of article on local news paper (1 times/month) (activity 4.3.6)	466	395	466	395	932	791	1,722	311	593	311	593	621	1,186	1,807	1,553	1,976	3,529
5299 Total	4,925	3,737	6,910	5,977	11,834	9,714	21,548	4,949	6,846	5,635	8,611	10,583	15,457	26,040	22,418	25,171	47,588
5300 Sundry																	
5301 Communication (activity 1.1.4.d)	711	361	474	542	1,186	904	2,089	474	542	316	813	790	1,355	2,146	1,976	2,259	4,235
5302 Establish information boards in Field (20 Board) (activity 4.3.3)	0	0	0	0	0	0	0	4,365	3,871	0	0	4,365	3,871	8,235	4,365	3,871	8,235
5303 Mangrove information center building (act 4.3.4.a)	0	47,058	0	0	0	47,058	47,058	0	0	0	0	0	0	0	0	47,058	47,058
5304 Maintenance of Mangrove Utilization Information Centre (activity 4.3.5)	0	0	0	0	0	0	0	0	0	1,322	2,384	1,322	2,384	3,706	1,322	2,384	3,706
5305 Establish a Revolving fund for charcoal production (activity 3.2.4)	0	0	0	0	0	0	0	0	5,882	0	0	0	5,882	5,882	0	5,882	5,882
5306 Establish Revolving fund for alternative business (activity 3.3.2)	0	0	0	0	0	0	0	0	3,529	0	0	0	3,529	3,529	0	3,529	3,529
5399 Total	711	47,420	474	542	1,186	47,962	49,148	4,839	13,825	1,638	3,198	6,477	17,022	23,499	7,662	64,984	72,647
5500 Evaluation																	
5501 Audit expenses (activity 1.1.6.d)	0	0	5,294	0	5,294	0	5,294	0	0	5,294	0	5,294	0	5,294	10,588	0	10,588
5502 Monitoring and Evaluation for all activity (Midterm and Ending)	0	0	4,500	0	4,500	0	4,500	0	0	4,500	0	4,500	0	4,500	9,000	0	9,000
5599 Total	0	0	9,794	0	9,794	0	9,794	0	0	9,794	0	9,794	0	9,794	19,588	0	19,588
5999 Component Total	5,636	51,156	17,696	7,185	23,332	58,342	81,674	10,305	21,326	17,584	12,464	27,889	33,789	61,678	51,221	92,131	143,352
9999 Grand Total	103,988	112,500	115,762	85,766	219,750	198,266	418,588	79,849	102,262	67,948	89,430	147,797	191,692	339,489	367,546	389,958	757,504

Appendix 6 - ARRANGEMENT OF COORDINATION AND MANAGEMENT

The demonstration site will be executed by, the Institute of Mangrove Research and Development (IMReD) based in JAKARTA. This agency signs Addendum to the existing MoU with the Project Coordinating Unit (PCU) of the UNEP GEF Project “*Reversing Environment Degradation Trends in the South China Sea and Gulf of Thailand*”. The IMReD as the Specialised Executing Agency for Mangrove Sub-component of Indonesia (SEA) is the co-ordinating body to develop relationship among regional, national, provincial and site levels. Project Management Board will be established and supported by Technical Scientific Advisors to implement activities of the demonstration site. The tasks of management bodies are designed as follows:

Specialised Executing Agency

Specialised Executing Agency (SEA) takes responsibility for:

- Developing demonstration site proposal;
- Preparing TOR for BAPEDALDA who will authorise the Project Management Board (PMB) in implementing activities of the demonstration site.
- Preparing project implementation plan (i.e. Project Operational Guidelines), which is subject to the subsequent decisions by the PMB and to be operated by the Project Implementation Unit (PIU) which consists of Site manager, Assistance manager and Administrative supporting staffs;
- Submitting reports including the flowing, according to an agreed schedule, with suitable quality, to UNEP/GEF and the SCS-PCU:
 - o Six-monthly expenditure report, six-monthly progress reports and cash advance requests; and
 - o Technical reports in accordance with the defined outputs.

The Focal Point of the SEA is responsible for:

- Providing scientific and technical advice and guidance to the management body regarding the execution of demonstration site activities;
- Liaison between the Demonstration Site Manager and the SCS-PCU, as well as UNEP-GEF, regarding the dissemination of experiences, and personnel exchange between sites;
- Liaison between the Site Manager and National Technical Working Group (NTWG), Regional Working Group (RWG) for mangrove established under the SCS Project.

Project Management Board (PMB)

The PMB, namely “Sustainable Mangrove Management Board in Pontianak” is chaired by the Head of Regional Environment Impact Mitigation Office (BAPEDALDA) of West Kalimantan Province. The Head of Pontianak District BAPEDALDA is appointed as the Vice Chair of the PMB. The PMB shall play a key role in the management of the Batu Ampar resources (including mangrove and associated ecosystems) both during and beyond the life of the project. It acts as a forum for all stakeholders to collaborate in managing and using the Batu Ampar coastal resources in sustainable way.

In general, responsibilities of the PMB are as follows:

- Selection of the demonstration site manager and providing an approval for the establishment of Project Implementation Unit (PIU).
- Review and approval of the stakeholder analysis, and financial plans regarding the generation of revenue streams;
- Development and implementation of a Business plan for the site designed to result in financial independence and sustainability following expenditure of the GEF grant funds;
- Development and implementation of a management plan for the site
- Review of the existing legislation regarding conservation and management of mangrove resources, and submit to the appropriate authority for approval;
- Proper financial control and oversight of income and expenditures in accordance with the approved business plan
- Approval of the draft of program of public awareness, education and training activities, to be conducted at the site, and clearance for publication of appropriate educational and awareness materials;

- Approval of the draft proposed program of activities that will be provided at the site for exchange personnel over a defined time frame of between two and six months;
- Timely reporting on activities of project, through the Specialized Executing Agency to the National Technical Focal Point for the UNEP/GEF South China Sea Project to the National Committee or Sub-committee responsible for the relevant sub-component of the Authorised by Head of Governor and hosted by BAPEDALDA
- More specifically, the PMB will be responsible and ensure the collaboration among all stakeholders

Membership of PMB

Members of PMB include relevant Local Government Agencies (Forestry Office, Agriculture and Estate Services, Marine and Fisheries, Coop Services, Tourism Services, Education Services, Industrial and Trade Services), Private Sectors, NGOs, University, Local Communities Organisation.

The PMB will report to **the Steering Committee**, which is led by the Governor of West Kalimantan Province (Chairperson) and Head of Pontianak District (Vice Chairperson), and includes provincial and district Regional Development and Planning Office (BAPPEDA), provincial Forestry Office, and provincial Marine and Fisheries Office.

Project Implementation Unit (PIU) will be established with staff including Site manager, Assistance site manager and Administration support staffs to conduct day to day management of the demonstration site project. The office of PIU is located in Batu Ampar (BAPEDALDA Office of Kabupaten Batu Ampar). Responsibilities of the PIU include:

- Executing the implementation plan based on the demonstration site proposal prepared by the SEA and the subsequent decisions of the PMB;
- Planning, and managing on a day to day activities identified in the implementation plan, including annual work plan and timetables;
- Financial responsibility for the approved budget within clearly defined limits set by the management body, including keeping proper books of account and preparing financial reports for the PMB and SEA of the SCS project;
- Responsibility for execution of the activities in accordance with the work plan and schedule of expenditures, initially defined by the demonstration site proposal and amended from time to time by the PMB;
- Responsibility for acting as Secretary to the monthly meetings of the PMB, as recommended in the guidelines provided by the SCS project;
- Reporting on activities and outcomes, to the PMB, the focal point of the SEA, and the National Technical Working Group according to an agreed schedule;
- Preparing inputs to the six-monthly expenditure reports, six monthly progress reports and cash advance requests to be submitted to the SCS-PCU, through the focal point of the responsible SEA;
- Preparing and submitting to the SCS-PCU, through the focal point of the EA (SEA), technical reports in accordance with the defined outputs of the demonstration site; and
- Attending such national and regional meetings as shall be determined on an individual basis in the SCS Project.

Technical and Scientific Advisors (Consultants)

There will be at least 4 experts designated for key project components/activities, on various issues below:

- Expert for Mangrove Biodiversity
- Mangrove Ecologist
- Expert of Mangrove Management and Policy
- Experts of social and Institution
- Expert for Fishery
- GIS and Web Specialist
- Resource economist
- Training Specialist

Advisors have responsible and tasks to:

- Develop TOR for conducting research and surveys
- Coordinate research and surveys related their expertise
- Provide data and information that is needed by PIU to prepare reports
- Make technical report to PIU and SEA/IMReD.

Consultants will be selected by SEA/IMReD from NGOs, Universities, related agencies or individual experts and their activities will be under supervision of SEA/IMReD. All consultants should stay in Batu Ampar or Pontianak

Mangrove Cadres will be recruited by Site Manager from representatives of villages, NGO, local community organization (fisherman, farmer, trader, charcoal industries community, women club, youth generation), school teachers, private sector, informal leader, mass media, etc in the target villages. These persons will support the demonstration site activities in:

- Motivation of local community to participate the project
- Coordination of community group's activities in preparing and implementing integrated mangrove management plan.
- Support the field facilitator in monitoring and evaluation
- Dissemination of information to local community
- Taking active role in preparing draft of the Mangrove Management Plan (MMP) include work plan/time tables,
- Implementation of the MMP
- Monitoring and evaluating the implementation of the MMP

Mangrove Cadres will report all their activities to Field Facilitator(s)

ANNEX 2

UNITED NATIONS ENVIRONMENT PROGRAMME

REVISED FORMAT

SIX MONTHLY PROGRESS REPORT

SECTION 1 - BACKGROUND INFORMATION

- 1.1 Project Title: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand.
- 1.2 MoU Number: UNEP/GEF/SCS/Ind/MoU 2a/Amendment.2/Add.
- 1.3 Responsible Office: South China Sea Project Co-ordination Unit, Bangkok
- 1.4 Specialised Executing Agency (Supporting Organization): Name of Institution
- 1.5 Reporting Period: Insert dates of reporting period
- 1.6 Focal Point Name:

SECTION 2 - PROJECT STATUS

2.1 Status of the Implementation of the Activities and Outputs Listed Under the Work plan in the Memorandum of Understanding (check appropriate box)

- ☐ Project activities and outputs listed in the Project work plan for the reporting period have been materially completed and the responsible Office is satisfied that the project will be fully completed on time (give reasons for minor variations as Section 3 below).
- ☐ Project activities and outputs listed in the Project Work plan for the reporting period have been altered (give reasons for alterations: lack of finance; project reformulated; project revisions; other at Section 3 below).
- ☐ Project activities and outputs listed in the Project Work plan for the reporting period have not been fully completed and delays in project delivery are expected (give reasons for variations in Section 3.1 and new completion date in Section 3.2 below).
- ☐ Insufficient detail provided in the Project Work plan.

2.2 List Actual Activities/Outputs Achieved in the Reporting period: (check appropriate box)

(a) MEETINGS (Duplicate this box for each meeting individually)

☐ Inter-Ministry mtg ☐ Expert Group Mtg. ☐ Training Seminar/Workshop ☐ Others

Title: _____

Venue and dates _____

Convened by _____ Organized by _____

Report issued as doc. No/Symbol _____ Languages _____ Dated _____

Please indicate: No. of participants _____ and attach **annex** giving names, nationalities of participants and meeting summary.

Please indicate co-financing as follows:

Source _____

Cash (US\$) _____

In-Kind (person days) _____

(b) **PRINTED MATERIALS (Duplicate this box for each printed item)**

☐ Report to IG Mtg. ☐ Technical Publication ☐ Technical Report ☐ Others

Title: _____

Author(s)/Editor(s) _____

Publisher _____

Symbol (UN/UNEP/ISBN/ISSN) _____

Date of publication _____

(When technical reports/publications have been distributed, **attach distribution list**)

Please indicate co-financing as follows:

Source _____

Cash (US\$) _____

In-Kind (person days) _____

(c) ☐ **TECHNICAL INFORMATION** ☐ **PUBLIC INFORMATION** (posters, leaflets, broadcasts etc.) **(Duplicate this box for each item)**

Description _____

Dates _____

Please indicate co-financing as follows:

Source _____

Cash (US\$) _____

In-Kind (person days) _____

(d) **SERVICES (Duplicate this box for each item)**

Description _____

Dates _____

Please indicate co-financing as follows:

Source _____

Cash (US\$) _____

In-Kind (person days) _____

(e) **OTHER OUTPUTS (Duplicate this box for each item)**

Description _____

Dates _____

Please indicate co-financing as follows:

Source _____

Cash (US\$) _____

In-Kind (person days) _____

(f) OTHER IN-KIND AND CASH CO-FINANCING (Do not include Co-financing listed in the boxes above)		
Sources of co-financing	In-kind Contribution (in person days)	Cash Contribution (in US\$)

SECTION 3 - PROJECT DELIVERY

3.1 Summary of the Problems Encountered in Project Delivery (if any)

3.2 Actions Taken or Required to Solve the Problems (identified in Section 3.1 above)

Signed: _____
Name:
Designation:

ANNEX 3
SIX MONTHLY PROJECT EXPENDITURE ACCOUNT FOR SUPPORTING ORGANIZATION
Project Statement of allocation (Budget), expenditure and balance (Expressed in US\$) covering the period
from insert Month to insert Month and year

Supporting Organization: Institute of Mangrove Research & Development, Indonesia

Project Number: GF/2730-02-4340

MoU Number: UNEP/GEF/SCS/Ind/MoU 2a/Amendment.2/Add.

Project Title: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand

Project commencing: January 2002

Project ending: December 2007

Object of Expenditure in accordance with UNEP Budget codes		Project budget allocation for the half-year (Insert dates)	Expenditure incurred for the half-year (Insert dates)	Unspent balance of budget for the half-year (Insert dates)	Co-financing (Co-financing should be included in this table, in line with the approved budget)	
		Amount (1)	Amount (2)	Amount (1-2)	Cash (US Dollars)	In-Kind (days)
1000	PROJECT PERSONNEL COMPONENT					
	1200 Consultants w/m Give description of activity/service					
	1201	0.00	0.00	0.00		
	1299 Total	0.00	0.00	0.00		
	1300 Administrative support w/m (Show title/grade)					
	1301	0.00	0.00	0.00		
	1399 Total	0.00	0.00	0.00		
	1999 Component Total	0.00	0.00	0.00		
2000	SUB-CONTRACT COMPONENT					
	2200 Sub-contracts - non-profit supporting organizations					
	2215	0.00	0.00	0.00		
	2299 Total	0.00	0.00	0.00		
	2999 Component Total	0.00	0.00	0.00		
3000	TRAINING COMPONENT					
	3300 Meetings/conferences (give title)					
	3313	0.00	0.00	0.00		
	3399 Total	0.00	0.00	0.00		
	3999 Component Total	0.00	0.00	0.00		
5000	MISCELLANEOUS COMPONENT					
	5200 Reporting costs - publications, maps, newsletters, printing.					
	5213	0.00	0.00	0.00		
	5299 Total	0.00	0.00	0.00		
	5300 Sundry - communications, postage, freight, clearance, etc					
	5303	0.00	0.00	0.00		
	5399 Total	0.00	0.00	0.00		
	5999 Component Total	0.00	0.00	0.00		
	9999 Total	0.00	0.00	0.00		

Signed _____

Designation: _____

Duly authorized officials

NB: The expenditures should be reported in line with the specific object of expenditures as per the approved project budget.

ANNEX 4

CASH ADVANCE REQUEST

Statement of cash advance as at	Insert terminal date of the reporting period
And cash requirements for the six month period ending	Insert terminal date of the current period
Name of supporting organization	Institute of Mangrove Research & Development
MoU No.	UNEP/GEF/SCS/Ind/MoU 2a/Amendment.2/Add..
Project no.	GF/2730-02-4340
Project title	Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand

I. CASH STATEMENT

1. Opening Cash Balance as at **insert date** US\$
2. Add : cash advances received US\$
Date: **insert date of first advance** US\$
Date: **insert date of second advance** US\$
Date: **insert date of third advance** US\$
Date: **insert date of fourth advance** US\$
Date: **insert date of fifth advance** US\$
3. Total cash advanced to date
4. Total cumulative expenditures incurred to:
insert terminal date of the first period US\$
insert terminal date of the second period US\$
insert terminal date of the third period US\$
insert terminal date of the fourth period US\$
insert terminal date of the fifth period US\$
5. Total expenditure as at December 31, 2004
6. Closing cash balance as at **Insert terminal date of the reporting period** US\$

II. CASH REQUIREMENTS FORECAST

7. Estimated disbursements for period ending
Insert terminal date of the current period US\$
8. Less : closing cash balance (item 5, above)
9. Total cash requirements for the period ending
Insert terminal date of the current period US\$

Prepared by _____ **Insert Name** _____ Request approved by : _____

Date:

Date:

Remarks: