

ADDENDUM
TO THE
MEMORANDUM OF UNDERSTANDING
BETWEEN
THE UNITED NATIONS ENVIRONMENT PROGRAMME
AND
PUSLIT OSEANOGRAFI – LIPI IN ITS CAPACITY AS THE SPECIALISED EXECUTING AGENCY
FOR INDONESIA'S CORAL REEF 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 2b/Admendment 2)
OPERATIONAL PLAN¹ FOR THE EXECUTION OF
THE BELITUNG 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 Puslit Oseanograhei – LIPI , in its capacity as the Specialised Executing Agency for the Indonesia Coral Reef 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 Puslit Oseanograhei – LIPI is responsible as the Specialised Executing Agency for the execution of the activities at the Belitung Demonstration Site, following the approved Operational Plan, which forms part of this Addendum. 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 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 Coral Reefs;
5. The UP-MSI 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 UP-MSI, 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;
6. Ensure that all activities relating to the Belitung Demonstration Site for Coral Reefs 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 UP-MSI 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.

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

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

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UNEP/DGEF Project Co-ordinating Office
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Bangkok, Thailand

Date: _____

Date: _____

Witness

Mr. Nazalius Nanang Effendi, Head
Regional Planning and Development Agency
Bangka-Belitung Province

ANNEX 1
OPERATIONAL PLAN
DEMONSTRATION SITE SUMMARY SHEET

1. SITE NAME AND GEOGRAPHIC CO-ORDINATES

- Site name: Belitung (including Bangka and Belitung Islands of Belitung district)
- Geographic coordinates: Latitude: 3.36 S - 2.37 S
Longitude: 106.99 E - 108.89 E

2. COUNTRY IN WHICH THE SITE IS LOCATED: Indonesia

3. PROVINCE IN WHICH THE SITE IS LOCATED: Bangka-Belitung

Local government approval [Yes, December, 16, 2004]

Local government involvement [yes]

Local government co-financing [yes in kind]

4. LINKAGE TO NATIONAL PRIORITIES, ACTION PLANS AND PROGRAMS:

Central government involvement [yes]

Central government co-financing [yes in kind and in-cash]

The government's strategic priorities emphasize national unity, macro-economic policies to support economic recovery, poverty reduction, agricultural and rural development, and support for small and medium-size enterprises, decentralization, and good governance. State Policy Guidelines for 1999-2000 dictate that natural resources should be managed to ensure that their carrying capacity is preserved for the welfare of present and future generations, and to protect the national wealth of biodiversity.

A framework of national strategies has been drawn up to implement the policies regarding coral reefs. These strategies focus on (i) empowering coastal communities to manage coral reef ecosystems; (ii) reducing the rate of coral reef degradation; (iii) managing coral reefs on an ecosystem basis in consideration of their utilization potential, legal status and coastal communities wisdom; (iv) formulating and coordinating action programs of government agencies, private sector, and communities; and (v) strengthening the commitment of all parties to implement management of coral reefs through capacity building, awareness raising, and strengthening the legal environment.

The Indonesian Government intended to implement COREMAP program in all Indonesian Provinces; however, due to budget limitation, the program can only be implemented in six provinces and 12 districts. The Riau Isles province located in the South China Sea is among the provinces that is selected for implementation of COREMAP program. In this province four districts have been nominated as sites of COREMAP program, namely Natuna, Batam Municipality, Riau Isles and Lingga. The Bangka-Belitung province which is also located in the South China Sea will be the next priority in the implementation of COREMAP program. Therefore, the establishment of UNEP GEF project that concerns with the salvation of coral reef in the South China Sea, selection of demonstration site is directed to the Belitung district which has long been the follow up target of the COREMAP long term program. Establishment of UNEP GEF project is a good momentum to speed up and widen the range of coral reef salvation in Indonesia.

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

- 9 September 2003
- 16 September 2003

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

Comments

Signature:

Drs. Sudaryono, National Technical Focal Point

Date: December 15, 2003

DEMONSTRATION SITE PROPOSAL

7. SITE DESCRIPTION (Site characterisation as Appendix 1)

AREA

Rough interpretation of satellite imagery and ground truthing suggests that reefs around Belitung Islands covers an area of approximately 34.9306 km².

ENVIRONMENT

Bangka Belitung Province and Karimata islands are located in the South China Sea area at 01 ° 30' - 02° 46' S and 105° 00' - 108° 35' E. The physical properties of the surrounding waters are very much influenced by that of the South China Sea. During the easterly monsoon the waters are influenced by, the movements of three water masses, i.e. water of low temperature and high salinity from the north and south; water of high temperature and low salinity from the Malaka strait; and fresh river water from Sumatra (Musi river) and Kalimantan (Kapuas river). Results of research activities indicate that the influence of rivers from West Kalimantan is stronger than that of rivers from Sumatra. Surface water temperature at the beginning of the easterly monsoon ranges between 28.87°-30.86°C, with an average of 30.78°C. In general, water temperature in the coastal area is higher than that in offshore areas, and water temperature in the deeper layer is lower than that of the surface. Salinity in the surface layer is more variable and lower compared to that at 10 and 2 meter depth. Lower salinity is commonly found close to the land and reflects the occurrence of big rivers, such as the Kapuas and Musi Rivers, which have greatest impact in the Natuna Sea. The impact of the Kapuas river extends some 30 miles offshore and affects the entire body of water. In September-October 2001 the impact was noted to reach 120 miles from the coast. At the beginning of the Easterly season of 2002, the flow pattern of the water mass in the Natuna Sea showed water movement toward the southeast and southwest at times of high tide, and to the north and northeast during low tide. On the basis of the water mass circulation, it is concluded that this forms the entry point of the water mass from the South China Sea to the Java Sea. Coral reefs are found on the western and southern parts of the Natuna Sea where the seawater is relatively clear, i.e. in the waters of Belitung, east of Bangka and Karimata Islands.

HABITAT

The west coast of Belitung includes many small islands one of which is the island Sub-District of Nasik Strait. The coasts are predominantly fringed by mangroves, which are still in relatively good condition, with reef flats on which sea grass communities develop also being an important coastal habitat. Generally, the condition of coral communities in Belitung are better than that in Bangka Island. Corals grow on the reef flat close to the reef edge down to more than 15 m deep. The reef which slopes down gently is served by a strong water current. The Nasik Strait sub-district is selected as a demonstration site since it has a great potency of natural resources while they also have high species diversity. However, these potential resources are currently under stress of various destructive methods of exploitation.

The coral reef ecosystem found in the western waters of Belitung Island is currently categorized as being in good condition (Wouthuyzen, personal communication). Rough interpretation of satellite imagery and ground truthing suggests that reefs covers an area of approximately 34.9306 km² and it has a significant potential for supporting a variety of uses, both direct and indirect, that benefit the coastal community. Coral reef fishery is believed to be the most productive, estimated to yield up to 5 tons /km².

The reefs at the islands west of Belitung Island such as, Mendanau island, Batu Dinding island are mostly of sandy bottom, gently sloping, and very extensive. Coral communities develop near the reef slope down to a depth of 7 m, and are dominated by sub-massive types such as *Porites rus*, *Galaxea fascicularis* and *Acropora palifera*. Altogether 30 research spots in the location had been surveyed and the result showed an average coral cover of less than 25%. This value indicated that the coral colonies in the location were categorically in bad condition. Out of these 30 research spots, 20 spots had a percentage cover of less than 25 %, 5 spots had a percentage cover between 25-50 %, 3 spots had a percentage cover of greater than 50 % (excellent condition); while the last two spots had zero percentage cover, since the spots were dominated by dead coral, followed by dead coral covered by algae, soft coral and sand.

BIODIVERSITY

The study that has been done by Research Centre for Oceanography (2002) identified 187 species of corals belong to 74 genera and 14 families in the Belitung Islands. Observation on coral fish recorded 218 species belonging to 85 genera and 36 families, 105 species of molluscs, 35 species of crustaceans, 36 species of echinoderms, 20 species of mangroves, 8 species of seagrass and 3 species of endangered species. Fishery resources in this region are still considered good, although proactive action to prevent over-fishing would be constantly needed. This is already evident from the fact that most catches of economically important fishes are of undersized individuals.

PRESENT USE

Several people in the coastal area operate shrimp ponds for a living, in addition to being fishermen. The shrimp ponds cover an area of some 223.57ha and form only a portion of the total pond area in Bangka Island. In the small islands, local fishermen use net and fish trap (bubu) to catch fish. Big fishes caught are kept in cold boxes and are transported every other day to the nearest town, while small fishes are salted, dried and accumulated. After sufficient quantity of salted fish has been accumulated, then it will be taken to Pontianak for sale. Besides fishing and mariculture, many of the communities in the big islands earn their living by producing pepper, particularly in Belitung Island, where this product forms an important export commodity.

In 2001 the mean productivity of marine fish farms was just 2.5 ton/ha/year, using only 0.5 % of the potentially available land. The average productivity of brackish water fishponds is only around 348 kg/ha/year and land used for this purpose amounts to 0.103 % of the potentially available land.

The opportunities for investment in marine fish culture are still open with a potential for development of up to 1,500,000 floating net-cages. In the Bangka district, suitable areas for marine fish culture are the waters of the islands of Pongok, Panjang, Ketawai, Bebuar, and Puing, as well as the Kelabat Bay; while in the Belitung Island complex suitable areas include the islands of Mendano, Nado, Selio, Sijuk, Konis and Selindung; as well as Balok Bay. To support marine fish culture, some investments are needed in terms of fish processing and biotechnology (seed production plant for coastal fishes).

The standing stock of target fishes was 8,479 individuals per hectare in Bangka and 7,008 individuals per hectare in Belitung. The standing stock of major fishes in Belitung waters of 19,460 individuals per hectare was higher compared with that of Bangka, 13,290 individuals per hectare.

MANAGEMENT REGIME

Belitung district, located in the Bangka-Belitung province, is administratively composed of 5 sub-districts, one of which, the Selat Nasik sub-district, has been selected as the demo site of the UNEP GEF South China Sea Project (Figure 1, *Appendix 1*). There are 26 islands under Selat Nasik sub-district, the biggest of which is the Mendanau Island. In the meanwhile, four villages make up the Selat Nasik sub-district, namely: Selat Nasik, Suak Gual, Petaling and Gresik. Of these four villages, only Gresik village is located outside Mendanau Island.

Coastal zone management in the Belitung district has not been properly done. Currently, marine resources management is directed more on fishery activities. Illegal fishing practice using trawl is still common, done mostly by foreign fishers (Taiwanese) and still beyond government control. This is due among others to weak law enforcement, limited equipments/ infrastructure for surveillance, and loose fishing permit. Apart from illegal fishing, destructive fishing techniques such as the use of explosive, poisons, fish trap and compressor still prevail.

An attempt to curb the destructive fishing practice has been made by the community of Selat Nasik sub-district by enforcing the "Ripuk Angkam" (a traditional local measure). Foreign or non-resident fishers who practice destructive fishing will be apprehended, while the boat and fishing gears will be confiscated.

8. STAKEHOLDERS (Stakeholder involvement as Appendix 2)

There are many stakeholder groups in the Belitung district who will be involved in this project, including central government institutions, local government institutions, NGO informal leaders and direct user of the marine resources.

This project will work with local government, members of the DPRD (Local Parliament), opinion leaders, law enforcement officers and the private sector to generate support for empowerment of coastal communities and sustainable reef management. Commitment will be manifested through programs and activities developed together to address the issues identified during Program preparation, the initial socialization and ongoing information gathering activities.

The first step of this process is to establish mechanisms for dialogue, and field teams will visit each village. During these visits the field teams will gather key information about the social, economic and environmental condition of each community; the degree of dependence, methods and exploitation of their marine resources; and solicit the local communities views regarding local issues and problems, and existing management practices. At the same time the team will stress that the goals and strategy of this project are to develop a community driven program involving all sections of each community. Their third task will be to initiate discussions regarding: how to maximize long-term benefit from the reefs; the need to manage the marine resources sustainably; and provide key information about management options.

The information gathered during this process will be combined with all available information from government, non-government and the private sector to feed into the development of a long-term district strategic plan for maximizing coral reef protection and sustaining reef fisheries benefits at the community and district levels through effective Community Based Management. This plan will be drafted in map form and discussed at all levels throughout the district as the basis for achieving the maximum sustainable benefit to the communities of coral reef ecosystems and related resources. Monitoring, control and surveillance will be implemented by the local law enforcement officials undertaking joint patrol with other government departments and community representatives. The MCS will be linked through a radio network to key stakeholders and have the capacity to respond to report of legal infraction.

9. THREATS (*Causal Chain Analysis as Appendix 3*)

Destructive Fishing Practices

Gathering information from stakeholder stated that destructive fishing practices such as: bomb, cyanide, fish trap and compressor still take place at Selat Nasik Sub-District. The use of destructive fishing methods may be due to ignorance, greed, lack of regulation and weak law enforcement. Local fishers are usually unaware and do not know that catching fish using fish traps (bubu) or using explosives will give result to diminishing fish production. In contrast the use of cyanide, compressor and bombs is commonly triggered by greed and the individuals' responsible do not care about the ecological and environmental impacts of their actions.

Fishing activities using explosives, cyanide and fish-traps degrade the marine environment. These three fishing practices cause significant negative impacts on the coral reefs, for example based on research that has been done by SUHARSONO (1999) showed that a 0.5 kg bomb will destroy everything within a 3 m radius or some 28 m² of coral ecosystem. Bombing activities have resulted in decline, in traditional catches that use hook and line or nets to catch fish, particular the grouper. Generally speaking, fisher communities know that bombing will have a negative impact on the marine environment, nonetheless, economic pressures may keep them blast fishing.

Fish traps constitute a static fishing gear normally laid on the sea-bed between coral colonies and kept submerged by weighing it down with dead corals. In the absence of dead corals, the fisherman will break up live coral colonies to substitute dead coral as weight and often live corals are also used to cover the trap as camouflage.

Illegal Fishing

The term illegal fishing in this context means catching of fish by foreign fishers. Foreign fishers commonly use trawl. Trawls constitute dynamic fishing gear that take all benthic organisms both large and small and result in extensive disturbance to the bottom substrate. Although the use of trawls in Indonesian waters is currently prohibited by the Indonesian government they are commonly used by fishers from Hongkong, Thailand and Singapore to fish illegally in Bangka-Belitung waters although, there are some fishing boats bearing Indonesian flag that operate fishing gear which is a modified trawl. In most cases regulations are non-existent and even where regulations exist they cannot be effectively implemented due to the weakness of surveillance by the law enforcement agency, due in turn to limited manpower and inadequate vehicles and infrastructure.

Tourism (potential threat)

Tourist activities in Belitung district have not been done on a big scale. Nonetheless, tourism development in this district may become a threat to coral reef ecosystem, if not under proper management. To date tourism activities that pose a potential threat to coral ecosystem include collection of corals and shells for souvenirs and anchor dropping in coral reef area.

Base on causal chain analysis and demonstration site resources some interventions will be developed to overcome the threats as follows:

- Enhancement of public awareness on coral reef management and sustainable use
- Improvement of policy and legislation to support enforcement and co-ordination
- Resource assessment and monitoring for decision making and planning
- Development of management plan with participation of local people
- Establishment of alternative income generation programme to reduce recent threats

10. GOALS & PURPOSE

The proposed project is aimed to protect and to rehabilitate coral reef ecosystem so as to sustain their use, as well as the use of the associated ecosystems in Bangka-Belitung Islands. The overall goal of the program is to maintain healthy coral reef ecosystem and increase prosperity of coastal village communities. This project will improve the condition of coral reefs at high priority areas through strengthened coordination among local government institutions in preparing "Perda" (local ordinance); and through community-based programs and public advocacy in coral reef conservation and sustainable use throughout the Bangka- Belitung province.

11. RATIONALE AND OBJECTIVES

The community of Selat Nasik sub-district is mainly engaged in fishery activities. Proportion of population engaged in fishery activities are 70 - 80 % in Selat Nasik, 50 % in Petaling, 75 % in Goal and 100 % in Gresik. These figures clearly indicate the importance of coral reefs to the people of Selat Nasik sub-district. Despite that, the coral reefs of the waters keep on going under real pressure.

Coral reefs in the area are suffering pressures from poaching and destructive fishing practices. Trawling done by illegal foreign fishers causes damage to existing ecosystem and also results in reducing the catch of traditional fishers. Because of that traditional fishers will undergo multiple losses, namely ecosystem degradation and reduction of income. To date this conflict between foreign and local fishers has still prevailed.

Presently a few studies supported by the central government to monitor the condition of coral reefs have been done in this area. Some interventions have been implemented by the central government in order to promote marine tourism, coral reef conservation and sustainable use of marine resources. There is still the need for GEF to encourage and assist local communities to develop appropriate ways of protecting and managing their local marine resources as well as to strengthen the capacities of local government and non-government organizations in dealing with external issues.

The Regional Autonomy Law (no. 22 of 1999) and the Spatial Use Act (no. 24 of 1992) provides the legal basis for the district government to plan and manage coral reefs. While the Regional Act and Revenue Sharing Act (no. 25 of 1999) give district governments responsibility for managing marine resources. The new laws provide for participatory decision making in planning and resource allocation. The capacity of local government and community institutions to execute their powers under these laws is very limited. Therefore support is needed to strengthen local community and district government in planning and management as well as in securing long-term health of coral reef resources and ensuring survival of coastal communities.

The general objective of this project is to protect, rehabilitate and sustain the use of coral ecosystem and associate resources in the Belitung Island. To achieve these general objectives, the project has five intermediate objectives, namely:

1. Enhance awareness of society at all levels on the value of sustained use of coral reef;
2. Strengthen legal basis of coral reef management in Belitung;
3. Improve information for decision making and planning of sustainable use of resources;
4. Develop and implement resource management plan, involving community participation;
5. Establish livelihood programme in order to reduce threats by poor local people.

12. OUTCOMES

Improvement of coral reef condition through increase of percentage coral cover will provide positive contribution in the form of increased catch for the fishers who in turn will increase local community income.

Coral reef resources in Belitung district, particularly those in Selat Nasik sub-district, will be better managed whenever coral reef and resource management plans have been formulated. Likewise, law enforcement will be better executed whenever there is a regulation to base legal action on illegal and destructive fishing practices. No less important is the creation of young generation that has a high dedication to the environment.

This project will support the process of strengthening co-ordination between all of stakeholder which concern in marine resource management, conservation and sustainable development

The project will achieve the outcomes as follows:

- Increased community and students awareness in marine environment
- Increased capability and effectiveness in law enforcement
- Resource Management Plan adopted by Salat Nasik Sub-district
- Increased community capability to managing coastal and adjacent waters at Belitung District
- Increased percentage of coral cover
- Increased income per capita
- Strengthened Institutional co-ordination especially at Belitung District

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

Component 1. Public Awareness and Education

Sub-component 1.1 - Public awareness campaigns

The objective of this sub-component is to promote awareness amongst civil society of the benefits of coral reef ecosystem conservation and sustainable use that will lead to behavioural changes. Activities will include provision and dissemination of public awareness material regarding co-management of reef resources and their benefit at the district and village levels.

Sub-component 1.2 - Education

The objective of this sub-component is to develop and produce educational materials regarding coral reef conservation and sustainable use for mainstreaming into the curricula of formal primary school classes 1 to 6. Once the materials have been developed, 2 workshops to train district teachers in the use of the materials will be provided.

Component 2. Legalization and Management Plan

Sub-component 2.1 - Review and develop regulations for sustainable use of marine resources

The objective of this component is to coordinate and facilitate all stakeholders having interest in marine resources to reassess regulations relating to marine resources management. The activities involve the review and inventory of all regulations issued by differing sectoral departments and to provide inputs for improvement and harmonization of the regulations in accordance with current uses, relevant issues and local needs relating to the utilization and management of marine resources. Proposals regarding the revision of existing regulations or draft new regulations will be discussed during a meeting with all relevant stakeholders prior to their finalisation and submission to the appropriate authorities for approval.

Sub-component 2.2 - Development of Resource Management Plan

This sub-component aims to enhance community capability in managing and using coral reef resources in the waters of Selat Nasik. The activity will involve the community to work together with NGOs and the local government in formulating coral reef management plan in Selat Nasik by fostering surveillance/law enforcement, manage and use marine resources in a sustainable manner, and to control marine resources in the Selat Nasik waters.

Measures to be taken to achieve the above output include: (1) To identify existing community groups and involving them in the management and use of marine resources in Belitung District; (2) To organize meetings with all stakeholders, aiming to formulate a concept on "coral reef management plan" for Belitung District; (3) Facilitating the implementation of coral reef management plan. This plan will be approved by Head of Selat Nasik Sub District for long term application.

Component 3. Strengthening information for decision making

The objectives of this component are to create a ecological and socio-economic database; prepare marine resource profiles and their uses of Belitung, and enhance human capacity for assessment and monitoring. This component is further split up into 4 sub-components, namely:

Sub-component 3.1 - Ecological Assessment of Resources

In this sub component, the activities will involve field surveys to collect data regarding coral reef condition, coral reef fishes, mangroves, seagrass beds, and water quality.

Sub-component 3.2 - Socio-economic Assessment and Resource Valuation

The activities in this sub component will be field surveys to collect the data concerning: the stakeholders and their activities; current levels of use of coral reef resources; their economic value (market price) and contribution to household incomes; current management by the community;

Sub-component 3.3 - Marine resources information

Data collected from ecological and socio-economic studies will be incorporated to reflect the profile of Belitung. The output of this sub-component are Book, CD, thematic map, etc.

Sub-component 3.4 - Training program for resource assessment and monitoring

This sub-component aims to strengthen the capacity of local stakeholders to undertake assessment and monitoring activities. The participants will come from local villages, local government, and NGOs concerned with management and utilization of coral reef resources. Training materials will include among others Rapid Resource Assessment, methodology for socio- economic analysis, and training for facilitators. The trainees will be involved in survey conducted in the beginning and at the end of the project. It is hoped that following completion of the project, the trainees have capability to assess and monitor coral reef ecosystem and marine environment in their areas.

Component 4. Monitoring, Controlling and Surveillance

The traditional boat will be built for patrolling and develop system for leasing these boat to other stakeholder when requested. The operational cost for patrolling will be covered during the implementing of the project. When the project finishes the operational boat cost covered by leasing of these boat. This will be provide income to the community reef watcher groups to cover the operational cost of boat as well as to build and effective partnership with local stakeholder and local enforcement agencies in general and reef watcher in particular when project finishes.

Reef watcher members will be selected by communities and trained and equipped with basic gear such as binoculars and wooden traditional boat with about 40-80 Hp motor for conducting the reef patrol. The patrol will focus on the Selat Nasik Sub district waters. Each village is served by at least two reef watchers and will be trained in patrolling technique. These reef watchers will also be trained to prepare simple MCS data report.

The reef watcher and local law enforcement agencies will be financing as monitoring, controlling and surveillance (MCS). Funds will be made available to allow for about 12 patrols monthly consisting of an operational budget as well as some pocket money for incentive. Monthly patrolling report will be prepared by each village and submitted to Head of Selat Nasik sub district and other relevant agencies.

Component 5. Livelihood programme in order to reduce current threats

This component is a follow up action of the socio-economic assessment of the sub-component 3.2, which will identify what alternative income that can be implemented to reduce exploitation pressure on coral reefs in the Selat Nasik waters. The objective of this component is to increase local community income through providing alternative incomes suited to each village condition. To achieve the above objectives the following activities will be undertaken:

Sub-component 5.1 - An inventory and assessment of alternative income generation activities

Based on the results of the socio-economic assessment, some alternative incomes suitable for each village will be selected. At this stage, the selected alternative incomes are to be discussed with the local community. After receiving input from the community, the discussed material will be developed further into a practical guideline book.

Sub-component 5.2 - Implementation livelihood program

Following finalization of the practical guide book, the alternative income activities will be implemented in each location. The first step to be taken is to provide training program for the communities on how to execute the alternative income generation activities, such as mariculture, home industry, etc.

14. SUSTAINABILITY ANALYSIS AND RISK ASSESSMENT

Sustainability

An important consideration in the project design and implementation is that how a critical measure of success attained through the project intervention will sustain beyond the project's lifetime.

Operation plan of the demonstration project that was jointly prepared by government institutions, related stakeholders and local community is expected to raise a sense of ownership and commitment among all involved sectors to carry out what have been planned. In the implementation phase, the project is to be executed jointly by the local government and the community. Currently budgetary funding is received from both the central government (APBN) and the local government APBD.

The capacity and capability building must be done properly to ensure sustainability of the processes, procedures and decisions developed through the project. This project should be seen as building the capacity and capability of stakeholder participants, communities, organizations and institutions so that they will be able to maintain and extend the initiative beyond the lifespan and scope of the project. It is also important that capacity and capability building are for empowerment, skills transfer, increase of awareness, knowledge sharing, education, training, as well as development of systems, institution and tools.

Experience from past projects shows that without flexibility and adaptability some project activities failed to be executed. To prevent the failure from happening again, the project should be made sufficiently flexible and adaptable to the current requirement, although it must as far as possible remain within agreed upon corridor. Therefore the approach is to be a staged program of learning and action. It should be planned as an outline framework which identifies the main objectives and strategy and then allowed to progress in small increments along a continuing process of design, implementation, evaluation and adjustment.

Risks

The project proposal has identified and addressed some risks and incorporated them in the mitigation strategies. The use of adaptive management mechanisms and styles is fundamental to the design of this project. The adaptive management should permit the emergence of mechanisms and strategies that can deal with a wide range of conditions such as persistence resource degradation, resource use conflict and external disaster such as coral bleaching events.

The unmitigated risks that would undermine the effectiveness of management approach might be the political reversal of current decentralization policies. It seems unlikely that the decentralization policies and regulations will change so that responsibility and authority will remain in the hand of the regency and district governments. The risk is most obviously prevalent through the paternalistic attitudes exhibited by higher level agencies within conventional institutional hierarchies. The reluctance to transferring some or all control and responsibility to smaller decentralized authorities can potentially delay the effectiveness of implementing the project activities.

Addressing the risks of this project, therefore the project will incorporate a number mechanism that may diffuse these risks. For example, the project will encourage networking and interaction among different participants and stakeholders and this is likely to reduce the risks associated with control-based attitudes.

15. ESTIMATED BUDGET

Cost estimates

The total cost of the project is estimated at US\$ 613,320, including:

- GEF Grant: US\$ 346,520
- Co-funding: US\$ 266,800 with US\$ 96,100 in cash and US\$ 170,700 in-kind

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

Activity	GEF	Co-funding		Total
		In-Cash	In-Kind	
1.1 Public Awareness Campaigns	11,400	11,000	0	22,400
1.2 Education	14,000	15,500	25,200	54,700
2.1 Review and develop regulations for sustainable use of marine resources.	12,000	11,200	0	23,200
2.2 Develop of Resource Management Plan	19,100	9,400	1500	30,000
2.3 Facilitating implementation of management plan	10,000	2,000	0	12,000
3.1 Ecological assessment of resources	32,000	3,000	0	35,000
3.2 Socio-economic Assessment and Resource Valuation	20,000	20,000	0	40,000
3.3 Marine resources information	19,800	2,000	0	21,800
3.4 Training program for monitoring resources	20,000	0	0	20,000
4. Monitoring, Controlling and Surveillance	47,220	0	0	47,220
5.1 An inventory and assessment of alternative income generation activities	24,000	0	0	24,000
5.2 Implementation livelihood program	30,000	0	6,000	36,000
6. Project management	87,000	52,000	108,000	247,000
Total	346,520	126,100	140,700	613,320

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

Budget component/sub-component	GEF	Co-funding in-cash	Co-funding In-kind	Grant total
1000 Project Personal Component	93,800	21,900	103,500	140,400
1100 Project Personnel	26,000	0	72,000	98,000
1200 Consultant	13,600	7,900	0	21,500
1300 Administration support	0	31,500	0	31,500
1600 Travel on office business	54,200	14,000	0	68,200
2000 Sub-Contract Component	77,720	20,000	0	97,720
2200 Sub-Contract Component	77,720	20,000	0	97,720
3000 Training Component	116,700	35,700	0	152,400
3200 Group Training	62,000	5,500	0	67,500
3300 Meeting/Conference	54,700	30,200	0	84,900
4000 Equipment Component	8,500	0	36,000	44,500
4200 Non Expendable Equipment	8,500	0	0	8,500
4300 Premises	0	0	36,000	36,000
5000 Miscellaneous Component	49,800	17,000	32,700	99,500
5200 Reporting Costs	28,800	16,000	32,700	77,500
5300 Sundry	11,000	1,000	0	12,000
5500 Valuation	10,000	-	-	-
Total	346,520	126,100	140,700	613,320

16. IMPLEMENTATION PLAN

Activity		2006				2007				Responsible	Supporting
		1	2	3	4	1	2	3	4		
1. Public Awareness and Education											
1.1 Public Awareness Campaigns											
1.1.1	Create, produce and disseminate billboard at 4 villages (1 billboard/village)	X								RCO	CRITC
1.1.2	Create, produce and disseminate calendar 200 exp @		X	X						RCO	CRITC
1.1.3	Creation and dissemination VCD or DVD on sustainable use of coral reef (2 times, @ 200 units)		X			X				RCO	CRITC
1.2 Education											
1.2.1	Preparation of a curriculum and supporting material for primary school level on coral reef ecosystem (7 books, 200expl)		X	X						RCO	CRITC
1.2.2	Meeting with Education Authorities for extension use the curriculum (2 times, @ 25 person, @ 2 days)	X	X							RCO	District Education
1.2.3	Preparation teachers guide to the curriculum		X	X							
1.2.4	TOT primary school teachers in the use of curriculum material (2 times, @ 30 person, @ 3 days)		X	X						RCO	District Education
1.2.5	Adopt the material as formal component of the school curriculum (2 meeting, @25 person, @ 2 days)				X					RCO	District Education
2. Legislation and Resource Management Plan											
2.1.1	Identify existing rules, regulation and decrees within Perdas (1 person/month)		X							Legal consultant/ RTF-L	
2.1.2	Review of traditional knowledge (2 times, 30 person, 2 days)		X	X						RCO	Local government
2.1.3	Consultation meeting with stakeholder regarding traditional knowledge and application of existing rules and regulations (2 times, 20 person, 2 days)		X	X						RCO	Local government
2.2.1	Draft new or amended ordinances, rules, etc. that are in harmony with rules deriving from others sectors		X							Consultant	RCO/local government
2.2.2	Stakeholder consultation to review drafts (2 months, 2 person)		X							Consultant	RCO/local government
2.2.3	Revision of the draft for finalization		X							Consultant	RCO/local government
2.2.4	Clearance of the final drafts by the Management Board for submission to the appropriate government authorities				X	X				Consultant	RCO/local government
2.2.5	Dissemination of draft to appropriate authorities to Pemda and Local Parliament: 2 meeting, @ 30 person, @ 1 day				X	X				RCO	Local government
2.2.6	Submission of final draft of a decree and approval at district level (Perda)						X			RCO	Local government
2.3.1	Identify community group		X							Consultant	Site Manager
2.3.2	Meeting with all stakeholder at district and village level 4 times/villages, @ 10 person, 1 day		X							Consultant	Site Manager
2.3.3	Produce Resource Management Plan Book						X			RCO	CRITC
3. Strengthening information for decision making process											
3.1 Ecological assessment of resources											
3.1.1	Basemap preparation (2 person/2 weeks)	X								RCO	CRITC
3.1.2	Preparation for survey (2 times meeting, 16 person, @ 1 day)	X					X			RCO	
3.1.3	Filed Survey (2 times, 10 persons, 14 days)	X					X			RCO	
3.1.4	Reporting			X				X		RCO	
3.2 Sosco-economic Assessment and Resource Valuation											
3.2.1	Preparation (2 times meeting, 14 person, @ 1 day)	X					X			RCP	CRITC
3.2.2	Field Survey (2 times, 8 person, @ 14 days)	X					X			RCP	CRITC
3.2.3	Reporting		X					X		RCP	CRITC
3.3 Marine resources information											
3.3.1	Preparation		X							RCO	CRITC
3.3.2	Field study		X		X					RCO	CRITC
3.3.3	Data Analysis			X		X				RCO	CRITC
3.3.4	Reporting (produce thematic map, CD, book)			X			X			RCO	CRITC
3.4 Training program for monitoring resources											
3.4.1	Training for resources assessment and monitoring coral reef (2 times, 30 person, 14 days)	X				X				RCO	Local government

Activity		2006				2007				Responsible	Supporting
		1	2	3	4	1	2	3	4		
4. Monitoring, Controlling and Surveillance											
4.1	Reef Watcher establishment (2 times, 20 person)		X							Local government	
4.2	Boat preparing (wooden boat, binocular)		X							Local government	
4.3.	Patrol System, Data Collecting and Reporting Training (2 times, 5 person, 4 villages, 7 days)			X	X	X	X	X	X	Local government	
4.4.	Coordination with relevant stakeholder in MCS (2 times, 20 persons, 1 day)				X		X			Local government	
5. Livelihood programme to reduce Current Threats											
5.1 An inventory and assessment of alternative income generation activities											
5.1.1	An inventory and assessment of income generation activities		X	X	X					RCAT Subang	RCO
5.1.2	Stakeholders meeting consultations to discuss and preparation proposal for sustainable use of marine resources (3 times, 20 person, 3 days)		X	X	X					RCAT Subang	RCO
5.1.3	Develop the best practice guideline of alternative income (produce manual book)		X	X	X					RCAT Subang	RCO/local government
5.2 Implementation of livelihood program											
5.2.1	Consultation and preparation of training need assessment (3 times, 20 person,				X	X				RCO	Site Manager
5.2.2	Preparation material for training programs (2 package/villages)				X	X				RCAT Subang	RCO
5.2.3	Implement training program at 4 villages (4 times, 4 villages, 40 person, 5 days)						X			RCAT Subang	RCO
6. Project Management											
6.1 Strengthening Community Based Management at Belitung											
6.1.1	Identify member of management board (2 time meeting, 25 person, 2 days)	X								RCO	Local government
6.1.2	Establish Management Board (1 times workshop, 40 person, 2 days)	X								RCO	Local government
6.1.3	Site Manager and project staff approval (2 times meeting, 15 person, 1 day)	X								RCO	Local government
6.1.4	Management Board regular meeting, every 3 month (8 times, 15 person, 2 days)		X	X	X	X	X	X	X	Management Board	
6.2 Project Coordination											
6.2.1	Establishment Project Implementing Unit in RCO-LIPI									RCO	
6.2.2	Monitoring project implementation every 6 month by national focal point and staff (4 times, 2 person)		X		X		X		X	RCO	
6.2.3	Annual audit					X			X	Auditor	
6.2.4	Independent Mid-term & End Project evaluation, 2 times				X				X	Independent evaluator	
6.3 Payment for project staff & office maintenance		X	X	X	X	X	X	X	X	RCO	

Note:

RCO – Research Centre for Oceanography

RCAT – Research Centre for Appropriate Technology

CRITC – Coral Reef Information and Training Centre

17. PROPOSED MANAGEMENT OF THE ACTIVITIES (Detail Described in Appendix 6)

The Research Centre for Oceanography, Specialized Executing Agency (SEA) will be responsible to execute the demonstration site project following approved operation plan. SEA will develop and manage the proposed project through an integration and coordination with the local governments and other. In this connection, the national focal point for coral reefs will check the progress of the project by attending the management board every two month until the project ends. The national focal point is also responsible to report the progress of the demonstration site to Project Coordinating Unit (PCU) and Regional Working Group on Coral Reefs.

SEA will assign contracts with all of stakeholders who will help to implement the activities at demonstration site location. For example, SEA will assign contact with Research Centre for Appropriate Technology, Local Government or NGOs to implement livelihood activities. SEA will also assign contract with Research Centre for Population to conduct the Socio-economic Survey, and assign contract with individual consultant to revise regulation, "Perda" and traditional knowledge in Belitung District.

Together with Local Government of Belitung District, SEA will set up the Management Board. Management Board will be chaired by Head of Regional Planning Board, and the member of management will consist of different stakeholders.

The appointed demonstration site manager is responsible to execute the activities in the work plan. This is under the direction of management board and also National Focal Point. The demonstration site manager is also responsible to report the overall progress and problems encountered in project implementation.

Management Board and Site Manager will oversight all the activities in demonstration site location.

18. INFORMATION ON PROPOSED EXECUTING AGENCY

Research Center for Oceanography (RCO) constitutes one of the research institutions under the Indonesian Institute of Sciences and engages in marine sciences. RCO manages four different components, i.e. Natural Resources, Oceanography, Information and Services, and Administration. In the Indonesian coral reef salvation program which is implemented through COREMAP project, the RCO served as the executing agency in COREMAP I, while in COREMAP II it plays a role in the CRITC (Coral Reef Information and Training Center) and in Education

19. EXECUTING AGENCY CONTACT PERSON

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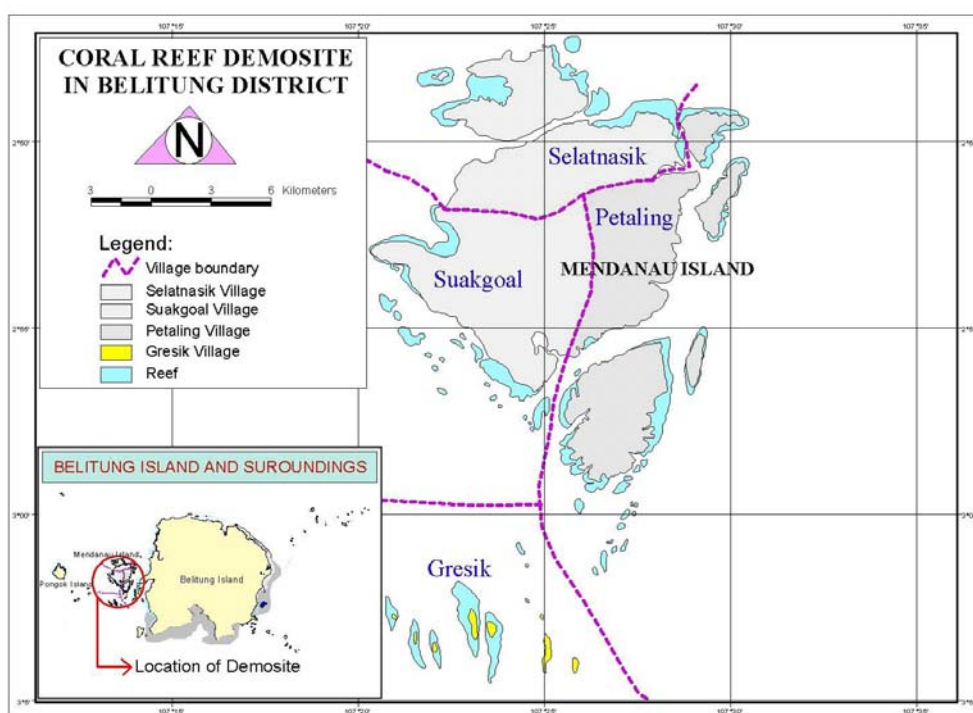
Appendix 1 - Site Characterization

1a. Site description

Geographic Location

Belitung district, located in the Bangka-Belitung province at 107° 08' - 107° 58,5' E and 02° 30' 03 ° 15' S. Administratively, Belitung District composed of 5 sub-districts, one of which, the Selat Nasik sub-district, has been selected as the demonstration site on the coral reefs. It takes about 2 hours by boat to arrive that location. There are 26 islands under Selat Nasik sub-district, the biggest of which is the Mendanau Island. In the meanwhile, four villages make up the Selat Nasik sub-district, namely: Selat Nasik, Suak Gual, Petaling and Gresik. Of these four villages, only Gresik village is located outside Mendanau Island.

Map of Belitung District and Selat Nasik Sub District



Physical Condition

The water temperature at Belitung approximately between 28.87°-30.86°C. Water salinity between 27,3 – 31,4 ppm.

Marine Biodiversity

Gathering data shows that biodiversity of marine organisms in Belitung waters are variety. Table below show the type organisms, number of family, number of genera, number of species that were found in Belitung waters (see list of species)

No.	Type of Organism	Number of Family	Number of Genera	Number of Species
1.	Coral	14	74	187
2.	Coral reef fishes	36	85	218
3.	Crustacean			35
4.	Echinoderm			36
5.	Mollusks			105
6.	Seagrass			8
7.	Mangroves			20
8.	Endanger species			3

Socio-economic

The communities of Selat Nasik sub-district are for the most part engaged in fishery activities. Proportion of population engaged in fishery activities are 70 - 80 % in Selat Nasik, 50 % in Petaling, 75 % in Suak Goal and 100 % in Gresik. These figures clearly indicate the importance of coral reefs to the people of Selat Nasik sub-district. Despite that, the coral reefs of the waters keep on going under real pressure.

List of Species

Corals

	<i>Acroporidae</i>	42	<i>Anacropora puertogelerae</i>
1	<i>Acropora acuminata</i>	43	<i>Anacropora reticulata</i>
2	<i>Acropora aspera</i>	44	<i>Astreopora explanata</i>
3	<i>Acropora austera</i>	45	<i>Astreopora gracilis</i>
4	<i>Acropora brueggemanni</i>	46	<i>Astreopora listeri</i>
5	<i>Acropora carduus</i>	47	<i>Montipora awquituberculata</i>
6	<i>Acropora cerealis</i>	48	<i>Montipora danae</i>
7	<i>Acropora clathrata</i>	49	<i>Montipora digitata</i>
8	<i>Acropora cuneata</i>	50	<i>Montipora efflorescens</i>
9	<i>Acropora cytherea</i>	51	<i>Montipora foliosa</i>
10	<i>Acropora danai</i>	52	<i>Montipora hispida</i>
11	<i>Acropora dendrum</i>	53	<i>Montipora incrassata</i>
12	<i>Acropora digitifera</i>	54	<i>Montipora monasteriata</i>
13	<i>Acropora divaricata</i>	55	<i>Montipora nodosa</i>
14	<i>Acropora echinata</i>	56	<i>Montipora spumosa</i>
15	<i>Acropora elseyi</i>	57	<i>Montipora tuberculosa</i>
16	<i>Acropora florida</i>	58	<i>Montipora undata</i>
17	<i>Acropora formosa</i>	59	<i>Montipora venosa</i>
18	<i>Acropora gemmifera</i>	60	<i>Montipora verrucosa</i>
19	<i>Acropora glauca</i>	61	<i>Porites (synarea) rus</i>
20	<i>Acropora grandis</i>	62	<i>Porites cylindrica</i>
21	<i>Acropora granulosa</i>	63	<i>Porites lichen</i>
22	<i>Acropora horrida</i>	64	<i>Porites lobata</i>
23	<i>Acropora humilis</i>	65	<i>Porites lutea</i>
24	<i>Acropora hyacinthus</i>	66	<i>Porites nigrescens</i>
25	<i>Acropora intermedia</i>		Agariciidae
26	<i>Acropora latistella</i>	1	<i>Coelosseris mayeri</i>
27	<i>Acropora longicyathus</i>	2	<i>Gardineroseris planulata</i>
28	<i>Acropora microclados</i>	3	<i>Leptoseris mycetoseroides</i>
29	<i>Acropora millepora</i>	4	<i>Leptoseris papyracea</i>
30	<i>Acropora multiacuata</i>	5	<i>Leptoseris scabra</i>
31	<i>Acropora nasuta</i>	6	<i>Pachyseris foliifosa</i>
32	<i>Acropora nobilis</i>	7	<i>Pachyseris rugosa</i>
33	<i>Acropora palifera</i>	8	<i>Pavona cactus</i>
34	<i>Acropora palmerae</i>	9	<i>Pavona minuta</i>
35	<i>Acropora polystoma</i>	10	<i>Pavona varians</i>
36	<i>Acropora pulchra</i>	11	<i>Pavona venosa</i>
37	<i>Acropora robusta</i>		Astrocoeniidae
38	<i>Acropora speciosa</i>	1	<i>Pocillopora damicornis</i>
39	<i>Acropora subglabra</i>	2	<i>Pocillopora verrucosa</i>
40	<i>Acropora tenuis</i>	3	<i>Seriatospora hystrix</i>
41	<i>Acropora vaughani</i>	4	<i>Seriotopra caliendrum</i>

Corals (cont.)

	Astrocoeniidae (cont.)	4	<i>Cyphastrea chalcidicum</i>
5	<i>Stylocoeniella guentheri</i>	5	<i>Cyphastrea serailia</i>
6	<i>Stylophora pistillata</i>	6	<i>Diploastrea heliopora</i>
	Caryophylliidae	7	<i>Echinopora gemmacea</i>
1	<i>Cataphyllia jardinei</i>	8	<i>Echinopora lamellosa</i>
2	<i>Euphyllia ancora</i>	9	<i>Favia favius</i>
3	<i>Euphyllia cristata</i>	10	<i>Favia laxa</i>
4	<i>Euphyllia divisa</i>	11	<i>Favia mathaii</i>
5	<i>Euphyllia glabrescens</i>	12	<i>Favia maxima</i>
6	<i>Physogyra lichtensteini</i>	13	<i>Favia palida</i>
7	<i>Plerogyra sinuosa</i>	14	<i>Favia rotumana</i>
	Fungiidae	15	<i>Favia rotundata</i>
1	<i>Ctenactis echinata</i>	16	<i>Favia speciosa</i>
2	<i>Cycloseris cycloseris</i>	17	<i>Favia stelligera</i>
3	<i>Fungia danai</i>	18	<i>Favite flexuosa</i>
4	<i>Fungia fungites</i>	19	<i>Favites abdita</i>
5	<i>Fungia granulosa</i>	20	<i>Favites chinensis</i>
6	<i>Fungia horrida</i>	21	<i>Favites pentagona</i>
7	<i>Fungia repanda</i>	22	<i>Goniastrea favulus</i>
8	<i>Fungia scruposa</i>	23	<i>Goniastrea pectinata</i>
9	<i>Fungia scutaria</i>	24	<i>Goniostrea retiformis</i>
10	<i>Halomitra pileus</i>	25	<i>Leptastrea pruinosa</i>
11	<i>Heliofungia actiniformis</i>	26	<i>Leptastrea purpurea</i>
12	<i>Herpolitha limax</i>	27	<i>Leptastrea transversa</i>
13	<i>Lithophyllon undulatum</i>	28	<i>Montrastrea annuligera</i>
14	<i>Podabacia crustacea</i>	29	<i>Montrastrea magnistellata</i>
15	<i>Polyphyllia talpina</i>	30	<i>Montrastrea valenciennesi</i>
16	<i>Sandalolitha robusta</i>	31	<i>Oulophyllia bennettiae</i>
	Merulinidae	32	<i>Oulophyllia crispa</i>
1	<i>Hydnophora axesa</i>	33	<i>Platygyra daedalea</i>
2	<i>Hydnophora microconos</i>	34	<i>Platygyra lamellina</i>
3	<i>Hydnophora rigida</i>	35	<i>Platygyra pini</i>
4	<i>Merulina ampliata</i>	36	<i>Platygyra sinensis</i>
	Mussidae	37	<i>Plesiastrea versipora</i>
1	<i>Acanthastrea echinata</i>		Oculinidae
2	<i>Blastomussa wellsi</i>	1	<i>Archeia horrescens</i>
3	<i>Cynarina lacrymalis</i>	2	<i>Galaxea astreata</i>
4	<i>Lobophyllia corymbosa</i>	3	<i>Galaxea fascicularis</i>
5	<i>Lobophyllia hemprichii</i>		Pectinidae
6	<i>Pectinia paeonia</i>	1	<i>Echinophyllia echinata</i>
7	<i>Scolymia vitiensis</i>	2	<i>Mycedium elephantotus</i>
8	<i>Symphyllia agaricia</i>	3	<i>Oxypora glabra</i>
9	<i>Symphyllia recta</i>	4	<i>Oxypora lacera</i>
	Dendrophylliidae	5	<i>Pectinia alcornonis</i>
1	<i>Turbinaria mesenterina</i>	6	<i>Pectinia lactuca</i>
2	<i>Turbinaria peltata</i>	7	<i>Pectinia paeonia</i>
3	<i>Turbinaria stellulata</i>		Poritidae
	Faviidae	1	<i>Goniopora columna</i>
1	<i>Barabattoia amicornum</i>	2	<i>Goniopora djiboutiensis</i>
2	<i>Caulastrea curvata</i>	3	<i>Goniopora lobata</i>
3	<i>Caulastrea tumida</i>	4	<i>Goniopora minor</i>

Corals (cont.)

	Poritidae (cont.)		Siderastreidae
5	<i>Goniopora stokesi</i>	1	<i>Coscinaraea exesa</i>
6	<i>Goniopora tenuidens</i>	2	<i>Psammocora digitata</i>
7	<i>Porites (synarea) rus</i>	3	<i>Psammocora explanulata</i>
8	<i>Porites cylindrica</i>	4	<i>Psammocora superficialis</i>
9	<i>Porites lichen</i>	5	<i>Pseudosiderastrea tayami</i>
10	<i>Porites lobata</i>		Trachyphylliidae
11	<i>Porites lutea</i>	1	<i>Trachyphyllia geoffroyi</i>
12	<i>Porites nigrescens</i>		
		Anthipatharia	
			<i>Anthipates sp.</i>

Crustacean

Echinoderm

	Calapidae		Asteroidae
1	<i>Matuta banksii</i>	1	<i>Acanthaster planci</i>
	Grapsidae	2	<i>Archaster typicus</i>
1	<i>Metopograpsus messor</i>	3	<i>Asterina burtoni</i>
2	<i>Pachygrapsus plicatus</i>	4	<i>Asteropsis carinifera</i>
	Ocypodidae	5	<i>Culcita novaeguineae</i>
1	<i>Macrophthalmus sp.</i>	6	<i>Linckia laevigata</i>
3	<i>Scopimera globosa</i>	7	<i>Ophidiaster granifer</i>
4	<i>Uca annulipes</i>	8	<i>Protoreaster nodosus</i>
5	<i>Uca vocans</i>		Ophiuridae
	Portunidae	1	<i>Macrrophiothrix longipeda</i>
1	<i>Podophthalmus vigil</i>	2	<i>Ophiarachnella gorgonia</i>
2	<i>Portunus pelagicus</i>	3	<i>Ophiathrum elegans</i>
3	<i>Portunus sanguinolentus</i>	4	<i>Ophiathrum pictum</i>
4	<i>Thalamita admete</i>	5	<i>Ophiocoma brevipes</i>
5	<i>Thalamita danae</i>	6	<i>Ophiocoma erinaceus</i>
6	<i>Thalamita stimpsoni</i>	7	<i>Ophiocoma scolopendrina</i>
7	<i>Thalamita sp.</i>	8	<i>Ophiocoma sp.</i>
8	<i>Scylla serrata</i>	9	<i>Ophiotrix sp.</i>
	Xanthidae		Holothuridae
1	<i>Actaeodes tomentosus</i>	1	<i>Actinopyga lecanora</i>
2	<i>Atergatis floridus</i>	2	<i>Actinopyga miliaris</i>
3	<i>Atergatis integerrimus</i>	3	<i>Bohadschia graffei</i>
4	<i>Eriphia scabriuscula</i>	4	<i>Holothuria atra</i>
5	<i>Epixanthus frontalis</i>	5	<i>Holothuria coluber</i>
6	<i>Euxanthus exsculptus</i>	6	<i>Holothuria erinaceus</i>
7	<i>Globopilumnus globosus</i>	7	<i>Holothuria hilla</i>
8	<i>Leptodius exaratus</i>	8	<i>Holothuria leucospilota</i>
9	<i>Lophozozymus sp.</i>	9	<i>Holothuria impatiens</i>
10	<i>Myonippe hardwicki</i>	10	<i>Holothuria pervicax</i>
11	<i>Ozium rogulosus</i>	11	<i>Stichopus variegatus</i>
12	<i>Pilodius areolatus</i>	12	<i>Synapta maculata</i>
13	<i>Pilodius granulatus</i>		Echinoidae
14	<i>Phymodius monticulosus</i>	1	<i>Diadema setosum</i>
15	<i>Phymodius unguatus</i>	2	<i>Echinometra mathaei</i>
16	<i>Pilumnus longicornis</i>	3	<i>Echinothrix calamaris</i>
	Xanthidae (cont.)		Echinoidae (cont.)
17	<i>Pilumnus tomentosus</i>	4	<i>Echinothrix diadema</i>
18	<i>Pilumnus vespertilio</i>	5	<i>Lagum lagnum</i>
19	<i>Xantho distinguendus</i>	6	<i>Tripneustes gratilla</i>
			Crinoidae
		1	<i>Comanthus sp.</i>

Mollusks

	GASTROPODA	55	<i>Polinices tumidum</i>
1	<i>Astraea calcars</i>	56	<i>Rhinoclavis vertagus</i>
2	<i>Astraea rhodostoma</i>	57	<i>Strombus canarium</i>
3	<i>Cantharus fumosus</i>	58	<i>Strombus labiatus</i>
4	<i>Cantharus undosus</i>	59	<i>Strombus urceus</i>
5	<i>Cerithium nodulosum</i>	60	<i>Thais tuberosa</i>
6	<i>Cerithium trailli</i>	61	<i>Thais</i> sp.
7	<i>Cerithium</i> sp.	62	<i>Tectus pyramis</i>
8	<i>Clypeomorus moniliferus</i>	63	<i>Trochus conus</i>
9	<i>Clypeomorus</i> sp.	64	<i>Trochus maculatus</i>
10	<i>Chicoreus bruneus</i>	65	<i>Trochus niloticus</i>
11	<i>Chicoreus capucinus</i>	66	<i>Trochus</i> sp.
12	<i>Chicoreus torrefactus</i>	67	<i>Turbo bruneus</i>
13	<i>Clanculus</i> sp.	68	<i>Turbo chrysostomus</i>
14	<i>Collumbella scripta</i>	69	<i>Vasum turbinellum</i>
15	<i>Conus miles</i>	70	<i>Volema (Pugilina) myristica</i>
16	<i>Conus vexillum</i>		BIVALVIA
17	<i>Conus</i> sp.	1	<i>Anadara maculosa</i>
18	<i>Coraliohypha</i> sp.	2	<i>Anadara trapezia</i>
19	<i>Cypraea arabica</i>	3	<i>Anadara scapha</i>
20	<i>Cypraea eglantina</i>	4	<i>Asaphis violascens</i>
21	<i>Cypraea erroneus</i>	5	<i>Asaphis</i> sp.
22	<i>Cypraea annulus</i>	6	<i>Arca baucardi</i>
23	<i>Cypraea lynk</i>	7	<i>Arca</i> sp.
24	<i>Cypraea kieneri</i>	8	<i>Barbatia amygdalumosum</i>
25	<i>Cypraea moneta</i>	9	<i>Barbatia descusata</i>
26	<i>Cypraea vittelus</i>	10	<i>Chama iostoma</i>
27	<i>Cypraea</i> sp.	11	<i>Corbula</i> sp.
28	<i>Drupa morum</i>	12	<i>Dosinia</i> sp.
29	<i>Drupella concatenela</i>	13	<i>Chlamys</i> sp.
30	<i>Drupella cornus</i>	14	<i>Cardita variegata</i>
31	<i>Drupella rugosa</i>	15	<i>Fragum unedo</i>
32	<i>Engina alveolata</i>	16	<i>Gafrarium tumidum</i>
33	<i>Engina testudinaria</i>	17	<i>Gafrarium pectinatum</i>
34	<i>Euchelus atratus</i>	18	<i>Isognomon isognomon</i>
35	<i>Haliotis assinina</i>	19	<i>Isognomon ephippium</i>
36	<i>Lambis chiragra</i>	20	<i>Isognomon perna</i>
37	<i>Lambis lambis</i>	21	<i>Lima</i> sp.
38	<i>Lambis truncata</i>	22	<i>Hippopus hippopus</i>
39	<i>Littorina scabra</i>	23	<i>Lithopaga nigra</i>
40	<i>Morula granulata</i>	24	<i>Malleus malleus</i>
41	<i>Morula margariticola</i>	25	<i>Placuna sella</i>
42	<i>Morula uva</i>	26	<i>Pinctada margaritifera</i>
43	<i>Monodonta labio</i>	27	<i>Pinctada maxima</i>
44	<i>Murex trapa</i>	28	<i>Pinna bicolor</i>
45	<i>Nerita albicilla</i>	29	<i>Septifer bilocularis</i>
46	<i>Nerita chamaeleon</i>	30	<i>Saccostrea cucullata</i>
47	<i>Nerita lineata</i>	31	<i>Acrosterigma subrugosa</i>
48	<i>Nerita undata</i>	32	<i>Tridacna crosea</i>
49	<i>Otopleura auriscati</i>	33	<i>Tridacna squamosa</i>
50	<i>Peristernia nasatula</i>	34	<i>Tellina inflata</i>
51	<i>Planaxis sulcatus</i>		
52	<i>Patella</i> sp.		POLYPLACOPHORA
53	<i>Pyrene versicolor</i>	1	<i>Chiton</i> sp.
54	<i>Pyrene ocellata</i>		

Coral reef fish

	Pomacentridae	51	<i>Pomacentrus nigromarginatus</i>
1	<i>Abudefduf bengalensis</i>	52	<i>Pomacentrus philippinus</i>
2	<i>Abudefduf saxatilis</i>	53	<i>Pomacentrus sexfasciatus</i>
3	<i>Abudefduf septemfasciatus</i>	54	<i>Pomacentrus tripunctatus</i>
4	<i>Abudefduf sexfasciatus</i>	55	<i>Pomacentrus</i> sp.
5	<i>Abudefduf sordidus</i>	56	<i>Stegates</i> sp.
6	<i>Abudefduf vaigiensis</i>		Pseudochromidae
7	<i>Amblyglyphidodon aureus</i>	1	<i>Labracinus ccyclophthalmus</i>
8	<i>Amblyglyphidodon curacao</i>		Holocentridae
9	<i>Amblyglyphidodon leucogaster</i>	1	<i>Neoniphon sammara</i>
10	<i>Amphiprion clarkii</i>	2	<i>Sargocentron rubrum</i>
11	<i>Amphiprion ephippium</i>	3	<i>Sargocentron spiniferum</i>
12	<i>Amphiprion frenatus</i>		Acanthuridae
13	<i>Amphiprion ocellaris</i>	1	<i>Zebrasoma scopas</i>
14	<i>Amphiprion perideraion</i>		Platacidae
15	<i>Amphiprion sandaracinos</i>	1	<i>Platax orbicularis</i>
16	<i>Chromis amboinensis</i>		Gerridae
17	<i>Chromis atripes</i>	1	<i>Geress</i> sp.
18	<i>Chromis lepidolepis</i>		Tetradontidae
19	<i>Chromis ternatensis</i>	1	<i>Diodon histrix</i>
20	<i>Chromis viridis</i>		Apogonidae
21	<i>Chromis</i> sp.	1	<i>Cheilodipterus quenquelineata</i>
22	<i>Chrysiptera cyanea</i>	2	<i>Apogon compressus</i>
23	<i>Chrysiptera rollandi</i>	3	<i>Apogon cyanosoma</i>
24	<i>Dascyllus reticulatus</i>	4	<i>Apogon hartzfeldi</i>
25	<i>Dascyllus trimaculatus</i>	5	<i>Apogon macrodon</i>
26	<i>Dischistodus chrysopoecilus</i>	6	<i>Apogon chrysotaenia</i>
27	<i>Dischistodus melanotus</i>	7	<i>Apogon</i> sp.
28	<i>Dischistodus perspicillatus</i>	8	<i>Archamia fucata</i>
29	<i>Dischistodus prosopotaenia</i>		Harpodontidae
30	<i>Hemiglyphidodon plagiometopon</i>	1	<i>Saurida gracilis</i>
31	<i>Lepidozygus tapeinosoma</i>	2	<i>Saurida</i> sp.
32	<i>Neopomacentrus anabatoides</i>		Synodontidae
33	<i>Neopomacentrus azysron</i>	1	<i>Trachinocephalus myops</i>
34	<i>Neopomacentris cynanomos</i>		Centricidae
35	<i>Neopomacentrus filamentosus</i>	1	<i>Aeoliscus strigatus</i>
36	<i>Paraglyphidodon melas</i>		Gobidae
37	<i>Paraglyphidodon nigroris</i>	1	<i>Amblyelectris</i> sp
38	<i>Plectroglyphidodon dicki</i>	2	<i>Ctenogobiops</i> sp1
39	<i>Plectroglyphidodon lacrymatus</i>	3	<i>Ctenogobiops</i> sp2
40	<i>Pomacentrus alexanderae</i>		Serranidae
41	<i>Pomacentrus amboinensis</i>	1	<i>Aetaloperca roghaa</i>
42	<i>Pomacentrus bankanensis</i>	2	<i>Cephalopholis boenack</i>
43	<i>Pomacentrus brachialis</i>	3	<i>Cephalopholis formosa</i>
44	<i>Pomacentrus chrysurus</i>	4	<i>Cephalopholis urodeta</i>
45	<i>Pomacentrus gramorhynchus</i>	5	<i>Cephalopholis cyanostigma</i>
46	<i>Pomacentrus lepidogenys</i>	6	<i>Cephalopholis miniata</i>
47	<i>Pomacentrus margaritifer</i>	7	<i>Cephalopholis pachycentron</i>
48	<i>Pomacentrus moluccensis</i>	8	<i>Epinephelus fasciatus</i>
49	<i>Pomacentrus nigricans</i>	9	<i>Epinephelus fuscoguttatus</i>
50	<i>Pomacentrus nigromanus</i>	10	<i>Epinephelus merra</i>

Coral reef fish (cont.)

11	<i>Plectropomus leopardus</i>		Mullidae
12	<i>Plectropomus maculatus</i>	1	<i>Upeneus tragula</i>
13	<i>Plectropomus punctatus</i>	2	<i>Parupeneus bifasciatus</i>
14	<i>Diploprion bifasciatum</i>		Nemipteridae
	Lutjanidae	1	<i>Pentapodus caninus</i>
1	<i>Lutjanus carponotatus</i>		Scolopsidae
2	<i>Lutjanus decussatus</i>	1	<i>Scolopsis bilineatus</i>
3	<i>Lutjanus fulviflamma</i>	2	<i>Scolopsis cancellatus</i>
4	<i>Lutjanus fulvus</i>	3	<i>Scolopsis lineatus</i>
5	<i>Lutjanus kasmira</i>	4	<i>Scolopsis margaritifer</i>
6	<i>Lutjanus lineata</i>	5	<i>Scolopsis trilineatus</i>
7	<i>Lutjanus malabaricus</i>		Carangidae
8	<i>Lutjanus russelli</i>	1	<i>Caranx ignobilis</i>
9	<i>Lutjanus vitta</i>	2	<i>Caranx sexfasciatus</i>
	Centropomidae	3	<i>Selar spp.</i>
1	<i>Psammoperca waigiensis</i>		Carchanidae
	Lethrinidae	1	<i>Carcharinus sp.</i>
1	<i>Lethrinus harak</i>		Dasyatidae
2	<i>Lethrinus sp.</i>	1	<i>Dasyatis sp</i>
3	<i>Lethrinus lentjan</i>	2	<i>Taeniura lymna</i>
4	<i>Lethrinus variegatus</i>		Bothidae
5	<i>Monotaxis grandoculis</i>	1	<i>Bothus pantherinus</i>
	Kyphosidae		Plotosidae
1	<i>Kyphosus vaigiensis</i>	1	<i>Arius sp</i>
	Siganidae		Monodactylidae
1	<i>Siganus canaliculatus</i>	1	<i>Monodactylus argentelus</i>
2	<i>Siganus corallinus</i>		Clupeidae
3	<i>Siganus fuscescens</i>	1	<i>Sardinella sp</i>
4	<i>Siganus guttatus</i>		Sphyraenidae
5	<i>Siganus guttatus</i>	1	<i>Sphyraena baracuda</i>
6	<i>Siganus punctatus</i>		Chaetodontidae
7	<i>Siganus sp</i>	1	<i>Chaetodon baronessa</i>
8	<i>Siganus virgatus</i>	2	<i>Chaetodon lineolatus</i>
9	<i>Siganus vulpinus</i>	3	<i>Chaetodon octofasciatus</i>
	Haemulidae	4	<i>Chelmon rostratus</i>
1	<i>Plectorhynchus picus</i>	5	<i>Choradion altivelis</i>
2	<i>Plectorhynchus chaetodontoides</i>		
	Caesionidae		
1	<i>Caesio caerulaurea</i>		
2	<i>Caesio cuning</i>		
3	<i>Caesio lunaris</i>		
4	<i>Caesio teres</i>		
5	<i>Caesio trilineata</i>		

Mangroves, Seagrass and Endangered species

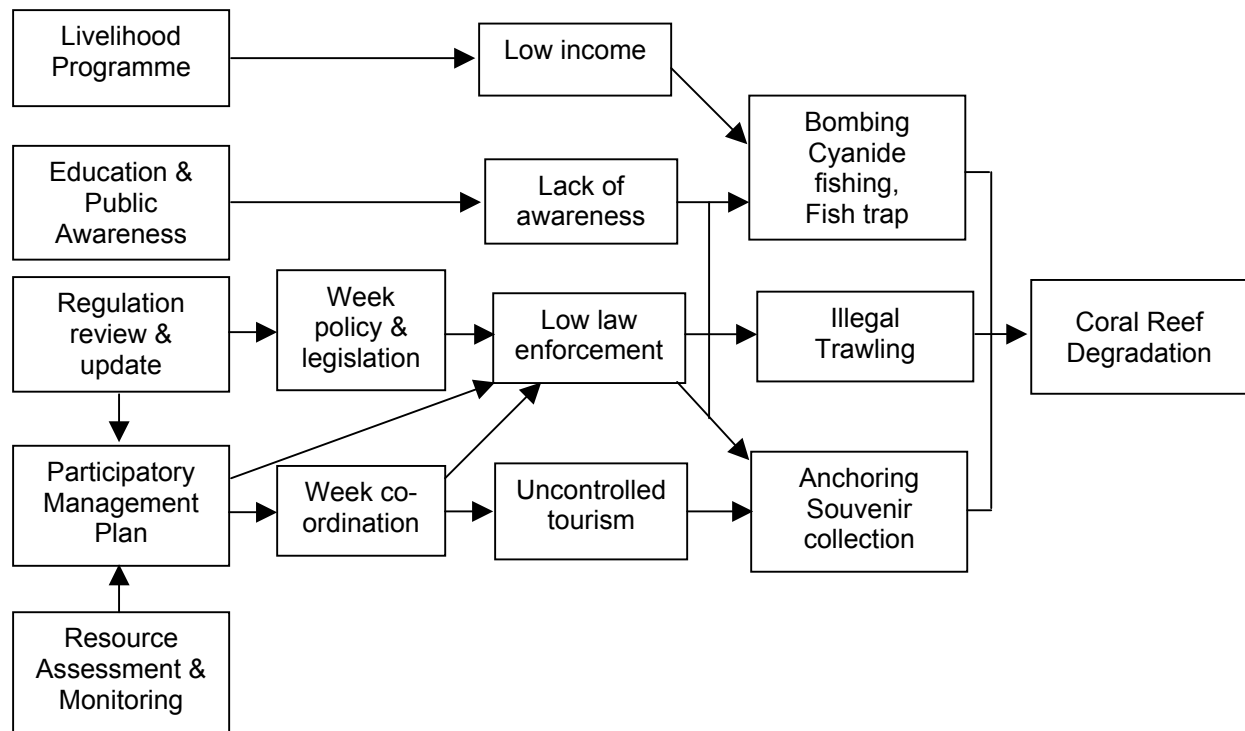
Mangrove		Seagrass	
1	<i>Avicennia marina</i>	1	<i>Enhalus acoroides</i>
2	<i>Bruguiera cylindrica</i>	2	<i>Cymodocea rotundata</i>
3	<i>Bruguiera gymnorrhiza</i>	3	<i>Halodule pinifolia</i>
4	<i>Bruguiera parviflora</i>	4	<i>Halodule uninervis</i>
5	<i>Ceriops decandra</i>	5	<i>Halophila decipiens</i>
6	<i>Excoecaria agallocha</i>	6	<i>Halophila ovalis</i>
7	<i>Flagellaria indica</i>	7	<i>Thalassia hemprichii</i>
8	<i>Heritiera littoralis</i>	8	<i>Thalassodendron ciliatum</i>
9	<i>Hibiscus tiliaceus</i>		
10	<i>Lumintzera racemosa</i>		
11	<i>Nypa fruticans</i>	Endangered species	
12	<i>Pemphis acidula</i>		
13	<i>Rhizophora apiculata</i>	1	<i>Eretmochelis imbricata</i>
14	<i>Rhizophora micronata</i>	2	<i>Chelonia mydas</i>
15	<i>Rhizophora stylosa</i>		
16	<i>Sonneratia alba</i>		
17	<i>Sonneratia caseolaris</i>		
18	<i>Thespesia populnea</i>		
19	<i>Xylocarpus granatum</i>		
20	<i>Xylocarpus moluccensis</i>		

Appendix 2 - Major stakeholders and their involvement in the demonstration site

STAKEHOLDERS		INVOLVEMENT
1.	Research Centre for Oceanography – Indonesian Institute of Sciences	SEA, responsible for execution of demonstration site
2.	Research Centre for Appropriate Technology, Indonesian Institute of Sciences	Consultant and sub contract in charge of implementation livelihood program (identify, preparing guideline and training)
3.	Research Centre for Population, Indonesian Institute of Sciences	Consultant and sub contract in charge of Socio-economic survey
4.	Legal expert - Regional Task Force on Legal Matters	Consultant in charge of identifying existing rules, regulation and Perda's
5.	Experts - Regional Task Force on Economic Valuation	Consultant and sub contract in charge of economic resource valuation study
6.	Directorate General of Marine affair and fisheries	Coordination central government, province and district institution
7.	Regional Planning Agency	Coordination spatial planning
8.	Sub-district and Local NGO	Consultant and sub-contract in charge of livelihood pilot project
9.	Village representative body	Facilitator for public communication
10.	Informal leaders	Facilitator for public communication
11.	Directorate General forest protection and conservation	Coordination for marine management area
12.	District regent, sub-district and village head	Coordination and implementation of the action
13.	Fishermen	Former destructive fishing fishers will be involved as facilitators in order to reduce destructive fishing
14.	Local parliaments	Drafting law and regulation
15.	Teachers	Facilitators for education in primary school

Appendix 3 - Causal Chain Analysis at Belitung Waters

Interventions	Management issues	Underlying threats	Impacts	Ecological Problem
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Appendix 4 - Monitoring and Evaluation Plan

1. Collecting and Reporting data on performance indicators

To assess project implementation and achievements, monitoring in ecological, socio-economic aspects and community awareness will be carried out.

PARAMETER	METHOD AND FREQUENCY OF COLLECTION	CONDUCT BY	COMMENTS
Ecological Aspect	Field survey using Line intercept transect (LIT), Visual Census and Reef Check Method. Collecting data will be conducted 2 times, at beginning and end of project	Research Centre for Oceanography, Indonesia Institute of Sciences	Need to know the condition of coral reef (such as percentage of live coral cover, coral fishes, benthos) before and after project intervention
Socio-economic Aspect	Socio-economic survey, using Participatory Rapid Assessment (PRA), Focus Group Discussion (FGD) and In depth Interview. Collecting data will be conducted 2 times, at beginning and end of project	Indonesia Institute of Sciences	Need to know the community income/welfare before and after project intervention
Increasing Awareness	Field survey using questionnaires. Collecting data will be conducted 2 times, at beginning and end of project	Indonesia Institute of Sciences	Need to know the awareness of the value of coral reefs at all levels of society before and after project intervention

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

MONITORING/EVALUATION	2006				2007			
	1	2	3	4	1	2	3	4
Ecological Monitoring	X					X		
Socio-economic Monitoring	X					X		
Awareness Monitoring		X					X	
Mid-term Review				X				
Evaluation of the progress by the management board							X	
Evaluation in the end of project								X

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. Both reviews will be led by external evaluators with experience in environmental conservation community development. Each study will take the form of a joint evaluation by project staff and the evaluators into the management and environmental aspects of the project and an independent review of community gains and stakeholder participation by the evaluators.

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 a part of the formal independent evaluation activities. Formal surveys will be conducted by project stakeholder, universities and research institutes. Local volunteers will be trained in surveys techniques so that they are able to lead simple community surveys on more frequent basis.

4. Resources that will be allocated to monitoring and evaluation

Budgetary provision of \$US 10,000 has been allocated to mid term and terminal evaluations to cover consultancy fees and expenses for internal 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 will be taken between 3-4 weeks per year (on average) of the project manager's time and 3 days per year of management team time.

5. Using monitoring and evaluation result for management

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

As a 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 donor. Following the final evaluation, an evaluation report will be published to help donor, participants, managers and other interested parties such as global coral reef network learn lesson from the project.

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

Appendix 5.1 - Budget estimation by activity.

Activities	GEF Grant						Government Co-financing							Total Project
	1000	2000	3000	4000	5000	Total	1000	2000	3000	4000	5000	Total		
												In-Cash	In-Kind	
1.1.1 Create, produce and disseminate billboard at 4 villages (1 billboard/village)	-				2,400	2,400					2,000	2,000		4,400
1.1.2 Create, produce and disseminate to schools and villages calendars /education kits (200 exemplar, 2 times) regarding co-management of reef resources and the benefits at sub-district and village level.	-				5,000	5,000					5,000	5,000		10,000
1.1.3 Creation and dissemination of CD's/DVDs (200 units, 2 times) on sustainable use of coral reef resources	-				4,000	4,000					4,000	4,000		8,000
1.2.1 Preparation of a curriculum and supporting materials for formal primary school level on coral reef ecosystems ex: local content book (7books, 200 exemplar)	-										25,200		25,200	25,200
1.2.2 Meetings with Education authorities for extension of the use the curriculum materials (2 times, 25 participants, 2 days @ US\$50)	-								5,000			5,000		5,000
1.2.3 Preparation of teachers guide to the curriculum	-								4,500			4,500		4,500
1.2.4 TOT primary school teachers in the use of the curriculum materials (2 times, 30 participants, 3 days, @US\$50), Co-funding portion for meeting room rent etc.	-		9,000			9,000			1,000			1,000		10,000
1.2.5 Meeting for Adopt the materials as formal component of the school curriculum (2 times, 25 persons, 2 days, @50) and 2 times other meeting funded by co-funding	-		5,000			5,000			5,000			5,000		10,000
2.1.1 Identify existing rules, regulations and decrees within the Perda (4 person, 1 month, @ US\$500)	2,000					2,000						-	-	2,000
2.1.2 Review of Traditional Knowledge (2 persons, 30 participants, 2 days, @ US\$50), sharing budget with GOI for committee and participants honoraria, meeting room rent etc.	-		6,000			6,000			6,000			6,000		12,000
2.1.3 Consultation Meeting with stakeholders (20 people, 2 times, 2 days, @50) regarding traditional knowledge & application of existing rules and regulations. GOI = co funding for rental meeting room, accommodation etc. (20 people, 2 ties, 2 days @ 65)	-		4,000			4,000			5,200			5,200		9,200
2.2.1 Draft new or amended ordinances, rules etc. that are in harmony with rules deriving from other sectors (4 persons, 1 month, @650)	2,600					2,600	-					-	-	2,600
2.2.2 Stakeholders consultation to review recommended drafts (2 months, 2 persons, @ US\$ 1000)	4,000					4,000			-			-	-	4,000
2.2.3 Revision of the drafts for finalization (2 persons, 1 month, @US\$1500)	3,000					3,000	5,900					5,900		8,900
2.2.4 Clearance of the final drafts by the Management Board for Submission to the Appropriate Government Authorities (2 times, 25 persons, @US\$50)	-		2,500			2,500			2,500			2,500		5,000

Activities	GEF Grant						Government Co-financing							Total Project
	1000	2000	3000	4000	5000	Total	1000	2000	3000	4000	5000	Total		
												In-Cash	In-Kind	
2.2.5 Dissemination of drafts to appropriate authority to PEMDA and local parliament (2 meetings @ 30 persons, 2 days @ US\$50)	-		6,000			6,000			-			-	-	6,000
2.2.6 Submission final draft of a decree and approval at district levels (Perda)	-				1,000	1,000					2,500	1,000	1,500	3,500
2.3.1 To Identify Existing Community Group (2 meeting, 20 persons, 2 days, @US\$50)	2,000					2,000	2,000					2,000		4,000
2.3.2 Meetings with all stakeholders at district and village level conducted by individual consultant (4 villages, @10 persons, 1 day, US\$75)	-		3,000			3,000						-	-	3,000
2.3.3 Design Lay out and produce Resource Management Plan Book, 100 books, @US\$50	-				5,000	5,000					-	-	-	5,000
3.1.1 Basemap preparation for Ecological Assessment (2 persons, 10 days, @US\$50)	-				1,000	1,000					1,000	1,000		2,000
3.1.2 Preparation Field Survey for Resources Ecological Assessment (2 times meeting, 16 persons, 2 days, @US\$50)	-		3,200		-	3,200						-	-	3,200
3.1.3 Travel by plane of Field Survey for Resources Ecological Assessment (study site), 2 times, 10 persons, @US\$200 (1600)	4,000				-	4,000					-	-	-	4,000
3.1.4 Local transportation and boat rent for Resources Ecological Assessment (study site), 2 times, 2 boats, 8 days, @US\$150 (1600)	4,800				-	4,800					-	-	-	4,800
3.1.5 Allowance and Accommodation on Field Survey for Resources Ecological Assessment (study site), 2 times, 10 persons, 14 days, @US\$75 (1600)	14,000				-	14,000					-	-	-	14,000
3.1.6 Reporting for Resources Ecological Assessment (2 times, 50 exemplar, @US\$50)	-				5,000	5,000					2,000	2,000		7,000
3.2.1 Assign Research Center for Population (RCP) to conduct Socio-economic Assessment (study site) and Resource Valuation, 2 times, 14 days, 8 persons	-	20,000				20,000		20,000				20,000		40,000
3.3.1 Preparation of marine resource information (2 times meeting, 10 persons, 2 days, @US\$50)	-		2,000			2,000						-	-	2,000
3.3.2 Travel by plane of Field Study for Marine Resource Information and there current and potential uses: database and thematic map. (2 times, 4 persons, @US\$200) (1600)	1,600				-	1,600					-	-	-	1,600
3.3.3 Local transportation and boat rent of Field Study for Marine Resource Information (2 times, 8 days, 1 boat, @US\$150) (1600)	1,200				-	1,200					-	-	-	1,200
3.3.4 Allowance and accommodation on Field Study for Marine Resource Information (2 times, 10 days, 4 persons, @US\$75) (1600)	4,000				-	4,000					-	-	-	4,000
3.3.3 Data Analysis for Marine Resource Information. (2 times, 15 days, 4 persons, @US\$50)	6,000					6,000						-	-	6,000

Activities	GEF Grant						Government Co-financing							Total Project
	1000	2000	3000	4000	5000	Total	1000	2000	3000	4000	5000	Total		
												In-Cash	In-Kind	
3.3.4 Reporting for Marine Resource Information and produce thematic map, CD, book (2 times, 50 exemplar, @US\$50)	-				5,000	5,000					2,000	2,000		7,000
3.4.1 Training for Resource Assessment and Monitoring of coral reef, 2 times, 30 participants, 14 days	-		20,000			20,000						-	-	20,000
4.1.1 Meeting for Reef Watcher Establishment (2 times, 20 persons, @US\$50)	-		4,000			4,000						-	-	4,000
4.1.2 Purchase the Traditional Wooden Boat including outboard engine (1 unit)	-		-	8,000		8,000						-	-	8,000
4.1.3 Purchase 2 units of Binocular	-		-	500		500						-	-	500
4.1.4 Operational cost for Monitoring, controlling and surveillance (8 times, 18 months, @US\$ 130)	-	18,720	-		-	18,720						-	-	18,720
4.1.5 Training of Patroly System and Data Collecting & Reporting (2 times, 5 persons, 4 villages, 7 days, @US\$50)	-		14,000			14,000						-	-	14,000
4.1.6 Coordination meeting with relevant stakeholder (2 times, 20 persons, 1 day, @US\$50)	-		2,000			2,000						-	-	2,000
5.1.1 An inventory and assessment of the alternative income generation activities (4 people, 10 days)	-	5,000				5,000						-	-	5,000
5.1.2 Stakeholder meeting/consultations to discuss and preparation proposals for sustainable use of marine resources (3 times, 20 participants, 3 days)	-	9,000				9,000		-				-	-	9,000
5.1.3 Development of best practice guideline of alternative income	-	10,000				10,000						-	-	10,000
5.2.1 Consultations and preparation of a training needs assessment, 3 times, 20 persons, 5 days, @ US\$50	-		15,000			15,000				-		-	-	15,000
5.2.2 Prepare materials of training programmes (4 villages)	-	5,000				5,000					6,000		6,000	11,000
5.2.3 Implement Training Programme (4 villages, 10 persons, 5 days, @US\$50) (5.2.3)	-	10,000				10,000						-	-	10,000
6.1.1 identify membership and draft Terms of Reference of the Management Board (2 meeting, 25 persons, 2 days, @Rp50)	-		5,000			5,000						-	-	5,000
6.1.2 Establishment of a local Management Board, (1workshop, 40 participants, 2 days, @ US\$50)	-		4,000			4,000						-	-	4,000
6.1.3 Meeting of appointment for Site Manager & Project Staff (2 times meeting, 15 persons, @US\$50)	-					-			1,500			1,500		1,500
6.1.4 Management Board Regular Meetings, every 3 month (8 times, 15 persons, 2 days, US\$50) for food and accommodation	-		12,000			12,000				-		-	-	12,000
6.2.1 Meeting for Establishment of Project implementing Unit in LIPI (25 persons, 2 days, 2 times, @US\$50)	-					-				5,000		5,000		5,000
6.2.2 Travel on official business by National Focal Point and Local Government every 6 months, (4 persons, 6 times, @US\$625) (Gov't portion for rent boats, cars etc.)	15,000					15,000	14,000					14,000		29,000

Activities	GEF Grant						Government Co-financing							Total Project
	1000	2000	3000	4000	5000	Total	1000	2000	3000	4000	5000	Total		
												In-Cash	In-Kind	
6.2.3 Annual Audit, (2 times, @ US\$5000)	-				10,000	10,000						-	-	10,000
6.2.4 Independent Mid-term & End of project evaluation, (2 times @US\$5000)	-				10,000	10,000						-	-	10,000
6.2.5 Travel by plane of official business (National focal point and staffs), 2 persons, 4 times, 2 years, @US\$200 (1600)	3,200				-	3,200						-	-	3,200
6.2.6 Local transportation and boat rent (National focal point and staffs), 4 times, 2 years, 2 days @US\$150 (1600)	2,400				-	2,400						-	-	2,400
6.2.7 Allowance and accommodation on travel of official business (National focal point and staffs), 2 persons, 4 times, 2 years, 5 days, @US\$75 (1200)	4,000				-	4,000						-	-	4,000
6.2.8 Quarterly Report (5 exemplar, 4 times, 2 years, @US\$10)	-				400	400						-	-	400
6.2.9 Annual Reports (20 exemplar, 2 years, @US\$25)	-				1,000	1,000						-	-	1,000
6.3.1 National Focal Point Assistants (6 persons, 30 months, @US\$400)	-					-	72,000						72,000	72,000
6.3.2 Treasurer (1 person, 30 months, @350)	-					-	10,500					10,500		10,500
6.3.3 Finance Analyst (1 person, 30 month, @US\$350)	-					-	10,500					10,500		10,500
6.3.4 Bilingual Secretary (1 person, 30 months, @US\$350)	-					-	10,500					10,500		10,500
6.3.5 Site Manager (24 months, @US\$835)	20,000					20,000						-	-	20,000
6.3.6 Office Rent (24 months, @US\$1500)	-					-				36,000			36,000	36,000
	93,800	77,720	116,700	8,500	49,800	346,520	125,400	20,000	35,700	36,000	49,700	126,100	140,700	613,320

Appendix 5.2 - Budget estimation by object of expenditure.

		2005				2006						2007						Grand total		
		2nd			Total	1st			2nd			Total	1st			2nd			Total	
		GEF	Gov't			GEF	Gov't		GEF	Gov't			GEF	Gov't						
			In cash	In kind			In cash	In kind		In cash	In kind			In cash	In kind					
1000	PERSONNEL PROJECT COMPONENT																			
1100	Project Personnel w/m (Show title/grade)																			
1101	Site Manager (24 months @ US\$835) (7.1.6)	-	-	-	-	5,000		-	5,000		-	10,000	5,000		-	5,000		-	10,000	20,000
1102	Data Analysis for Marine Resource Information. (2 times, 15 days, 4 persons, @US\$50) (3.3.3)	-	-	-	-	-		-	3,000		-	3,000	3,000	-	-	-		-	3,000	6,000
1103	National Focal Point (1 person, 30 months, @US\$500) (7.1.1)	-	3,000	-	3,000	-	3,000	-	-	3,000	-	6,000	-	3,000	-	-	3,000	-	6,000	15,000
1104	National Focal Point Assistants (6 persons, 30 months, @US\$400) (7.1.2)	-	14,400	-	14,400	-	14,400	-	-	14,400	-	28,800	-	14,400	-	-	14,400	-	28,800	72,000
1199	Total	-	17,400	-	-	5,000	17,400	-	8,000	17,400	-	47,800	8,000	17,400	-	5,000	17,400	-	47,800	-
1200	Consultants w/m Give description of activity/service																			
1201	Identify existing rules, regulations and decrees within the PEMDA (4 person, 1month, @ US\$500) (2.1.1)	-		-	-	2,000		-	-		-	2,000	-		-	-		-	-	2,000
1202	Draft new or amended ordinances, rules etc. that are in harmony with rules deriving from other sectors (4 persons, 1 month, @US\$650). (2.2.1)	-		-	-	2,600		-	-		-	2,600	-		-	-		-	-	2,600
1203	Stakeholders consultation to review recommended drafts, 2 times, 20 participants, 2 days, @US\$50 (2.2.2)	-	-	-	-	2,000		-	2,000		-	4,000	-		-	-		-	-	4,000
1204	Revision of the drafts for finalization (2 persons, 1 month, @US\$1500) (2.2.3)	-	-	-	-	3,000		-	-		-	3,000	-	5,900	-	-	-	-	5,900	8,900
1205	To Identify Existing Community Group (2.3.1) (2 meeting, 20 persons, 2 days, @US\$50)	-	-	-	-	2,000	2,000	-	-		-	4,000	-		-	-		-	-	4,000
1299	Total	-		-	-	11,600	2,000	-	2,000	-	-	15,600	-	5,900	-	-	-	-	5,900	21,500
1300	Administrative support w/m (Show title/grade)	-											-							
1301	Treasurer (1 person, 30 months, @350) (7.1.3)	-	2,100	-	2,100	-	2,100	-	-	2,100	-	4,200	-	2,100	-	-	2,100	-	4,200	10,500
1302	Finance Analyst (1 person, 30 month, @US\$350) (7.1.4)	-	2,100	-	2,100	-	2,100	-	-	2,100	-	4,200	-	2,100	-	-	2,100	-	4,200	10,500
1303	Bilingual Secretary (1 person, 30 months, @US\$350) (7.1.5)	-	2,100	-	2,100	-	2,100	-	-	2,100	-	4,200	-	2,100	-	-	2,100	-	4,200	10,500
1399	Total	-	6,300	-	6,300	-	6,300	-	-	6,300	-	12,600	-	6,300	-	-	6,300	-	12,600	31,500
1600	Travel of Official Business																			
1601	Travel by plane of Field Survey for Resources Ecological Assessment (study site), 2 times, 10 persons, @US\$200 (3.1.3)	-	-	-	-	2,000	-	-	-	-	-	2,000	2,000	-	-	-	-	-	2,000	4,000
1602	Local transportation and boat rent for Resources Ecological Assessment (study site), 2 times, 2 boats, 8 days, @US\$150 (3.1.4)	-	-	-	-	2,400	-	-	-	-	-	2,400	2,400	-	-	-	-	-	2,400	4,800
1603	Travel by plane of Field Study for Marine Resource Information and there current and potential uses: database and thematic map. (2 times, 4 persons, @US\$200) (3.3.2)	-	-	-	-	-	-	-	800	-	-	800	-	-	-	800	-	-	800	1,600
1604	Local transportation and boat rent of Field Study for Marine Resource Information (2 times, 4 days, 1 boat, @US\$150) (3.3.3)	-	-	-	-	-	-	-	600	-	-	600	-	-	-	600	-	-	600	1,200
1605	Travel by plane of official business (National focal point and staffs), 2 persons, 4 times, 2 years, @US\$200 (6.2.5)	-	-	-	-	800	-	-	800	-	-	1,600	800	-	-	800	-	-	1,600	3,200
1606	Local transportation and boat rent (National focal point and staffs), 4 times, 2 years, 2 days @US\$150 (6.2.6)	-	-	-	-	600	-	-	600	-	-	1,200	600	-	-	600	-	-	1,200	2,400

		2005				2006						2007						Grand total	
		2nd			Total	1st		2nd		Total	1st			2nd			Total		
		GEF	Gov't			GEF	Gov't		GEF		Gov't		GEF	Gov't					
			In cash	In kind			In cash	In kind			In cash	In kind		In cash	In kind				
1607	Allowance and Accommodation on Field Survey for Resources Ecological Assessment (study site), 2 times, 10 persons, 14 days, @US\$50 (3.1.5)	-	-	-	-	7,000	-	-	-	-	7,000	7,000	-	-	-	-	-	7,000	14,000
1608	Allowance and accommodation on Field Study for Marine Resource Information (2 times, 10 days, 4 persons, @US\$50) (3.3.4)	-	-	-	-	-	-	-	-	2,000	2,000	-	-	-	2,000	-	-	2,000	4,000
1609	Allowance and accommodation on travel of official business (National focal point and staffs), 2 persons, 4 times, 2 years, 5 days, @US\$50 (6.2.7)	-	-	-	-	1,000	-	-	-	1,000	2,000	1,000	-	-	1,000	-	-	2,000	4,000
1610	Travel on official business by National focal point every 6 months, (4 persons, 6 times) (6.2.2) (Gov't portion for rent boats, cars etc.	-	-	-	-	3,750	3,500	-	-	3,750	14,500	3,750	3,500	-	3,750	3,500	-	14,500	29,000
1699	Total	-	-	-	-	17,550	3,500	-	-	9,550	34,100	17,550	3,500	-	9,550	3,500	-	34,100	68,200
1999	Component Total	-	23,700	-	23,700	34,150	29,200	-	-	19,550	110,100	25,550	33,100	-	14,550	27,200	-	100,400	234,200
2000	SUB CONTRACT COMPONENT																	-	
2200	Sub-contracts-non profit supporting organizations																		
2201	Socioeconomic Assessment (study site) and Resource Valuation, (2 times, 14 days, 8 persons) (3.2.1)	-	-	-	-	10,000	10,000	-	-	-	20,000	10,000	10,000	-	-		-	20,000	40,000
2202	Operational cost for MCS (8 times, 18 months, @US\$130) (4.1.4)	-	-	-	-	-	-	-	-	6,240	6,240	6,240		-	6,240		-	12,480	18,720
2203	An inventory and assessment of the alternative income generation activities, (study, 4 people, 10 days) (5.1.1)	-	-	-	-	5,000		-	-	-	5,000	-		-	-		-	-	
2204	Stakeholder meeting/consultations to discuss and preparation proposals for sustainable use of marine resources. (3 times, 20 participants, 3 days) (5.1.2)	-	-	-	-	3,000	-	-	-	3,000	6,000	3,000	-	-	-		-	3,000	9,000
2205	Development of best practice guideline of alternative income (5.1.3)	-	-	-	-	5,000		-	-	5,000	10,000	-		-	-		-	-	10,000
2206	Prepare material training programmes (4 packages) (5.2.2)	-	-	-	-	-	-	-	-	5,000	5,000	-		-	-		-	-	5,000
2207	Implement Training Programme (4 villages, 10 participants, 5 days, @US\$50) (5.2.3)		-	-	-			-	-	-	-	10,000	-	-	-		-	10,000	10,000
2299	Total	-	-	-	-	23,000	10,000	-	-	19,240	52,240	29,240	10,000	-	6,240	-	-	45,480	97,720
2999	Component Total	-	-	-	-	23,000	10,000	-	-	19,240	52,240	29,240	10,000	-	6,240	-	-	45,480	97,720
3000	TRAINING COMPONENT																	-	
3200	Group training-study tours, field trips, workshop, seminars																		
3201	Preparation of teachers guide to the curriculum (1.2.3)	-	-	-	-	-	-	-	-	-	4,500	-		-	-		-	-	4,500
3202	TOT primary school teachers in the use of the curriculum materials (2 times, 30 participants, 3 days, @ US\$50) (1.2.4) (Co-funding portion for meeting room rent etc.)	-	-	-	-	4,500	500	-	-	4,500	10,000	-		-	-		-	-	10,000
3203	Training for Resource Assessment and Monitoring of coral reef, 2 times, 30 participants, 14 days (3.4.1)	-	-	-	-	10,000		-	-	-	10,000	10,000		-	-		-	10,000	20,000
3204	Training of Patrol System and Data Collection & Reporting (2 times, 5 persons, 4 villages, 7 days, @US\$50) (4.1.5)	-	-	-	-	-		-	-	7,000	7,000	7,000		-	-		-	7,000	14,000
3205	Consultations and preparation of a training needs Assessment (3 times, 20 persons, 5 days, @US\$50) (5.2.1)	-	-	-	-	5,000	-	-	-	5,000	10,000	5,000	-	-	-		-	5,000	15,000
3206	Establishment of a local Board, (1 workshop, 40 participants, 2 days, @US\$50) (6.1.2)			-	-	4,000		-	-	-	4,000	-		-	-		-	-	4,000
3299	Total	-	-	-	-	23,500	5,000	-	-	16,500	45,500	22,000	-	-	-	-	-	22,000	67,500

[illegible]

		2005				2006								2007								Grand total
		2nd			Total	1st			2nd			Total	1st			2nd			Total			
		GEF	Gov't			GEF	Gov't		GEF	Gov't			GEF	Gov't		GEF	Gov't					
			In cash	In kind			In cash	In kind		In cash	In kind			In cash	In kind		In cash	In kind				
4200	Non-expendable equipment (computers, office equip, etc.)																					
4201	Purchase the Traditional Wooden Boat including Outboard Machine (1 unit)	-		-	-	-	-	-	8,000		-	8,000	-		-	-		-	-	8,000		
4202	Purchase 2 units Binocular @US\$250	-		-	-	-	-	-	500		-	500	-		-	-		-	-	500		
4299	Total	-	-	-	-	-	-	-	8,500	-	-	8,500	-	-	-	-	-	-	-	8,500		
4300	Premises (office rent, maintenance of premises, etc.)																					
4301	Office Rent (24 months, @US\$1500) (7.1.7)	-		-	-	-	-	9,000	-		9,000	18,000	-		9,000	-		9,000	18,000	36,000		
4399	Total	-	-	-	-	-	-	9,000	-	-	9,000	18,000	-	-	9,000	-	-	9,000	18,000	36,000		
4999	Component total	-	-	-	-	-	-	9,000	8,500	-	9,000	26,500	-	-	9,000	-	-	9,000	18,000	44,500		
5000	MISCELLANEOUS COMPONENT																					
5200	Reporting costs-publications, maps, newsletters, printing																					
5201	Create, produce and disseminate billboard at 4 villages (2 units x 4 villages x US\$ 300) (1.1.1)	-		-	-	2,400	2,000	-	-		-	4,400	-		-	-		-	-	4,400		
5202	Create, produce and disseminate to schools and villages calendars /education kits (200 exemplar, 2 times) regarding co-management of reef resources and the benefits at sub-district and village level. (200 exp x 2 @ US\$25) (1.1.2)	-		-	-	5,000	-	-	-	5,000	-	10,000	-		-	-		-	-	10,000		
5203	Creation and dissemination of CD's/DVDs (200 units, 2 times) on sustainable use of coral reef resources. (200 units x 2 times @ 10) (1.1.3)	-	-	-	-	2,000	2,000	-	-		-	4,000	2,000	2,000	-	-		-	4,000	8,000		
5204	Preparation of a curriculum and supporting materials for formal primary school level on coral reef ecosystems, classes 1 to 6 and guidance for teacher (Local content book, 7 books, 200 exemplar, @ US\$6) (1.2.1)	-		8,400	8,400	-		8,400	-		8,400	16,800	-		-	-		-	-	25,200		
5205	Submission final draft of a decree at district level (Perda) (2.2.6)	-		-	-	-		-	-		-	-	1,000	1,000	-	-		1,500	3,500	3,500		
5206	Reporting for Resources Ecological Assessment (2 times, 50 exemplar, @US\$50) (3.1.6)	-		-	-	-		-	2,500	1,000	-	3,500	-		-	-	2,500	1,000	-	3,500	7,000	
5207	Reporting for Marine Resource Information (2 times, 50 exemplar, @US\$50) (3.3.4)	-		-	-	-		-	2,500	1,000	-	3,500	-		-	-	2,500	1,000	-	3,500	7,000	
5208	Design Lay out and produce Resource Management Plan Book, 100 books, @US\$50 (2.3.3)	-	-	-	-	-		-	5,000		-	5,000	-		-	-		-	-	5,000		
5209	Material training programmes (4 packages) (5.2.2)	-	-	-	-	-		-	-		6,000	6,000	-		-	-		-	-	6,000		
5210	Quarterly Report (5 exemplar, 4 times, 2 years, @US\$10) (6.2.8)	-		-	-	100		-	100	-	-	200	100		-	100	-	-	200	400		
5211	Annual Reports (20 exemplar, 2 years, @US\$25) (6.2.9)	-		-	-	-		-	500	-	-	500	-		-	500	-	-	500	1,000		
5299	Total	-	-	8,400	8,400	9,500	4,000	8,400	10,600	7,000	14,400	53,900	3,100	3,000	-	5,600	2,000	1,500	15,200	77,500		
5300	Study-communications, postage, freight, clearance, etc.																					
5301	3.1.1. Basemap preparation (2 persons, 10 days, @US\$50) (3.1.1)	-	-	-	-	1,000	1,000	-	-	-	-	2,000	-		-	-		-	-	2,000		
5302	Annual audit (2 times, @ US\$5000) (6.2.3)	-		-	-	-		-	5,000	-	-	5,000	-		-	5,000	-	-	5,000	10,000		
5399	Total	-	-	-	-	1,000	1,000	-	5,000	-	-	7,000	-	-	-	5,000	-	-	5,000	12,000		
5500	Evaluation (consultants fees/travel/DSA, admin support, etc.)																					
5501	Independent Mid-term & End of project evaluation (2 times, @US\$5,000) (6.2.4)	-		-	-	-		-	5,000	-	-	5,000	-		-	5,000	-	-	5,000	10,000		
5599	Total	-	-	-	-	-	-	-	5,000	-	-	5,000	-	-	-	5,000	-	-	5,000	10,000		
5999	Component Total	-	-	8,400	8,400	10,500	5,000	8,400	20,600	7,000	14,400	65,900	3,100	3,000	-	15,600	2,000	1,500	25,200	99,500		
9999	Grand Total	-	13,800	22,800	36,600	113,750	41,400	31,800	103,640	24,150	37,800	352,540	89,740	34,950	23,400	39,390	11,800	24,900	224,180	613,320		

Annex 6 - PROPOSED MANAGEMENT FRAMEWORK

In order to implement activities in demonstration site some steps will be conducted:

1. SEA and Bupati Belitung District will sign MoU to establish the Management Board. Content of MoU are how coordination between SEA and local government at Belitung District, what are their responsibility.
2. SEA will conduct meeting at Belitung District to establish Management Board.

Management Board

The Management Board shall have ultimate authority and responsibility for the conduct of activities at the demonstration site. Management Board members should be composed of major stakeholders due to interest in and deriving benefit of coral reef resources. Management Board are establish and are legalized by Bupati Belitung District.

Responsibility of Management Board

Management Board has a function as a working group that coordinate with site manager and are responsible to Bupati Belitung district and National Focal Point.

- Make coordination with Site Manager
- Control, advise, supervise, facilitate Site Manager during implement activities
- Responsible to Bupati and National Focal Point
- Responsible for conduct of activities at demonstration site.

The members of Management Board are as follows:

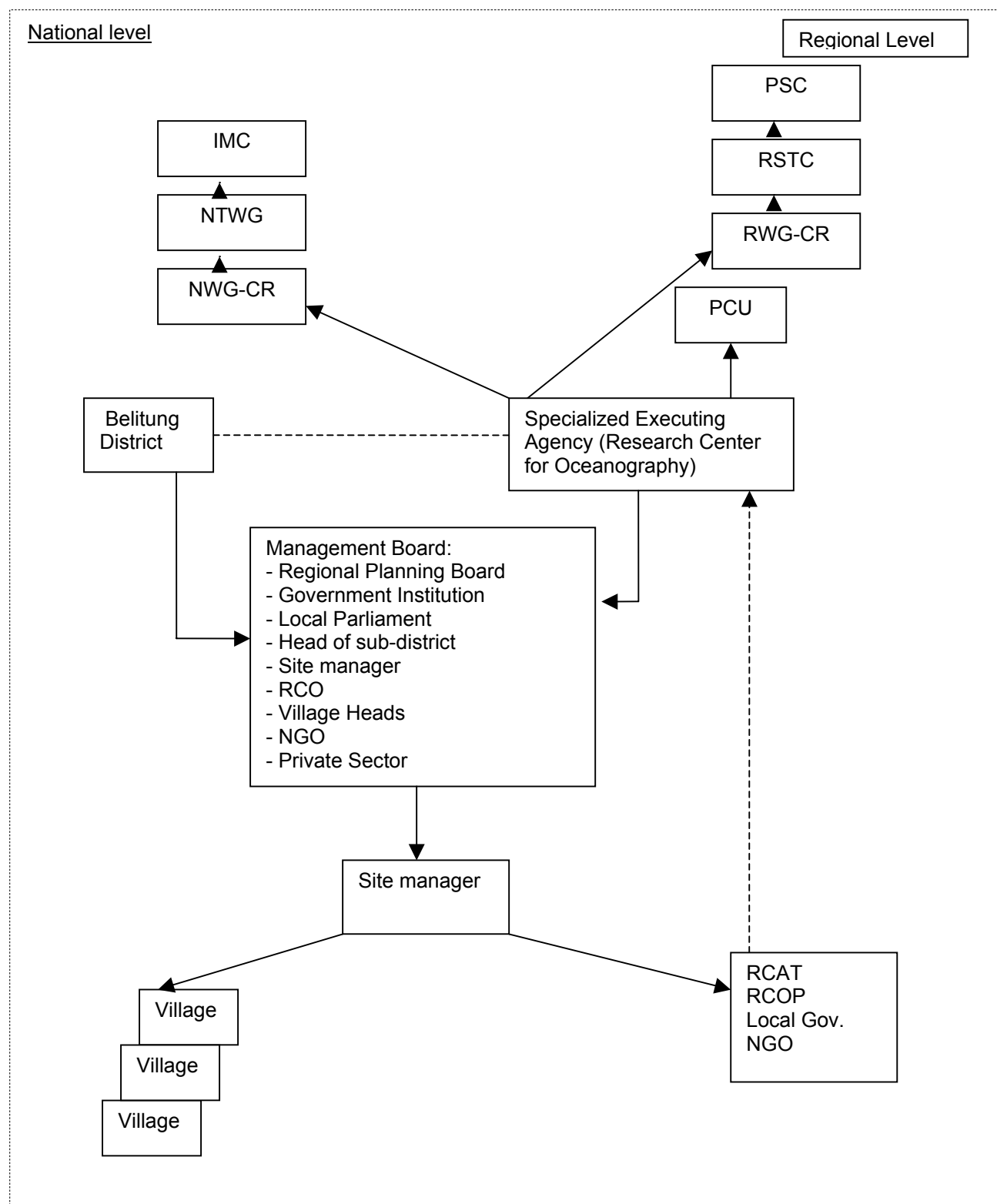
1. Head of Regional Planning Board of Belitung District (Chairman)
2. National Focal Point for Coral Reef (Vice chairman)
3. Staff of Research Center for Oceanography (Secretary 1)
4. Staff of Regional Planning Board (as secretary 2)
5. Local Parliament (2 persons, as members)
6. Department of Marine Affair and Fisheries (member)
7. District Education Department (member)
8. District Tourism Department (member)
9. Legal Division of Regional Planning Board (member)
10. Head of Selat Nasik Sub District (member)
11. NGO (member)
12. Private Sector (member)
13. Site Manager (member)

Site Manager : act as manager in the field and involved in community activities. Day-to-day activities, site manager will coordinate with Management Board. Site Manager are responsible to National Focal Point of Coral Reef.

Responsibility of Site Manager

- Executing the implementation plan based on the demonstration site proposal prepared by the respective SEA and the subsequent decisions of the management body.
- Planning and managing on day to day basis the demonstration activities identified in the implementation plan including annual work plan and time tables.
- Responsibility for execution of the activities in accordance with the work plan and timetable and schedule of expenditures, initially defined by the demonstration site proposal and amended from time to time by management body
- Reporting on activities and outcomes, to the management body, the focal point of the SEA, and the National Technical Focal Point according to an agreed schedule
- Preparing inputs to the six-monthly expenditure report, six monthly progress reports and cash advance requests to be submitted to the Project Co-ordinating Unit (PCU), through the focal point of the responsible SEA.
- Preparing and submitting to the PCU, through the focal point of the SEA, technical reports in accordance with the define outputs of the demonstration site
- Attending such national and regional meetings as shall be determined on an individual basis.

Coordination Framework of Belitung Demonstration Site



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 2b/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) _____

[illegible]

SECTION 3 - PROJECT DELIVERY

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

[illegible]

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

[illegible]

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: Marine Science Institute of the University of the Philippines

Project Number: GF/2730-02-4340

MoU Number: UNEP/GEF/SCS/Phi/MoU 2b/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.

CASH ADVANCE REQUEST

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

00\$

US\$

Remarks: