

**Advisory review of the environmental impact  
assessment report and feasibility study of the  
Coastal Resource Management Project,  
Sri Lanka**

**17 March 2000**

**038-097**



commission for environmental impact assessment

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subject  
Advisory review of the environmental  
impact assessment report of the Coastal  
Resource Management project, Sri Lanka

your letter of  
15 December 1999, 6 January  
2000 and 29 November 1999

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our reference  
U00/Sh/sg/038-098

Utrecht,  
17 March 2000

By letters dated 29 November and 15 December 1999 and 6 January 2000 you requested, on behalf of the minister for Development Cooperation, the Commission for Environmental Impact Assessment (EIA) to advise on the EIA-report and draft final report prepared for the Coastal Resource Management Project in Sri Lanka.

I herewith submit the advice prepared by a working group of the Commission for EIA. The advice and recommendations have been thoroughly discussed during a debriefing session in Colombo with representatives of the Ministry of Fisheries and Aquatic Resources Development, and with the Netherlands Embassy.

The Coastal Resource Management Project was originally conceived as a project consisting of a number of physical interventions for Coastline Stabilization along Sri Lanka's western and southern coast. At a later stage, the Coastal Environmental Resource Management (CERM), Fisheries and Institutional components were added. The Commission supports this expansion of goals and objectives of the project as Coastline Stabilization should not be executed solely as a technical intervention, but has to fit in a national strategy as described in the National Coastal Zone Management Plan. Most importantly, adequate consideration now has been given to environmental protection, in conjunction with maintaining the productivity of coastal and near-coastal ecosystems on which a large section of the population depends for a living.

As the advice of the Commission proposes a phased approach, the Commission is willing to review environmental information on relevant points in time. For the Coastline Stabilization component, the next phase will be the preparation of detailed designs of sub-projects, including site-specific EIA-reports. The Commission could provide independent review advice on these EIA-reports if this is deemed necessary, before implementation will take

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place. Also as far as the CERM-component is concerned, the Commission can act as an independent review body in case interventions proposed in the Special Area Management Plans would be subject to EIA. The Commission suggests that, when required, such follow-up reviews should preferably be performed in close co-ordination with the Coastal Conservation Department and with the Central Environmental Authority in Sri Lanka.

Finally, the Commission is of the opinion that there is a good opportunity to mobilize specific coastal zone management and research expertise available in the Netherlands. This option could be considered during the earliest stages of project implementation. These possibilities for co-operation pertain in particular to supporting studies (sand studies, data base establishment, modelling) but also to training of coastal wetland management personnel.

The Commission trusts to be informed as to what extent the DGIS and the Embassy intend to make use of its advice and recommendations.



Mr J.W. Kroon  
chairman working group  
Coastal Resource Management Project,  
Sri Lanka

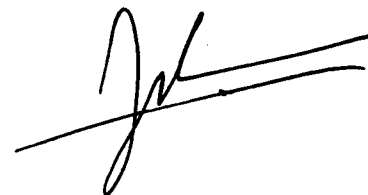
**Advisory review of the environmental impact assessment report  
and feasibility study of the Coastal Resource Management  
Project, Sri Lanka**

Advice submitted to the Minister for Development Cooperation, by a working group of the Commission for Environmental Impact Assessment in the Netherlands.

the technical secretary

Mrs I.A. Steinhauer

the chairman

A handwritten signature in black ink, consisting of a stylized 'J' followed by 'W.' and a long horizontal stroke.

Mr J.W. Kroon

Utrecht, 17 March 2000

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## **ACRONYMS AND ABBREVIATIONS**

<b>AsDB</b>	<b>Asian Development Bank</b>
<b>CCA</b>	<b>Coastal Conservation Act</b>
<b>CCD</b>	<b>Coast Conservation Department</b>
<b>CEA</b>	<b>Central Environmental Authority</b>
<b>CERM</b>	<b>Coastal Environment and Resource Management</b>
<b>CRMP</b>	<b>Coastal Resource Management Plan</b>
<b>EIA</b>	<b>Environmental Impact Assessment</b>
<b>ICZM</b>	<b>Integrated Coastal Zone Management</b>
<b>IEE</b>	<b>Initial Environmental Examination</b>
<b>MFARD</b>	<b>Ministry of Fisheries and Aquatic Resources Development</b>
<b>NARA</b>	<b>National Aquatic Resources Research Agency</b>
<b>NCZMP</b>	<b>Update of the National Coastal Zone Management Plan</b>
<b>NEA</b>	<b>National Environmental Act</b>
<b>NGO</b>	<b>Non Governmental Organization</b>
<b>RRP</b>	<b>Report and Recommendations of the President</b>
<b>SAM</b>	<b>Special Area Management</b>
<b>SEIA</b>	<b>Summary Environmental Impact Assessment</b>
<b>ToR</b>	<b>Terms of Reference</b>

## **1. INTRODUCTION**

### **1.1 The proposal: The Coastal Resource Management Project, Sri Lanka**

The Coastal Resource Management Project (CRMP) aims at four goals. First of all physical interventions will be introduced to address the problem of coastal erosion. A shift from a reactive/defensive approach to coastal erosion management to one that is proactive/preventive is promoted. Secondly, the sustainability of the coastal resources will be enhanced and environmental degradation alleviated through national- and local level activities using the special area management (SAM) approach. Part of this approach includes the mobilization and organization of coastal communities into associations trained and equipped to undertake cooperative, income-generating endeavours that will help them achieve a better quality of life. Thirdly, activities are implemented intended to prevent fisheries resource depletion in coastal waters, including licensing and regulation, community based fisheries resource management, fishing effort diversification, and fish quality enhancement. Finally, various units and key agencies of the Ministry of Fisheries and Aquatic Resources Development (MFARD) will be strengthened and the capacity of coastal communities in resource management will be improved.

The project will comprise of the following four components:

1. Coastline Stabilization
2. Coastal Environment and Resource Management (CERM)
3. Fisheries Management and Fish Quality Improvement
4. Institutional Strengthening

The project will be implemented on the south, southwestern and west coast of Sri Lanka.

### **1.2 Involvement of different parties**

The Asian Development Bank (AsDB) provided financial support to the project proponent (MFARD) in preparing the CRMP-project. An Environmental Impact Assessment (EIA) Report <sup>1</sup>has been prepared for the CRMP-project in July 1999 as part of the Draft final report of the proposed project, which was prepared by a consultant in March 1999 in cooperation and with the full support of the MFARD.

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<sup>1</sup> The report presents the findings of the EIA of component 1 and 3 and the initial environmental examination (IEE) of component 2.

The Netherlands Government has been approached to become involved in the Coastline Stabilization component through a request for ORET<sup>2</sup>-financing by Netherlands firms. The Coastline Stabilization Component will be implemented in seven coastal segments (see appendix 7, page ii).

For the CERM component (2) and the Institutional component (4) the Netherlands Embassy in Sri Lanka has been approached by the Asian Development Bank to consider possibilities for co-financing. The CERM-activities are planned in nine sites along the coast (see appendix 7, page iii). There is no Netherlands involvement in the Fisheries component (3).

### 1.3 Rationale and mandate for this review advice

#### 1.3.1 Request of the DGIS

The Netherlands Commission for EIA was invited by the Directorate General International cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs, in a letter dated 15 December 1999 (appendix 2a), to advise on the EIA-report prepared for the CRMP. In a letter of 6 January 2000, the DGIS specified which parts of the draft final report have to be considered regarding the ORET-requests (appendix 2b).

The aim of the review of the EIA-report is to check whether the report contains sufficient information to guarantee the full integration of environmental considerations in decision-making. The report should be comprehensive, should not contain inconsistencies and should address all environmental issues adequately. If shortcomings are found, the seriousness of this lack of information for decision-making will be assessed and recommendations will be formulated to address these.

#### 1.3.2 Request of the Embassy

In the framework of the request of the AsDB to the Netherlands Embassy, the Embassy requested further clarification from the AsDB on the draft final report for the CRMP-project. These questions deal primarily with the institutional and participatory dimension of project components. According to the Embassy, these issues are significant and justify an independent review. In a letter dated 29 November 1999, (appendix 1, point 1) the Embassy invited the Commission to advise on Terms of Reference for such a review and suggestions for experts to take part in the mission.

The review of the CERM-component and the Institutional-component will focus on answering the following questions: (i) is the project of sufficient quality and of good design; (ii) are potential risks sufficiently addressed and (iii) is the project flexible and adaptable enough to react to possible future developments.

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<sup>2</sup> Export Transactions relevant for Development



### **1.3.3 Involvement of the Commission**

As the Commission was planning a site visit to Sri Lanka in the framework of the request of the DGIS, she proposed to the Embassy that the request of the Embassy could be fulfilled at the same time. The Commission suggested not to restrict itself to the formulation of ToR and providing names of experts, but performing a review also based on this ToR taking advantage of the site visit. This proposal was endorsed by the Embassy.

This advice has been prepared by a working group of the Commission. The members of this working group are listed in appendix 3. The group represents the Commission and will henceforth be referred to as 'the Commission'. The Commission comprises experts from both the Netherlands and Sri Lanka, representing the following disciplines: civil and hydraulic engineering, ecology, biodiversity and institutional development.

During the preparation of the advice, the working group visited the project sites, studied the relevant reports and data and discussed with several governmental and non-governmental authorities and agencies in Sri Lanka in the period of 22 February till 2 March. The programme of the site visit is presented in appendix 4. Purpose of this visit was to collect information on the project, enabling formulation of a project- and site-specific review advice.

In this advice, the Commission has taken into account as much as possible the opinions of the affected people and a cross-section of stakeholders involved.

The Commission wishes to thank the Secretary of the MFARD for his support during the Commission's site visit. Particular thanks go to the Director and his staff of the Coast Conservation Department (CCD) of the Ministry. Their invaluable guidance and assistance are gratefully acknowledged. The Commission would also like to thank the Royal Netherlands' Embassy for the preparation and guidance of the Commission's site visit in Sri Lanka.

## **1.4 Justification of the approach**

The AsDB's procedures require that for environmentally sensitive projects an EIA must be completed and a Summary EIA (SEIA) must be circulated to the Board of Directors at least 120 days before the loan is considered by the Board of Directors. Accordingly, for this project a SEIA has been circulated to the Board.

On the actual conduct of the EIA-procedure, the AsDB guidelines require that the EIA-report should be prepared in accordance with both the Government's and AsDB's guidelines. There are no separate terms of reference (ToR) for preparation of the EIA-report except that the EIA-report is to be prepared as per AsDB and Government guidelines.

With regard to the Coastal Stabilisation component, it should however be noted that the EIA-report has been prepared before the exact sand extraction sites have been identified and before detailed design studies were available. The EIA-report has been approved in principle by the Central Environmental Authority (CEA), subject to EIA or Initial Environmental Examination (IEE) of sub-projects.

As this is the situation, the Commission proposes to review the project in an iterative process of 'planning through incremental environmental evaluation'. This approach implicates that the Commission can submit review advice on additional environmental information at specific points in time. This approach is suggested, as the environmental information required at this stage of decision-making is different as compared to the information required for the detailed design studies. In order to avoid unnecessary delays in decision making, the Commission will focus on main issues first and can review detailed environmental information when realisation of the detailed design phase is due.

As no ToR for the EIA-report are available, the Commission decided to draft a review framework (= site specific ToR) first for its' own use in the Netherlands, followed by a review based on this ToR in Sri Lanka during the site visit. Incorporated in the review framework (see appendix 5) are:

- parts of the letter of the Embassy with questions to the AsDB;
- guidelines of the AsDB on Coastal Resource Management and the Sri Lankan Central Environmental Authority ;
- advisory guidelines of the Commission for EIA on similar projects (e.g. Sri Lanka, Mozambique, Colombia, Tunisia, Philippines).

The review will focus on Component 1 (advice to the DGIS) and on Component 2 and 4 (advice to the Embassy) and is based on:

- The Draft Final Report including the Annexes of March 1999
- The Environmental Impact Assessment of July 1999
- The Report and Recommendations of the President (RRP) to the Board of Directors of November 1999
- Other documents as listed in Appendix 6 of this report.

In those cases where the reports differ, the opinion of the Commission is based on the RRP.

The Commission presents its observations in Chapter 2. The first paragraph summarizes the conclusions of the Commission. Specific observations on the Coastline Stabilization component are given in paragraph 2.2. Paragraph 2.3 presents specific observations related to the CERM component. Paragraph 2.4 summarizes the findings on the institutional part.

## **2. REVIEW FINDINGS**

### **2.1 General conclusion and recommendations**

While reviewing the EIA-report and the draft final report, the Commission kept in mind that the CRMP is essentially a feasibility study and that the designs and layouts of the various coastline stabilization works are (and can be) only conceptual at this stage. The same is applicable to the EIA-report, which was prepared in conjunction with the draft final report. The latter is comprehensive but not site-specific and does not allow for identification and formulation of site-specific adverse environmental impacts and mitigation measures. The conclusions and recommendations are presented for the Coastline Stabilization component, the CERM component and the Institutional component respectively.

The Commission is of the opinion that at this stage the draft final report and the EIA-report give a good description of the problems and possible solutions. Based on historical data an estimate of the magnitude of the erosion along the coast is given, and, based on these estimates, layouts for protection and coastal stabilization works are given. In general, the proposed solutions such as beach nourishments, sea walls or revetments, groins or offshore breakwaters (or combinations of these) are adequate for the situation.

The Commission concludes that although the environmental impacts and possible mitigation measures are dealt with rather generally, the project is environmentally sound and technically feasible and no constraints are expected, which cannot be solved. Provided detailed site-specific EIAs will be prepared as part of the design studies of both the Coastline Stabilization component and the CERM activities, and provided these EIAs will meet the standards required for environmental clearance (to be reviewed according to the rules of the Coastal Conservation Act (CCA) and the National Environmental Act (NEA)), there is no reason to believe that serious adverse environmental effects will undermine or hamper the achievement of the Projects' objectives. To the contrary, the proposed participatory planning process for the CERM-component, and the additional site-specific EIA requirements of the Coastline Stabilization subprojects, are expected to be conducive to reduced erosion, safety for coastal settlers, sustainable resource management, environmental protection and income generation within the coastal zone of Sri Lanka.

The Commission is of the opinion that the proposed Special Area Management (SAM) approach, as proposed in the CERM component, in principle is sound and will, if properly applied, produce effective and sustainable results. A condition for applying this approach is that some income of the population in the SAM-areas to a large extent depends on the quality of the environment, because in those cases environmental and socio-economic objectives are similar. In cases where this condition is not fulfilled (e.g. in very congested areas close to Colombo), it is difficult to imagine a successful implementation of the SAM-approach. The (legal) basis as well as the linkages of SAM-plans with other forms of planning (e.g. land-use plans, development plans, sector- plans etc) need to be clarified. During SAM

planning, sufficient attention needs to be paid to the institutional and financial sustainability of the proposed interventions (e.g. for solid waste). Also during implementation of SAM plans, sufficient support and monitoring will be required. The SAM methodology will need a phased approach with flexible targets, regular monitoring and intermediate (sub)project approval. The resources, which have been allocated to the CERM component in terms of support of consultants and NGO-staff, seem too limited. Also a small allocation needs to be made which can be used for funding of pilot projects during SAM preparation and as seed money for development of livelihood activities.

The Commission has had limited time to study the proposals made under the Institutional Development component of the project. In general the Commission is of the opinion that the set-up of the proposed activities looks sound. Most of the activities will, however, need to be worked out in detail before they can be properly assessed, including the preparation of proposals for (i) an update of the National Coastal Zone Management Plan, (ii) a detailed training and fellowship program, (iii) research programs for the subjects identified by the project, (iv) the database and information management program and (v) the Fisheries Management and Quality Improvement program.

With regard to project implementation, the Commission recommends to adopt a phased approach (see also paragraph 1.4). This is justified because on the one hand a number of proposed project interventions have not yet been worked out in sufficient detail to be properly assessed, but on the other hand, a number of interventions need urgent follow up (e.g. coastline stabilization works in certain areas, implementation of completed SAM plans). Therefore a preparatory phase to the project is proposed in order to make a start with the most urgent activities and during which other proposals can be elaborated for final approval.

With regard to monitoring, the Commission recommends to develop a regular monitoring program for the project, in line with the phased approach as proposed above. If there are several financing agencies involved, the Commission recommends to have joint monitoring missions of the project. During monitoring visits, project progress can be monitored and changes in project approach and budgets can be discussed and decided upon. The proposed development of a Project Benefit Monitoring System and regular monitoring missions look adequate.

## **2.2 Specific observations on the Coastline Stabilization component**

### **2.2.1 Review findings**

The Project closely follows the priorities for action as laid down in the recently (1997) revised Coastal Zone Management Plan. The sites selected for coastline stabilization are located in six Districts along the western and southern coast. Justification of the selection of structures is not clearly indicated in the EIA-report. However, the site visits indicated that a critical evaluation has been done in the selection. Highest priority is the Maha Oya-Lansigama coast along the western coast. None of the sub-projects has been fully designed but an EIA has been approved in principle by CEA, subject to EIA/IEE of sub-

projects. Consultants will be required for Design, Management and Supervision of the stabilization works. Realising that site conditions and final location and design of structures will be quite different for each site, it can be expected that finalising and approval of designs will take a considerable amount of time. The formulated project is still in a pre-design phase, for instance, the preparation of ToR for all studies needed for full design is one of the tasks of consultants to be recruited for this component.

As modelling and designing work will only start with the commencement of the project, there is a risk of cost overruns as there is still a wide variety of options and lack of supporting documents. These concerns regarding the adequacy of data, time and finances for modelling and selection of final designs may hamper the incorporation of environmentally friendly alternatives.

### **2.2.2 Review findings related to the EIA process**

Final designs of the Coastline Stabilization component will affect spatial areas, in which rules and regulations are applicable laid down either in the CCA or NEA, under the authority of CCD and CEA. Quarrying and transport may need CEA clearance (EIA), effect on inland drainage paths may need CEA clearance (EIA/IEE), offshore sand mining may require CEA clearance (EIA), coastal zone development activities require CCD permission (EIA/IEE). This may cause delays in project implementation as both environmental clearing agencies (CEA and CCD) need to be involved in the case of a majority of the project-interventions.

In the case of coastal zone development activities EIAs (< 300 m), the Project Proponent acts as a Project Approving Agency/Authority for issuing a permit. In this respect the Commission recommends precautionary action to be taken to avoid the risk of the accusation of a bias in granting environmental clearances. Any such misunderstanding by the public may lead to significant delays in the implementation of sub-projects.

The Commission therefore recommends that during the design phase and during evaluation for environmental clearance of all sub-projects, CCD and CEA maintain close co-ordination so that the identification of environmental impacts and assessment of mitigation measures is executed in a balanced manner. This would avoid possible delays in implementation and would also ensure the incorporation of environmentally friendly alternatives.

The Commission understands that in case an EIA is required for development activities outside the coastal zone area, that will affect the coastal zone, the Project Approving Agency members will be appointed by the MFARD (director CCD). In case a development activity is planned within the coastal zone, an agreement has been made with the CEA for a close cooperation in that matter.

### 2.2.3

#### **Main issues to be addressed in the EIAs for detailed design**

In this paragraph the Commission highlights the main issues to be addressed in the EIAs for the sub-projects. Appendix 5 to this report can be used for incorporation in the detailed ToR for this purpose. The Commission recommends to take the following steps:

- Study of the environmental conditions (wind, water and currents) determining the sediment movement along the coast, leading to a description and understanding of the morphology.<sup>3</sup>
- Based on this information, coastline computations for the various proposed alternatives must be made.
- These studies must lead to more than one alternative for the layout and design of required structures leading to a qualified choice of the optimal/or most environmentally friendly solution.

Among other aspects attention must be paid to:

- Effects of dredging sand for possibly required beach nourishments. These effects concern the temporally increased turbidity or physical damage near the borrow sites and the effect on the morphology of the seabed and possibly the coast. Undue disturbance of foreshore ecosystem (benthos, coral reefs) should be prevented. The location and required quantity of sand in each stretch has to be identified (acceptable mining sites are possibly indicated by the National Aquatic Resources Research Agency (NARA)).
- Effects during the execution of the nourishment (increased turbidity) and effects of the completed nourishment on the adjacent coastal stretches.
- Adequate disposal of salt-water mix from sand mined at offshore sites, for instance, avoiding salinization of fresh water bodies and coastal wetlands.
- Quarrying and transport of rock for the coastal protection works. Impacts and risks related to rock blasting and transport, such as accidents, noise and dust pollution, traffic congestion, should be duly addressed. Other information to be provided in this context refers to the need per stretch for and the availability of rock and the capacity of present quarry sites.
- Proper measures for resettlement of the affected inhabitants. During the execution of the works it may be possible that inhabited areas must be made available for stockpiling and actual construction.
- Consultations with involved communities and other stakeholders before the preparation of the detailed designs for coastal stabilization works.

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<sup>3</sup> Information can be found in (i) Sediment Transport Study for the SW coast of Sri Lanka, 1992 CCD-GTZ, (ii) Directional Wave climate study SW coast of Sri Lanka, 1994, CCD-GTZ, (iii) National Sand Study for Sri Lanka, phase one, 1992, NEI/Delft Hydraulics, (iv) Status report of coast erosion during SW monsoon, 1998, CCD.

- Identification of beneficiaries in areas where coastal stabilization works take place. In case private interests are involved, a financial contribution to the costs of the project might be considered accordingly.
- The durability of the construction as to minimize the maintenance.
- The most cost effective solution with respect to capital and maintenance. However, for continuing maintenance also sustainability must be regarded.
- Guarantees for the availability of funds when repeated nourishment is foreseen.
- The evaluation capability of final designs done by the consultants. Therefore institutional strengthening of CCD will be required (as new full-time experienced recruits or independent personnel as part time experts).

#### **2.2.4 Recommendations for project implementation**

For the Coastline Stabilisation Component the following stages are identified:

Preparatory stage (e.g. year 1):

- Preparation of detailed designs (after consultations with stakeholders);
- Technical review and approval of detailed designs;
- Preparation of EIAs or a combined EIA based on the detailed designs;
- Review of the EIAs or combined EIA;
- Approve funding of coastal stabilization works and implementation arrangements, including adequate supervision of works.

Implementation stage (e.g. year 2-3):

Implementation of and supervision on construction works.

### **2.3 Specific observations on the CERM component**

#### **2.3.1 Review findings**

##### *Approach and Methodology*

The overall goal of the CERM component is to curb and reverse coastal resource degradation and to initiate activities that would at the same time improve income levels of coastal communities and relieve the pressure on coastal resources. The proposed approach is grafted on experience gained in three ongoing and completed Integrated Coastal Zone Management (ICZM)-Projects using the SAM concept. These projects were formulated during participatory planning sessions, and focus essentially on social mobilization, awareness creation and self-regulation of sustainable natural resource uses.

During the formulation of CERM-packages, due attention has been given to existing plans and previous studies<sup>4</sup>, i.e. which components of these plans would qualify for implementation through the project. One of the criteria applied for site selection is the expected success and community support for integrated resource management based on the principle of seeking a balance between conservation and development.

The environmental measures proposed in the draft final report have a strong linkage with sustainable resource uses and income generation. This could prove to be a vital condition for the ultimate success of the CERM-component. In those cases where the linkages between environmental measures, sustainable resource use and income generation does not exist (e.g. in very congested areas close to urban centres), a different approach will be needed. In those cases the focus of the program would need to be among others on physical planning, development of housing, development of income generating activities and employment, development of sanitary infrastructure and enforcement.

A good example of sustainable resource management combined with protection is the Rekawa Lagoon in the Hambantota District. Recently introduced USAID-supported ICZM in this area has resulted in an improved co-existence of controlled fishing and aquatic bird habitat protection. Fishing on the lagoon is regulated by the local fishing community (no outsiders are allowed to fish the lagoon, no powered craft is allowed), and part of the lagoon with an adjacent belt of dense mangrove stands protected and respected as bird habitat. Also, a nearby nesting beach for sea turtles is now protected by the community and egg collecting has virtually stopped.

The SAM-plans are based on an environmental and socio-economic assessment of the area concerned and will include a set of measures and interventions, which aim at the sustainable development of the area in environmental and socio-economic terms. Activities in SAM planning include community strengthening, awareness building, SAM plan preparation, habitat conservation and resource management interventions, measures to improve water exchange in lagoons, social programs, provision of social infrastructure, training for livelihood development, micro-enterprise development support, etc. In this respect it is important to note that the socio-economic development of the population in these areas to a large extent depends on the sustainable development of its natural resources.

The Commission is of the opinion that the proposed SAM approach in principle is sound and will, if properly applied, produce effective and sustainable results. The SAM approach has been field-tested and applied in a number of projects carried out by CCD and CEA and has showed promising results.

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<sup>4</sup> In particular of the Coastal Wetlands Project (CWP), the Integrated Resource Management Programme (IRMP), both financed by the Netherlands, as well as of the NORAD-supported Hambantota Integrated Coastal Zone Development Project (HICZMP) in Hambantota District, and the recently completed USAID-supported ICZM-activity in the Rekawa area.



From the environmental point of view, the following observations can be made:

- due notice has been taken of existing Protected Areas (Wetlands, Bio-diversity areas, Marine Reserves and other Protected Areas) within and adjacent to the coastal zone. Co-operation with the Department of Wildlife Conservation (DWLC) has been arranged for the protection and management of such sites;
- concern for prevention of pollution of lagoons and other wetlands is part of the proposed SAM-approach;
- overfishing and irrational use of other resources will be addressed;
- the functions, values and attributes of mangrove conservation and sustainable management, and their direct and indirect contribution to income and livelihood of coastal communities, are fully recognised;
- the potentially serious adverse effects of intensive prawn farming activities (based on recent experience in the Puttalam area where viral disease outbreaks wiped out most of the production) are fully recognised.

### *Zoning*

Both the seaward and inland extension of the coastal zone are defined in the Coastal Zone Management Plan. The plan does not propose any further zoning within the coastal zone. There are many examples of adverse environmental impacts to what this lack of physical development planning can lead: serious damage to housing, infrastructure, etc. resulting from eroding coastline, salt water intrusion, blocking of access to the beach and physical damage in coconut plantations, mangrove areas and other habitats. The Commission understands that in the draft act (Coast Conservation and Coastal Resource Management Act of 1999) a provision is made regarding zoning within the coastal zone.

In this framework, the Commission suggests the development, where this is still feasible, of a Full Protection Zone and a Development Zone within the coastal zone. The Full Protection Zone would cover the vulnerable area where in principle, no exhaustive and extractive resource development is allowed to take place and no permits are issued for settlement and physical structures other than those required for coastal protection. The Development Zone would be the inland zone adjacent to the Full Protection Zone. Priority areas for such sub-zoning would include:

- stretches of coastline still covered with protected mangrove vegetation;
- coastal stretches of national interest that are highly vulnerable to coastal erosion;
- coastal stretches not yet occupied by physical structures, housing, gardens etc. and where the creation of a Full Protection Zone would not require large-scale resettlement or expropriation.

As a matter of national interest, any future physical planning and development within the coastal zone should take note of the establishment of such Full Protection Zone and Development Zone.

#### *Stakeholder- and Community Participation*

A selection of the important stakeholders has been involved in the formulation of the project during several workshops at the national and regional level and in consultations with community groups at selected sites. Also a number of the interventions proposed in already prepared SAM plans have been included for funding under the project. The SAM-planning approach, when properly applied, would ensure effective participation of the communities and stakeholders during project planning and implementation. The Commission is therefore of the opinion that the stakeholders and communities have so far participated to a significant level and that their views have been incorporated in the design of the project.

#### *Legal Issues*

Many national and local governmental agencies have tasks, responsibilities and the necessary legal authority to plan and undertake interventions with a direct impact on developments in the coastal zone. In a number of cases these responsibilities overlap or contradict. The planned construction of the new express way to the International Airport, which is planned to cross the Negombo Lagoon, is a good example of such a case.

The proposed new Coastal Conservation Act defines several types of special areas, including Special Area Management sites. The proposed Act is not clear about how disputes arising from overlapping plans would be solved.

Besides planning, enforcement of existing plans, laws and regulations is an issue, which requires attention of the MFARD. The Commission recommends to develop strategies and instruments, which enhance enforcement.

These issues are, amongst others, to be dealt with in the new Coastal Conservation Act, which is presently under preparation. It is not yet clear whether or not the above issues are effectively dealt with in the new Act and if and when the new Act will become effective.

#### *Institutional Issues*

The Commission has a positive opinion about the capabilities and feeling of ownership of the CCD, which is the main government department involved in the management and implementation of the Coastal Stabilization works and the CERM component. CCD plans to recruit new staff based on fixed contracts in order to implement the project. A selected number of this project staff will be offered permanent assignments during project implementation. A provision for this is included in the project budget. Towards the end of the project it is recommended to assess the manpower requirements of CCD, which enable it to continue the preparation and implementation of similar type of programs also after the project has been completed.

The institutional set-up of project activities at the local level varies, depending on the composition and capabilities of the stakeholders and the issues at stake. The Commission in principle supports this approach. It is recommended that the SAM plans clearly describe the institutional and financial arrangements, which have to be made, in order to ensure the sustainability of program interventions.

The Department of Wildlife Conservation (DWLC) will play a role as one of the stakeholders at some of the project sites. In those particular cases the capabilities of the DWLC will have to be assessed and if necessary measures have to be taken to enable effective implementation of the program component involved.

In Sri Lanka, there exist a large number of NGOs in the field of environmental protection. These NGOs will have a function as stakeholders in some of the project areas. NGOs may also be involved as facilitators in project implementation.

### **2.3.2 Main issues to be addressed in further project preparation**

The Commission has the following observations, which will have to be addressed in order to achieve the desired objectives:

- The SAM plans only cover a restricted coastal area. Where possible, linkages between the SAM plans and district/provincial and/or national plans have to be clarified.
- The SAM plans, which the Commission has studied, do not yet pay sufficient attention to the sustainability of the proposed interventions. E.g. in case of the proposed solid waste components: which are the organisations in charge of solid waste collection, maintenance of dumping sites and educational activities, how will it be financed, who will be in charge of monitoring and enforcement, etc.
- It has been explained to the Commission that the proposed credit scheme component has been taken out of the project because sufficient alternative credit schemes already exist. The Commission is of the opinion that certain small amounts would be needed as “seed money” to support pilot projects and livelihood projects. Once such activities prove to be successful, credit schemes can be used to finance such projects.
- The Commission recommends that SAM plans would be regularly updated in order to adapt to new developments and changing conditions. In this respect it would also be important to develop an effective database in which to store information on which the SAM plans are based and develop the skills and techniques to be able to update these databases.
- Acceptable social mitigation measures will have to be developed in cases where environmental measures will lead to loss of income and employment (e.g. stopping of coral mining, cutting of mangroves).
- Interventions such as opening lagoons to the sea, or cutting off fresh water running into the lagoons need careful environmental assessments.

- The Commission is of the opinion that the planned inputs for the use of consultants for the CERM component (18 mm international and 87 domestic) are too small to ensure a proper preparation of remaining SAM plans and an adequate follow up of implementation works of proposed SAM interventions.

### **2.3.3 Recommendations for project implementation**

The Commission recommends to adopt a phased approach, because of the urgency required for implementation of coastal works in some of the project sites and the need to give adequate follow-up to proposed interventions of already prepared SAM plans. This would also be in line with the implementation arrangements as proposed in the RRP, in which the first twelve months are proposed for project preparation. During the first phases of the CERM component the SAM plans will be reviewed and/or prepared and where applicable a start will be made with implementation of these plans. Several considerations are important:

- Ensure, in those cases where SAM plans are already completed, that the period between plan preparation and implementation is kept as short as possible in order to not disappoint expectations which have been created.
- Initiate small pilot projects during preparation of SAM plans in order to create support among the different stakeholders.
- Ensure that administrative procedures are designed in such a way that the periods between preparation and implementation of SAM plans are kept as short as possible and that budget allocations can be adapted where necessary. Therefore it is recommended to adopt a kind of rolling planning approach with flexible administrative procedures.
- Interventions proposed in SAM plans will be subject to normal environmental procedures in accordance with the existing legal regulations in Sri Lanka.

The Commission recommends to carry out annual review and monitoring missions by the Government of Sri Lanka and the financing agencies involved, during which 1) progress on SAM planning can be reviewed, 2) (parts) of SAM plans can be approved and 3) budget (re-)allocations can be approved in order to ensure timely implementation of these plans.

## **2.4 Observations on the institutional component**

### **2.4.1 General remarks**

The institutional strengthening component of the project is divided in the strengthening of MFARD, CCD, Department of Fisheries and Aquatic Resources (DFAR), NARA, Ceylon Fisheries Harbour Corporation (CFHC) and other organisations.

The RRP as prepared by the AsDB summarises the institutional strengthening component and provides ToRs for the project consultants as follows:

- Master Plan for Coastal Erosion Management and Coastal Zone Management Plan Update
- Fisheries Management and Quality Improvement
- Information and Database Management

The ToRs included in the RRP do not fully cover all proposals incorporated in the Draft Final Report. The exact scope of the Institutional component is therefore not exactly clear to the Commission. Also the text in the RRP does not provide specific reference to the related parts in the Draft Final Report.

The main issues related to the Institutional Strengthening component are mentioned below:

#### *Update of the National Coastal Zone Management Plan (NCZMP)*

The existing NCZMP is a useful document, which clearly describes policies, strategies and plans for Coastal Zone Protection and Management. MFARD is shifting its policies from Coastal Zone Protection to Coastal Zone Management. This development will be reflected in the proposed update of the NCZMP. Coastal Zone Management will e.g. need strengthening of the regional presence of MFARD-agencies in order to support SAM planning activities, co-ordination with regional authorities and community organisations, monitoring and enforcement and educational activities. The ToR for NCZMP is rather technical in nature, consisting of items such as data collection, proposing actions for site specific problems, carrying out investigations, etc. The Commission recommends to specifically incorporate policies and measures for Coastal Zone Management, including e.g. the development of planning instruments (zoning), enforcement, monitoring, etc.

#### *Information and Database Management*

The capacity of MFARD in the field of information- and database management will be strengthened under the project. In principle the ToR for this part of the project is clear and the approach is supported by the Commission. The plans will need to be worked out in more detail and subsequently decisions will have to be taken on the necessary hard- and software and organisational and training requirements.

#### *Research Proposals*

A number of research proposals has been put forward for funding under the project. These proposals will be carried out by NARA and by local universities and scientific institutions. The topics for these research proposals are in line with the existing NCZMP and appear of importance to the Commission. The detailed research proposals still need to be prepared in accordance with an outline prepared by AsDB.

### *Training of MFARD staff*

Training and fellowship programmes of MFARD staff at the national and regional level is proposed. A detailed training plan will be prepared based on a training needs analysis within the MFARD agencies. The Commission recommends to pay special attention to training of staff at the regional and local level.

### *Fisheries Management and Quality Improvement*

During the mission, the Commission has not given priority to review this part of the project. Activities focus on the development and introduction of a fishing operation and registration system and related training and educational programs and to prepare proposals for the reduction of post-harvest losses of fish.

### *Manpower analysis*

Additional staff will be needed for the implementation of the Coastal Resources Management Project and to implement similar projects in the future. MFARD plans to recruit additional staff under the project on a temporary basis. A part of this staff will be offered a permanent contract after completion of the project. At the start of the project a detailed assessment must be made of the additional manpower which is needed for implementation of the different project components.

## **2.4.2 Recommendations for project implementation**

The Commission has focused its review of the Institutional Strengthening Component on the issues as mentioned in the letter of the Netherlands Embassy to the AsDB (of 29-11-99). With regard to the remaining part of the institutional strengthening component, the Commission in general supports the proposed activities. Most of the proposals, however, have to be worked out in greater detail. Therefore the Commission recommends that the following activities are carried out during the preparatory phase of the project:

- Review and preparation of a detailed ToR for an update of the NCZMP.
- Preparation of a detailed proposal for the development of a database – and information management system, based on a careful analysis of information needs and the existing capabilities within MFARD.
- Preparation of specific research proposals for the research topics identified under the project.
- Preparation of a detailed training and fellowship programme, based on training needs analysis.
- Start with the Fisheries Management and Quality Improvement Component (the exact activities for this project activity will have to be worked out in more detail)
- Carry out an analysis of the additional manpower needed for project implementation.