

**Netherlands Climate Assistance Program**

***SURINAME***

**“Promotion of sustainable livelihood within the coastal zone of  
Suriname, with emphasis on Greater Paramaribo and the immediate  
region”,**

-edited summary-

Paramaribo, May 31, 2005

Project Name : Netherlands Climate Assistance Programme  
Location : Suriname  
Duration : 31 May 2005 – 30 Nov. 2006  
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## **Project Summary**

The project encompasses:

Promotion and strengthening sustainable livelihood within the coastal zone with the emphasis on:

- a. Climate related hazard
- b. Sensitivity of the coastal environment to small anthropogenic and physical changes
- c. Contribution to the formulation of national policy and planning
- d. Development and identification adaptation measure(s), to address the adverse impacts of Climate Change for the districts Greater Paramaribo and Wanica and to analyze its possible effects and feasibility
- e. Specification of the necessary financial need for adaptation and identification of potential (international) financial resources
- f. Capacity building
- g. Raising Awareness
- h. Knowledge transfer and capacity building.

The project will last for 18 months and will be executed by local consultants and experts. Technical assistance will be provided by the ETC International to the local consultants. The project development will be monitored by a Climate Change Steering Committee (CCSC) established in March 2005, just after the signing of the contract. During this period the logframe is discussed and adopted by the CCSC.

## **Rationale for the Study**

Suriname was one of the 13 countries, involved in the execution of the first phase of the Netherlands Climate Change Studies Assistance Program, phase 1 (NCCSAP1). During this project the emphasis was on the determination of the impacts of the sea level rise on the coastal zone. In this study it was concluded that large areas of Suriname's coastal zone are very vulnerable to sea level rise, in particular Greater Paramaribo. Losses will be huge if no protection measures will be taken. A mixed feasible measure was mentioned but not elaborated. Also the pilot study, which is part of the project, never came to its execution. In this way the final conclusions and recommendations found at the end of the NCCSAP1 project did not get the necessary attention. However, some recommendations that came out of the project are reflected in the present policy formulation of the government.

A second phase of the project execution is therefore proposed and adopted as NCAP2. The outcomes of the NCCSAP1 and that of the First National Communication provide most of the key inputs towards the decisions to elaborate the protection measure and to rise awareness and livelihood in the coastal zone of the country, and that of the districts Paramaribo and Wanica.

The general goals and its methodology were first discussed with the NCAP2 team in the Netherlands during the Winter Workshop early this year and finally discussed within the CCSC in Suriname. The study of the phase 2 is proposed to start in the 23<sup>rd</sup> of February 2005.

## **Background**

Consequences of global climate change are still not fully understood. For the developing countries these consequences are of great concern. One of the consequences is the sea level rise, which will negatively affect the small island states and low-lying coastal areas. Suriname belongs to this group of countries whose coastal area is very vulnerable to sea level rise (NCCSAP1, 1999). A loss of about 60% of the present GDP of the country will be observed under the BAU scenario, largest part of which will be observed at Paramaribo and the immediate region. To mitigate these adverse impacts of the sea level rise a mix feasible adaptation strategy option is proposed. However, formulation of the mixed feasible strategy still requires external technical and financial assistance. This assistance will be provided by the NCAP2.

The main assistance from NCAP2 includes the identification of adaptation measures relevance to poverty alleviation of the country and other related sectors as disaster preparedness and food security within the coastal zone.

## **Aim of the study**

The aim of this study is to strengthen the capability of Suriname to deal with the aspects of sea level rise and other relevant aspects of the climate change and, to contribute to the formulation of national policy and planning, aiming to promote and strengthen sustainable livelihood within the coastal zone. The central theme is therefore the elaboration of the mixed adaptation measure and formulation of the national policy and planning, aiming to promote and strengthen sustainable livelihood with in the coastal zone.

It has been decided that the study area will be the coastal area of Greater Paramaribo and that of district Wanica.

## **Objectives of the Suriname-NCAP 2 project**

Since the main concentration of population and most infrastructure are found in coastal zone, which also comprises large variety of natural resources, tremendous losses will be observed under 1m sea level rise if no measures will be taken. This is concluded in NCCSAP, phase 1, as well as in the First National Communication. Based on these findings the main goal of this study is therefore to promote and strengthen sustainable livelihood within the coastal zone. The developmental outcome at the end of the project is the contribution to the formulation of national policy and planning of Suriname with regard to Coastal Zone Management. The expected outcomes supporting the main goal and the developmental outcome are:

- A developed and identified adaptation measure(s), to address the adverse impacts of Climate Change for Greater Paramaribo Wanica, and to analyze its possible effects and feasibility.
- A specified necessary financial need for adaptation and identified potential (international) financial resources (e.g. for a contingency plan)

- Capacity and technical base build for Government and other institutes in order to mitigate the impacts of sea level rise.
- Support given to the Government in co-ordinating management of various vulnerable zones.
- A wide range of Stakeholders from governmental institutions, private sector and civil society are involved in responding to the adverse impacts of Climate Change.
- Awareness of Climate Change threats to all groups and systems in the coastal zone raised
- Knowledge and capacity building in the area of vulnerability and adaptation transferred

An overview of these the project description, goals, objectives and other specifications of the project is given in the logical framework matrix as outlined in annex I.

### **Justification**

As mentioned before, the coastal zone comprises many natural resources and man-made structures. The population concentration in this area is therefore high, about 95%, largest part of which resides in Paramaribo and the immediate region. The total length of coasts of Paramaribo and Wanica is about 20km, which is about 5.2% of the total coastal length of Suriname. Paramaribo comprises furthermore intensive infrastructure and small horticulture. The main international harbor is also located in Paramaribo. Other activities in this part of the coastal zone are recreation, fishery and (eco) tourism.

Except the aforementioned activities in the northern part of Paramaribo and Wanica the coastal zone functions as breeding and nursery grounds for many birds of the region and is therefore also of ecological importance.

The importance of coastal management has been stated in many reports (CSCCS 1999, Teunissen, P.A. 2000 a, b, c). Coastal zone management is widely recognized by many countries over the world and is included into their policy and planning. Suriname has not reached this stage yet. However, attempts are made to establish a Coastal Zone Management Board and a Coastal Zone Authority. These developments require additional support and a deeper understanding of all the facets of the coastal zone and its proper management.

This project will certainly contribute to these goals. With the implementation of this project national government and local institutions as well as international institutions will be involved.. Their experiences and knowledge will be made useful for the elaboration of the necessary tools and formulation of the national policy and planning of the country regarding promotion of sustainable livelihood within the coastal zone.

### **Methodology**

The methodology to be used during the execution of this project will be based on the IPCC guidelines and guidelines derived from other related works in this field. The adaptation strategies will be derived from the UNEP Handbook on Methods for

Climate Change Impact Assessment and Adaptation Strategies (version 1.3, October 1996 or later).

In addition, meetings will be organized with individuals, groups of people, organizations and representatives of all sectors who are expected to be affected by the climate change in the coastal zone in order to receive inputs in terms of important impacts and possible adaptation measures. Field visits will be organized, relevant government ministries, NGOs and other agencies will be visited. Necessary data will be derived by reviewing existing documents and interviewing Stakeholders. This information will be used by the local consultants and professionals to elaborate appropriate adaptation measures and to formulate national policy and planning for the Government of Suriname.

In the last phase of the project execution, the methodology will be tested out in the coastal zone of Greater Paramaribo and Wanica as a pilot for the rest of the country.

### **Tools**

The tools applicable for these conditions will focus on:

1. Floods and floods risk analysis.
2. Economical evaluation of the coastal lands, wetlands and protected areas.
3. Physical changes in the coastal zone, including the morphological changes at the coastal line.

### **Justification**

The coastal zone is, due to its low topography, susceptible for small changes in the sea level rise and hence for large-scale inundation of the coastal zone. Moreover, increase in water depth at the coastal line will further enhance the generation of the ocean waves and so the erosion processes. Furthermore, the ongoing anthropogenic activities will also enhance these negative developments in the coastal area. These developments at the coast will certainly affect the livelihood negatively of those, who are living and working in the coastal zone. Appropriate measures are therefore required to mitigate the combined adverse impacts of the sea level rise on the coastal zone and the anthropogenic activities.

In this regard, international support is required, in particular on analysis of models and training into these models with respect to appropriate adaptation strategies, including a multi-criteria approach, to mitigate the negative impacts.

The main tasks of the international consultants can therefore be concluded as follows:

- To train the project team in making good choices into the various existing models in determining adaptation measures.
- To train people into model elaboration
- To assist the Team in elaborating adaptation models

## **Institutions and Stakeholders to be involved in the project**

Stakeholders identified as individuals, organizations and groups who, as customary users of the land and its resources, have a common interest in the allocation of coastal zone resources. The stakeholders, who are most likely to be affected by government policies, should play the most significant role in the formulation and implementation of these policies. The planning process should make full use of the existing expertise and knowledge of the stakeholders at the local level.

In the coastal issues the stakeholders may be active also at the regional or international level. They are therefore well aware of the on-going problems in the coastal area. The main objective of the stakeholders' involvement therefore is to get better results in terms of quality of study, policy and planning through a broad commitment.

The Institutions and Stakeholders involved in this project are:

### *Governmental institutions:*

#### Ministry of Labour, Technological Development and Environment

The activities of this Ministry include mainly the coordination of environmental activities and formulation of climate change policy. Furthermore, chairing the Climate Change Steering Committee and assisting in administration of the activities of the project during the project execution. The Ministry also will contribute necessary facilities to facilitate the project execution properly. These facilities include office support ( room, furniture, electricity, telephone) and other accommodations.

#### Ministry of Public Works (Meteorological Service)

This Ministry will provide the necessary and available meteorological data for the project purposes. If required, the Ministry will assist in establishing a meteorological station in the project area for generation additional data during the project duration, including the supply of the meteorological instruments.

#### Ministry of Natural Resources (Land use management and integrated coastal zone management)

The Ministry of Natural Resources is the principal Ministry having the most interest in a good management of the coast and its resources. In this regard the Ministry is studying to establish a coastal zone management authority. The Ministry of Natural Resources can therefore provide the project with valuable information and stored data.

#### Ministry of Planning and Development Cooperation (coordination of international cooperation)

This Ministry will participate in the various workshops and in attesting the adaptation methods. The ultimate goal is that the Ministry of Planning and Development will include climate change issues in their policy and planning matter.

#### Ministry of Agriculture, Animal Husbandry and Fisheries (Land use policy)

This Ministry will determine whether other crops are possible in the change climate conditions, including the sea level rise. Their contribution in this part of the adaptation measure to mitigate the impacts of the adverse developments is highly required. It should be noticed that a change in the policy of the Ministry will affect the livelihood of the population immediately.

Ministry of Trade and Industry (industrial pollution)

The Ministry of Trade is one of the participants in the various workshops.

There is at present no local governmental system in Suriname apart from Paramaribo. If, as is intended, a local government system were to be developed, local authorities would become stakeholders in disaster management and thus in climate change-related activities.

*Agencies of GoS:*

National Institute for Environment and Development in Suriname (NIMOS)

NIMOS is represented by a member in the Core Management Group of the project, together with the head of the Meteorological Service, a representative of the Ministry of ATM and a representative of the University of Suriname. Their task is to monitor the activity of the project and to advise the project coordinator.

Maritime Authority Suriname (MAS)

The MAS is equipped with vessels and other equipment's to do necessary measurements in the deep sea and river estuary. The MAS also possesses valuable data regarding bathymetry of the coast and the historical data of the changing coastline. Moreover, the Agency will actively participate in the different workshops.

*International Governments and organizations:*

Government of the Netherlands

The Netherlands Government will provide project with financial means. Furthermore, the Netherlands Government will monitor the project development through the participation of a representative of the Netherlands Embassy in the Climate Change Steering Committee.

The ETC Foundation

The ETC foundation will manage the project on behalf of the Netherlands Government. The Foundation will see the fulfillment of the conditions mentioned in the agreement between the ETC foundation and the Ministry of ATM. Moreover, the ETC Foundation will assist the project technically if requested from the project Core Management Group.

UN Organizations and agencies operating in Suriname

The UNDP is represented in the CCSC, one of the task of which is to monitor all climate related activity in Suriname. See for further information annex 2, tasks of the CCSC.

*Civil society organizations:*

NGO Forum as representative of NGOs and CBOs

The NGO, represented in the CCSC by one of their representative, has as task to monitor all climate related activity in Suriname. See for further information annex 2, tasks of the CCSC.

Representatives of land users

The various representatives will actively be involved in the project through the different workshops, interviews, participation in project executions, data collection and finally during the elaboration and implementation phase of the adaptation measure. The representatives will also be trained into the use of tools and in other aspects of the climate-related issues.

The media

The Media will be involved in rising awareness of climate related issues in the coastal zone.

Communal organizations

The Communal organizations will also help to rise awareness in the region. Furthermore, they will also actively be involved in the process of data collection and will participate in the different workshops.

*Scientific institute:*

University of Suriname

The University of Suriname will participate as an executing stakeholder in this project.

The project coordinator will coordinate all activities of the project. He will further guide the various consultants (if needed) in their effort to fulfill their task. He will also chair the technical team, consisting generally out of consultants and experts. He will also review the technical reports of the consultants and experts and is also responsible for the progress reports of the project. Finally he will submit the final report to the ETC Foundation. In his effort to fulfill the above-mentioned tasks he will get support from the CCSC and from the Core Management Group.

## **Project organization**

A Climate Change Steering Committee (CCSC) has been established comprising of representatives from the Ministries of Labour, Technological Development and Environment; Agriculture, Animal Husbandry and Fisheries; Natural Resources; Trade and Industry, and Public Works. Furthermore representatives of a Non Governmental Organization (NGO), the National Institute for Environment and Development of Suriname (NIMOS), the Suriname Business Forum and the

University of Suriname. One representative of both the Embassy of the Netherlands in Suriname and of the United Nation Development Programme are serving as an observer of the CCSC. The Minister of ATM, Mr. C. Marica, has installed this Committee on the 4<sup>th</sup> of March 2005. The Committee will among others evaluate and monitor the activities of the Suriname-NCAP2 project and other climate related projects in the country. Mrs. M.H.Kerkhoffs-Zerp is the chairperson of the Committee. The Project Coordinator is Dr. S. Naipal who together with the technical group will execute the project. The technical group will consists as much as possible out of local experts and consultants.

The project is organized as follows:

- ETC Foundation - NCAP2
- A contact person for Suriname-NCAP2 project;
- Climate Change Steering Committee
- Project Coordinator;
  - Technical group consisted out of local experts and consultants.
  - Administrator

The Project Coordinator, appointed by the Ministry of ATM, will further appoint experts to execute several parts (sectors) of the study. These sectors are Agriculture, including Fisheries, Ecosystems, Geomorphology, Socio-economics, including human health, and Water resources including infrastructure of the coastal zone of the districts Greater Paramaribo and Wanica.

The Dutch Government is represented in the project coordination by the ETC Foundation, Energy Unit P.O. Box 64, 3830 Leusden , the Netherlands, referred to as the Client and the Government of Suriname by the Ministry of Labour, Technological Development and Environment, referred to as the Contractor. According to the signed agreement, the Client appoints the Contractor to carry out the commission as described in the project document entitled “Promotion of sustainable livelihood within the coastal zone of Suriname, with emphasis on Greater Paramaribo and the immediate region”, dated May 31, 2005. The execution of the project will be monitored by the Climate Change Steering Committee. The finances for the execution of the project will be supplied through the ETC Foundation and will be controlled by the Ministry of ATM, Suriname, through the Project Coordinator.

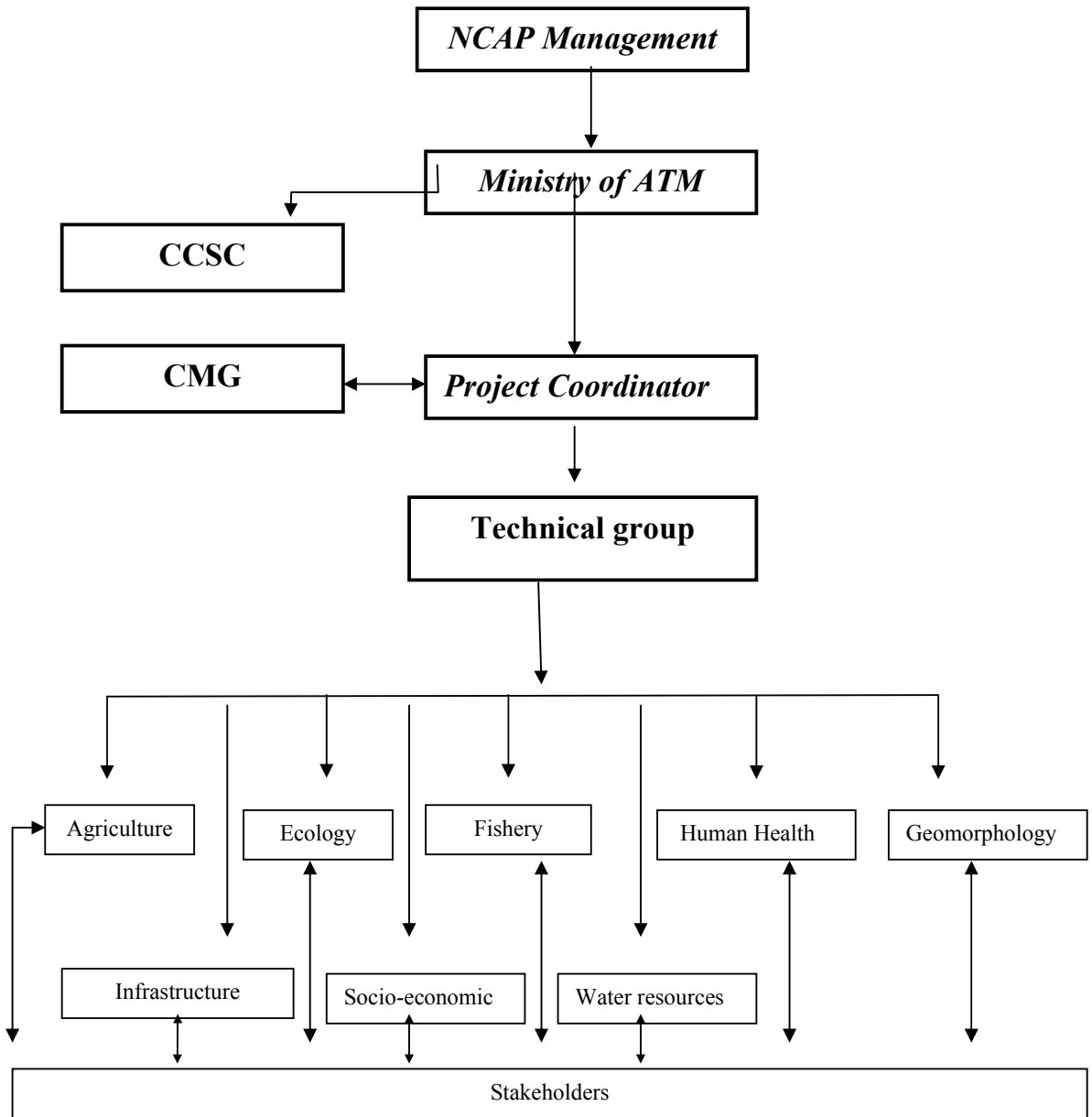


Fig. 1. NCAP Suriname, Organizational Structure

**The means for verification**

The means for verifications for monitoring indicators are given in the table here below.

**Table 2. Monitoring Indicators**

<b>Project Management Indicator:</b>	<b>Means of Verification</b>
1. The counterpart has coordinated activities effectively and executing agencies (government agencies/ universities/NGOs) have carried out their tasks professionally.	<ul style="list-style-type: none"> <li>- Work plan and corresponding administration</li> <li>- Progress report</li> <li>- Technical reports of the professionals</li> <li>- Project activity monitored</li> </ul>
<b>Study Quality Indicator:</b>	
2. The orientation towards adaptation and livelihoods has been realized and there is a credible link between project activities and poverty reduction.	<ul style="list-style-type: none"> <li>- Stakeholders organized</li> <li>- Information bureaus set up</li> <li>- Stakeholders trained</li> <li>- Adaptation measures elaborated</li> </ul>
<b>In-country coordination Indicators:</b>	
3. The project has coordinated effectively with the NAPA process and/or other relevant on-going and/or planned initiatives.	<ul style="list-style-type: none"> <li>- Work plan executed and finished in time</li> <li>- Necessary reports submitted</li> <li>- Necessary infrastructure in place</li> </ul>
4. Key stakeholders (including NGOs and/or CBOs) have effectively provided input and feedback in project activities.	<ul style="list-style-type: none"> <li>- Reports of the workshops</li> <li>- Interviews report of the professionals</li> <li>- Number of Stakeholders participated</li> <li>- NGO's and CBO actively participated in implementation program (demonstration program)</li> </ul>
<b>Policy Influence Indicators:</b>	
5. Project activities have influenced the country's poverty reduction strategy paper (PRSP), or equivalent.	<ul style="list-style-type: none"> <li>- Government officials informed in detail</li> <li>- Concept policy and planning document discussed</li> <li>- Workshop organized</li> </ul>
6. The project has contributed data and/or analysis to the country's National Communication.	<ul style="list-style-type: none"> <li>- Appropriate adaptation measures elaborated</li> <li>- Adaptation measure tested and analyzed</li> <li>- New data generated.</li> </ul>
7. The project has facilitated NGO/CBO involvement in the preparation of the country's National Communication.	<ul style="list-style-type: none"> <li>- NGO / CBO members trained</li> <li>- New documents produced</li> <li>- Additional guidelines produced</li> <li>- Recommendations made</li> </ul>
8. Awareness of policy makers in key ministries has been raised.	<ul style="list-style-type: none"> <li>- Workshop organized</li> <li>- Concept policy and planning document discussed by the governmental officials</li> </ul>
9. Opportunities for south-south cooperation (where applicable) have been utilized.	<ul style="list-style-type: none"> <li>- Regional and international workshops and conferences attended and actively participated</li> <li>- Regional workshop held in Suriname</li> </ul>

### LOGFRAME MATRIX PROJECT NCAP

	PROJECT DESCRIPTION	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
1	<p><b>Goal:</b> (The broad development impact to which the project contributes at national and sectoral level)</p> <p>1. To promote and strengthen sustainable livelihood within the coastal zone.</p>	<p>(Measures of the extent to which a contribution to the goal has been made. Used during evaluation)</p> <ol style="list-style-type: none"> <li>1. Increased activities and studies found in the coastal zone.</li> <li>2. Climate change issues included in national policy.</li> <li>3. Stakeholders are capable of participating in this study</li> <li>4. Commitment of the governmental and non-governmental departments and institutions on elaboration of the adaptation measures.</li> </ol>	<p>(Sources of information and methods used to collect and report it)</p> <ol style="list-style-type: none"> <li>1. Reports of NCAP Phase 2 studies commissioned by the government and subsequent actions.</li> <li>2. Monitoring records Terminal evaluation</li> <li>3. records of meetings of the Stakeholders to new strategy, methods and measures</li> <li>4. Reports, newspaper, articles, technical study reports</li> </ol>	<p>Policy makers &amp; stakeholders accept the proposed strategy and elaborated adaptation methods and measures to address the adverse impacts of CC</p>
2	<p><b>Purpose:</b> (The development outcome expected at the end of the project)</p> <ul style="list-style-type: none"> <li>▪ To contribute to the formulation of national policy and planning</li> </ul>	<p>(Conditions at the end of the project indicating that the purpose has been achieved. Used for project completion and evaluation.)</p> <ul style="list-style-type: none"> <li>▪ Climate Change Steering Committee (CCSC) established</li> <li>▪ Reports on climate change issue for policy makers</li> <li>▪ Climate change issues are incorporated in policy and planning documents</li> </ul>	<p>(Sources of information and methods used to collect and report it)</p> <ul style="list-style-type: none"> <li>▪ Ministerial order (establishment) and minutes of the meetings.</li> <li>▪ Multi Annual Development Plan, sectoral policy documents.</li> <li>▪</li> </ul>	<p>(Assumptions concerning the purpose/goal linkage)</p> <p>CC issues are a high government priorities International support provided</p>

3	<p><b>Objectives:</b> (the expected outcome of producing the outputs)</p> <ul style="list-style-type: none"> <li>To develop and identify adaptation measure(s), to address the adverse impacts of Climate Change for Greater Paramaribo and to analyze its possible effects and feasibility.</li> <li>To specify the necessary financial need for adaptation and identify potential (international) financial resources (e.g. for a contingency plan)</li> <li>To build capacity and technical base for Government and other institutes in order to mitigate the impacts of sea level rise.</li> <li>To support the Government in co-ordinating management of various vulnerable zones.</li> <li>To involve a wide range of Stakeholders from governmental institutions, private sector and civil society in responding to the adverse impacts of Climate Change.</li> <li>To raise awareness of Climate Change threats to all groups and systems in the coastal zone</li> </ul>	<p>(Measures of the extend to which component objectives have been achieved. Used during review and evaluation)</p> <ul style="list-style-type: none"> <li>Reports containing identified adaptation measures</li> <li>Report containing list of list of financial requirements and financial resources</li> <li>Capacity needs assessment</li> <li>Technology needs assessment</li> <li>Capacity building plan</li> <li>Transferred technology and its associated capacity-building activities</li> <li>Number of workshops held</li> <li>Number of stakeholders trained</li> <li>Management plans developed, written, and submitted for approval</li> <li>Management structure developed and submitted for approval</li> <li>Co-operation between actors established</li> <li>Public awareness campaign involving multi-media designed and implemented</li> <li>Response of the wider public increased</li> <li>Workshop programs, supporting</li> </ul>	<p>(Sources of information and methods used to collect and report it)</p> <ul style="list-style-type: none"> <li>Published intermediate reports of the project <ul style="list-style-type: none"> <li>Reports on seminars/workshops</li> <li>The established infrastructure for achieving these results.</li> <li>Number of trained personnel</li> </ul> </li> <li>Published annual government budget</li> <li>Capacity needs assessment report</li> <li>Technology needs assessment report</li> <li>Reports of Technical Advisors/ consultants</li> <li>Workshop reports</li> <li>Reports and notes on management plans and management structure;</li> <li>Project progress reports</li> <li>Project progress reports</li> <li>News reports</li> <li>Workshop evaluation report</li> <li>List of workshop participants</li> </ul>	<p>(Assumptions concerning the purpose/goal linkage)</p> <ul style="list-style-type: none"> <li>Multi-stakeholder willingness to collaborate in exercise</li> <li>Technical assistance available to ensure high quality inputs</li> <li>The budget is approved by Parliament</li> <li>Policy makers support execution of capacity building plan and strategy according to the given elaborated guidelines</li> <li>Policy makers seek the best option to strengthen the livelihood of the poorest in the coastal zone</li> <li>CCSC should enhance the further integration and collaboration between departments and institutions.</li> <li>Funding to continue the monitoring programme should be available.</li> <li>Technical assistance available to ensure</li> </ul>
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4	<p><b>Outputs:</b> (the direct measurable results of the project)</p> <p>1. Response strategies and corresponding adaptation measures are identified Elaboration of promising adaptation measures for Paramaribo made</p> <p>2. Accessible and centralised data.</p> <p>3. Knowledge transferred and capacity build in the area of vulnerability and adaptation</p> <p>4. Awareness increased</p> <p>5. Policy makers and other stakeholders are informed and confident in the elaborated measures and methodology.</p>	<p>(Measures of the quantity and quality of outputs and the timing of their delivery. Used during monitoring and review)</p> <p>1. Yearly status reports on the elaboration of the methods and measures are produced. From year 2 onwards, technical reports are submitted to the CCSC. By the end of the project the strategies, adaptation methods and measures are available including their descriptions.</p> <p>2. Database (incl. GIS) and list of available data +database manual. By the end of the project a database is established and accessible.</p> <p>3. Capacity building plan. Workshop program, supporting document on methodology, adaptation measures and database.</p> <p>4. Public awareness campaign involving multi-media completed. Literature review report submitted. Data stored in database</p> <p>5. Project a kick-off meeting organised where all stakeholders will be invited. By the end of the project: workshop to provide information's and introduce the Stakeholders to the elaborated adaptive methodology.</p>	<p>(Sources of information and methods used to collect and report it)</p> <p>1.1. Software and models 1.2. Manuals. 1.3. Progress reports 1.4. Publications 1.5. Seminars/workshops reports</p> <p>2.1. Field campaign reports 2.2. Database (incl. GIS) 2.3. Database Report (list of available data + database manual)</p> <p>3.1. Workshop evaluation reports 3.2. List of workshop participants</p> <p>4.1 Publications 4.2 New reports</p> <p>5.1 Workshop reports 5.2. project progress reports 5.3. V&amp;A course material 5.4. Materials for training in developing strategies and elaborating techniques and methods.</p>	<p>(Assumptions concerning the purpose/goal linkage)</p> <ul style="list-style-type: none"> <li>- Possible technical problems are solved</li> <li>- Sufficient data to develop strategy and to elaborate methods and measures are available</li> <li>- A sufficient number of staff and stakeholders is trained</li> <li>- Technical assistance available to ensure high quality inputs</li> <li>- Technical assistance available to ensure high quality inputs.</li> <li>- Policy makers support execution of capacity building plan.</li> <li>- Willingness to participate in workshops</li> <li>- Popular media are willing and able to implement a media campaign</li> <li>- Policy makers &amp; stakeholders adopt the proposed strategy and elaborated adaptation methods and measures</li> </ul>
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	Listing of essential financial requirements and possible financial resources	6	Financial requirements and possible financial resources listed.	6.1. Publications (Gov. budget) 6.2. News reports	Active resource mobilization by stakeholders
	Mechanism to co-ordinate Management of various vulnerable zones	7	Management structure developed and submitted for approval	7.1. Reports and notes on management plans and management structure; 7.2. Project progress reports	Policy makers seek the best option to strengthen the livelihood of the poorest in the coastal zone

5	<p><b>Activities:</b> (The tasks carried out to implement the project and deliver the identified outputs)</p> <p>1.1. Literature study, including review of all relevant reports and publications</p> <p>1.2. Model set-up for the Suriname Coast</p> <p>1.3. Model application: case study - the Paramaribo coast</p> <p>2.1. Set-up of sectoral study (here to involve stakeholders)</p> <p>2.2. Field campaigns (visual inspection and measurements if needed.</p> <p>3.1. Database set-up</p> <p>3.2. Development of data processing tools</p> <p>4.1. Stakeholders involvement in the project</p> <p>4.2. Participation in relevant international conferences</p> <p>4.3. To equip University library with the required materials</p> <p>4.4. Elaboration of adaptive measures and methodology</p> <p>5.1. Inception workshop emphasising the need and involving all Stakeholders in the project.</p> <p>5.2. Dissemination of results through publications, radio and television</p> <p>5.3. Organisation of V&amp;A workshop.</p> <p>5.4. Regional conference dealing with V&amp;A measures</p>	<p>(Implementation / work program targets. Used during monitoring.)</p> <ul style="list-style-type: none"> <li>• Investment items: 1 laptop and 1 PC, adequate for running models, printer 1 for printing reports, digital camera, beamer for presentations, office materials, order remote sensing pictures of the coastal area and processing of it</li> <li>• Order Literature/books/journals</li> <li>• Main operational expenses: Transportation (water and land transportation); water transport for visual inspection of waves and mudbanks, etc. ;provision; assurance; overhead (consumable); technical persons;</li> <li>• Number, level and person months of personnel: 6 experts (144 mm/yr); 9 members of the NCC; 1 Contact person from the Ministry of ATM; 1 Project Coordinator</li> <li>• Number of international trips to Conferences: 2</li> <li>• Number of nights and per diem expenses: 4x7 = 28 days x ... \$ = .....</li> </ul>	<p style="text-align: center;"><u>Costs</u></p> <p>Means translated into costs.</p> <ul style="list-style-type: none"> <li>• Investments costs: 25.000</li> <li>• Operational costs: 15.000</li> <li>• Personal costs: 30.000</li> <li>• International travel: 15.000</li> <li>• Administration costs: 5.000</li> </ul> <p><u>TOTAL:</u> € 90.000,=</p>	<p>(Assumptions concerning the purpose/goal linkage)</p> <p>Approval of the project, by which is meant approval of the necessary financing.</p>
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