TERMINAL EVALUATION REPORT

Country: Suriname

GCCA+ Global Climate Change Alliance Suriname adaptation project (ID 00083024)

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Disclaimer

Be stated that the analysis and recommendations contained in this document only represent the opinions of the author and do not necessarily reflect the views and opinions of the United Nations Development Programme nor any other UN Agency.

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Acronyms and Abbreviations

ABS- Algemeen Bureau voor de Statistiek (General Bureau of Statistics)
ADB- (Agrobiodiversity GEF SGP project: 'Conservation of agro-biodiversity and providing communities key crop planting materials').
AdeKUS- Anton de Kom University of Suriname
ARSD- Agricultural Research Sub-Directorate
ATM- Ministry of Labor, Technological Development and Environment (now obsolete)
AWLS- Automatic Water Level Monitoring Stations
AWP- Annual Work Plan
AWS- Automatic Weather Station
BBS- National Herbarium of Suriname
BPOA- Barbados Programme of Action
CBO- Community Based Organisation
CC- Climate Change
CCEG- Climate Change Expert Group
CCCCC- Caribbean Community Climate Change Centre
CELOS- Centre for Agricultural Research in Suriname
CFMP- Catchment Flood Management Plan
CfP- Call for Proposal
CI- Conservation International
CITES- Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMO- Center for Environmental Research
CoP - Cabinet of the President
CTO- Caribbean Tourism Organization
DAS- Division of Agricultural Statistics
DC- District Commissioner
DEM- Digital Elevation Model
DfID- Department for International Development
EBA-Ecosystem Based Adaptation
EDF-NIP- European Development Fund National Indicative Programme Page
EEZ- Exclusive Economic Zone
EIA- Environmental Impact Assessment
ERA- Expected Result Area
EU- European Union
EUD - European Union Delegation
EWS- Early Warning System
FAO- Food and Agricultural Organization of the United Nations
FCPF- Forest Carbon Partnership Facility

GCCA- Global Climate Change Alliance
GDP- Gross Domestic Product
GEF- Global Environment Facility
GIS- Geographical Information System
GoS- Government of Suriname
GLIS - Land Registration and Land Information System
GPRS- Global positioning recording stations
ICZMP- Integrated Coastal Zone Management Plan
IDB- Inter-American Development Bank
IDCS- Investment & Development Corporation Suriname
IICA- Inter American Institute for Cooperation on Agriculture
ITCZ- Inter-Tropical Convergence Zone
IWRM- Integrated Water Resources Management
JCCCP- Japan-Caribbean Climate Change Partnership
JSOOC- Jan Starke Training and Recreation Centre
KMS- Knowledge Management System
LVV- Ministry of Agriculture, Animal Husbandry and Fisheries
MCP- Multi-Purpose Corantijn Canal Project
MDGs- Millennium Development Goals (now known as Sustainable Development Goals)
MDS- National Meteorological Service (Meteorologische Dienst van Suriname)
OW- Ministry of Public Works
MSC- Marine Stewardship Council Page
MUMA- Multiple Use Management Area
NARENA - Natural Resources and Environmental Assessment
NBINS- National Biodiversity Information Network
NBAP- National Biodiversity Action Plan
NBS- National Biodiversity Strategy
NBSAP- National Biodiversity Strategy and Action Plan
NCAP- Netherlands Climate Assistance Program
NCCPSAP – National Climate Change Policy, Strategy and Action Plan
NCD- Nature Conservation Division
NCN- National Climate Network
NCSA- National Capacity Self-Assessment
NFI- National Forest Inventory
NGO- Non- governmental organization
NH- Ministry of Natural Resources
NIMOS- National Institute for Environment and Development in Suriname
NPD- National Project Director

NPM- National Project Manager
NRC- National Result Coordinators
NZCS- National Zoological Collection
OECS- Organisation of Eastern Caribbean States
OP- Development Plan Suriname 2012-2016
PA- Protected Areas
PMU- Project Management Unit
PPCR – Pilot Programme for Climate Resilience
PSB- Project Steering Board
REDD+- Reduced Emissions from Deforestation and Degradation ("REDD+" goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks)
ROGB- Ministry of Physical Planning, Land and Forest Management
RO- Ministry of Regional Development Page
COSPE- Coordination Office for Spatial Planning and Environment within NIMOS
ROM – Result Oriented Monitoring (evaluation)
R-PP- Readiness Preparation Proposal
SBB- Foundation for Forest Management and Production Control
SCPAM- Suriname Coastal Protected Area Management
SDI- Spatial Data Infrastructure
SEA- Strategic Environmental Assessment
SIDS- Small Island Developing States
SNC- Second National Communication
SWM- Suriname Water Company
SWRIS- Suriname Water Resources Information System
TA- Technical Assistance
TBI- Tropenbos Suriname International
TOR- Terms of reference
TWG- Technical Working Group
UNCBD- United Nations Convention on Biological Diversity
UNDP- United Nations Development Programme
UNFCCC- United Nations Framework Conventions on Climate Change
USAID- United States Aid.
VLT- Fifth Suriname Census of Agriculture
WB- World Bank
WLA- Hydrolic Research Division (Waterloopkundige Afdeling)
WFS- Water Forum of Suriname
WMO- World Meteorological Organization

WTTC- World Travel and Tourism Council
WWF- World Wildlife Fund

1. EXECUTIVE SUMMARY

1.1 Project Summary Table

Project Title:			
Project ID:	*00083024*		*(Million €)*
		EU financing:	3,000,000
Country:	Suriname	IA/EA own:	405,000
Region:	LAC	Government:	
		Other:	
		Total co-financing:	405,000
Executing Agency:	UNDP	Total Project Cost:	3,405,000
Other Partners involved:	Ministry of Finance, Coordination Environment Office of the President, NIMOS, ROGB/NCD; MDS; WLA, SBB; ADEk UvS	ProDoc Signature (date project began):	March 2016
		Closing Date:	31 August 2019

1.2 Brief Project Description

The project was designed to: *Contribute to the reduction of Suriname's vulnerability to the negative effects of climate change by enhancing local capacity to cope with these negative effects and to develop adequate solutions. In the present context, local capacity refers both to skills (culturally defined) as well as to facilitating equipment, tools and instruments.*

The goal and objectives of the project were:

- to reduce Suriname's vulnerability to negative effects of climate change;
- to support Suriname in improving its current climate change adaptation capacity and mitigation.

The action was aimed to support such capacity enhancing activities in two thematic areas (that also included grant pilot projects) which are reflected in the Expected Result Areas (ERAs).

The first ERA focuses on the generation of additional climate data and change analysis, on improving the understanding of climate change effects and on the development of adaptation measures or strategies in the water management and agricultural sectors.

The second ERA addresses specific capacity needs that are related to mangrove conservation proposing interventions which aim to assist Suriname in developing a number of effective tools to support the mandated ministries and interest groups in their commitment to protect mangroves.

The project is aligned with the Suriname international commitments (first and second National Communications to the United Nations Framework Convention on CC) and its Development Plan – OP (2012 – 2016) that stresses, amongst other, the importance of climate change resilience capacity and of sustainable water, nature, land and forest management ("Climate Compatible Development Strategy").

In the same way, the project refers directly to the National Climate Change Policy, Strategy and Action Plan for Suriname – NCCPSAP (2014-2021), which include concrete actions to cope with CC, elaborated by the former Ministry of Labour, Technological Development and Environment (ATM) with the help of the Caribbean Community Climate Change Centre (CCCCC).

The evaluation will be conducted according to the guidance, rules and procedures established by UNDP and EU as reflected in the UNDP Evaluation Guidance.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

1.3 Evaluation Rating Table

The relevant areas of the project have been evaluated according to the following performance criteria and ratings for Effectiveness and Efficiency, as summarized in the table below (six – point scale).

Rating	Explanation
Highly satisfactory (HS)	No shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency
Satisfactory (S)	Minor shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency
Moderately Satisfactory (MS)	Moderate shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency
Moderately Unsatisfactory (MU)	Significant shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency
Unsatisfactory (U)	Major shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency
Highly Unsatisfactory (HU)	Severe shortcomings in the achievement of its objectives in terms of relevance, effectiveness and efficiency

In a similar way, the sustainability of the project's interventions and achievements will be examined using the relevant UNDP/GEF ratings guideline as indicated in the table below.

Rating	Explanation
Likely (L)	Negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future
Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained
Moderately Unlikely (MU)	Substantial risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
Unlikely (U)	Severe risk that project outcomes as well as key outputs will not be sustained
Highly Unlikely (HU)	Expectation that few if any outputs or activities will continue after project closure

Concerning Relevance and Impact, the following scales have been used.

Relevance ratings	Relevant (R) - Not relevant (NR)
Impact Ratings	Significant (S) - Minimal (M) - Negligible (N)

1.4 Summary of conclusions, recommendations and lessons

1.4.1 Conclusions

The Suriname GCCA+ Project was highly relevant for the country. Suriname is severely affected by Climate Change and trends show that the situation can be exacerbate in the future. The project also responds to the lack of skills and resources in such specific area, present in the national stakeholders.

The Project was, overall, able to achieve the completion of several products and to generate a certain level of engagement from relevant stakeholders. This engagement dealt with the need for coastal protected areas management instruments that take into account the multiple roles and uses that these systems play in the development of Suriname and its sustainable use of natural resources to face the Climate Change (CC) effects.

The project succeeded in contributing to the achievement of its specific objectives namely:

- To reduce Suriname's vulnerability to negative effects of climate change,
- To enhance Suriname's capacity for developing and undertaking appropriate and effective measures to adapt to climate change effects.

It was also able to achieve its main proposed outputs.

The capacity at the national meteorological service has been strengthened and new stations installed.

New opportunities and technologies to reduce the vulnerability of the agricultural sector to climate change have been created and disseminated.

A National Mangrove Strategy has been produced and the existing management plans of 3 coastal MUMAs have been updated and implemented.

The patrolling and enforcement activities have been improved and public and community awareness campaigns have been adequately designed and implemented.

Clear positive impacts have been generated by the Project. They refer to national and ministerial climate policies and objectives, as well as to local economic and social activities, and to ecological elements (water, soil, forests, mangroves, etc).

The projects' outputs can be considered as sustainable, they will be useful for future activities implemented by stakeholder including for local beneficiaries.

However, not all the expected outputs have been achieved (see section 4.1.3).

The project's intended targets were overestimated given the duration of the project and the number of different activities included in the project design. The lack of proper resources (personnel, equipment, monetary ones) to achieve the stated objectives, shown by some of the stakeholders had also a negative impact. External factors, such as the economic crises and

changes within the government, were other causes for delays. All these issues resulted in the recommendation and request for extension, but despite this, the failure to achieve some expected targets is evident.

The new “phase 2” approved by the EU may allow to achieve what was not possible in the first project and will extend and enlarge its outputs and impacts.
Phase 2 provides opportunity to build on results phase 1, realizing relevant outstanding targets and outputs from “phase 1” and its impact.

1.4.2 Lessons learnt

The main lessons learnt from the project can be summarized as follow:

- Climate Change includes different subjects and has to be managed through a pluri- and cross sectoral approach.
- It is not easy to find local and international experts to manage and implement CC activities and projects;
- Climate activities in Suriname involve different ministries and local authorities. Clear definition of roles and responsibilities at the project design stage is needed;
- Involvement and support of different district and regional organizations is needed;
- Good stakeholder engagement is also a key for a successful implementation;
- Continuous communication with government partners is needed. Regular inter-departmental consultation/discussion at policy level and technical level could result in improved coordination of CC Adaptation initiatives at a national level;
- Efficient use of funds enhances collaboration and participation amongst government partners in benefit of the project objective;
- Sharing of knowledge and experience between Caribbean countries can support the projects objectives and impacts;
- When working with international consultants a national counterpart is fundamental;
- Implementation of pilot projects within the required time was very challenging;
- Data standardization is needed to make them usable and sustainable;
- In order to seek results, a project such as GCCA+ needs to interweave results-based approach and management from the very beginning;
- Projects need constant monitoring by all parties involved (implementing and executing agencies, project governance bodies);
- Adaptive management and modifications when issues arise are imperative to achieve results;
- The capacity of the implementing partner for the GCCA+ project requests to be assessed from project inception / design onward;

- Gender mainstream has to be clearly imbedded from project design onward, in order for mainstreaming to be achieved within project's ambits;
- There is a geographic issue that can act as a barrier in communications between the central government and indigenous communities. Coordination with NGOs and CSOs is vital to address this barrier.
- The evaluation methodology is objective from the assessment of the project's results and decreases the subjective opinions. It can be successfully used in other spheres of the environmental activity.

1.4.3 Recommendations

Since this is a terminal evaluation and the Project has concluded, nearly all recommendations are for future programming in particular phase 2.

They are divided into 2 categories: project design, project management and implementation.

Project design

- Start the design of phase 2 as soon as possible in order to prevent difficulties and potential delays due to the next year elections and potential changes in the government objectives and structure;
- Set targets coherent with timeframe and local conditions;
- Define clear roles and responsibilities among government and implementing partners;
- Allocate resources for maintenance of instrumental equipment;
- Include more gender indicators for the outputs in the Logical Framework;
- Provide support to ensure the implementation of the IWRM, including establishment of national water authority;
- Private sector should be more involved in the implementation of phase 2;
- Foreseen protection from vandalism for instruments;
- Allocate resources for translation in Dutch but also in local languages for villages.

Project management and implementation

- Future projects need to be closely monitored by all parties involved (implementing and executing partners, project governance bodies) in order to establish if they are meeting with expected outputs and products;
- Take into account the difficulty to find local skilled experts, as well as international ones, on Climate Change issues for the tendering procedures;

- Ensure proper data collection and sharing in usable formats;
- Ensure PMU will be fully operative at the beginning of phase 2;
- Independent evaluations are extremely valuable for course correction and catalyzing improvements. New evaluation, particularly at their mid-term, should be scheduled in due time in order to be carried out and provide recommendations to be adopted during the project implementation.
- When working with communities, underline the importance of economic benefits and/or create incentives for the communities and its members to incorporate sustainable management practices in their productive patterns.

2. INTRODUCTION

2.1 Purpose of the evaluation

The purpose of the terminal evaluation for the Global Climate Change Alliance Suriname adaptation project lies primarily on assessing the effectiveness, efficiency, sustainability and relevance of the project in light of the accomplished outcomes, objectives and effects.
In more general programmatic terms, evaluations also have a series of other general purposes, such as:

• To promote accountability and transparency, and to assess and disclose the extent of project accomplishments.
• To synthesize lessons that can help to improve the selection, design and implementation of future EU financed UNDP activities.
• To provide feedback on issues that are recurrent across the UNDP portfolio and need attention, and on improvements regarding previously identified issues.
• To gauge the extent of project convergence with other priorities within the UNDP country program, including poverty alleviation, reducing disaster risk and vulnerability, as well as crosscutting imperatives on empowering women and supporting human rights.

2.2 Scope & Methodology

The Final Evaluation should not be seen as an event but as part of an exercise whereby different stakeholders are able to participate in the continuous process of generating and applying evaluative knowledge.
The scope of the Terminal Evaluation was to:

• Assess progress towards achieving project objectives and outcomes as specified in the Project Document.
• Assess signs of project success or failure.
• Review the project's strategy in light of its sustainability risks.

To attain the evaluation's objective and carry out the assessment, a methodological approach was outlined in the early stages of the evaluation process and implemented.
The evaluation followed methods and approach as stated in UNDP Manuals, relevant tools, and other relevant UNDP guidance materials, including UNDP Guidance for Conducting Terminal Evaluation of the Evaluations of UNDP-supported, GEF-financed Projects and UNDP's Handbook on Planning, Monitoring and Evaluating for Development Results.

The evaluation provides evidence-based information. In order to carry out this evaluation exercise, several data collection tools were used for analysing information based on principles of results-based evaluation (including relevance, ownership, efficiency and effectiveness, sustainability). The evaluation was carried out according to the UNDP Monitoring and Evaluation Policy. Over the past ten years, an overall approach and method[1] for conducting project terminal evaluations of UNDP supported projects have developed. The evaluator framed the evaluation effort using the criteria of relevance, effectiveness, efficiency, sustainability, and impact, as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported Projects.

The evaluator followed a participatory and consultative approach ensuring close engagement with government counterparts, Ministry of Finance, Ministry of Public Works Transport and Communications, Ministry of Spatial Planning Land and Forest Management, Ministry of Natural Resources, UNDP Country Office, project management team, Coordination Environment of the Office of President, the Programme Manager for Suriname of the responsible EU Delegation and key stakeholders. The evaluator assessed if the project was able and to which extent, realize the stated objectives.

The evaluation matrix is included as Annex 5 and it displays for each of the evaluation criteria, the questions and sub-questions that the evaluation answered, and for each question, the data that were collected to inform that question and the methods that was used to collect that data.

2.2.1 DATA COLLECTION METHODS

Given the nature and context of the GCCA+ project and the UNDP evaluations at the decentralized level, including limitations of time and resources, the evaluator used a mix of primary and secondary data, including performance indicators, supplemented relevant documentary evidence from secondary sources, and qualitative data collected by a variety of means.

Primary data consists of information that the evaluator observed or collected directly from stakeholders about their first-hand experience with the initiative. These data generally consist of the reported or observed values, beliefs, attitudes, opinions, behaviours, motivations and knowledge of stakeholders, obtained through: surveys, interviews, focus groups, key informants, expert panels, direct observation and case studies. This method allows for more in-depth exploration and yield information that can facilitate deeper understanding of observed changes in outcomes and outputs (both intended and unintended) and the factors that contributed by filling out the operational context for outputs and outcomes.

Secondary data are primary data that were collected, compiled and published by someone else. Secondary data can take many forms but mainly consist of documentary evidence that had direct

[1] For additional information on methods, see the Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 7, pg. 163

relevance for the purposes of the evaluation. Sources of documentary evidence include: local, regional or national environmental data; nationally and internationally published reports; social, and economic indicators; project or programme plans; monitoring reports; previous reviews, evaluations and other records; country strategic plans; and research reports that may had relevance for the evaluation.

The evaluator reviewed all relevant sources of information, such as the project document, Results Oriented Monitoring report of the EU, project reports including annual project reports, project budget revisions, substantial and technical reports, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment.

The list of the main documents used by the evaluator is included as Annex 4.

2.2.2 FIELD VISIT

Field visits served the purpose of validation. They validated the results reported by programmes and projects. They were of particular importance to large, key programmes and projects that are essential for outcomes of the GCCA+ Project.

They involved an assessment of progress, results and problems and included visits to the project management or directorate.

The evaluator conducted country mission to Paramaribo, Nickerie and Coronie districts in Suriname. Interviews were conducted in all these districts including visits to project field sites.

2.2.3 ENGAGEMENT OF STAKEHOLDERS

The stakeholders, who set the vision and the prioritized results to realize that vision during the planning stage, have the best ideas on how the results would continue to remain relevant to them. They have been involved in identifying the information or feedback that was needed during implementation, which determined the parameters for monitoring and evaluation.

Having set the vision, priority results and initial parameters for monitoring and evaluation, the key stakeholders are best placed to ensure that the programmatic initiatives planned would deliver what was intended and the way it was intended. For these reasons, stakeholders played an important role in designing and carrying out a quality evaluation.

Stakeholders include individuals and groups that have a vested interest in the initiative or the results of the evaluation. Their involvement at all stages of the evaluation, including reviewing findings and assisting in their interpretation, increases the credibility, potential usefulness and sustainability of evaluation results.

The list of stakeholders interviewed during the field visit include at minimum the following:

- ADEK; Anton de Kom University of Suriname
- Department of Climate Change and Water (Chair in the Faculty of Technology of ADEK)
- District Commissioner of district Nickerie (Ministry of Regional Development)

- CM; Coordination Environment, Office of the President
- IICA; Inter-American institute for Collaboration on Agriculture
- Min Fin; Ministry of Finance, Department for Planning and Development Finance
- MDS; (Meteorological Services)
- NCD; Nature Conservation Division within the Ministry of RGB
- NCCR: National Coordination Centre for Disasters Relief
- NIMOS; National Institute for Environment and Development in Suriname
- RGB (former ROGB); Ministry of Spatial Planning, Land and Forest Management
- SBB; Foundation for Forest Management and Production Control
- WLA; Hydrological Department Suriname
- The Ministry of Natural Resources
- Stichting Water Forum Suriname
- ACT-S: Amazone Conservation Team Suriname ;
- Villa Zapakara
- Tropenbos Suriname
- End beneficiaries; Mangrove Rangers in Coronie, beekeerpers in Coronie and Weg naar Zee; Farmers Weg naar Zee; Trainees Hydro-Bid Modelling; Field team Mangrove Rehabilitation

Names of persons interview are reported in Annex 3.

2.3 Structure of the evaluation report

The evaluation report is structured beginning with an executive summary, an introduction and evaluation scope section.

A second section contains an overall project description within a developmental context, including an account of the problems the project sought to address, as well as of objectives. Furthermore, indicators and main stakeholders involved in the projects are defined, as well as the expected results. Basically, this section deals with the design stage and design concept of the project.

A third core section of this report deals with the evaluation findings, analytically observing the results framework, UNDP's comparative advantages, as well as linkages with other projects and interventions in the sector. Furthermore, this section also deals with findings relating to the actual implementation of the project, including strategic issues such as adaptive management and partnership agreements, and monitoring. This third section concludes with findings on actual project overall results and findings related to the criteria established for final evaluations such as relevance, effectiveness and efficiency, ownership at the national level, mainstreaming

and sustainability. This section deals, largely, with the findings related to the implementation process.
A fourth core section of the present report entails overall conclusions as well as forward looking issues. For example, this section includes lessons learned on the terminal assessment of the Suriname Adaptation Project of the Global Alliance for Climate Changeand best practices extracted from the project as well as recommendations for future actions and future projects.
Lastly, an annex section includes project and evaluation documentation.

3. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

3.1 Project start and duration

The Global Climate Change Alliance Suriname Adaptation Project began in March 2016 and had a planned end date of March 2019.
A six months no-cost extension was granted. Therefore, the planned duration of three years was in fact extended to be a total duration of three years and half and the final end date was August 2019. The total cost of the project was planned to be € 3.405.000.

3.2 Problems that the project sought to address

Climate Change is a major issue for the Republic of Suriname as it is particularly vulnerable to the increasing frequency and severity of droughts, floods and severe storms, and their impacts on sectors such as agriculture, fisheries, as well as infrastructure.
The agricultural sector is highly dependent on water resources and climatic conditions, and currently employs outdated technology, increasing its sensitivity to climate change.
The observed sea level rise clearly presents a major threat to Suriname's population, biodiversity and economy. Saltwater intrusion and variations in rainfall patterns could lead to a decrease in available productive land, which could have negative repercussions on national food security and export earnings.
Other effects in Suriname that are attributed to global climate change are: a decrease in annual rainfall by 200 mm (almost 10% of the average yearly rainfall) over the past 100 years; an increased intensity of rainfall (inducing erosion processes); and a less reliable rainfall distribution pattern (longer dry periods).
Such climate-related hazards are having increasingly adverse effects on the country and future climate change is likely to further exacerbate the situation. According to statistics from UNDP,

Suriname is on the list of the ten most vulnerable countries with low lying coastal plains which are threatened by sea level rise in this century.

A large proportion of the Suriname population has a low capacity to adapt to climate change and the predicted impacts are likely to be particularly negative on Suriname's' rural population because of their high dependence on rain-fed agriculture and natural resource-based livelihoods. Suriname's capacity to adapt to climate-related hazards needs, therefore to be developed to limit the negative impacts of climate change and address the country's socio-economic and developmental challenges effectively.

Making the situation more challenging, a solid institutional framework is lacking, mandates in the public administration roles are unclear and there is currently no validated CC policy or strategy available.

To this end, coordination of project activities is vital in order to achieve successful project results from start to finish as whilst there is a good number of CC initiatives under implementation by a variety of stakeholders, a coordinated approach is lacking.

Furthermore, staff capacity to address CC issues is fairly limited in addition to awareness on issues such as gender sensitivity, cultural specificity, and community participation.

The existence of data gaps and the unavailability of locally adapted numerical models clearly affected the quality of the outcomes which in turn provide the basis for the development of sectoral adaptation strategies. It is of high importance to ensure that these aspects were addressed in tandem with filling in these data gaps and to ensure an assessment of existing adaptation arrangements.Improving the Meteorological Service (MDS) and the WLA was a prerequisite for monitoring ongoing climate change, meeting rigorous environmental requirements when designing projects, searching for a healthy nation while not forgetting the contribution to efficiency and economically viable operations.Although the government's development policy is based on an integrated approach towards economic, social and environmental sustainability, the sustainable development policy framework still contains gaps. An analysis of existing legislation in Suriname in the context of climate change management (del Prado, 2014) indicates that the current legislative environment does not adequately support climate change governance. Sectoral laws are fragmented and do not address climate change, and there is no standalone climate change law. One of the most serious challenges facing Suriname are currently the lack of an adequate water policy, the lack of an umbrella law that regulates integrated management of water resources, and the lack of solid research data.

Public mandates and responsibilities for environment, including climate change, have been recently transferred from the ATM to the Office of the President. Within this Office, the sector "Environment" has been placed under the Department for National Security and climate change is one of the environmental subsectors.

One way to support effective adaptation planning, in particular related to the noticed increase in intensity and frequency of droughts, floods and severe storms, was indicated to be the

improvement of climate monitoring and hydro-meteorological data processing for improved land use and coastal resource management.

For Suriname to improve the management of these climate-related hazards it is necessary to: i) enhance the capacity of hydro-meteorological services and networks to predict climatic events and associated risks; ii) develop a more effective and targeted delivery of climate information for planning purposes; and iii) improve mangrove management.

Mangrove forests are an important component in maintaining biodiversity and storing carbon and will be integrated into the forest monitoring for REDD+ purposes.

Mangrove conservation and rehabilitation is therefore an important consideration regarding future sea defence and climate change policies. Mangrove management can therefore be considered very important and as such, new intervention strategies are needed whilst being compatible with existing or proposed national development policies and strategies.

The GCCA+ design took into account all the above mentioned problems and constraints.

3.3 Immediate and development objectives of the project

Based on problem analysis and needs assessment summarised above, the GCCA+ proposal was designed to consist of 2 Expected Result Areas (ERAs or "outcomes"). It consists of nine (9) Outputs and twenty-three (23) Activities.

The proposal was intended to support Suriname in two areas:

1) *expanding the existing knowledge base on effects of climate change (focused on meteorological and hydrological data and on developing tools (modelling) and instruments (meteorological and hydrological stations) that will help to provide more reliable information and knowledge to help modernise climate change adaptation measures to benefit the entire population;*

2) *strengthening national capacities for mangrove conservation*.

The first component focused on climate data collection, on the performance of the national meteorological service, on hydrological modelling as a basis for sustainable water resources management at country level, and on adaptive research in the agricultural sector aiming to reduce the sector's vulnerability to the negative effects of climate change. This is linked to the focal sector of the 11th EDF NIP, sustainable agriculture.

The second component addressed the problem of ongoing destruction of the mangrove ecosystems which provide a natural defence of the coastal area against sea level rise and erosion. The activities under this component are also complementary to ongoing initiatives in this field and respond to priorities indicated by the national stakeholders concerned with mangrove conservation and coastal area management. In this sense, the action facilitated the

development of a mangrove strategy, embracing the outputs of a complimentary economic (monetary) mangrove valuation study to help improve the conservational management of the still abundant but threatened mangrove areas. In both components, the focus was on the development of capacity to adapt to climate change and contribute to mitigation of climate change in Suriname.

A National Climate Change Policy, Strategy and Action Plan (NCCPSAP) has recently been published. Amongst others, the NCCPSAP indicates the need for implementation of a "Comprehensive national research programme on social, environmental and economic baselines, climate science, vulnerability, impacts and risk management". The GCCA+ action directly contributed to this strategy too.

In the medium term, the knowledge and information generated by the proposed action will be essential inputs for subsequent climate change mainstreaming into national policies and strategies in concerned sectors. The proposed action also directly contributes to global EU and international climate change commitments (REDD+, UNFCCC, SIDS etc).

3.4 Baseline Indicators established

Baseline indicators were mostly established during the design phase, as specified in the Project Document. The indicators referred to:

- Number of equipment installed
- Number of staff trained
- Number of institutions benefitting of new institutional resource
- Number of research opportunities awarded funding under EU CfP grants
- Number of knowledge sharing events
- Status of development of codes of practice and guidelines
- Number of overlapping/supporting actions with previous or current projects implemented
- Number of economic valuation reports and strategies of Mangrove area
- Number of small entrepreneurs involved
- Number of MUMA Management Plans updated
- Percentage of the key actors which have signed on to the updated management plan documents
- Monitoring of mangrove land cover is in place as stated within the management plans
- Status of briefs, facts sheets on patrolling, monitoring and enforcement that are aligned with updated MUMAs plans

- Number of national sectoral planners with improved understanding of climate change risks and adaptation measures
- Number of community members with increased awareness of sustainable mangrove management and resource use
- Percentage of coastal population exposed to mangrove conservation messages via mass media
- Number of members of Association of Journalists in Suriname (AJS) trained and/or sensitized on mangrove ecosystem related issues

The full list of baseline indicators for each expected objective and outcomes can be found in section 4.1.1 at pag. 28.

3.5 Main stakeholders

The Project, at its design stage, generated a good stakeholder analysis given the strong emphasis on participation placed during project preparation.
As part of the stakeholder analysis and participatory approach embedded in the design period, group discussions and consultations were held with a series of diverse stakeholders.
The GCCA+ intervention has been formed in a participatory manner involving extensive consultation with national counterparts in Suriname, responding directly to national gaps and priorities identified within this process.
Stakeholders include not only national and regional agencies but also donors, civil society organizations, non-governmental organizations as well as local relevant actors from the coastal districts of Nickerie, Coronie and Paramaribo.
The ministries and major departments, divisions and institutions that participate in the overall institutional environment (primary stakeholders) are presented in more detail below:

- The National Institute for Environment and Development in Suriname (NIMOS)
- Ministry of Public Works Transport and Communication, (OWT&C)
    - The National Meteorological Service (MDS),
    - The Hydrolic Research Division (WLA), Urban drainage, Urban Planning
- Ministry of Spatial Planning, Land and Forest Management (RGB)
    - The Forest Service (LBB) and the Nature Conservation Division (NB)
- Ministry of Agriculture, Animal Husbandry and Fisheries (LVV)
- Ministry of Natural Resources (NH)
- Ministry of Regional Development (RO)
    - Administers Suriname's ten rural districts

    - The Council for Development of the Interior
- National Council for the Environment
- The Foundation for Forest Management and Production Control (SBB)
- The University of Suriname, Faculty of Technology (AdeKUS)
- The Center for Agricultural Research in Suriname (CELOS)
- National Coordination Centre for Disasters Relief (NCCR)

Some civil society institutions and organisations have been involved as important players in the area of CC adaptation and mitigation:

- Amazon Conservation Team (ACT),
- Conservation International Suriname (CI-S),
- Tropenbos International Suriname (TBI Suriname),
- Green Heritage Fund Suriname,
- World Wildlife Fund (WWF)

Local and Private Entities have been consulted for the project design and involved in its implementation, they include:

- Landowners
- Resource users
- Business sector
- Beekeepers
- Fisheries
- Etc.

3.6 Expected Results

The proposed GCCA+ interventions global aim was to contribute to the reduction of Suriname's vulnerability to the negative effect of climate change by enhancing local capacity to cope with these negative effects and to develop adequate solutions.

As stated before, it was expected that the Project's objective would be achieved through two (inter related) components (Outcomes):

(1) Collecting climate data and developing capacity for sustainable water resource management

(2) Essential tools and structures for sustainable management, focused on conservation of mangrove ecosystems in place

Within each of the two above mentioned expected outcomes there were a series of expected associated outputs resulting from the Project. These are presented in the following chart.

COMPONENT 1: Collecting climate data and developing capacity for sustainable water resource management
Output 1.1 Capacity at the Meteorological Service of Suriname (MDS), Hydrolic Research Division (WLA) and other related institutions strengthened
Output 1.2: Water resources modelling and planning for integrated and sustainable water management undertaken.
Output 1.3: New technologies to reduce the vulnerability of the agricultural sector to climate variability researched and results published.
COMPONENT 2: Essential tools and structures for sustainable management, focused on conservation of mangrove ecosystems in place.
Output 2. 1 - National Mangrove Strategy endorsed
Output 2. 2 - Economic (monetary) valuation study of the mangrove ecosystems conducted
Output 2.3 - Existing management plans of 4 coastal MUMAs updated and implemented
Output 2.4: Establish and adequately equip management structures at the 4 coastal MUMAs
Output 2. 5 – Patrolling, monitoring and enforcement activities improved
Output 2.6 - Public and community awareness campaigns designed and implemented

4. FINDING

4.1 Project Design / Formulation

4.1.1 Analysis of LFA/Results Framework (Project logic /strategy; Indicators)

A project's logical framework or results framework is a very important tool, not only to guide the implementation process and to carry out continuous monitoring, but also to be used for general and adaptive management aims. Habitually monitoring a project's advancement against the log frame allows a project to distinguish whether it is achieving what it set out to do and where the problems are in achieving objectives and goals.

The project's Logical Framework or Log Frame included standard items such as project strategy; indicators, baseline values, targets at end of project, sources of verification, and assumptions. In general terms, the log frame as indicated in the Project Document charts the expected results and outcomes of the project with baseline indicators and output or outcome indicators.

Some changes were made to the indicators and targets during the ROM (Result Oriented Monitoring) mission to better measure the achievements of expected results.

The ROM expert commented on the initial LogFram as follows:

- The second indicator of ERA1 (Knowledge and understanding of climate change effects and of opportunities or ways to cope with negative effects are enhanced) related to a nationwide water resources model available and functional, is far too ambitious and not achievable within the time frame of the Project.

- The two KPI of the second ERA (Essential tools and structures for sustainable management, focused on conservation of mangrove ecosystems, are in place) are not clear, neither the difference between them. Besides, there is an indicator missing related to "…essential structures for sustainable management…are in place".

- All indicators of the Specific Objective (to support Suriname in improving its current climate change adaptation capacity and mitigation) need a revision, since the first KPI is more or less a repetition of an indicator from ERA1 (and not achievable neither), the second and third indicators are not clear or coherent and should be edited in a different way. For example, it is not logical to have the National Mangrove Strategy "prepared" when at Output level it already has been endorsed (Output 2.1). The latter is not even feasible within the time frame of the Project. Furthermore, an important indicator is missing related to awareness raising.

PMU revised the LogFrame according the comments and suggestions proposed by the ROM assessment. After the LogFrame revision, for each expected outcome and the objective, targets to be achieved at the end of the project were identified. Baseline indicators were adequately presented and the Sources of Verification have been correctly incorporated into the LF.

However, the project's objectives have not been included and this does not show a satisfactory and logical "chain of results" – Activities → Outputs → Outcomes → Objective.
Therefore, a set of indicators and targets for the project overall and specific objectives to be achieved at the end of the project, are missing. They would have been useful to monitor the overall performance of the project.
The review of this LogFrame indicates that the project was well aligned with national priorities and its logic is appropriate to address clear national needs.
The Log Frame also lacks determining when the targets would be met for most of the outputs. That is, which targets are expected to be met by the Project's mid- term, or what degree of a final outcome indicator is expected to be met by the Project's midpoint. If these indicators would have been expressed in such way, perhaps the Project might have had a more effective result.
Sex-disaggregated indicators have been properly included for training activities but they could have been considered also for other activities i.e. gender difference of CC impact.
Target values are established but, as commented in the final comments section, most of them are not realistic within the timespan of the Project and local conditions (lack of skills and resources).
The approach, intertwined from the design stage onward, had impacts on the implementation, as will be seen in the pertinent sections of this report.

The final revised LogFrame included the follow:

Objective	Baseline	Target
Output 1.1 Capacity at the Meteorological Service of Suriname (MDS), Hydraulic Research Division (WLA) and other related institutions strengthened		
1.1.1) A) number of operating meteorological equipment in expansion of the MDS meteorological network 1.1.1) B) Number of operating hydrometric stations in the coastal areas in expansion of WLA hydro network	1.1.1) A) Total 70 rain gauge stations to collect rainfall data, spread in the country. There are currently 6 AWS, 4 synoptic stations and 5 climate stations. Coverage can be estimated at 80% for the coastal regions and 20% for the interior. 1.1.1) B) WLA has a hydrometric basic network consisting of only 18 operating stations in the coastal area. Coverage for the coastal area can be estimated at 50% and no coverage for the interior regions.	1.1.1) a) Coverage MDS increased with 4 AWS and 4 rain gauges 1.1. 1) b) WLA coverage increased with 5 stations in the interior
1.1.2) number of staff trained in operation and maintenance using new guidelines & manuals*, under the project*	1.1.2) zero staff trained in operation and maintenance of new hydro-meteorological equipment	1.1.2) At least 2 persons with gender balanced composition trained on operation and maintenance of hydro-

		met equipment
Output 1.2: Water resources modelling and planning for integrated and sustainable water management undertaken		
1.2.1) Number of water management institutions benefitting from access to a new national hydrological / water resources model due to the project intervention.	1.2.1) Zero water management institutions with access to the new national hydrological / water resources model	1.2.1) By end year three, at least 2 water management institutions aware of availability and access to improved modelled output information.
1.2.2) Number of automatic data transmission for new hydrological and meteorological network stations	1.2.2) Zero automatic data transmission locally.	1.2.2) Automatic daily data transmission for at least 10 hydrological and 6 meteorological network stations by mid-year three.
1.2.3) Status of development of GoS Development Strategy and land-use Plans at National/District level	1.2.3) GoS Development Strategy and land-use Plans at National/District do not integrate climate information in their formulation and implementation	1.2.3) At least 2 GoS Development Strategy and land-use Plans at National/District integrate climate information in their formulation and implementation
Output 1.3: New technologies to reduce the vulnerability of the agricultural sector to climate variability researched and results published		
1.3.1) Number of research opportunities awarded funding under EU CfP grants, to reduce vulnerability of the agricultural sector to climate variability	1.3.1) Zero research opportunities awarded funding under EU CfP grants.	1.3.1) At least three new research opportunities awarded by mid-year one and 6 by end of year three.
1.3.2) Number of appropriate technologies developed from the CfP "grant facility" research initiatives in the agricultural sectors.	1.3.2) Zero innovative projects take place within the agricultural sector	1.3.2) At least three new agricultural focused technologies developed by end of year two that link to the relevant outputs of the JCCCP (JCCCP Outputs 2.2-2.5).
1.3.3) Number of knowledge sharing events on the opportunities and technologies developed for CC practitioners, researchers and policy-makers.	No compilation of number of knowledge sharing events available.	1.3.3) At least two national/regional knowledge sharing events per year (6 in total) with at least one associated with horticulture partnering initiatives.
Output 2. 1 - National Mangrove Strategy endorsed		
2.1.1) Status of a national mangrove strategy policy document for Suriname.	2.1.1) There is currently no statutory policy or plan for the 1,100 km2 of mangroves in Suriname. Activities for conserving mangroves are ad hoc and un-coordinated with on-going plans and programmes.	2.1.1) Final proposal Mangrove Strategy Policy Document is prepared and presented to Ministry of RGB and ready for formal endorsement by midyear three
2.1.2) a) Status of development of codes of practice, tailored to mangrove management 2.1.2.) b) Status of development of Cross Sectoral guidelines	2.1.2) a) There are no coastal regulatory building codes that provide advice/recommendations on developments close to mangroves. 2.1.2.) b) There is also no coastal protection guidance manual (or environmental policy guidelines) to help developers to design climate resilient coastal developments or structures.	2.1.2) a) Draft Code of Practice for mangrove conservation and sustainable management /use of Mangrove ecosystems produced by end of year three. 2.1.2.) b) One (1) cross-sectoral guideline for climate-resilient coastal planning is produced and disseminated
2.1.3 Number of overlapping/supporting actions with previous or current projects implemented	2.1.3. ZERO complementary/collaborative actions with the GEF Environmental Conventions Mainstreaming project, Japan Caribbean Climate Change Partnership (JCCCP) nor previous projects such as the Integrated Coastal Zone Management (ICZM) project	2.1.3) At least 3 complementary activities are taking place with the GEF Environmental Mainstreaming project by the end of year two. At least 3 activities are implemented by end of year two.

	report, Suriname Coastal Protected Area Management Project (SCPAM).	
Output 2. 2 - Economic (monetary) valuation study of the mangrove ecosystems conducted		
2.2.1) a) Number of economic valuation report of Mangrove area. 2.2.1) b) Number of small entrepreneurs in coastal areas trained in sustainable income alternatives due to the project intervention.	2.2.1 a) Economic valuation assessment of Mangrove Ecosystem in Bigi Pan; on fisheries and tourism 2.2.1) b) Zero small entrepreneurs in coastal areas trained in sustainable income alternatives due to the project intervention.	2.2.1) a) At least 1 Economic Valuation report of Mangrove Area 2.2.1) b) At least 50 potential local small entrepreneurs trained in sustainable alternatives including women and youth by end of year three.
2.2.2) Number of economic strategies identified that support the "value added" products identified in Activity 2.2a.	2.2.2) No economic strategies are set out to encourage mangrove conservation in Suriname. At present, most local communities and populations lack the capacity to produce and market potential new products from mangrove areas.	2.2.2) At least 1 new market initiatives facilitated by private sector for improved access to micro-credit and capacity-building programs
Output 2.3 - Existing management plans of 4 coastal MUMAs updated and implemented		
2.3.1 MUMA Management Plans are updated and implemented with updated land use guidelines and tailored towards improving mangrove conservation.	2.3.1) Existing management plans exist for coastal MUMAs, though the only recently accepted plan is for Bigi Pan MUMA.	2.3.1) Four (4) updated MUMA management plans by the end of year two.
2.3.2 % of the key actors have signed on to the updated management plan documents, declaring adherence to proposed zoning regulations	2.3.2) Linked to this, most management plans do not involve local communities in the implementation of mangrove conservation measures and hence do not integrate agricultural and water use livelihood challenges	2.3.2) Three (3) district council plans, including investment plans, incorporate MUMA zoning regulations and integrate future recurrent and capital expenditure needs by end of year three.
2.3.2) Monitoring of mangrove land cover is in place as stated within the management plans.	2.3.2) There is no formalized monitoring of mangrove extent and health (or use). Uncoordinated mangrove monitoring takes place and there are no clear indicators to demonstrate biodiversity improvements.	2.3.2) M&E programs for mangrove land cover and health developed and implemented
Output 2. 4 - Management structures at the 4 coastal MUMAs established and adequately equipped		
2.4.1) Number of staff trained to implement new regulations under the National Mangrove Strategy	2.4.1) Zero trained staff in key aspects of MUMA management related to National Mangrove Strategy.	2.4.1) At least 7 core staff trained and assigned for each MUMA
2.4.2) Extent to which procedures and capacities are aligned to new guidelines for mangrove management	2.4.2) Zero alignment of MUMA management needs with necessary knowledge and capacities.	2.4.2) By the end of the project MUMA management needs in staff knowledge and capacities aligned with each other
Output 2. 5 – Patrolling, monitoring and enforcement activities improved		
2.5.1) Status of briefs, facts sheets on patrolling, monitoring and enforcement that are aligned with updated MUMAs plans.	2.5.1) No information on Patrolling, monitoring and enforcement activities	2.5.1) By the end of each year, (1) annual briefing notes, and fact sheets on patrolling, monitoring and enforcement activities are produced and disseminated.
2.5.2) Number of persons trained to implement the new National Mangrove Strategy and supporting guidelines/codes of practice.	2.5.2) Baseline within line Ministry is zero. Capacity at the national level relevant to the integrated planning and management of mangrove is limited to a	2.5.2) By mid-Year three 30 successful trainees from a national training seminar for relevant national ministries and organizations on climate-resilient

	core group of experts within GoS and research institutions.	coastal planning conducted.
2.5.3) Number of national sectoral planners with improved understanding of climate change risks and adaptation measures.	2.5.3) Zero integrated framework and human and institutional capacity for assessing, planning for, and addressing climate change-induced risks in coastal areas	2.5.3) By the end of year three, At least 8 disaster management teams of 17 district commissioner's offices and national sectoral planners have improved understanding of Climate change risks and adaptation measures and an up-to date district disaster risk management plan
Output 2.6 - Public and community awareness campaigns designed and implemented		
2.6.1) a) Number of community members with increased awareness of sustainable mangrove management and resource use, including women and youth, due to the project intervention. 2.6.1) b) percentage of coastal population exposed to mangrove conservation messages via mass media	2.6.1) a) Zero community members with increased awareness of sustainable mangrove management and resource use, including women and youth 2.6.1) b) zero of all coastal populations have been exposed to mangrove protection knowledge	2.6.1) a) At least One hundred (100) community members involved in awareness activities regarding sustainable mangrove management and resource use, including women and youth. 2.6.1.) b) 30% of all coastal populations have been exposed to mangrove protection knowledge projects by end of year three.
2.6.2) a) Number of members of Association of Journalists in Suriname (AJS) trained and/or sensitized on mangrove ecosystem related issues. 2.6.2.) b))Number of male and female communication officers from participating institutes trained.	2.6.2) a) Zero training of media/ journalists only have a basic understanding of mangroves in relation to the coastal area. 2.6.2.) b) zero trainees	2.6.2) a) At least 15 of reporters/media in Suriname trained/sensitized on mangrove related issues by end of year three. 2.6.2.) b) At least 10 of trained officers are female.

4.1.2 Assumptions and Risks

A risk log was included in the GCCA+ project document. The proposal text stated that the most significant risk which could have impacted the implementation of this project was political instability, fluctuations in the institutional make-up of the government (based on the new Government reshuffle from the general election in 2015), and the resulting lack of coordination among government structures, as well as challenging financial situations and conflicting mandates.

Indeed, some unpredictability and uncertainty for the public sector has been generated from the 2015 election and Ministries were aware that there may be significant changes that may result from the election, thereby impacting mandates, structures and budgets.

At the time of project formulation, it benefitted from a strong political commitment from national as well as municipal authorities and it was stated as a measure to limit a number of risks from materializing. To this aim, it could have been seen also the consistent involvement of a

diverse set of partners, including local District Officials, police officers, community organizations and NGOs.
However, although the project foresaw to mitigate this risk by ensuring good cross-collaboration and coordination, some delay faced by the project was due to new national government set up.
Over the course of the project, a UNDP risk log has been regularly updated in intervals of no less than every six months in which critical risks to the project have been identified.
The main risks identified originally in the formulation phase of the Project remained valid and they were related to the high staff turnover at target ministries undermining installed technical capacity and to delays in recruitment of qualified project staff affecting the time frame of different project activities.
Some key risks and their adequate contingency measures were reported in the proposal text and they include:

Climate change does not undermine conservation goals in MUMAs
Lack of incentives for particular local communities to cooperate in activities that do not yield immediate financial value, but aim at longer-term resilience, may reduce stakeholder engagement and comprehensive participation. Envisaged end users do not make full use of the outputs of the action (data & information, models, technologies, strategies, equipment).
Due to staff turnover at the target Ministries the trained staff may leave for other job opportunities undermining installed technical capacity
Certain institutions fail to provide access to required data and databases under their custody.
Delays in recruitment of qualified project staff may affect the timeframe of different project activities
It is feasible to integrate improved institutional procedures and regulations into the existing framework.
The action involves a large number of different actors, covers several technical areas with the risk of dispersion
Lack of EU visibility for the action

4.1.3 Lessons from other relevant projects (e.g., same focal area) incorporated into project design

Government led donor coordination is under development however, a "Donor Coordination Group", already exists and it is organized by the donors themselves without participation of authorities of the Suriname Government. The regular members of the donor group are UNDP, EU, Inter American Development Bank (IDB), Inter-American Institute for Agricultural Cooperation (IICA), China, Brazil, France and the Netherlands. The group comes together approximately once a month; the host of the meetings is on rotation and sets the agenda.

These donor meetings facilitate the coordination of common activities but also the adoption of lessons learnt from already concluded projects.

The project design already incorporated a number of lessons learnt and common activities with other relevant projects that can be found in the project proposal. Few examples can be mentioned here.

Suriname is a beneficiary of the Caribbean component of the Intra-ACP GCCA+ support programme (2011-2014), implemented by the Caribbean Community Climate Change Centre (CCCCC) based in Belize. This regional programme focuses on climate monitoring, climate modelling, vulnerability and risk assessments, development and implementation of adaptation projects and access to carbon financing. CCCCC with support under the EU Global Climate Change Alliance (GCCA+) is installing over 150 hydro-meteorological/agrometeorological stations across the Caribbean, some of them have been used for the GCCA+ Suriname together with training activities.

Recently completed projects of relevance include the GEF-financed Capacity Building in the Mainstreaming of Sustainable Land Management (SLM) in Suriname project. This project's objective was "to reduce land degradation trends by creating an enabling environment for responses to land degradation through capacity development and mainstreaming of sustainable land management amongst key stakeholders." This project sought to create broad-based political and participatory support amongst key stakeholders for and mainstreaming of sustainable land management into national development strategies and policies, such as plans and legal and budgetary processes. The lessons learned from the SLM project have be beneficial to the proposed GCCA+ project.

There were some important lessons learned from Conservation of the Guianas Shield (UNDP) in particular, the project has contributed to institutional learning in the conservation arena by operationalizing protected areas. One can obtain an improved understanding of the challenges that lie with environmental stewardship at the local, district and national levels.

The regional project Integrated and Sustainable Management of Trans-boundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change (ACTO) provided examples on how to contribute to the effective protection and sustainable use of water and land resources of the Amazon Basin, based upon the principles of integrated water resources management (IWRM) while managing the effects of climate change within Amazonian communities in a coordinated and coherent way.

Other lessons have been incorporated from the Integrated Coastal Zone Management (ICZM) project which was funded by the Interamerican Development Bank, and the World Wildlife Fund's work in Bigi Pan.

4.1.4 Planned stakeholder participation

Stakeholder participation at the planning stage was comprehensive. The Project, at its design stage, generated a good stakeholder analysis. It not only included a list of relevant broad ranging institutional stakeholders but also an analysis regarding their relevance to the project. Stakeholder participation was planned in the design period to take place at different levels during the life of the project, such as local stakeholder participation in workshops, events, etc., that were generated by the Project as well as in the different boards and committees that would guide the Project to its completion.

Two relevant multi-stakeholder Forumthat are very active in Suriname have been involved.

The Water Forum, which was established in 2012, aims to promote an Integrated Water Resources Management (IWRM) approach for attaining water sustainability, as well as fostering regional and international partnerships with stakeholders sharing a common objective of sustainability. The Water Forum Suriname provides a platform for all stakeholders to discuss water related issues that require an integrated approach including members coming from the drinking water sector, agriculture, environment, waste water, education, private sector and health. It has organized public debates and has published a number of articles in newspapers, for instance around World Water Day. In addition, it actively participates in water related workshops.

The other forum is the Mangrove Forum (MaFoSur), formedin August 2014, as an open platform for the protection, conservation and, possibly, expansion of the mangrove ecosystem in Suriname. To this end, MaFoSur enhances the involvement of communities in the protection and conservation of the mangroves, and promote a sustainable use of goods and services provided by the mangrove ecosystem. Both these forums, in their respective fields, have an important role of coordinating and steering relevant interventions and initiatives.

Through the Office of the President, the Climate Change Expert Group (CCEG) had been established in 2013 to represent national issues relating to climate change impacts. Its membership consisted of experts in hydrology, meteorology, climatology, financing, local and foreign policy, sustainable development and conflict resolution. Some of them, i.e. Prof. Sieuwnath Naipal, have been actively involved in the GCCA+ Suriname project.

The Project Board responsibilities included monitoring the effective management of project funds, being accountable for the quality, timeliness and effectiveness of project-funded outputs, and ensuring adequate implementation of national legislations and regulations, rules and procedures. The Project Steering Board (PSB) included representatives of the main national government agencies that are related to environment and CC issues (Cabinet of the President – Chair; Ministry of Finance, National Institute for Environment and Development – NIMOS; Ministry of Spatial Planning, Land and Forest Management – ROGB; and Ministry of Public Works

- OW), and the UNDP Suriname and EU Delegation. The list of the stakeholder involved in the project is reported in the previous “main stakeholders” paragraph at pag.23.

4.1.5 Replication approach

The project design foresaw some activities to foster its continuation and replication.
Events were planned to showcase for environmental and economic benefits to serve as publicity events where information regarding their development would have been disseminated to set the stage for the replication of these experiences.
These activities had been organized with the communities to consolidate their experiences and translate them into concrete income-generating activities they include training events involving local communities, farmers, film makers and media workers. Several events involving implementing partners, stakeholders and local beneficiaries have been held in Nickerie and Coronie. In order to foster the replication of best practices, climate change adaptation measures in agriculture have also been presented in a climate change learning events to students and institutions from districts of Marowijne and Paramaribo.
For this purpose, the Mangrove Educational Centre Coronie (MECC) was renovated and community members have received training on mangrove education for improved communication with the public.
During the final project phase, it was supposed to start from lessons learn to include instances of replication of the project strategy, indicators of sustainability of project actions and other relevant initiatives in Suriname and worldwide.
The proposal also foresaw that, as part of the National Mangrove Strategy, a longer-term capacity program should have been developed to address the medium and long-term capacity needs of mangrove managers.
The SCPAM (Suriname Coastal Protected Area Management) project strategy has been formally approved during the Project implementation period to ensure the strategy is coordinated with broader SCPAM outputs, PA planning and environmental conservation, and to support the replication of the project strategy on a national level. It has also been discussed with the relevant sectors to ensure their buy-in for increased conservation and sustainability.
Additionally, when considering the strategy of this project and the fact that it is part of national Climate Change priorities, there is a high probability that the project achievements will be replicated and scaled-up where and when needed.
The project is imbedded in the broader government strategy to strengthen its climate expertise, resources and objectives.

Some of the project's activities can be considered as innovative at least at Caribbean scale, such as hydro-meteorological data acquisition and digitalisation and mangrove plantation as barrier to fight the sea water intrusion.
Their results have already been presented at international events and they have relevant replication potential in other areas in Suriname and in other countries as well.
It is also envisaged that 100% of the countries mangroves (1,100km2) will be covered by legal instruments of essential planning "tools" to ensure their long term sustainable management by the end of the project.

4.1.6 UNDP comparative advantage

The UN system is generally credited for its impartial policy support, advice, and advocacy; its institutional and technical capacity building; and its promotion of intergovernmental cooperation at regional and international levels. Among the benefits of working with the UN were the ability to engage a broad cross- section of stakeholders, to have a clear programmatic approach with a results orientation, and to include a human rights-based approach to programming. This is even more relevant because several UN agencies operate at regional or multi-country level within the Caribbean.
The design of the project acknowledged UNDP's comparative advantage in the areas of human resource development and institutional strengthening. UNDP has a long-established Country Office in Suriname, which has allowed the Agency to develop strong relationships with diverse institutional actors that potentially could or would have participated in the Project.
UNDP's capital of information, knowledge management as well as its regional and global positioning and development of similar projects is also an UNDP comparative advantage at the design level. In the design stage these particular advantages have been used to ensure inter project learning and integrate lessons learned on climate change, biodiversity conservation and sustainable use, coastal management, protected areas and similar subjects included in the project.
Furthermore, UNDP's capacity to impulse innovation is also an asset and comparative advantage that has had a certain degree of bearing on the GCCA+ Project, for instance driving analysis such as valuation of MUMAs, biodiversity offsets, payment for environmental services, or integrated management which doubtfully would have been propelled in Suriname without UNDP's impulsion.
UNDP has strong also comparative advantages to implement EU-funded projects. EU remains the largest funding source for development activities in Suriname. As this evaluation demonstrates, UNDP has a number of comparative advantages in competing for EU funded projects:

- Good working relations established with the Government to operate in such politically sensitive areas as human rights, strategic economic planning and public administration reforms.
- Solid experience in community development and supporting civil society.
- Extensive expertise in the area of social inclusion in Suriname that is an important area in EU's agenda.
- Operational capacity to effectively and transparently implement EU-funded projects. UNDP has transparent and effective management practices and procurement rules that both the EU and the Government may find attractive in executing EU-funded projects. If EU-funded projects are implemented by UNDP in cooperation with the Government, it will eliminate risks to integrity in public procurement for EU-funded projects.
- Expertise in complying with EC internal procedures such as project monitoring and verification.

4.1.7 Linkages between project and other interventions within the sector

At present and in the area of climate change, the most active development and donor agencies are: UNDP, the IDB (focus on renewable energy and energy efficiency), the French bilateral agency AFD (plans to support coastal protective infrastructure), the Global Environment Facility (GEF) funding and World Bank/FCPF contribution to the REDD+ Readiness project), WWF Guianas (EUR2.5M) and the Flemish Interuniversity Cooperation having a long-term cooperation agreement with AdeKUS. The University of Utrecht and the AdeKUS, financed through the Dutch Fund for research on the Mangromud Research project on modelling for mangrove and Mudbanks in Suriname

The Project has put special emphasis in encouraging synergies in order to reinforce actions and to make efficient use of its available budget.

As most important complementary interactions we can mention:

- Caribbean Community Climate Change Centre – CCCCC: the CCCCC Project is financed under the agreement between the United States Agency for International Development (USAID)/Eastern and Southern Caribbean (ESC) for the implementation of the Climate Change Adaptation Program (CCAP) in the Eastern and Sothern Caribbean. The centre has financed the acquisition of 16 automatic water level stations, which made a modification of the Project budget line of MDS activities possible in benefit of WLA activities. To date, Suriname (specifically MDS) has also benefited from CCCCC through: training in climate modelling; training in vulnerability and risk assessment; and technical assistance for the development of a national climate change policy and strategy with its action plan.

- Japan-Caribbean Climate Change Partnership (JCCCP): In collaboration with JCCCP the Project has carried out a Knowledge, Attitudes, Practices and Believes research (KAPB) in order to develop a communication strategy for CC mitigation and adaptation in Suriname. A second joint action with the objective to enhance the response mechanism to disasters on sub-national level in close collaboration with NCCR. The Project was in charge of the training activities in 5 Districts and JCCCP of the other 5 Districts, covering the whole country. Concrete product of the training are contingency plans for a total of 19 District Commissioners offices.
- ACTO/GEF project "Monitoring the forest cover in the Amazon Region": With SBB as implementation partner the Project has negotiated to include mangrove forest as additional forest-cover category in the established forest monitoring protocol of SBB (geoportal GONINI.org). In this way the project has literally "put the mangrove on the map" and given importance to mangrove as one more type of forest classification.
- World Bank (Greater Paramaribo Flood Risk Management Programme launched in 2016): is using the software HEC-RAS, which is a computer programme used for modelling hydraulics of water flow through natural rivers and other channels. The Project promoted an interchange of the WB experience with the WLA and MDS departments in order to facilitate the decision what kind of model to use for their own water resources modelling.
- The UNDP/GEF (United Nations Development Programme/Global Environmental Facility) supported project “Suriname Coastal Protected Area Management (SCPAM)”, aimed to promote conservation and improved management of protected areas (mangrove ecosystems) along the coast through improved management of protected areas along the western coast of Suriname. Its overall goal was to safeguard Suriname’s globally significant coastal biodiversity. The two components of SCPAM were: (1) to improve the management effectiveness and efficiency of the Multiple-Use Management Areas (MUMA’s); and (2) to increase and diversify the MUMA funding. CELOS participated in this project with regard to mud bank (soil) sampling, tarpon baseline studies and sampling monitoring protocols, water quality assessment, mangrove assessment (carbon measurements), capacity building (training of locals and game wardens in field sampling techniques). The GCCA+ action benefitted from it in particular in relation to the management plans and the MUMA structures. Moreover, activities under ERA2 of the GCCA+ project which target diversified funding sources, linked with initiatives under this project, seeking broader financial sources for sustainable development financing in general. The work of CELOS has been developed further regarding the support towards monitoring field personnel to better collect samples for interpretation and analyses by CELOS, ROGB, AdeKUS and others too.
- The UNDP/GEF project “Mainstreaming Global Environment Commitments for Effective National Environmental Management”, has the objective to generate global environmental benefits through improved decision-support mechanisms and improved local planning and development processes in Suriname, by harmonising existing information systems that deal with the Rio Conventions integrating internationally accepted measurement standards and

methodologies. To achieve this objective, the project will work towards: (1) Increased capacity of decision makers and stakeholders to manage environmental planning and processes that lead to decisions aimed at increasing global environmental benefits through better use of information and knowledge; and (2) Improved national capacities for the effective coordinated management and implementation of the Rio Conventions, and for continued leverage of financial resources to support the Conventions' objectives. This project provided multiple opportunities for synergy; and collaboration with the bilateral GCCA+ action.

- The implementation of Suriname's REDD+ Readiness project was complementary with GCCA+ because it also addresses the issue of global climate change and supports Suriname in improving its adaptation and mitigation approaches to climate change. The REDD+ Readiness project has been approved by the Forest Carbon Partnership Facility of the World Bank. The EU has financially contributed to the development of the REDD+ Readiness project proposal through its support to the Guiana Shield Facility implemented by UNDP.
- Suriname participates in the regional Caribbean research project "Climate Modelling, and Impact and Economic Modelling Implementation Plan (2011-2021)". As part of this initiative, a modelling project called "Future Change of the Climate in Suriname" is currently under implementation by the Department of Infrastructure at the Anton de Kom University of Suriname (AdeKUS). The project mainly focuses on data accessibility rather than data collection and analysis and modelling.
- Global Environment Facility (GEF)/Small Grants Programme; a Strategic Project exists on agro-biodiversity conservation and propagation of planting material of key food crops for interior region, focused on the production of upland rice varieties by LVV, ADRON, CELOS; characterization of cassava varieties by CELOS. LVV pilot project on greenhouses remain the key focus. LVV is also trailing the use of greenhouses with attention on small farm operations using hydroponic garden techniques.

4.1.8 Management arrangements

A Project Steering Board (PSB), chaired by the Office of the President has been set up from the beginning of the project, as well as under the guidance of the Office of the President a National Project Director (NPD) was designated. The PSB met at least twice per year and it was responsible for making management decisions for the project in particular when guidance is required by the National Project Manager (NPM).

The PSB played a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. The PSB was also in charge of ensuring that required resources were committed and

arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies.

The responsibilities of the PSB were to:

- Provide guidance and guidelines in the implementation of the project, approving project strategies, plans and annual reports;
- Provide input and approval of annual work plans submitted by the project manager;
- Provide advice and guidance to the Project Manager on the coordination of project implementation;
- Supervise and approve the annual work plans and short-term expert requirements;
- Provide strategic advice to the implementing institutions to ensure the integration of project activities with national and sub-national sustainable development and climate resilience objectives;
- Ensure inter agency coordination and cross-sectoral dissemination of strategic findings;
- Ensure full participation of stakeholders in project activities;
- Review progress and provide guidance on long term sustainability of the project's achievements;
- Approve project proposals submitted through the GCCA+ Call for proposal tender process.
- Assist with organization of project reviews and contracting consultancies under technical assistance; Provide guidance to the NPM.

In the PSB the Ministry of Finance and UNDP Suriname had the primary function of ensuring the realization of project results from the perspective of project beneficiaries. Other members of the PSB included representatives of Coordination Environment for the Office of the President; NIMOS, Finance, OWT&C, RGB, amongst others.

From the project implementation perspective, a Project Management Unit (PMU) has been set up. A four staff PMU was planned, to consist of a Project Manager and two technical project support personnel and one project assistant. The PMU was to be responsible for directing, supervising and coordinating the project's implementation.

The specific duties of the Project Manager were broad, and they entailed vis-à-vis management specifically:

- providing management leadership;
- budgeting, planning and general monitoring of the project;
- supervision and coordination of the Project's work;

- ensuring adequate information flow, discussions and feedback among the various stakeholders;
- preparing annual work plans; catalysing adaptive management of the project;
- preparing relevant reports; oversee consultants and subcontractors;
- monitor expenditures and financial delivery; and,
- liaise with partners to ensure their co-financing contributions are provided within the agreed terms.

Regarding technical inputs, the Project management was expected to:

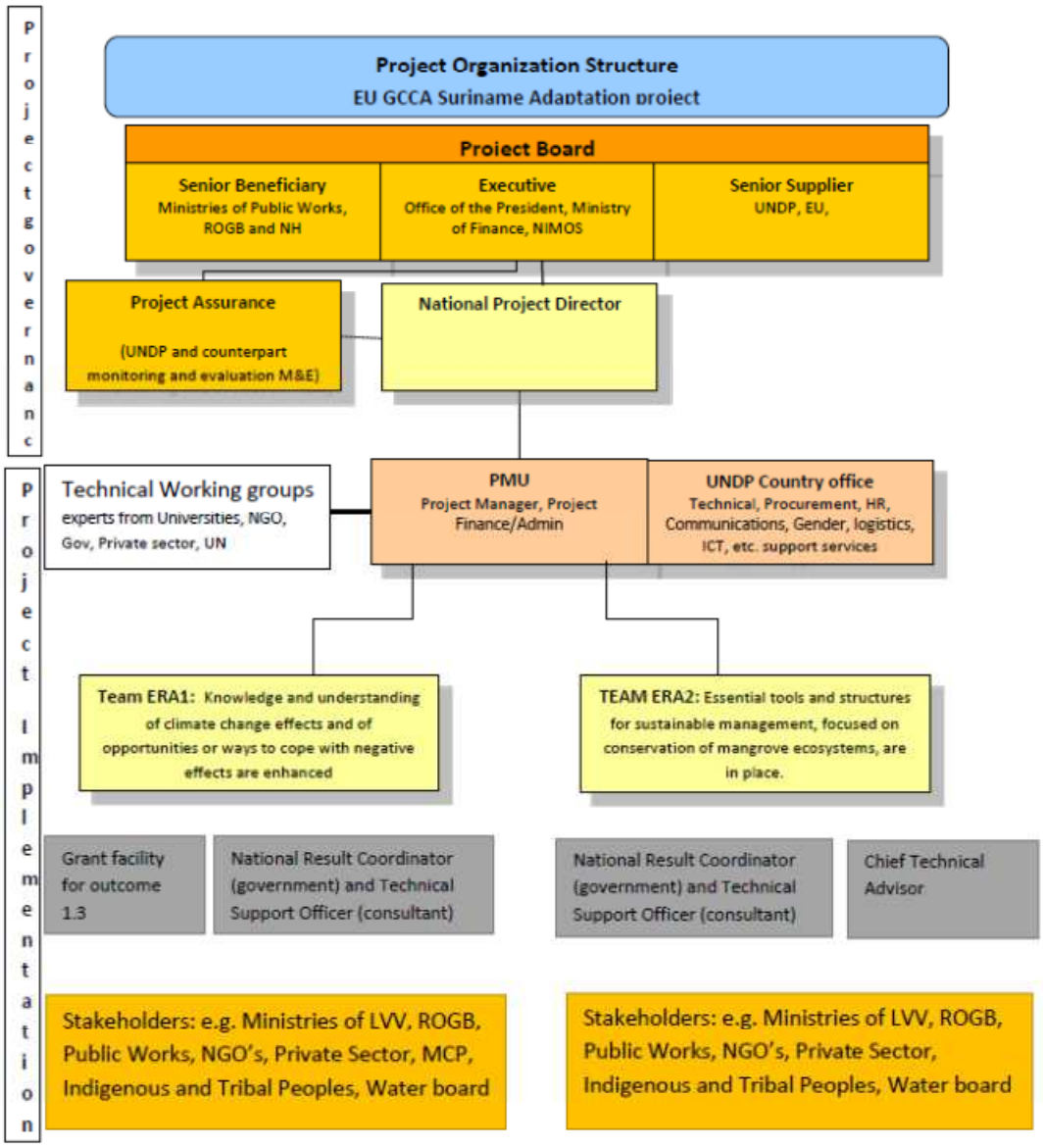
- provide critical and significant technical input;
- provide overall technical guidance and consistency of vision for project's strategic protected area network expansion and protected area management approach;
- provide technical input to and be responsible for preparation of the development of Terms of Reference for consultants and contractors;
- foster and establish technical best-practice links with other related protected area initiatives; and
- overall, interact at a technical level, with relevant national and regional protected area initiatives and with communication and training components of the Project.

Two Technical Working Groups (TWGs) were foreseen to supporting the PMU on specific technical issues. Members have been nominated by the GoS which have been set up to address technical issues for both ERAs as required.

The TWGs planned in the original design of the Project and consisting of experts to support the PMU with respect to technical issues for both ERAs have not been formally created however, in practice this function is already assuming to great extend the NCT and individual experts, with which the PMU has built good relationships.

A forthright Project Organization Structure has been established in order to manage implementation of the project. This is presented in the graph below.

Figure 1 Project Organization Structure (source project document)



4.2 Project Implementation

4.2.1 Adaptive management

Adaptive management has been used by the PMU regularly to adapt to a changing environment. It was particularly used as a mechanism to respond to stakeholders' needs and priorities. Thanks to the adaptive management demonstrated by the PMU the main project's objectives have been achieved despite the problems and delays encountered.

However, as reported at pag. 3 of the ROM consolidated report, PMU and UNDP were not sufficiently aware of the fact that the originally established targets in the LF could be adjusted and activities modified. As a result, neither the logical framework, nor indicators or expected outputs were changed formally during the implementation period until the ROM mission took place in February 2018 after 2 years from the project start.

Following the ROM expert recommendations (Recommendations R2 and R4 at pag. 5 and 6 of ROM Report), the LogFrame indicators have been modified and a six month extension has been requested and accepted by EUD.

However, the adaptive management of the Project was not fully actively catalyzed since monitoring progress towards achievement of project objectives vis-à-vis the agreed progress indicators was not sufficiently carried out, as some of the expected targets have not been achieved. The ROM also recommended that based on the findings and recommendation that a mid-term evaluation was not necessary, and so this was not carried out (Recommendation R7 at pag. 6 of ROM report). Indeed the project was finalized without a mid-term evaluation however, this hindered the possibility of fully applying adaptive management procedures in order to redirect the Project as needed. A mid-term review could have been useful to provide further recommendations during the project implementation to meet all the expected targets.

4.2.2 Partnership arrangements

As discussed in some previous sections, the stakeholder engagement and the management arrangements set at the beginning of the project were adequate for the implementation of the project. However, at such stage, roles and responsibilities for each party were not clear to all the participants this was also due to the number of ministries (7) and actors involved and to the changes which occurred within government management structures after the elections of 2015.

The partnerships of the project with the related interventions in Suriname were good and provided excellent synergies among these programmes and projects. They have been described in the previous section 4.1.3 *Lessons from other relevant projects* and further information are included in the following 4.3.2 *Relevance*. They represent one of the strengths of the project and

it can be considered as a best practice which can be shared and used for other projects not only in the region but beyond at international level.
During the lifetime of the project, the PMU had about a meeting per month with implementing partners and further different workshops were conducted involving stakeholders and local beneficiaries Overall, the project implementation team enjoyed an excellent collaboration with all stakeholders. This collaboration happened through formal meetings but also through regular more informal communications among each other to keep everybody abreast of the progress made.
Throughout the implementation of project activities, the flow of communications kept all stakeholders engaged in the project. As a small technical unit, supporting the implementation of numerous activities and allocating project financial resources, the PMU became, de facto, a type of service center to all partners and government agencies. This support was recognized by stakeholders.

4.2.3 Project Finance

The delegation Agreement has been signed between the EU and UNDP Suriname, with the project document signed between the GoS and the UNDP.
The delegation agreement for indirect management has been administered by UNDP according to the Financial and Administrative Framework Agreement between the European Community and the United Nations (FAFA) and UNDP rules and procedures.

The original project budget is reported in the following table.

GCCA+ Expected Result Area (ERA)	**Responsible Party**		**Amount Year 1 (EUR)**	**Amount Year 2 (EUR)**	**Amount Year 3 (EUR)**	**GCCA Total (EUR)**
Component 1: collecting climate data and developing capacity for sustainable water resource management	Ministry of Public Works (MPW) (MDS/WLA) and UNDP	Sub-total Output 1	631,046	514,799	438,949	1,584,793
Component 2: developing capacity and the framework for mangrove	Ministry of Physical Planning, Land and Forest	SubTotal output 2	390,600	452,600	359,600	1,202,800

conservation and management	Management (ROGB) and UNDP					
PROJECT TOTAL			1,187,294	1,080,899	914,049	3,182,243
UNDP PROJECT TOTAL (PROJECT MANAGEMENT; Eligible Indirect Costs GMS 7% of total budget)			83,111	75,663	63,983	222,757
PROJECT TOTAL			**1,270,405**	**1,156,562**	**978,033**	**3,405,000**

Considerations on the project cost efficiency are reported in the following section 4.3.4.
In general terms, the original budget was sufficient to cover the Project's needs.
The total Project budget is 3.405.000 EUR (equivalent to USD 3.731.880,01), broken down into equal parts for the two components (46,5% for the first and 46,9% for the second ERA) and 6,5% for total eligible indirect costs of the Action. Given that the Project's strategy was focused on capacity building and institution strengthening, about 37% of the total budget was assigned to technical support through national and international consultants, equipment and training.
For the PMU staff is reserved 7,9% of the total budget and for the grants 22,7%.
For technical reasons in order to distinguish grants as contracted form with the UNDP from grants related to CfP, a second grant budget line of an amount of USD 300.000 was created for the ERA2, reducing the original amounts reserved for the budget lines: "71200-International consultants", "71400-Service contracts (Indv)", and "72300-Materials and Goods".
Except for the co-financing of the UNDP to the Project of an amount of EUR 405.000 as agreed upon in the Delegation Agreement, there are no agreements or commitment letters that oblige the government to contribute financially to the Project.
Although there is no formal document, the contribution of the government is normally given "in kind" in the form of human resources. In the case of the Grants Agreements there is always formally included a counterpart contribution (either in kind or cash).

4.2.4 Monitoring and evaluation: design at entry and implementation

Whenever possible, the proposed indicators have been aligned with draft national indicators developed with GoS support for the Suriname Climate Change Strategic Plan, particularly in relation to process indicators, which are the main focus of this GCCA+ proposal. This was aimed to facilitate the monitoring of the GCCA+ projects contribution to the national climate change response.

Monitoring and evaluation at entry point followed standard guidelines for this sort of projects however, a Monitoring Framework and Evaluation Plan was not detailed during the formulation of the project. It was foreseen in the project proposal text that the Monitoring and Evaluation work plan and budget should have been agreed and scheduled during the inception meeting.
Nevertheless, the proposal included directives on the proper types of mechanisms to be used for monitoring and evaluation: inception workshop, inception report, quarterly progress monitoring, annual project implementation reports, periodic monitoring through site visits, mid – term review, and final evaluation.
The PMU, National Coordination Team and the UNDP Country Office have been the main actors responsible for project monitoring conducted in accordance with established UNDP and EC procedures. The small PMU staff was responsible for the daily implementation and monitoring guided by the established Work Plan, which was revised periodically and adjusted according to the progress of the activities. The PMU staff members visited the Ministries and its Departments, as well as the field, on regular basis and received from the grants beneficiaries a progress report before each successive tranche.
Based on the initial risk analysis submitted, the risk log was regularly updated in ATLAS and a Project Progress Report could be generated in the Executive Snapshot based on the information recorded in ATLAS. Other ATLAS logs can be used to monitor issues and lessons learned. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.
PMU reported on quarterly basis to the National Coordination Team, headed by the National Project Director (staff member of the Cabinet of the President).
The governance structures set up for the project also were to fulfil monitoring roles, principally the Project Board and the Project Steering Committee. At the implementation stage, however, the monitoring and evaluation process showed some weaknesses and it did not closely follow the entry point Monitoring and Evaluation design.
The composition and dynamics of several key governance structures were problematic with regard to monitoring the advance and execution of the project. Although the Project Steering Board (PSB) was involved in the approval of the annual reports and Work Plans, the Steering Committee's responsibilities, role concerning M&E were not specified at entry. This limited function resulted in that the Steering Committee's role was kept mainly technical, eluding therefore, the opportunity to have a committee made up of diverse stakeholders could in some way guide implementation and monitor whether the Project was advancing as planned. There is no evidence of formal local level monitoring and information flow (upstream and downstream) within the Project.
Although mandated and included in the monitoring/evaluation plans at design, the Project did not have a Mid Term Review (MTR). The decision has been taken by the PSB following the suggestion of the ROM (Result Oriented Monitoring) expert appointed by the EC to make an independent assessment of the project. This decision was mainly due to the delay the project

faced during its first year of implementation. Consequently, an opportunity was lost to hold an assessment at mid-point in the Project's cycle in order to harness recommendations to re direct or improve implementation issues, generate adaptive management strategies and actions.
The current Final Evaluation is taking place three months after the project conclusion but the Project Terminal Report summarizing the results achieved (objectives, outcomes, outputs), lessons learned, and problems met, is not yet available. The project proposal is expected it to be done during the last three months, by the project team.

Given all of the above, the overall quality of these processes are rated MS (Moderately Satisfactory).

4.2.5 UNDP and Implementing Partner implementation / execution coordination, and operational issues

UNDP provided the required guidance to apply UNDP project management procedures such as procurement, hiring and contracting as well as guidance for reporting project progress.
UNDP played a role of quality assurance over the implementation of the project, ensuring that the required qualities for project activities were fulfilled. Overall, UNDP backstopped the project with its own resources, supported the implementation team throughout the implementation including the participation in the decision-making process for implementing the project.
The implementing partners' execution and operational issues faced a series of challenges throughout the development of the project. Also, some issues were present not only at the operational level but also regarding project follow up and monitoring.
The involved national institutions, in particular RGB and MPW showed lack of skills and resources. Although a capacity assessment was done of RGB at the inception stage of this project, a broader capacity assessment of this institution was not carried out, implying that its limitations of funds, staffing, etc. were not taken into account as to whether they could assume implementation efforts for this project.
Operational issues have also been affected by the delays occurred because more efforts had to be put in the achievement of results in a limited time and the project's coordination and management suffered from them.
Despite the lack of resources and specific climate competences, it is also important to note the positive attitude and role played by other government ministries and agencies. They participated in project activities when appropriate and in legitimatizing the achievements of the project in their respective areas; hence contributing to the long-term sustainability of project achievements.

4.3 Project Results

4.3.1 Overall results (attainment of objectives)

The project's final outputs are reported in the following table and they are commented afterwards.

Objective	End Target	Final results
Output 1.1 Capacity at the Meteorological Service of Suriname (MDS), Hydrologic Research Division (WLA) and other related institutions strengthened		
1.1.1 A) number of operating meteorological equipment in expansion of the MDS meteorological network	1.1.1) a) Coverage MDS increased with 4 AWS and 4 rain gauges	Result: **partially achieved** Increase of Meteorology Department Suriname (MDS) coverage with new equipment 4 rain gauges and **2 AWS** (automatic weather stations)
1.1.1 B) Number of operating hydrometric stations in the coastal areas in expansion of WLA hydro network	1.1.1) b) WLA coverage increased with 5 stations in the interior	Result: Achieved placement of 5 Automatic Water Level Stations (AWLS) in the interior and 5 Telemetric Water Levels stations in 4 mayor rivers and 1 in the coast of which 5 AWLS purchased by the project
1.1.2) number of staff trained in operation and maintenance using new guidelines & manuals*, under the project*	1.1.2) At least 2 persons with gender balanced composition trained on operation and maintenance of hydro-met equipment	Result: Achieved 24 persons trained in operation and maintenance of newly acquired equipment.
Output 1.2: Water resources modelling and planning for integrated and sustainable water management undertaken		
1.2.1) Number of water management institutions benefitting from access to a new national hydrological / water resources model due to the project intervention.	1.2.1) By end year three, at least 2 water management institutions aware of availability and access to improved modelled output information.	Result: Achieved 16 persons from 8 institutions in total trough 4 training courses and 4 workshops
1.2.2) Number of automatic data transmission for new hydrological and meteorological network stations	1.2.2) Automatic daily data transmission for at least 10 hydrological and 6 meteorological network stations by mid-year three.	Result: Achieved 16 stations installed
1.2.3) Status of development of GoS Development Strategy and land-use Plans at National/District level	1.2.3) At least 2 GoS Development Strategy and land-use Plans at National/District integrate climate information in their formulation and implementation	Result: Achieved Various aspects of Climate Change integrated in the development strategy 2017-2021 of the GOS: 19 District plans on Disaster Risk Management developed
Output 1.3: New technologies to reduce the vulnerability of the agricultural sector to climate variability researched and results published		
1.3.1) Number of research opportunities awarded funding under EU CfP grants, to reduce vulnerability of the	1.3.1) At least three new research opportunities awarded by mid-year one and 6 by end of year three.	Result: Achieved Financing for 8 researches awarded

agricultural sector to climate variability		
1.3.2) Number of appropriate technologies developed from the CfP "grant facility" research initiatives in the agricultural sectors.	1.3.2) At least three new agricultural focused technologies developed by end of year two that link to the relevant outputs of the JCCCP (JCCCP Outputs 2.2-2.5).	Result: Achieved 3 technologies developed
1.3.3) Number of knowledge sharing events on the opportunities and technologies developed for CC practitioners, researchers and policy-makers.	1.3.3) At least two national/regional knowledge sharing events per year (6 in total) with at least one associated with horticulture partnering initiatives.	Result: Achieved More than 3 national/regional knowledge sharing events held in 3 years.
Output 2. 1 - National Mangrove Strategy endorsed		
2.1.1) Status of a national mangrove strategy policy document for Suriname.	2.1.1) Final proposal Mangrove Strategy Policy Document is prepared and presented to Ministry of RGB and ready for formal endorsement by midyear three	Result: Achieved National mangrove strategy policy document for Suriname developed
2.1.2) a) Status of development of codes of practice, tailored to mangrove management 2.1.2.) b) Status of development of Cross Sectoral guidelines	2.1.2) a) Draft Code of Practice for mangrove conservation and sustainable management /use of Mangrove ecosystems produced by end of year three. 2.1.2.) b) One (1) cross-sectoral guideline for climate-resilient coastal planning is produced and disseminated	**Result: Not achieved** **Result: Not achieved**
2.1.3 Number of overlapping/supporting actions with previous or current projects implemented	2.1.3) At least 3 complementary activities are taking place with the GEF Environmental Mainstreaming project by the end of year two. At least 3 activities are implemented by end of year two.	Result: Achieved 4 complementary activities
Output 2. 2 - Economic (monetary) valuation study of the mangrove ecosystems conducted		
2.2.1) a) Number of economic valuation report of Mangrove area. 2.2.1) b) Number of small entrepreneurs in coastal areas trained in sustainable income alternatives due to the project intervention.	2.2.1) a) At least 1 Economic Valuation report of Mangrove Area 2.2.1) b) At least 50 potential local small entrepreneurs trained in sustainable alternatives including women and youth by end of year three.	**Result: Partially achieved** A draft has been submitted Result: Achieved More than 50 potential local small entrepreneurs trained
2.2.2) Number of economic strategies identified that support the "value added" products identified in Activity 2.2a.	2.2.2) At least 1 new market initiatives facilitated by private sector for improved access to micro-credit and capacity-building programs	**Result: Partially achieved** 2 New market initiatives and capacity building programme facilitated, but no improved access to micro-credit created
Output 2.3 - Existing management plans of 4 coastal MUMAs updated and implemented		
2.3.1 MUMA Management Plans are updated and implemented with updated land use guidelines and tailored towards improving mangrove conservation.	2.3.1) Four (4) updated MUMA management plans by the end of year two.	**Result: Partially achieved** 3 updated MUMAs
2.3.2 % of the key actors have signed on to the updated management plan documents, declaring adherence to proposed zoning regulations	2.3.2) Three (3) district council plans, including investment plans, incorporate MUMA zoning regulations and integrate future recurrent and capital expenditure needs by end of year three.	Result: Partially Achieved More than 10 council plans have been developed for 9 districts but they do not include investment plans, incorporate MUMA zoning regulations and integrate future recurrent and capital expenditure.
2.3.2) Monitoring of mangrove land	2.3.2) M&E programs for mangrove land	Result: Target Achieved

cover is in place as stated within the management plans.	cover and health developed and implemented	Mangrove monitoring is incorporated in the National Forest Inventory (NFI)
Output 2. 4 - Management structures at the 4 coastal MUMAs established and adequately equipped		
2.4.1) Number of staff trained to implement new regulations under the National Mangrove Strategy	2.4.1) At least 7 core staff trained and assigned for each MUMA	Result: Achieved More than 7 core staff trained
2.4.2) Extent to which procedures and capacities are aligned to new guidelines for mangrove management	2.4.2) By the end of the project MUMA management needs in staff knowledge and capacities aligned with each other	**Result: Not achieved**
Output 2. 5 – Patrolling, monitoring and enforcement activities improved		
2.5.1) Status of briefs, facts sheets on patrolling, monitoring and enforcement that are aligned with updated MUMAs plans.	2.5.1) By the end of each year, (1) annual briefing notes, and fact sheets on patrolling, monitoring and enforcement activities are produced and disseminated.	**Result: Partially achieved** One briefing note reflecting the enforcement activities;
2.5.2) Number of persons trained to implement the new National Mangrove Strategy and supporting guidelines/codes of practice.	2.5.2) By mid-Year three 30 successful trainees from a national training seminar for relevant national ministries and organizations on climate-resilient coastal planning conducted.	**Result: Not achieved**
2.5.3) Number of national sectoral planners with improved understanding of climate change risks and adaptation measures.	2.5.3) By the end of year three, At least 8 disaster management teams of 17 district commissioner's offices and national sectoral planners have improved understanding of Climate change risks and adaptation measures and an up-to date district disaster risk management plan	Result: Achieved 18 District Commissioner offices trained
Output 2.6 - Public and community awareness campaigns designed and implemented		
2.6.1) a) Number of community members with increased awareness of sustainable mangrove management and resource use, including women and youth, due to the project intervention.	2.6.1) a) At least One hundred (100) community members involved in awareness activities regarding sustainable mangrove management and resource use, including women and youth.	Result: Achieved About 2000 community members trained
2.6.1) b) percentage of coastal population exposed to mangrove conservation messages via mass media	2.6.1.) b) 30% of all coastal populations have been exposed to mangrove protection knowledge projects by end of year three.	Result: Achieved
2.6.2) a) Number of members of Association of Journalists in Suriname (AJS) trained and/or sensitized on mangrove ecosystem related issues.	2.6.2) a) At least 15 of reporters/media in Suriname trained/sensitized on mangrove related issues by end of year three.	Result: Achieved 21 media workers trained
2.6.2.) b))Number of male and female communication officers from participating institutes trained.	2.6.2.) b) At least 10 of trained officers are female.	Result: Achieved 19 female

Partially and not achieved targets

1.1.1 Only 2 AWS (automatic weather stations) were installed (out of 4), but the project benefitted of 16 stations funded by CCCC project.

2.1.2 Because of the delays occurred in the development of the Mangrove Strategy, codes and guidelines have not been produced.

2.2.1 a) No economic valuation reports of Mangrove area have been finalized however, a draft has already been submitted.

2.2.2 No improved access to micro-credit for new market initiatives facilitated by private sector and capacity-building programs have been introduced. Some contacts with credit institutions are in place. The project did facilitate 2 new market initiatives and respective capacity building programs . This output could be finalized trough phase 2.

2.3.1 Only 3 MUMAs (out of 4) have been updated. This was due to a ministerial (RGOB) decision not to proceed with the fourth one because they are planning to completely revise the management plan of the 4th MUMA.

2.4.2 Not achieved because of the management strategy delay.

2.5.1 Only one note was received in 2017. However, rangers received vehicles (boat, car and equipment) during the second year.

2.5.2 Target not achieved, because of the delay of the management strategy. The Ministry intends to follow-up on the recommendations of the national mangrove strategy which include capacity Building of the MUMA Management staff, but the project is already conclusion. This target could be achieved during the second phase.

4.3.2 Relevance

The relevance of a project within this evaluation is assessed based on the extent to which the project and its interventions and activities are suited to local and national development priorities and needs.
The evaluation finds, the project's objectives and components were (and still are) very relevant, according to the social and political context. This has been confirmed by Min. of Finance, Environmental coordination (office of president) and other stakeholders.
The Constitution of the Republic of Suriname provides the overall framework for the relevance of this Project, since it foresees "the protection of nature and the maintenance of ecological balance".

The project was coherent with the UN Development Assistance Framework (UNDAF 2012 -2016) in particular for outcome 1 “By 2016, most excluded, marginalized groups and vulnerable populations benefit from reinforced social, economic, and environmental programmes towards accelerated and equitable MDG progress, meaningful participation, and a better quality of life for all beyond the MDG agenda”.

The project was aligned with the Suriname international commitments (first and second National Communications to the United Nations Framework Convention on CC) and its Development Plan – OP (2012 – 2016) that stresses the importance of climate change resilience capacity and of sustainable water, nature, land and forest management (“Climate Compatible Development Strategy”).

The project also included indicators referring directly to the National Climate Change Policy, Strategy and Action Plan for Suriname NCCPSAP (2014-2021), which is a document of high quality including concrete actions to cope with CC, elaborated by the former Ministry of Labour, Technological Development and Environment (ATM) with the help of the Caribbean Community Climate Change Centre (CCCCC).

The project’s objectives refer also to the Intended Nationally Determined Contribution (INDC) preparation process that demonstrated the political commitment to the global fight against climate change through its contributions to the UNFCCC.

Therefore, we can assess that the Project was definitely supporting the partner's policies and current actions, including the National government as well as local authorities and other stakeholders, like university and national NGOs.

As confirmed by all stakeholders and local communities, the Project is still relevant and addresses a real need in the country to defend its low coastal area against the rise of the sea level, to prepare the government and communities in order to prevent or react adequately against flooding events and to find solutions for the agricultural sector, that is suffering from unreliable rainfall distribution patterns with increasing intensities of the rains and longer periods of droughts. Particularly in the coastal area available productive land is decreasing because of saltwater intrusion.

The Project, whose Specific Objective was to support Suriname in improving its current climate change (CC) adaptation capacity and mitigation of negative impacts, has been formulated in a participatory manner involving consultation with national counterparts in Suriname, responding directly to national gaps and to priorities identified within this process such as the need for more knowledge and better understanding of CC effects and of ways to cope with it; and importance to count with tools and structures for sustainable mangrove ecosystems management along the coastline.

The final evaluation can confirm what was assessed by the ROM expert referring the economic crisis encountered during the Project implementation. It has affected drastically the capacity of the Suriname Government to face the CC problems (less staff and financial resources) and it was

even more important to support the national government to enhance its capacities (skills, equipment, tools and instruments) to efficiently cope with the negative effects of CC and to develop adequate policies, strategies and action plans. Capacity refers both to skills as well as to facilitating equipment, tools and instruments.

The Project was able to support the Cabinet of the President CoP through its strategy that is focused on facilitation, coordination, platform strengthening i.e. both the water and mangrove platforms and through its involvement and direct relationship with a diversity of ministries and governmental departments (National Institute for Environment and Development in Suriname (NIMOS); Ministry of Public Work (OW), which includes the Meteorological Service of Suriname (MDS) and the Hydrologic Research Division (WLA); Ministry of Physical Planning, Land and Forest Management (ROGB), which includes the Nature Conservation Division (NCD) and the Foundation for Forest Management and Production Control (SBB); Ministry of Agriculture, Animal Husbandry and Fisheries (LVV); Ministry of Natural Resources (NH); Ministry of Regional Development (RO).
The project also supported the Anton de Kom University of Suriname (AdeKUS) providing opportunities to strengthen academically and to train their students in the field of CC.
Other institutional agencies also benefitted from the project for their activities. They include the National Coordination Centre for Disaster Relief (NCCR), the Suriname Red Cross, and NGOs (like SuReSu, DAF, SORTS; ACT Suriname and Tropenbos Suriname).

The project is assessed to be Relevant (R).

4.3.3 Effectiveness

The Project was seriously affected due to important delays in the start-up of planned activities. This is the main reason why not all the project outputs have been achieved within the established Project's implementation period both the component ERA 1 and 2, despite the six months extension. The detail of what is missing is reported in the previous section 4.3.1.
The relevant representatives from government and civil society were involved in project implementation, including as part of the project steering committee. This was confirmed by project partners and stakeholders.
The project steering board led the project. The national coordination team included all the ministries involved in the sector (7), technical working groups were in place. The Ministry of physical planning land and forest management and ministry of public works had the main responsibilities.

With regards to Outcome 1 the main outputs have been carried out . The outcome was focused on higher frequency and more accuracy of climate related information, nationwide water resource model and climate change adaptation measures for the agricultural sector; the main outputs are related to the installation and use of the new operating meteorological equipment; improved water management and the introduction and training in CC smart agriculture. However, it is not very likely that the farmers will be able to pay for the high technological and expensive equipment installed in the greenhouse demonstration plot established by IICA as implementation partner. A small number however is experimenting with the other technologies which include water harvesting and irrigation equipment and cheaper greenhouses.

Concerning the Outcome 2 that was focused on better management and sustainable use of the mangrove area along the Suriname coastline; the main outputs have been carried out.

The Mangrove Strategy Policy Document has been produced as a tool to coordinate also the activities for conserving mangroves with on-going national plans and programmes. This increased the level of public awareness with regard to the importance of the mangrove ecosystems and their function related to CC as a product of training activities and dissemination of information.

Three (3) MUMA management plans have been updated and implemented, they cover the whole coastal area at the western side of the Suriname River and are important tools for mangrove conservation and its sustainable use.

Patrolling, monitoring and enforcement activities have been improved, through better equipped and trained park rangers.

A Mangrove Monitoring programme has been set-up in which 11 permanent sampling plots have been established along the 370 km of coast of Suriname.

However, economic evaluation studies have to be finalized and codes of practice and guidelines for mangrove conservation have not been produced.

The quality of the outputs obtained varies, but good on average. The dissemination materials produced about the importance of mangrove and their ecosystem services, to be used for awareness raising, were of excellent quality. The same applies to most of the capacity building and training activities, since they are in most of the cases lead by professionals with broad experience and good knowledge about the respective subjects.

A manufacture error was detected with the meteorological equipment installed in terms of sensors transmission but this was resolved during the life of the project at no extra cost to the project. The mangrove water simulator installed in Vila Zapakara for the joint action water science park already shows the beginning of rust, but the management is closely monitoring as a prevention strategy. The plastic cover of the greenhouse installed with GCCA+ funding as an example of agricultural innovation deteriorated and had to be replaced with cloth material.

As reported in the previous paragraph, the Project supported national policies and stakeholders including the Cabinet of the President and involved ministries, together with local agencies, academic institutions, NGOs and private companies.
The project's long-term effects have been adequately foreseen and they will be enhanced by Phase 2.

Given the absence of some of the foreseen outputs, the project's effectiveness can be assessed as: Moderately Satisfactory (MS).

4.3.4 Efficiency

Precise information on expenditure per budget line was not available as financial final reporting has not officially released yet. However, the PMU confirmed the Project's activities used all the economic resources provided by the European Union and co-financers.
The Delegation Agreement modality with the UNDP Country Office in Suriname has facilitated to great extend the implementation of the Project, mainly because of its physical presence in the country (EUD, responsible for Suriname, is based in Guyana), its broad institutional network and close relationship with key ministries and its experience in the Environment and Climate Change sector.
Project resources were managed in an effective and transparent manner and the Project was subject to internal quality control mechanisms and in-house oversight under the UN system. In all cases UNDP Office Suriname maintained responsibility for the execution of transactions according to the EUD-UNDP delegation agreement.

The changes in political-economic context of Suriname at the period of project beginning had a relevant impact. The elections and economic crisis since 2015, caused delays and had weakened considerably the financial and implementation capacity of the Government.
The project's efficiency has also been affected by the important delays in contracting PMU staff. The Project Manager and Project Assistant started in May/June 2016, subsequent upon signing of the project between the Government of Suriname and UNDP in April 2016. The hiring of both Technical Officers was concluded in October and December 2016 respectively. As a result, the staff was completed 9 months after official start of project implementation. Moreover, the project suffered from time-consuming tender procedures, i.e. it took more than one year to mobilize the resources needed for the electrical connection of the location for the digitization of the meteorological data.
Most of the activities that were delayed had an unplanned effect on the timing of other Project activities, for instance with regard to the digitization of meteorological data (Meteorological

Department of Suriname in charge) needed for water resource hydro- modelling. There was an impact on the identification of value-added mangrove products valuation, under theresponsibility of the Foundation for Forest Management and Production Control – SBB, that is a essential prerequisite for small enterprise development in the sector. The delays also affected the update of all the four MUMA Management Plans needed as important tool for the ranger patrolling activities and for the Local Management Boards in charge of a proper and coordinated implementation of these Management Plans.
As a consequence, a request for extension had to be submitted but it was not enough to achieve all the expected outcomes.

PMU and UNDP were aware of these delays and the reasons behind these, and in order to achieve the project's targets, they supported and pressed the institutions involved to move activities in the work plan forward. As reported in the previous section 4.2.1 Adaptive management, PMU clearly used adaptive management and it was able to make changes to face the unexpected difficulties and delays. The logical framework was modified following the suggestion of the ROM expert.
PMU, with the guidance and approval of the Project Steering Board, also strongly supported the Suriname Government to effectively steer the Project. The institutional arrangements allowed the project's achievement of results. The PMU did not depend on government for daily approval and it had flexibility to take initiatives i.e. it supported in the research of the partners and organisations. (i.e. IWRM).
The indicators provided in the Project Document were effectively used for measuring progress and performance. They were used for annual reporting and team meetings, which continued after revision of the log-frame based on the recommendation by the ROM

As previously mentioned, the Project had put special emphasis in encouraging synergies in order to reinforce actions and to make more efficient use of its available resources. For instance, the Caribbean Community Climate Change Centre – CCCCC contributed with an addition of 16 automatic weather stations, the Japan-Caribbean Climate Change Partnership (JCCCP) shared costs for Knowledge, Attitudes, Practices and Believes research (KAPB) and for training in disaster response on sub-national level, and the ACTO/GEF project "Monitoring the forest cover in the Amazon Region" for the insertion of the mangrove forest as a new category in their current protocol for forest monitoring.

The stated assumptions and risks were logical and well designed however, some unexpected events occurred, and they delayed some of the planned outputs.
All the budget has been used although some of the outputs have not been achieved.

Given all the above comments, efficiency is rated as Satisfactory (S).

4.3.5 Country ownership

The country ownership was very good. The manifestations by stakeholders indicating that they had high expectations for concrete results out of the Project are indicative of appropriation of the Project and ownership at this level. Project Steering Committee's members generally also expressed ownership through their participation and an expressed aspiration that the Steering Committee should have a more proactive role to fully contribute to driving the Project and generate broad stakeholder ownership.

The project addressed key national priorities; it was designed on the basis of an excellent contextual review; and it has been implemented through a strong participative approach engaging stakeholders all the way from the design to the implementation of project activities.

The project's methodological approach was based on a capacity development and awareness-raising strategy underpinned by a highly participatory, coordinating and facilitating approach to ensure that the main stakeholders (government, academia, institutions, NGOs, farmers, local communities) took ownership of the process of strengthening the CC sector. Most of the stakeholders are aware of the negative effects of CC and it is an important topic for them. However, they generally can't count on the technical knowledge, tools, equipment and structures to cope with it and this reduces their motivation.

The group of farmers for example, who participated in the project "Promotion of climate smart agricultural technologies" with IICA as implementing partner, were very motivated and expressed their enthusiasm about the training courses they followed and about the new technologies they got to know i.e. rainwater harvesting, greenhouses, irrigation techniques.

The same applies to the ADEK University, NCCR and most of the NGOs, who got the opportunity to extend, with the help and financial resources of the project, their research activities and corresponding implementation in the field, to put more emphasis in strengthening communities in disaster preparedness, and to increase awareness under the local communities about the importance of mangrove ecosystems and sustainable land use planning.

Other examples include the head of the WLA, as the only person of the whole staff with academic background, who is still working on contract basis even though he is already retired. Another example is that, despite the few means and difficult working conditions of the game wardens in Nickerie (NCD), they are even willing to pay gasoline or small car repairs out of their own pocket in order to be able go to the field and do their work.

Despite some changes in the government and ministries structures during the lifetime of this project, the implementation team was able to keep stakeholders engaged and overall to develop

an excellent country ownership. It is also expected that this good country ownership will contribute to the long-term sustainability of project achievements.

4.3.6 Sustainability

The project was designed to continue its activities after the period funded by EU. Some the benefits from the project will be maintained or increased in the future i.e. mangrove monitoring by SBB, patrolling by the game warden , perm-apiculture in mangrove areas by beekeepers; research and sediment trapping for mangrove rehabilitation by ADEK;. The phase 2 foresees the continuation of other activities that still need support.

Several of the project's aspects deserve to be replicated in future initiatives, i.e. biodiversity monitoring, food security, upscale to other communities how to manage forest in a sustainable way, media professionals training.

There is sufficient public/stakeholder awareness created in support of the project's long-term objectives. However, public authorities still show limited resources and the high turnover. During the project 4 ministers and related key staff personnel have changed. These are factors that had already an impact on the project and could affect also the continuity of the actions promoted.

The legal frameworks and governance structures and processes, within which the project operates, pose some risks that may affect the sustainability of project benefits. They were one of the causes of delays that contributed to the failure to achieve some results. The next year elections could create the risk for delays and inflation and changes in government's composition and commitments for the project.

Awareness raising and training activities have been properly designed and carried out and they form the basis to continue the activities and outputs produced by the project.

The local Faculty of Water and Climate Change was very much aligned with the objectives of the Project and has close relationship with the governmental department WLA the practical mangrove research work and the sediment trapping plots will continue, also after the Project has finished.

However, in order to ensure access to the Project's benefits on the long term, some target groups need further financial resources. The new hydrological and meteorological stations of WLA and MDS, installed in places with difficult access will need visits for revision and maintenance of the equipment and there is no guarantee that the departments will have the capacity to finance these high transport costs, neither to acquire spare parts when necessary.

As already mentioned, also farmers would need finances to adopt the technologies used in Project and explained in the training. (greenhouse which costs of about USD 80,000).

Taking into account the previous comment and the scale reported at section 1.3 at pag. 11, the project sustainability is assessed as Moderately Likely (ML).

4.3.7 Impact

As shown in the previous sections the Project achieved all its main objectives and almost all the ones expected. In some cases, the outputs have been exceeded.

The Project increased the performance of the national meteorological service, on hydrological/hydraulic modelling, installing new stations and starting to collect data, as a basis for sustainable water resources management at the country level.

It also contributed to the reduction of destruction of the mangrove ecosystems, which provide a natural defense of the coastal area against sea level rise and erosion, providing funding for mangroves restoration as well as for patrolling and training.

The national mangrove strategy is another clear impact the project succeeded to produce. National authorities benefitted from technical and policy support. The success of the catalytic role of the project can also be seen through the replication and scaling-up of project achievements.

Although they have not been included as indicators in the Logical Framework, there are verifiable reductions in stress on ecological systems for water, soil, forests, mangroves, etc. There are clear demonstrated progress towards these impact achievements i.e. Mangrove Monitoring Geo Portal.

The project had also impact on the economic activities of the final beneficiaries i.e. beekeepers and farmers. All the local entrepreneurs met during the field visits confirmed it.

The project's outputs, results and impacts allowed EUD to approve for a second phase in order to continue, replicate and enlarge them.

The project' Impact Rating is Significant (S).

5. CONCLUSIONS, LESSONS LEARN AND RECOMMENDATIONS

5.1 Conclusions

The Suriname GCCA+ Project was highly pertinent and relevant for the country. Suriname is severely affected by Climate Change and trends show that the situation can be exacerbate in the future. The project also responds to the lack of skills and resources present in the national stakeholders.

The Project was, overall, able to achieve the completion of several products and to generate a certain level of engagement from relevant stakeholders. This engagement dealt with the need for coastal protected areas management instruments that take into account the multiple roles and uses that these systems play in the development of Suriname and its sustainable use of natural resources.

The project succeeded in contributing to the achievement of its specific objectives namely:

- To reduce Suriname's vulnerability to negative effects of climate change,
- To enhance Suriname's capacity for developing and undertaking appropriate and effective measures to adapt to climate change effects.

It was also able to achieve its main proposed outputs.

The capacity at the national meteorological service has been strengthened and new stations installed.

Hydrological modelling and calibration for 4 major rivers and relevant water management intuitions trained in the use of the model for analysis.

New opportunities and technologies to reduce the vulnerability of the agricultural sector to climate change have been created and disseminated.

A National Mangrove Strategy has been produced and the existing management plans of 3 coastal MUMAs have been updated and implemented.

The patrolling and enforcement activities have been improved and public and community awareness campaigns have been adequately designed and implemented.

However, as reported in the previous chapter, not all the expected outputs have been achieved. The project's intended outcomes were overestimated given the duration of the project and the number of different activities included in the project design. The lack of resources (personnel, equipment, monetary ones) had also a negative impact. External factors such as economic crises and governmental changes were other causes of delays. All these issues brought to a request for extension, but despite this, the failure to achieve some expected targets is evident.

Clear positive impacts have been generated by the Project. They refer to national and ministerial climate policies and objectives, as well as to local economic and social activities, and to ecological elements (water, soil, forests, mangroves, etc).
The projects' outputs can be considered as sustainable, they will be useful for future activities implemented by stakeholder including for local beneficiaries.
The new "phase 2" approved by the EU will allow to achieve what was not possible in the first project and will extend and enlarge it outputs and impacts.

5.2 Lessons Learnt

The Project demonstrated that Climate Change includes different subjects and has to be managed through a pluri- and cross sectoral approach.

It is not easy to find local personnel/technical support to manage and implement CC activities and projects. In Suriname only a limited number of experts can be involved taking into account their own businesses and other environmental commitments. It was also difficult to find climate international experts, it is a relative recent discipline that includes different subjects.

Climate activities in Suriname involve different ministries and local authorities. Clear definition of roles and responsibilities in starting new climate change projects is needed since their design.

Involvement and support of different districts and regional organizations is needed. Climate change projects are also fundamentally supported by local NGOs working with local beneficiaries above all in the interior districts.

Good stakeholder engagement is also needed for a successful implementation.

Continuous communications with government partners is needed. Regular inter-departmental consultation/discussion at policy level and technical level could result in improved coordination of CC Adaptation initiatives at national level.

The efficient use of funds can be enhanced through collaboration and participation amongst government partners in benefit of the project objective.

Sharing of knowledge and experience between Caribbean countries can support the projects objectives and impacts. The project benefitted from other concluded and on-going regional projects and programmes.

When working with international consultants a national counterpart is needed. the local counterpart is more knowledgeable of the local conditions and needs, language could also be an issue too.

Implementation of pilot projects within the required time was very challenging. Other then technical factors, it also depends on local political, economic and social ones.

Data standardization is needed to make the data usable and sustainable. Even if data are collected and registered, they have to be put in an electronic format and be available in due time, in order to be used for early warning too.
To achieve the expected results, a project such as GCCA+ needs to interweave results-based approach and management from the very beginning. It includes a proper Log-Frame design with clear and quantified outputs.

Projects require constant monitoring by all parties involved (implementing and executing agencies, project governance bodies). M&E activities should be performed not only by the PMU in order to allow all the implementing partner to adequately monitor their activities and performances.

Adaptive management and modifications when issues arise are imperative to achieve results. During the project the PMU provided evidence of it.

The capacity of the implementing partner has to be assessed from project inception / design onward. Delays were also due to the lack of skills and resources of ministries and implementing partners.

Gender mainstream needs to be clearly imbedded from project design onward, in order for mainstreaming to be achieved within project's ambits.

There is a geographic issue that can act as a barrier in communications between the central government and indigenous communities. Coordination with NGOs and CSOs is vital to address this barrier.

The evaluation methodology makes the assessment of the project's results objective and decreases the subjective opinions. It can be successfully used in other spheres of the environmental activity.

5.3 Recommendations

Since this is a terminal evaluation and the Project has concluded, nearly all recommendations are for future programming in particular phase 2. They are divided into 2 categories: project design, project management and implementation.

Project design

- Start the design of phase 2 as soon as possible in order to prevent difficulties and potential delays due to the next year elections and potential changes in the government objectives and structure;
- Set targets coherent with timeframe and local conditions;
- Define clear roles and responsibilities among government and implementing partners;
- Allocate resources for maintenance of instrumental equipment;
- Include more gender indicators for the outputs in the Logical Framework;
- Provide support to ensure the implementation of the IWRM, including establishment of national water authority;
- Private sector should be more involved in the implementation of phase 2;
- Foresee protection from vandalism for instruments;
- Allocate resources for translation in Dutch but also in local languages for villages.

Project management and implementation

- Future projects need to be closely monitored by all parties involved (implementing and executing partners, project governance bodies) in order to establish if they are meeting with expected outputs and products;
- Take into account the difficulty to find local skilled experts, as well as international ones, on Climate Change issues for the tendering procedures;
- Ensure proper data collection and sharing in usable formats;
- Ensure PMU will be fully operative at the beginning of phase 2;
- Independent evaluations are extremely valuable for course correction and catalyzing improvements. New evaluation, particularly at their mid-term, should be scheduled in due time in order to be carried out and provide recommendations to be adopted during the project implementation.
- When working with communities, underline the importance of economic benefits and/or create incentives for the communities and its members to incorporate sustainable management practices in their productive patterns.

ANNEXES

ANNEX 1: TOR

INDIVIDUAL CONSULTANT PROCUREMENT NOTICE

Date: 19 July 2019

Country: Suriname

Description of the assignment: International Consultant – Terminal Evaluation (TE) of Global Climate Change Alliance Suriname adaptation project (proj ID 00083024)

Project name: Global Climate Change Alliance Suriname adaptation project

Period of assignment/services (if applicable): 30 working days - in the period 01 Oct – 15 Dec 2019 (non-consecutive), with at least 12 working days during the month of October in Suriname.

The applicant is requested to submit an offer, including financial proposal (quotation) accompanied by a resume (CV) and P11 history form to the following email address procurement.sr@undp.org no later than **09 August 2019**.

Any request for clarification must be sent in writing, or by standard electronic communication to the address or e-mail indicated above. The Procurement unit will respond in writing or by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of inquiry, to all consultants.

TERMINAL EVALUATION TERMS OF REFERENCE

INTRODUCTION

In accordance with the agreement between the UNDP and EU, the EU financed GCCA+ Suriname Adaptation Project is required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the *Global climate Change Alliance Suriname Adaptation Project (Proj ID 00083024)*

The essentials of the project to be evaluated are as follows:

PROJECT SUMMARY TABLE

Project Title:			
Project ID:	*00083024*		*(Million US$)*
		EU financing:	3,000,000
Country:	Suriname	IA/EA own:	405,000
Region:	LAC	Government:	
		Other:	
		Total co-financing:	405,000
Executing Agency:	UNDP	Total Project Cost:	3,405,000
Other Partners involved:	Ministry of Finance, Environment, Office of the President NIMOS, ROGB/NCD; MDS; WLA, Coordination, SBB; ADEk UvS	ProDoc Signature (date project began):	March 2016
		Closing Date:	31 Augustus 2019

OBJECTIVE AND SCOPE

The project was designed to: *Contribute to the reduction of Suriname's vulnerability to the negative effect of climate change by enhancing local capacity to cope with these negative effects and to develop adequate solutions. In the present context, local capacity refers both to skills (culturally defined) as well as to facilitating equipment, tools and instruments.*

The TE will be conducted according to the guidance, rules and procedures established by UNDP and EU as reflected in the UNDP Evaluation Guidance.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

EVALUATION APPROACH AND METHOD

An overall approach and method[2] for conducting project terminal evaluations of UNDP supported projects developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (*Annex C*) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

[2] For additional information on methods, see the Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 7, pg. 163

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, ministry of Finance, UNDP Country Office, project management team, Coordination Environment of the Office of President, the Programme Manager of the responsible EU Delegation and key stakeholders. The evaluator is expected to assess if the project was able and to which extent, realize the stated objectives.

The goal and objectives of the project are; to reduce Suriname's vulnerability to negative effects of climate change; to support Suriname in improving its current climate change adaptation capacity and mitigation.

The action will support such capacity enhancing activities in two thematic areas (that also included grant pilot projects) which are reflected in the Expected Result Areas (ERAs).

The first ERA focuses on the generation of additional climate data and change analysis, on improving the understanding of climate change effects and on the development of adaptation measures or strategies in the water management and agricultural sectors.

The second ERA addresses specific capacity needs that are related to mangrove conservation proposing interventions which aim to assist Suriname in developing a number of effective tools to support the mandated ministries and interest groups in their commitment to protect mangroves.

The evaluator will conduct country mission to Paramaribo, Suriname. Interviews are to be conducted in and around Paramaribo including visits to project field sites. The list of stakeholders interviewed should include at minimum the following:

- ADEK; Anton de Kom University of Suriname
- Department of Climate Change and Water (Chair in the Faculty of Technology of ADEK)
- CM Coordination Environment, Office of the President
- IICA; Inter-American institute for Collaboration on Agriculture
- Min Fin; Ministry of Finance, Department for Planning and Development Finance
- MDS; (Meteorological Services)
- NCD; Nature Conservation Division within the Ministry of RGB
- NIMOS; National Institute for Environment and Development in Suriname
- ROGB; Ministry of Physical Planning, Land and Forest Management
- SBB; Foundation for Forest Management and Production Control
- WLA; Hydrological Department Suriname
- The Ministry of Natural Resources
- Stichting Water forum Suriname
- ACT: Amazone Conservation Team;
- Villa Zapakara
- Tropenbos Suriname

The evaluator will review all relevant sources of information, such as the project document, Results Oriented Monitoring report of the EU, project reports – including Annual project reports, project budget revisions, substantial and technical reports, , project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in Annex B of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (Annex A), which provides performance and impact indicators for project

implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.**

MAINSTREAMING

UNDP environmental projects projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) contributed to enhancing local capacity to cope with negative effects of climate change and climate variability, b) contributed to enhance systems to collect data on Climate Change and the environment and c) progress towards adequate management systems and solutions in response the effects from Climate Change and Climate variability.

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in *Suriname.* The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be *30* days according to the following plan:

Activity	Timing	Completion Date
Preparation	5 days	*20 August*
Evaluation Mission	*12* days	*22 October*
Draft Evaluation Report	10 days	*12 November*
Final Report	3 days	*20 November*

EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception	Evaluator provides	No later than 1 week before	Evaluator submits to UNDP CO

Report	clarifications on timing and method	the evaluation mission.	
Presentation	Initial Findings	End of evaluation mission	To Implementing Partner, project management, UNDP CO
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to Implementing Partner, CO, reviewed by RTA, OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to CO for uploading to UNDP ERC.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

TEAM COMPOSITION

The evaluation team will be composed of *(1 international evaluator).* The consultant shall have prior experience in evaluating similar projects. Experience with UNDP managed projects is an advantage. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The Evaluator must present the following qualifications:

6 Master's degree or higher in Natural Resource Management, environmental management, socio-economics field or other related field

7 Minimum *7* years of relevant professional experience

8 Substantial knowledge in Climate Change Adaptation programme areas and projects

9 At least 5 years of recent experience with results-based monitoring and evaluation methodologies

10 At least 5 years' experience applying participatory monitoring approaches

11 Previous experience with monitoring and evaluation of Capacity strengthening in general and specifically knowledge and information management systems is an advantage

12 Recent knowledge of UNDP's results-based evaluation policies and procedures

13 Previous knowledge with UNDP Monitoring and Evaluation Policy

14 Excellent command of the English language (oral and written)

15 Knowledgeable of the Suriname context and national circumstances is an advantage

16 Good command of the Dutch language is an advantage

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'

PAYMENT MODALITIES AND SPECIFICATIONS

%	Milestone
20%	Upon submission and acceptance of inception report including work plan
40%	Following submission and approval of the 1st draft terminal evaluation report
40%	Following submission and approval (UNDP-CO) of the final terminal evaluation report

APPLICATION PROCESS

Individual consultants are requested to email to procurement.sr@undp.org) by 24th July 2019. Individual consultants are invited to submit applications together with their CV for these positions. The application should contain an offer letter, confirmation of immediate availability for assignment current and complete C.V. in English with indication of the e-mail and phone contact. Costs of local field visits should not be included in the offer.

UNDP applies a fair and transparent selection process that will take into account the competencies/skills of the applicants as well as their financial proposals. Qualified women and members of social minorities are encouraged to apply.

ANNEX 2: ITINERARY

Mission dates: **19**/11 - 28/11/2019
Paramaribo - Suriname

#	DATE	TIME	ACTIVITIES	LOCATION
1	Tue 19 Nov		International travel to PBM	
	Wed 20 Nov	6:00 h. AM	Travel to Nickerie Departure from Paramaribo PMU and Head Forestry Department	Departure from Hotel Pick-Up PMU
		9:30h	Arrival in Nickerie	Nieuw Nickerie, Nickerie
		9:30 – 9:45h	Check in at Residence inn	
		10:00 – 12:00	Field Trip to Beringhole Nickerie Prof Sieuw Naipal Anton de Kom University of Suriname Joint Action: Mangrove Rehabilitation Beringhole	Madjoikromo (Logistics) 8847672
		12-30 – 13:30	Lunch	
		14:00 - 17:00	Mr Dwarka; Department head Nature Conservation Division Nickerie Multi-use Management Area Bigi Pan Monitoring Field Trip with Nature Conservation Division Nickerie (NCD Nickerie) Joint Action: Increase in Capacity and provision of equipment for Patrolling and Monitoring of Multi Use Management areas (MUMA's)	NCD Nickerie
		17:30 h	Return to Hotel	
	Thur 21 Nov	8:30 u – 9:30 h	Meeting with project Management, Bryan Drakenstein Programme specialist Environment Portfolio UNDP Haidy Malone, Gillian Babb, Priscilla Hensen Project Management Unit GCCA+ Project	Residence Inn Nickerie
		9:30 u-10:30 h	Meeting District Commissioner Nickerie Nisha Kurban-Baboe Districtscommissaris (dc) district Nickerie	Nickerie R.P Bharosstraat no. 86 Tel: 0231448 / 0231712 / 0231605
		10:30 u – 13:30 u	Knowledge Sharing Event UNDP in Nw Nickerie Speech Haidy Malone; 11:30 -11:50 hrs GCCA+	Hotel Residence Inn

#	DATE	TIME	ACTIVITIES	LOCATION
			accomplishments	
		13-30 – 14:30	Travel Coronie - Nickerie	
		14:30 – 15:30	Meeting Coronie Stakeholders MECC SORTS (Loes Trustfull) Project Manager Rehabilitation Mangrove Education Centre (MECC); and team Joint Action: Rehabilitation of MECC in collaboration with NCD	Mangrove Education Centre (MECC) 1. Millani Wielzen 08828198 2. Shirley Shepper 08684139 3. MECC 08862032
		15:30-16:30	Meeting Beekeeper: IICA project	Coronie
		16:30-19:30	Travel from Coronie to Paramaribo	
2	Fri 22 Nov	8:30 – 9:00	Courtesy visit Margaret Jones Williams Deputy Resident Representative	Paramaribo Gonggrijp straat 25, tel (597 420030)
		9:00 - 10:30	Joint Meeting for representatives regarding Policy within the PSB: Min. of Finance: Mrs. J.Jaggan and/or mrs. S Sultan Min of Nat Resources: Permanent Secretary Dave Abeleven Coordination environment: TBD NIMOS: Mr Donovan Bogor	Paramaribo, TBD
		10:30 – 12:00	Joint Meeting technical Partners/ members PSB: Nature Conservation Division: Mr Hesdy Esajas, Anton de Kom University of Suriname: Prof Mr Sieuwnath Naipal Meteorology Department Suriname (MDS): Mrs S. Sallons Hydrological research department: A. Amatali	Paramaribo, TBD
		12:00 – 13:00	Action: National Mangrove Strategy Meeting with MAFOSUR Sieuwnath Naipal and Joan Telgt, Stan Malone	Paramaribo Sieuwnath Naipal MAFOSUR chairman
		13:00 - 14:00	LUNCH	
		14:15 –	R. van Kanten (General Manager Tropenbos Suriname)	Paramaribo

#	DATE	TIME	ACTIVITIES	LOCATION
		15:00	Meeting Tropenbos International Suriname Joint Action: Increase resilience through participatory mapping, eco-systems service assessment.	Prof.Dr. Ruinardlaan (CELOS Building). Enter via Leysweg Tel: 532001
		15:15 – 16:15	Forest Rangers Matawai Programme Amazone Conservation Team Suriname (ACT) ms: Minu Parahoe Joint Action: Increased resilience against climate change through increased capacity in sustainable use and monitoring of natural resources, including promotion of gender equity, sustainable land-use and knowledge on climate change impacts	Paramaribo Doekhie weg Oost # 24 Tel: 597 568606 597 434933
	WEEKEND			
	Sunday 24/11	18:00 – 19:00	M.Ramdjan Sustainable Recycling Suriname (SURESUR) Joint action: Collection and Increase in awareness on pollution of pet bottles in 3 coastal districts	Hotel Krasnapolsky
		19:00 - 20:00	Dr. Riad Nurmohamed Lecturer & Researcher ADEK University of Suriname, Faculty of Technological Sciences (FTeW) Programme coordinator Master of Science Programme in Sustainable Management of Natural Resources (SMNR) Joint Action:	Hotel Krasnapolsky
3	**Tuesday 26/11**	8:00 – 9:00	Available	
		9:30 – 10: 30	Rene Somopawiro (Acting general Manager of SBB) & Sarah Crabbe (Research Department Head) Foundation for Forest management and production control (SBB) Joint Action: Mangrove Biodiversity Monitoring	Paramaribo Martin Luther King weg 283 Tel: 483-131
		10:30 – 12:00	Available	
		12:00 – 13:00	Lunch	
		13:30 – 16:00	End beneficiaries Climate smart Agriculture and improved livelihoods through Permapiculture training (Beekeeping Meeting farmers and Beekeeper Weg naar Zee	Henry Fernandes weg & Brantimakka weg ,Weg naar Zee

#	DATE	TIME	ACTIVITIES	LOCATION
4	**Wednesday 27 /11**	9:00-10:00	Vila Zapakara Jantine van den Driest Joint Action Water Science Park	Ons Erf Prins Hendrik Str
		10:00 – 11:30	Curt Delice: Reginal IICA representative IICA Inter-American institute for Cooperation on Agriculture Joint Action: Increased capacity of Farmers at Weg naar Zee in Climate Smart Agriculture Perm-apiculture for mangrove rehabilitation	Paramaribo Letitia Vriesde laan 11 Tel: 478-187 /410-951/410-861
		11:45 – 12:45	Meeting Hydrobid Trainees Contact person: mr A. Amadali or mr. Kosso (MDS)	UNDP Environment Building Gongrijp str 12AParamaribo
		12:45 – 13:45	Lunch	
		14:00 – 15:00	Waterforum Suriname M. Hindori Chairman of Waterforum Suriname Joint activity IWRM Plan	UNDP Environment Building Gonggrijp str 12A
		15:00 – 16:00	Debriefing Meeting with PMU Bryan Drakenstein, Haidy Malone, Gillian Babb and Priscilla Hensen	UNDP Environment Building Gonggrijp str 12A
5	**Thursday day 28/11**	9:00 – 11:00	Debriefing Meeting with PMU & PSB	UN House Gonggrijp str 25
			International travel from PBM and PSB	

ANNEX 3: LIST OF PERSONS INTERVIEWED

Margaret Jones Williams - UNDP (Deputy Resident Representative)
Haidy Malone – UNDP (PROJECT MANAGER PMU)
Gillian Babb – UNDP
Priscilla Hensen – UNDP
Hesdy Esajas - ROGB
EUD Representative in Guyana
S.Jaggan and/or mrs. S Sultan – Min. of Finance
Dave Abeleven - Min of Nat Resources
Coordination environment
Donovan Bogor – NIMOS
Sukarni Sallons - Meteorology Department Suriname (MDS)
Armand Amatali - Hydrological research department
Prof Sieuw Naipal - Anton de Kom University of Suriname/ MAFOSUR
Joan Telgt - MAFOSUR
Stan Malone - MAFOSUR
Mr.Dwarka - Department head Nature Conservation Division Nickerie
Nisha Kurban-Baboe - Districtscommissaris (dc) district Nickerie
2 District officers of Nickerie
Millani Wielzen – Mangrove Education Centre (MECC) Coronie
Shirley Shepper – MECC
Rudi van Kanten - Tropenbos Suriname
Minu Parahoe - Amazone Conservation Team Suriname (ACT)
Dr. Riad Nurmohamed - ADEK University of Suriname
Rene Somopawiro - general Manager of SBB
Sarah Crabbe – SBB
Jantine van den Driest - Vila Zapakara
Curt Delice - Reginal IICA representative
Shawn Sowirono - WLA
Chevelle Righters - WLA
Xavero Van Ams – ADEK
Lorenzo Kasmani - Meteo
Maikel Yorks – RO
Manodj Hindori - Chairman of Waterforum Suriname
Beekepers of Colonie
Beekepers of Paramaribo

ANNEX 4: LIST OF DOCUMENTS REVIEWED BY THE EVALUATOR

1 *UNDAF 2012 – 2016, UNMSDF 2017-2021;*

2 *UNDP CPD 2012 – 2016, UNDP CPD 2017 - 2021;*

3 *Project Document;*

4 *Annual work plans;*

5 *Annual Project reports;*

6 *Project Progress Reports;*

7 *Minutes from Project Steering Board meetings;*

8 *ToRs for Consultancies;*

9 *Workshop reports;*

10 *Multi Annual Development Plan (OP 2012 – 2016), (OP 2017 – 2021);*

11 *Risk Logs;*

12 *UNDP's Handbook on Monitoring and Evaluation for Results;*

13 *Technical Report Environment Atlas;*

14 *Technical Report National Mangrove strategy;*

15 *Grant progress reports*

16 *Results Oriented Monitoring report (ROM)*

17 *Suriname Nationally Determined Contribution (NDC)*

18 *Draft National Adaptation Plan (NAP)*

19 *Intended Nationally Determined Contribution Under UNFCCC*

20 *Country programme document for Suriname (2017-2021), Executive Board of the United Nations Development Programme, the United Nations Population Fund and the United Nations Office for Project Services*

21 *Ontwikkelingsplan (Development plan) 2017-2021*

22 *Action Document for the project "GCCA+ support for Climate Change Adaptation in Suriname – Phase 2"*

23 *United Nations Multi-Country Sustainable Development Framework in the Caribbean (June 2016)*

24 *Project Visibility plan*

25 *Hydrometric Data Collection - Recommendations for the Upgrade and Expansion of Hydrometric Data Collection Systems in Suriname (2017)*

ANNEX 5: EVALUATION QUESTIONS

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
• How realistic were the project's intended outcomes?	• Degree to which the project supports national environmental Objectives	• Project documents and evaluations •	• Document analysis
• Were the project's objectives and components relevant, according to the social and political context?	• Degree of coherence between the project and national priorities, policies and strategies	• Min of Finance; Environment Coordination (Office of the president), Project team, UNDP	• Interviews
• Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?	• Appreciation from national stakeholders with respect to adequacy of project design and implementation to national realities and existing capacities	• Project partners and relevant stakeholders	• Interviews
• Are the stated assumptions and risks logical and robust? And did they help to determine activities and planned outputs?	• Coherence between needs expressed by national stakeholders and UNDP CPDpriorities	• Extent to which the project is actually implemented in line with incremental cost argument	• Document analysis
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
• To what extent were project results achieved?	• See indicators in the project document results framework and log frame	• Project documents and evaluations	• Document analysis

• In what ways are long-term emerging effects to the project foreseen?	• Level of coherence between project expected results and project design internal logic	• Environment Coordination (Office of the president), MDS;Project team, UNDP	• Interviews
• Were the relevant representatives from government and civil society involved in project implementation, including as part of the project steering committee?	• Level of coherence between project design and project implementation approach	• Project partners and relevant stakeholders	• Document analysis
• Was an intergovernmental committee given responsibility to liaise with the project team, recognizing that more than one ministry should be involved?	• Level of coherence between project design and project implementation approach	• Project documents and evaluations	• Document analysis
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
• Was adaptive management used and if so, how did these modifications to the project contribute to obtaining the objectives?	• Quality of existing information systems in place to identify emerging risks and other issues	• Project documents and evaluations	• Document analysis
• How did institutional arrangements influence the project's achievement of results?	• Quality of risk mitigations strategies developed and followed	• ROGB, MDS; WLA; Environment Coordination (Office of the president) ; Project team, UNDP	• Interviews
• Were the indicators provided in the Project Document effectively used for measuring progress and performance?	• Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency	• Project documents and evaluations • Environment Coordination (Office of the president); NIMOS, Min of Finance Project team, UNDP	• Interviews
• Were baseline conditions, methodology and roles and responsibilities well-articulated at project start-up?	• Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency	• Project documents and ROM report	• Interviews; Document analysis

Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
• In what way may the benefits from the project be maintained or increased in the future?	• See indicators in project document results framework and log frame	• Project documents and reports	• Document analysis
• Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?	• Evidence that particular partnerships/linkages will be sustained	• NIMOS, Project team, UNDP; Grantees	• Interviews
• Which of the project's aspects deserve to be replicated in future initiatives?	• Evidence that particular practices will be sustained	• NIMOS, Project team, UNDP; Environment Coordination (Office of the president);	• Interviews
• Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits?	• Evidence that Mainstreaming has taken place and SLM concepts are integrated in multiple sectors' policies.	• Project documents and reports	• Document analysis
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
• Are there verifiable reductions in stress on ecological systems?	• See indicators in project document results framework and log frame	• Project documents and evaluations	• Document analysis
• Is there demonstrated progress towards these impact achievements?	• NFIS; Mangrove Monitoring Geo Portal	• SBB • Project team • Project partners and relevant stakeholders	• Interviews

ANNEX 6: EVALUATION CONSULTANT AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form:

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: __Guido Mattei_____

Name of Consultancy Organization: UNDP:

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed 

Terracina, Italy - 09 December 2019