

GCCA+ PROJECTS IN SURINAME



-  Mangrove Conservation
-  Climate data and watermanagement
-  Increase community capacity in climate change adaptation
-  Innovative agricultural technologies to reduce climate vulnerability
-  Increase community resilience to extreme weather events
-  Ecosystem based Adaptation (EbA) approaches

GCCA+ SURINAME ADAPTATION PROJECT

Increasing Suriname's resilience against the negative impacts of Climate change

EU Award ID	DCI-ENV/2015 367-490
Duration	1 March 2016 – 31 August 2019
Project title	Suriname Global Climate Change Alliance (GCCA +); Contributing towards the provision of new climate information and institutional governance to help support sustainable agriculture productivity and mangrove protection
Total Project Budget	€ 3,405,000.00
Total EU contribution	€ 3,000,000.00
Total UNDP Contribution	€ 405,000.00
Reporting period covered	1 March 2016 – 31 August 2019
Implementing Partners	Ministry of Finance; Ministry of Physical Planning Land and Forest Management; Ministry of Public Works, Transport and Communication
Country Programme Outcome	Policies and programmes for climate change adaptation, disaster risk reduction, and universal access to clean and sustainable energy in place
Report Submitted by	UNITED NATIONS DEVELOPMENT PROGRAMME Country Office SURINAME
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LIST OF ACRONYMS

ABS	Algemeen Bureau voor de Statistiek (General Bureau of Statistics)
AdeKUS	Anton de Kom University of Suriname
ADRM	Agricultural Risk Disaster Management
ATM	Ministry of Labour, 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
CBO	Community Based Organisation
CC	Climate Change
CCCCC	Caribbean Community Climate Change Centre
CELOS	Centre for Agricultural Research in Suriname
CfP	Call for Proposal
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DC	District Commissioner
EBA	Ecosystem Based Adaptation
ERA	Expected Result Area
EU	European Union
EWS	Early Warning System
FAO	Food and Agricultural Organization of the United Nations
GCCA	Global Climate Change Alliance
GEF	Global Environment Facility
GIS	Geographical Information System
GoS	Government of Suriname
ICZMP	Integrated Coastal Zone Management Plan

IDB	Inter-American Development Bank
IICA	Inter American Institute for Cooperation on Agriculture
IWRM	Integrated Water Resources Management
JCCCP	Japan-Caribbean Climate Change Partnership
LVV	Ministry of Agriculture, Animal Husbandry and Fisheries
MDS	Meteorological Department Suriname (Meteorologische Dienst van Suriname)
MUMA	Multiple Use Management Area
NCCPSAP	National Climate Change Policy, Strategy and Action Plan
NCCR	National Disaster Office
NCD	Nature Conservation Division
NFI	National Forest Inventory
NGO	Non- governmental organization
NH	Ministry of Natural Resources
NIMOS	National Institute for Environment and Development in Suriname
NMS	National Mangrove Strategy
NPD	National Project Director
NPM	National Project Manager
NRC	National Result Coordinators
MaFoSur	Mangrove Forum Suriname
OW	Ministry of Public Works
OoP	Office of the President
PA	Protected Areas
PMU	Project Management Unit
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
ROM	Coordination Office for Spatial Planning and Environment within NIMOS
SBB	Foundation for Forest Management and Production Control
SCPAM	Suriname Coastal Protected Area Management
SEA	Strategic Environmental Assessment
SIDS	Small Island Developing States
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
WB	World Bank
WLA	Hydraulic Research Division (Waterloopkundige Afdeling)
WFS	Water Forum of Suriname
WMO	World Meteorological Organization

BACKGROUND

Suriname is situated on the Guyana Shield in South America and boasts one of the world's most water abundant territories. Although on the continent, Suriname is Small Island Developing State (SIDS) since most of its small population, composed of a variety of different cultures, lives along the coast bordering the Atlantic Ocean.

Not long after the adoption of the Paris Agreement in 2015, the Global Climate Change Alliance Suriname Adaptation (GCCA+) Project financing agreement was signed in December 2015 by the European Union (EU) and the United Nations Development Programme (UNDP) and subsequently the project document was signed in Paramaribo by the Ministry of Finance and the UNDP. The project, which is based on the identified needs of Suriname, is supported by the global GCCA+ initiative of the European Union in strengthening climate change adaptation capacities in recipient countries. Suriname is at a high risk of being negatively impacted by climate change due to the occurrences of droughts, floods, and severe storms coupled with relatively low capacity to prepare for and manage these. Suriname's Coastal population is very vulnerable to possible increase in sea-level due to the low coastline.

In recent decades, the negative impacts of Climate Change have become more apparent with particularly detrimental effects for the agriculture sector. The more common effects for the Caribbean Region have been more intense storms, unusual excessive rainfall events, emergence of new pests and diseases, and extended droughts; many falling outside of the historical periods of their occurrences. These have resulted in severe loss of agricultural productivity, with resulting reductions in household incomes for many farmers, and in many cases, total loss of ability to sustain their livelihoods.

For the daily coordination, administration and execution of the project a Project Management Unit (PMU) was set up, for daily support to the National Coordination offices and one Project Assistant.

To support the PMU and the national coordination within the Ministry Physical Planning, Land and Forest management (RGB) and Ministry of Public Works (OW) a Gender Specialist was hired to assist with mainstreaming the values of gender equality throughout the project activities. The project management unit also entered into partnership with several research institutions for the increase in technical support regarding hydro-met equipment; water management, coastal dynamics and mangrove biodiversity for sustainable national capacity increase.

Project Administration

The project was implemented by the Ministry of Finance and the appointed National Project Director (NPD) as well as the Project Steering Board (PSB) were appointed by the Coordination Environment of the Office of the President. The Project Steering Board was composed by nominated representatives from the Ministry of Finance; the National Institute for Environment and Development Suriname (NIMOS); the European Union; the Ministry of Physical Planning, Land and Forest Management; the Ministry of Public Works; and the UNDP.

The PMU was formed according to the UNDP procedure to include; a Project Manager, two Technical Officers for daily support to the National Coordination offices of the two result areas and a Project Assistant. The project office was established and duly equipped. The office was located at: Gongrijp Straat 12A, Paramaribo- Suriname.

The vulnerability of Suriname with regards to negative impacts of Climate Change is gradually changing with the support to and collaboration with local partners provided through the GCCA+ Suriname Adaptation Project. Since

the start of the project there have been significant improvements in Suriname's resilience because of the increase of local knowledge and capacity of farmers, government institutions, local communities; and the general public. Within the past three and a half years the project has enabled the increase in knowledge and capacity of government staff, support research and studies in support of water management; mangrove monitoring, rehabilitation and conservation. Drafted policy documents and increased livelihood for beekeepers, farmers and reduction of pet bottles in water ways through collection of household plastic bottles.

EXECUTIVE SUMMARY

This report reflects the of implementation of the GCCA+ Suriname Adaptation project from the beginning to the end. The project started in March 2016 and was completed in August 2019.

The implementation was based on the Agreement signed between the European Union and the UNDP Suriname office with full endorsement by the Government of Suriname. The execution of project activities occurred through the annual approval of plans and budgets by the Project Steering Board (PSB). Apart from internal monitoring mechanisms, the project was subject to two external monitoring events, one Results Orientated Monitoring (ROM) mission during the beginning of 2018 and a Terminal Evaluation (TE) after completion of project activities in December 2019.

Results achieved during the life of the project related to the two Result areas of the project are:

- Increase in Hydro-Met data collection capacity
- Installation of three Micro-irrigation systems and one Solar power operated greenhouse structure.
- The Digitization of Historic Climate data within the Ministry of Public Works, Transport and Communication.
- Development of an integrated Water Resource Management Action Plan
- Development of a National Mangrove Strategy
- Set-up of a National Mangrove Monitoring System

Capacity building initiatives which were undertaken during the life of the project can be summarized as follows:

1. International, regional and local participation of staff of the Meteorology Department Suriname (MDS) in workshops, conferences and training in China, Barbados, the USA and Suriname.
2. Participation of members from government institutions as well as the GCCA+ PMU in the 8th World Water Forum in Brasilia in March 2018 and the 29th World Water Week in Stockholm, Sweden in August 2019 therefore contributing to the increase in knowledge and capacity in relevant government institutions with regards to Integrated Water Management and Water governance as well as equity and reduction of Climate Change risks.
3. In collaboration with the JCCCP project GCCA+ hosted four Climate Change learning events in Paramaribo and Sipaliwini, with more than 500 Participants including the chairperson of the Suriname's parliament

In general, the execution of the project was a challenging but rewarding process which has yielded satisfactory results despite various factors. The project was impacted by climate change events in the region which caused delays in the acquisition of materials due to the extraordinary hurricane season in 2017, as well as the difficulties encountered in recruitment of support services and the impact of the financial crisis in the government on institutional capacity and decision making within government agencies. Because of the previously mentioned factors the project requested and was awarded an extension. In spite of the suffered delays the project was able to achieve three important key milestones after a six-month extension facilitating the project to end in August 2019.

In conclusion two noteworthy mentions of recognition are:

- The results achieved have been made possible thanks to successful partnerships which were established throughout the life of the project.
- In February 2020, the EU awarded Euro 5 million for a second phase of the GCCA+ Adaptation project in Suriname. The second phase is expected to begin in April 2020.

PROJECT GOVERNANCE

Project Steering Board

The project was implemented by the Ministry of Finance as the National Authorizing Organization. Both the Chairperson of the Project Steering Board and the National Project Director were appointed by the Office of the President. The project steering board was composed of nominated representatives of the of the Ministry of Finance; the National Institute for Environment and Development Suriname (NIMOS); the European Union; the Ministry of Physical Planning, Land and Forest Management; the Ministry of Public Works; and the UNDP.

The governance of the project was administered by the PSB which held a critical role in overall project monitoring and evaluation, using evaluations for performance improvement, accountability and learning. The board ensured that required resources were committed and had the mandate to arbitrate on any conflicts within the project or negotiate solutions to problems with external bodies although that was not needed. The PSB was also tasked with providing guidance and guidelines in the implementation of the project, approved project strategies, plans and annual reports. The Board sought to ensure full participation of stakeholders in project activities and project implementation in accordance with national legislations and regulations, rules and procedures. As instructed in the terms of reference of the PSB at least two meetings were held per year, whereby decision could be made with quorum of two-thirds, and the presence of the three signatory partners of the project. The responsibilities of the board were to review and approve project strategies, annual workplans and annual reports. Furthermore, the Board approved project proposals submitted through the GCCA+ Call for proposal tender process. The PMU acted as the secretariat of the PSB.

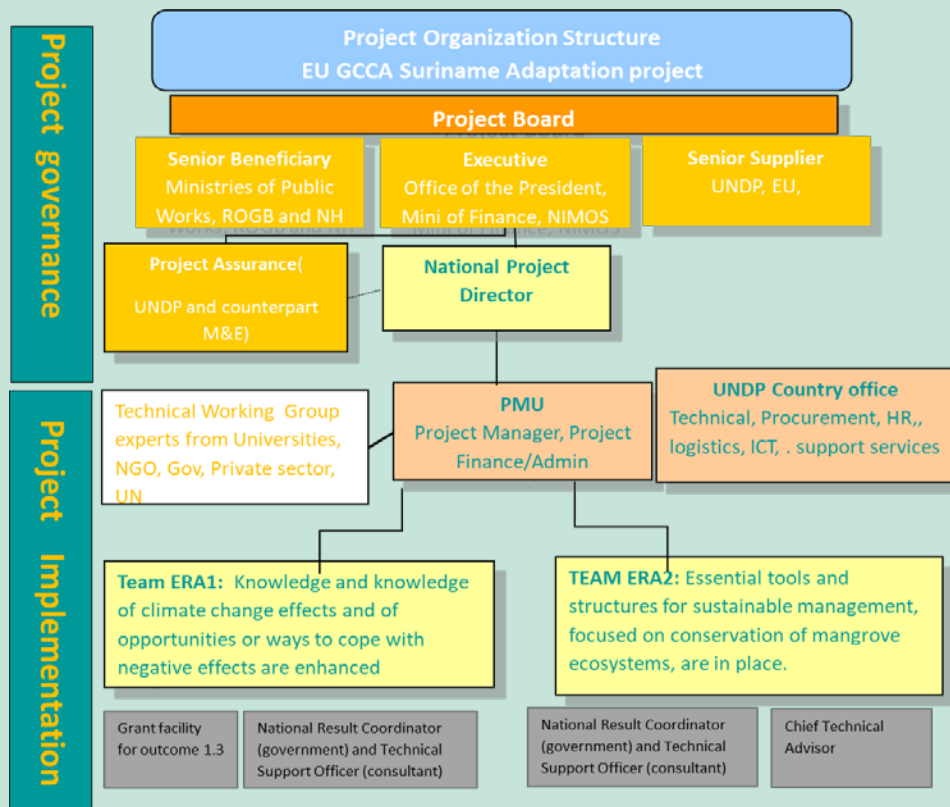


Figure 1: Organizational Structure GCCA+ project

For the planning and timely implementation, the project was in regular communication with National Coordination Team (NCT) chaired by the NPD which was also accountable to the Government. During the project the PMU has had regular contact and consultation with members of the PSB on different aspects of execution of the GCCA+ project.

During the life of the project, The PSB chair, experienced some changes when the assigned representative was no longer with the Office of the President. Her substitute, in the person of the National Project Director, took the leadership over the PSB and has fulfilled that position until the end of the project.

At present the governing bodies for the project are in remission while the PMU is functioning with minimal occupation for finalization, operational closure and final reporting of the project.

MONITORING OF THE PROJECT

Project Monitoring and Evaluation (M&E) are important aspects to ensure successful implementation and completion of a project. For a small country such as Suriname to execute a Climate Change adaptation project at a broad scale, monitoring is crucial. For the monitoring of the project different tools; structures and mechanisms were used.

The Monitoring strategy presented during the Inception Workshop gave a clear overview of how the project team planned to ensure that the project stayed “on-track” while safeguarding the quality of results achieved.

Type of M&E activity	Responsible Parties	Time frame
Inception Report	Project Team, PSC, UNDP CO	Within 6 weeks of the Inception Workshop
Annual Project R	Project Team, PSC, IRC	Annually
Steering Committee Meetings	Chair of the Project Steering Board	Bi-annually
National coordination meetings	PMU, NPD and NRC's	Quarterly
Technical and periodic status reports to the EU	PMU	Bi-annually
Mid-term External Evaluation	PMU, Project Steering Board, UNDP CO, NRC, External Consultants (Evaluation Team)	At the mid-point of project implementation
Final External Evaluation	PMU, PSB, UNDP CO, NRC's, External Consultants (Evaluation Team)	At the end of project implementation
Terminal Report	PMU, PSB, External Consultant	Three months prior to end of the project. Report completed in February
Audit	UNDP-CO, Project Team	One Harmonized Approach to Cash Transfers (HACT) audit in 2017
Visits to field sites	UNDP-CO, IRC, Government representatives	UNDP Staff annual monitoring field mission to project sites, including joint missions as much as possible with government and partners.

Results Oriented Monitoring Visit

In February 2018 the GCCA+ had a Result Oriented Monitoring (ROM) mission. The ROM is an exercise geared towards improving project performance; it is neither an audit nor a detailed evaluation. The ROM exercise was executed by a very experienced and Dutch speaking expert with the objective to improve project performance. During the ROM mission, meetings were held with stakeholders to discuss project performance and help project managers “to think in result-oriented terms”. The ROM debriefing and report provided direct feedback on success and problems identified in project implementation and provided recommendations on how to improve operations. The monitoring mission results were presented in a standard, concise report containing assessments of the situation at the time of the mission regarding the four standard parameters:

Relevance

The ROM mission concluded that the GCCA+ Suriname Adaptation Project was relevant and that its objectives respond to the importance to better prepare Suriname in the face of negative effects of Climate Change (CC); *“The Project is responding to the current needs of the public institutes of Suriname that are involved in the environment sector, to be strengthened and to count with clear policies, guidelines and tools”*. Special reference was made on the impact which the unexpected economic crisis had on the government’s partner’s capacity since most state institutions have suffered serious cutbacks (less staff members, infrastructure and financial means) and are clearly limited in their implementation capacity, which made the Project’s support in institutional capacity building even more important. “

The mission also recognized the project’s response to the needs of the local communities in increasing preparedness to natural disasters (mainly floods) and of the farmers to adapt their farming practices and techniques to minimize risks of damage to crops due to droughts or heavy rainfall. It was observed that insufficient coordination with the lead institutions of the government in relation to climate change, demanded for the project PMU to play a crucial role with regard to the coordination with and between the different key stakeholders, facilitating and promoting their participation in the implementation. The chosen project strategy relied upon the full involvement of the stakeholders, which without doubt enhanced ownership of the processes.

The most important recommendation for the ROM exercise regarding relevance is related to the Logical Framework (LF) of the project which was considered generally coherent in terms of its vertical and horizontal logic. Nevertheless, the PMU was advised to profoundly revise the indicators. Most of the targets and time frames were considered too ambitious, because of the broad and the cross-cutting CC issue with a high number of stakeholders involved and because of the special context of Suriname with its poor infrastructure and difficult access to the hinterland. In the second place, the implementation processes were taking more time than originally planned because of the weakened public institutions affected by the existing economic crisis that was not foreseen in the formulation phase of the Project. Shortly after the ROM mission the PMU thoroughly reviewed the logical framework and revised the indicators and some targets. The targets as described at output level were maintained.

Efficiency

In the 1st annual report it was mentioned that the Project was lagging on its original time schedule. Main reasons for these delays recorded by the ROM were: i) changes in political economic context of Suriname, ambitious and unrealistic original Work Plan, ii) important delays in contracting PMU staff; staff complete 9 months after official start of project implementation, iii) and the multiple time consuming tender procedures. The problem was that most of the activities that were delayed had a chain effect on the timing of other project activities, principally with regard to the digitization of meteorological data (Meteorological Department of Suriname in charge)

needed for water resources modelling, but also to the mangrove biodiversity monitoring system and identification of value-added mangrove products valuation needed for small enterprise development, and to the update of all the four MUMA Management Plans (with Nature Conservation Division – NCD. The PMU and UNDP Suriname were aware of these delays and the reasons behind these. The PMU addressed the delays by consistently continuing pressure on the institutions involved and moving activities in the work plan forward.

Effectiveness

The ROM concluded that at the time of the mission, the quality of the outputs obtained varied, but good on average. The first video produced about the importance of mangrove and their ecosystem services, to be used for awareness raising, was considered of excellent quality. The same applied to most of the capacity building and training activities, since they were in most of the cases lead by professionals with broad experience and good knowledge about the respective subjects. On the other hand, the quality of the renovated Mangrove Education Centre –although from the outside looking attractive- was regular (leaking roof and set-up of inner design were considered not very professional). The Project supported the partner's policies and actions, including the National government as well as local authorities and other stakeholders, like university and national NGOs. The Office of the President (OoP) was a key player as far as the environment and climate change sector was concerned and at that time promoted a platform of dialogue between the 16 ministries that are, in one way or another, related to the environment sector. The OoP was and still is, aware of the importance to coordinate actions, design policies and define common strategies in order to tackle the environment problems of the country in an effective way. The Project has supported the OoP through its strategy which was focused on facilitation, coordination, platform strengthening (like the water and mangrove platform) and through its involvement and direct relationship with a diversity of ministries and governmental departments.

Sustainability

According to the ROM report; capacity development of the main stakeholders and final beneficiaries involved in the Project was the main tenet of the Project's methodological approach. Key to this was the active participation of these actors in the project implementation, without relying completely on external international consultants. Former experiences in Suriname have shown that projects without proper involvement of the national stakeholders are not very effective and that it is more likely that their final products will not be used afterwards, either because the products do not respond to their real needs or because the particular characteristics of the Suriname context have not sufficiently been taken into account. One of the main benefits of the Project was the human capacity building, since many activities were accompanied with training (through special organized training courses or on-the-job training), information exchange and awareness raising. However, the report warned that if the economic crisis the country was in; was not lifted, this could bring the government in difficulty to follow-up with many activities after the end of the Project. The new hydrological and meteorological stations of Hydraulic Department (WLA) and Meteorological Department Suriname (MDS) for example, acquired by the Project which were to be installed at that time in places with difficult access would not need frequent visits for data collection since they are automatic. Nevertheless, it would remain necessary to visit the stations regularly for revision and maintenance of the equipment.



Impressions of Results Oriented Monitoring Visit (February 2018)

Recommendations

The PMU immediately executed the useful recommendations from the ROM for improvement of project execution, monitoring and increased probability of successful achievement of project outcomes. Some of the actions taken were:

Project duration

Taking into consideration the ROM recommendations and the progress and results which the project was able to achieve by midterm of the originally planned final year of the project duration, the PMU i) reviewed and prioritized activities; and ii) elaborated a detailed and realistic work plan covering the additional project implementation period, based on prioritized activities and available budget without adversely affecting the achievement of the established expected results (ERA) and project objectives. The PMU got the approval of the PSB for the request for extension to the EU, after which the UNDP submitted a formal request for 6 months no-cost extension of the project. As mentioned earlier the request was awarded by the EU, bringing the implementation period from 36 to 42 months.

Project Implementation

The ROM recommended the PMU to include workshops focused on systematization of experiences in the next work plan, in which representatives of the main stakeholders and final beneficiaries would participate.

The PMU is followed recommendations to speed-up the delayed activity 1.2.2; hydrological modeling through discussions amongst the relevant key stakeholders (MDS, WLA, ADEKUS/SMNR). The specific objective of hydro-modelling of the water basin(s) was prioritized and the data to be digitized selected so that the modelling exercise would not suffer any further delay.

Project monitoring

The PMU adapted the Logical Framework (LF) based on the ROM recommendations so that it could better reflect the results achieved so far and those which will be achieved by the end of the project. The “new LF” was also used to report on progress made in the 2nd year of implementation.

The UNDP agreed with the observations made in the mission report that a Mid-term evaluation would not add value to the findings and recommendations of the ROM review; making a final evaluation at the end of the project more appropriate.

Terminal Evaluation

The terminal evaluation of the project took place from November 2019 to January 2020 by an experienced international consultant. The evaluation included desk-top research, review of project documentation, verification of evidence, site verification and consultations with partners, stakeholders and project beneficiaries. The evaluation was conducted according to the guidance, rules and procedures established by UNDP and following the agreement with the 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. The project was evaluated against its relevance, impact, efficiency and effectiveness and resulted in the following conclusions:

Relevance

The GCCA+ Suriname Adaptation Project was rated highly pertinent and relevant for the country. Out of nine (9) stated outputs, all were achieved except for two, of which one was partially achieved. Suriname is severely affected by Climate Change and trends show that the situation can exacerbate in the future. The project also responds to the lack of skills and resources present in the national stakeholders.

Impact

Clear positive impacts have been generated by the Project, which support 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 final evaluation confirms the impact of the economic crisis on the national capacity to face CC and on the implementation of the project.

Through facilitation, coordination, platform strengthening the project was able to support and increase the national capacity for response to climate change i.e. both the water and mangrove platforms and through its involvement and direct relationship with the Office of the President (OoP), 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 for academic strengthening and training of students in the field of CC.

Other institutions and agencies who benefitted from the project include: the National Coordination Centre for Disaster Relief (NCCR), the Suriname Red Cross, and NGOs such as Sustainable Recycling Suriname (SuReSur), Develop Art foundation (DAF), Foundation for development radio and Television Suriname (SORTS); Amazone Conservation Team Suriname (ACT Suriname) and Tropenbos Suriname).

Effectiveness

Overall the project was able to achieve the completion of several products and to generate a certain level of engagement from relevant stakeholders.

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.

The main proposed outputs were achieved, amongst which:

- Strengthening of the national meteorological and hydraulic services and new stations installed.
- Creation and dissemination of new opportunities and technologies to reduce the vulnerability of the agricultural sector to climate change.
- National Mangrove Strategy developed
- Existing management plans of 3 coastal MUMAs have been updated.
- Improvement of patrolling and enforcement activities have been improved
- Design and implementation of public and community awareness campaigns.

The quality of the outputs obtained varies but is 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.

The complexity of mangrove conservation in the coast has not made it easier for the project to successfully complete all the activities and attain the expected results under ERA 2. The outputs partially or not achieved include the updating of only 3 MUMA management Plans instead of 4, while codes of practice and guidelines for mangrove conservation have not been produced due to the delays in the development of the mangrove Strategy. During the life of the Project, the needed management structures for improved management of the MUMA's haven been set-up.

It was the conclusion of the final evaluation to rate the project's effectiveness as: Moderately Satisfactory

Efficiency

The project was rated satisfactorily for efficiency. The evaluation concluded that 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 due to the process for completion of the PMU. 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.

Moreover, for result area 1 the project suffered from time-consuming process of decision making from the government partner for the electrical connection of the location for the digitization of the meteorological data which took more than one year to be completed.

Most of the activities that were delayed had serious consequences on 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 also an impact on the identification of value-added mangrove products valuation (responsibility of the Foundation for Forest Management and Production Control - SBB) needed for small enterprise development. Also, updated MUMA Management Plans were needed for initiation of establishment of the Local Management Boards in charge of a proper and coordinated implementation of these Management Plans.

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 Beliefs 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.

RESULTS ACHIEVEMENT OF OUTPUTS

ERA 1: to strengthen the performance of the national meteorological service and the hydrology department to enable hydrological/hydraulic modelling as a basis for sustainable water resources management at country level and reduce agricultural the sector's vulnerability to the negative effects of climate change	
Output	Status
1.1 Capacity at the Meteorological Service of Suriname (MDS) Hydraulic Division and other Institutions (WLA) Strengthened	Achieved
1.2 Water resources Modelling and planning for integrated and sustainable water management undertaken	Achieved
1.3 New technologies to reduce the vulnerability of the agricultural sector to climate variability researched and results published	Achieved

ERA 2: to strengthen the function of natural coastal defense of the mangroves against sea level rise and erosion in coastal areas	
Output	Status
2.1 National Mangrove Strategy Developed	Achieved
2.2 Economic (monetary) valuation study of the mangrove ecosystems conducted	Achieved
2.3 Existing Management Plans of 4 coastal MUMA's updated and implemented	Partially Achieved
2.4 Management Structures at the 4 Coastal MUMA's Established and adequately equipped	Not achieved
2.5 Patrolling and enforcement Activities improved	Achieved
2.6 Public and Community Awareness campaigns designed and implemented	Achieved

PROJECT IMPLEMENTATION Expected Result Area 1

Expected Result Area1: Collecting climate data and developing capacity for sustainable water resource management.

This result has the objective to strengthen the performance of the national meteorological service and the hydrology department to enable hydrological/hydraulic modelling as a basis for sustainable water resources management at country level. In addition, it aims at executing adaptive research to support the agricultural sector and thus to reduce the sector's vulnerability to the negative effects of climate change.

Note*:The following Logical framework (LF) was revised according to the recommendations of the ROM mission report. Targets have been adapted to better reflect the relevant and achievable results and indicators have been reformulated so that they can serve their means to monitor and measure the change-process towards the targets.

Output 1.1: Capacity at the Meteorological Service of Suriname (MDS), Hydraulic Research Division (WLA) and other related institutions strengthened.

Narrative			
This output contributes towards supporting the Hydro-Met departments of the Ministry of Public Works through rehabilitation of existing hydrological and meteorological monitoring stations, procurement and installation of additional automatic hydrological and meteorological stations, office equipment, and specialised software, as well as through capacity building of human resources.			
Output Indicator	Baseline	End Target	Progress to date
1.1.1) % national coverage of climate/weather and hydrological monitoring infrastructure (expansion of the MDS meteorological network and WLA hydro network)	<p>1.1.1) 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.</p> <p>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.</p>	<p>1.1.1) a) Coverage MDS increased with 4 AWS and 4 rain gauges</p> <p>1.1.1) b) WLA coverage increased with 5 stations in the interior</p>	<p>Achieved New equipment for Meteorology Department Suriname (MDS); 4 rain gauges and 2 AWS; and increased their capacity by respectively; 6% rain gauges and 40% for automatic weather stations. Including equipment received from CCCCC (16AWS), MDS coverage increased with 300%</p> <p>Achieved Installation of 5 Telemetric Automatic Water Level Stations (AWLS) in 4 mayor rivers and 1 in the coast, 30% increase of coverage in the coast. 5 Satellite Automatic Water Level Stations (AWLS) installed in the interior. Total capacity in the interior increased from zero to five.</p>
1.1.2) Training on how to use new hydro-met stations (operation and maintenance) using new guidelines and manuals);	1.1.2) Most staff not 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	Achieved 24 Staff members including women, of the MDS and WLA trained in operation and maintenance of newly acquired equipment.

Planned Activities	Progress against activities
Activity 1.1 a. Finalize systems design, equipment requirements and technical specifications for the expansion of the existing MDS hydro-met network and the WLA hydro-met network.	Purchase of 2 Automatic Weather Stations, and 4 Recording Rain Gauges for the upgrade of meteorological instruments necessary for a minimum Meteorological network for Suriname per World Meteorological Organization (WMO) standards. Under the support of the Regional Climate Change Adaptation Programme (CCAP) project of the Caribbean Community Climate Change Centre (CCCC) the MDS has also received 16 AWS for coverage increase (12 stations to be installed in the interior), which ultimately increase the capacity of the MDS with over 200%
Activity 1.1 b. Tender, procure and install equipment and components for upgrading of the real-time automated weather stations, hydrological stations, and early warning stations.	Installation of 5 telemetric AWLS which were in storage of WLA and acquisition of 5 satellite AWLS & 1 hydro lab for water quality measurements with GCCA+ resources. Total installed by the project 10 instruments; 5 in the coastal area and 5 in the interior.
Activity 1.1 c. Create framework for Climate Change operation and maintenance support and capacity development of key staff using new operation and maintenance guidelines and manuals.	Financed by the project, the Caribbean Institute for Meteorology and Hydrology (CIMH) provided support and capacity building to the Hydro-Met departments of Suriname for maintenance and Climate Change operation. CIMH has provide senior technical guidance to the MDS and WLA on the preparation of policy guidance notes on information sharing regarding EWS, water resources assessments, provision of information on climate change.
Sources of Evidence for results achieved	
<ul style="list-style-type: none"> • CIMH Inspection Hydro-Met Stations Suriname report • CIMH Midterm report Suriname JUNE 2018 • Video - Climate data and and Water resource management 	

Output 1.2: Water resources modelling and planning for integrated and sustainable water management undertaken.

Narrative			
This output contributes towards data rescue and the use of historical climatological data in water resource modeling, as input for establishing and updating early warning systems and to reduce disaster risks in Suriname. This output contributes furthermore towards establishing sustainable water resource management.			
Output Indicator	Baseline	End Target	Progress to date
1.2.1) % of water management institutions benefitting from access to a new national hydrological / water resources model.	1.2.1) Population insufficiently aware of available water management information.	1.2.1) By end year three, at least 2 water management institutions aware of availability and access to improved modelled output information.	Achieved 21 persons from 8 institutions trained in total, through 4 training courses and 4 workshops. Improved modelled output for 4 mayor rivers (Nickerie, Coppename, Saramacca and Suriname river) with ADEK University of Suriname and support of the IDB
1.2.2) Frequency of automatic data transmission for new hydrological and meteorological network stations	1.2.2) Deficient data transmission systems locally. Data transmission is mostly manually undertaken once a week in the coastal area and in the interior.	1.2.2) Automatic daily data transmission for at least 10 hydrological and 6 meteorological network stations by mid-year three.	Achieved Daily data transmission of 11 satellite-based and 5 telemetric-based new hydrological and meteorological stations via a Hydro-met Cloud service.
1.2.3) GoS Development Strategy and land-use Plans at National/District integrate climate information in their formulation and implementation.	1.2.3) Restricted use of flood risk maps or climate change predictions into long-term land- use and sustainable water management planning.	1.2.3) At least 2 GoS Development Strategy and land-use Plans at National/District integrate climate information in their formulation and implementation	Achieved Various aspects of Climate Change integrated in the development strategy 2017-2021 of the GOS: 19 District plans on Disaster Risk Management developed
Planned Activities as per annual work plan		Progress against activities	
Activity 1.2.a. Long term historical observation data collated, digitized and used in water resource planning and policy formulations.		The MDS was supported through purchase of equipment and additional human resources assistance of the Suricorps to digitize almost 70 years of historical data (oldest data rescued dates from 1951, newest 2017). Two teams worked for 12 hours per day, for one year to accomplish this milestone. Total Scans: 487,905; Total Photo's: 686,348; Total Data entry: 1482 months of various measurements. According to the head of the MDS, Suriname in the lead in the region with digitization of historic data.	

Activity 1.2.b Conduct new water resource assessment (incl.; ground water reserves) to inform future planning for integrated and sustainable water management.	In collaboration with the Water Forum Suriname a comprehensive assessment on water resource conducted. The Suriname Water Resources Information System (SWRIS) web portal has been rebuild and made operational for increased access to information and documents regarding water resources.
Activity 1.2.c. Prepare National Water Resources Vulnerability profiles and associated Water Resource Plans for all regions of Suriname	Integrated Water resource Management Action Plan developed in collaboration with the Ministry of Natural Resources and the Water forum Suriname. The plan includes the previously mentioned Situation Analysis and a Monitoring Plan.
Activity 1.2.d. Develop capacity programme in water resource and hydrological modelling and sector tailored hydrological forecasting techniques and information packaging for water resource managers and hydrologists	20 students of the ADEKUS trained in hydrogeology and modelling to understand the principles and practical applications of groundwater occurrence and behaviour. Personnel of 8 institutions with water management responsibilities were trained in the use of the Hydro-Bid hydrological model. In total, 4 training courses and 4 workshops were held with support of the ADEK University of Suriname and the IDB. The Model was calibrated for 4 mayor rivers. (Nickerie, Coppename, Saramacca and Suriname river)
Sources of Evidence for results achieved	
<ul style="list-style-type: none"> • Swris webportal SWRIS (http://www.swris.sr/) • Integrated Water Resource Management Action Plan Suriname • Implementing the Hydro-BID Model in Suriname • Newspaper Article - Waterforum Suriname bewustwordings campagne • Newspaper Article - De waterkwaliteit van de estuariene zone van de Saramacca rivier • Video - Climate data and and Water resource management • Video - Belang van Integraal Waterbeheer voor Suriname 	

Output 1.3: New technologies to reduce the vulnerability of the agricultural sector to climate variability researched and results published.

Narrative			
This output contributes towards reducing the vulnerability of the agricultural sector to climate variability, by developing new agricultural technologies focused on of climate change adaptation.			
Output Indicator	Baseline	End Target	Progress to date
1.3.1) Number of research opportunities presented to reduce vulnerability of the agricultural sector to climate variability using support from EU CFP grants.	Limited applied research is taking place on climate adaptive technologies for the agricultural sector in Suriname.	1.3.1) At least three new research opportunities awarded by mid-year one and 6 by end of year three.	Achieved Research opportunities awarded The 1 st research project was on waste and pet-bottles in partnership with Sustainable Recycling Suriname (SURESUR) was completed in the first year. 4 other research collaborations one (1) on climate smart agriculture technologies in collaboration with IICA; a second (2 nd) one on: multi-disciplinary landscape assessment (MLA) related to agriculture by Tropenbos International Suriname (TBIS) and the Centre of Agricultural Research in Suriname (CELOS); the third (3 rd): research on the use of mangrove ecosystem services in coastal communities of 4 districts by Development Art Foundation (DAF) and the fourth (4 th) on potential changes of the biodiversity in the Bigi Pan Lagoon, conducted by the Anton de Kom University of Suriname (AdeK UvS). The SBB has also done data collection and ground-truthing along the Suriname coast for mangrove mapping and monitoring through satellite imagery. The university is continuing research on Mangrove rehabilitation and sediment trapping in the Beringhole area and the Adaptation of 3 Management plans of coastal protected areas was supported by research coordinated by the Nature Conservation Division.
1.3.2) Number of appropriate technologies developed from the CFP “grant facility” research initiatives in the agricultural sectors.	Lack of synergies and no 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	Achieved In collaboration with IICA design and implementation of rainwater harvesting and reservoir in combination with

		link to the relevant outputs of the JCCCP (JCCCP Outputs 2.2-2.5).	(2) protective structures (greenhouses) and two (2) irrigation systems (drip-irrigation and micro-sprinkler) in Weg naar Zee area.
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.	<p>Achieved At least 8 Knowledge sharing events organized</p> <p>8 persons from water related institutions and Ministries and the GCCA+ PMU participated at the 8th World Water Forum in Brasilia.</p> <p>Knowledge sharing session on Water Governance principles in OECD countries and management (including maintenance) of water infrastructures by Mr. N. Sardjoe from Deltares to increase understanding of this topic amongst personnel the from water related institutions and Ministries.</p> <p>Four Climate Change Learning events with the theme ;Koni de fu prati,di a weer e kenki” were organized where different partners, including IICA ; Tropen bos Suriname, Amazon Conservation Team Suriname, NIMOS REDD+, Suri Corps, Suresur, Red Cross and the SBB presented the activities and results under the GCCA+ Suriname Adaptation Project on challenges and climate change adaptation measures. A total of 430 from Boven Suriname (Sipaliwini) and 154 from the districts of Marowijne and Para primary school students and 350 persons from institutions nationwide and communities participated during these events.</p> <p>In partnership with the Embassy of the United States of America a Regional Mangrove Experts Session was organized for Mangrove research in the Guyana Shield. In partnership with JCCCP 6 persons from NH, NIMOS and the PMU participated in a learning mission to Israel</p>

		<p>to increase knowledge mainly on Integrated Water Resource Management (IWRM). Based on this a knowledge sharing session on Israeli Technologies in the Water and Agriculture sector was held. The keynote speaker was Dr. Y. Shevel for the Galilee International Management Institute. 43 women and 19 men attended the session.</p> <p>4 persons from Suriname, including government and one youth participated in the World Water week, increase knowledge on water governance, global trends and innovation regarding water resource; disaster-risk, gender and water governance management.</p> <p>At the interactive exposition site of Vila Zapakara for children of primary and secondary schools, a 3D Water science park was set up. The physical model shows a river with different water works such as the hydro dams and turbines providing access to information, learn and gain knowledge in a fun and interactive way.</p>
Planned Activities as per annual work plan		Progress against activities
Activity 1.3a. GCCA+ Call for Proposals process on agricultural sector risk reduction and management measures.		A call for proposals was launched in year one. Twenty three (23) concept notes were received, ten (10) were shortlisted based on selection criteria to submit a full proposal. A proposal development workshop was organized and followed by two individual sessions for each prospective grantee by the GCCA+ PMU, to facilitate the development of the concept notes into full proposals. Nine proposals were received in the 4 thematic areas as mentioned in the Project Document, these being: New agricultural technologies to reduce climate vulnerability; Ecosystem Based Adaptation approaches; Livelihood Diversification in Mangrove areas; and Dissemination, outreach and research on Mangrove Ecosystems Management.
Activity 1.3b. Implementation of successful GCCA+ Proposals on agricultural sector risk reduction and management measures.		In partnership with the IICA, two irrigation systems have been installed (one drip irrigation and one sprinkler irrigation) each connected with a rain water harvesting unit of 480 m ³ each; with the support and collaboration of the “Vereniging duurzame ontwikkeling Weg naar Zee” organisation of the farmers on two farm plots. There is also a protective agriculture structure which covers 960m ² ; with micro drip irrigation; temperature control; fogging system and

lighting, run on solar power. The greenhouse is set-up to showcase the increase in productivity and quality of crops if heat stress and humidity are controlled while crops are protected from extreme weather events. In addition, training sessions have been organised, the trainings had an average of 30 attending practicing farmers. Beneficiaries received training in both theory and practice in management of the medium that the crops are grown in, fertilising and use of chemicals.

A Multi-disciplinary landscape assessment (MLA) was conducted by TBI Suriname and CELOS related to agriculture together with the local population of Pikien Slee.

In collaboration with SuReSur 37 collection bins have been placed in several key locations in the coastal area of Suriname in three different locations (Wageningen, Coronie, Weg naar Zee). In total 678,450.00 plastic bottles and aluminium cans were collected during the life of the project.

Suriname Red Cross: A project focused on disaster risk reduction and climate change adaptation in vulnerable communities and schools, in Paramaribo, Para, Commewijne and Wageningen. This project was co-financed by UNICEF. Awareness sessions were organized in 7 school communities, reaching over 1700 primary school children, ages 6 to 12 years

Sources of Evidence for results achieved

- Suriname Schoon - eerste stap naar Integraal Afvalbeheer
- Data Analysis use of mangrove ecosystem services in coastal communities DAF - Analysis Coronie
- Data Analysis use of mangrove ecosystem services in coastal communities DAF - Analyse Nickerie
- Data Analysis use of mangrove ecosystem services in coastal communities DAF - Analyse Paramaribo
- Multi-disciplinary landscape assessment (MLA) Suriname report
- Multi-disciplinary landscape assessment (MLA) Suriname poster
- Agroforestry poster Pikien Slee Suriname
- Video - Climate Smart Agriculture
- Video - Knowledge Sharing Event-Koni De Fu Prati Di A Weer E Kenki-Pikin Slee
- Fact sheet Disaster Preparedness Red Cross

PROJECT IMPLEMENTATION Expected Result Area 2

Implementation progress Expected Result Area2: Essential tools and structures for sustainable management, focused on conservation of mangrove ecosystems in place.

To strengthen the function of natural coastal defense of the mangroves against sea level rise and erosion in coastal areas, the activities under this project component are 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 will facilitate 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.

Note*:
The following Logical framework (LF) has been revised according to the recommendations of the ROM mission report. Targets have been adapted to better reflect the relevant and achievable results and indicators have been reformulated so that they can serve their means to monitor and measure the change-process towards the targets.

Output 2.1 - National Mangrove Strategy endorsed

Narrative			
<p>The National Mangrove Strategy is the first step in developing and implementing a governance system aimed at the sustainable use of mangrove ecosystems in Suriname. As an initiative to involve and work in collaboration with local organizations as much as possible, a partnership has been formed with Mangrove Forum Suriname (MAFOSUR). Project proposal for development of the National Mangrove Strategy has been drafted. Initial stakeholder meetings have been conducted. The first completed draft of the National Mangrove Strategy will be submitted in the 4th quarter of 2017.</p>			
Output Indicator	Baseline	End target	Progress to date
2.1.1) Existence of a national mangrove strategy policy document for Suriname.	2.1.1) There is currently no statutory plan for the 1,100km ² 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	Achieved The National Mangrove Strategy (NMS) was developed in collaboration with the mangrove forum Suriname. The Ministry of RGB has endorsed the document, by initiating the process for installation of a mangrove committee to plan the execution of the recommendations in the document. Through support from the project Mangrove Forum Suriname board filed request of Legal establishment with the Ministry of Justice and Police.
2.1.2) Number operational guidelines; codes of practice, tailored to mangrove management Guidelines Cross Sectoral guidelines available	2.1.2) There are no coastal regulatory building codes that provide advice/recommendations on developments close to mangroves. 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	Not achieved Not achieved
2.1.3) Number of overlapping/supporting actions with previous or current projects implemented	2.1.3) Alignment with projects e.g. the GEF Environmental Conventions Mainstreaming project, Japan Caribbean Climate Change Partnership (JCCCP) project to help take forward sustainable coastal and water resource management.	2.1.3) At least 3 complementary activities are taking place with the GEF Environmental Mainstreaming project by the end of year two.	Achieved 4 Complementary activities were carried out. Translation of the Management Effectiveness Tracking tool for Protected Areas of the IUCN (METT) and training of NCD staff.

	<p>Actions identified in previous projects such as the Integrated Coastal Zone Management (ICZM) project report, Suriname Coastal Protected Area Management Project (SCPAM), Capacity building for integrated water management in Nickerie, West Suriname</p>	<p>At least 3 activities are implemented by end of year two.</p>	<p>GCCA+ project and the JCCCP have collaborated in various areas covering the development of the National climate risk and vulnerability report, the Increase of capacity amongst the District commissioner's offices, the installation of innovative greenhouse constructions in schools, using pet-pottles. Joint awareness activities reported under the other outputs include: Knowledge Sharing event on climate Change and climate change adaptation and the media training executed under output 2.6</p>
<p>Planned Activities as per annual work plan</p>		<p>Progress against activities</p>	
<p>Activity 2.1.a. Preparation of a Draft National Mangrove Strategy Policy Document.</p>		<p>Development of the National Mangrove Strategy is an initiative of the Mangrove forum Suriname, whose activities rely on volunteers who make time available to participate. This and the complexity in interests related to the mangrove eco-system have caused delays from the beginning of the project. Eventually the National Mangrove Strategy was developed based on the Project Document which was agreed upon with Mangrove Forum Suriname. A Project Manager National Mangrove Strategy was hired to assist in the coordination of agreed project activities for the NMS, and activities have initiated. The Steering Committee for this project consisted of representatives of the Nature Conservation Division; Mangrove forum, Office of the President, the AdeK University of Suriname; and the UNDP. The mangrove strategy was completed close to the end of the end of implementation of the GCCA+ project. The document includes:</p> <ul style="list-style-type: none"> Legal Framework for the Protection of Mangroves in Suriname Review Coastal Protected Areas Management Plans Coastal Protected Areas Management and Monitoring Plan National Mangrove Strategy on Developing Capacity NMS Lobbying Strategy Increase Capacity Building of and Technology Transfer 	

<p>Activity 2.1.b. Regulatory framework and supporting operational guidelines developed including a Draft Code of Practice for mangrove conservation and sustainable land use development “Coastal Development and Environmental Policy Guidelines”.</p>	<p>The National Mangrove Strategy has identified gaps and made suggestions for amendment or development of regulations and operational guidelines for Mangrove Conservation.</p> <p>Upon request from the Nature conservation Division, regulations on conditions for construction works in MUMA area were developed.</p>
<p>Activity 2.1.c. Integration of GEF Environmental Mainstreaming project and the GCCA+ ICZM Project activities (i.e. data management and research tasks) to help develop National Mangrove Strategy and wider ICZM.</p>	<p>The IUCN protected areas Management Effectiveness Tracking Tool for protected Areas (METT) was translated into Dutch to make it more user friendly for the staff of the Nature Conservation Division (NCD). The senior staff of the NCD was trained how to use and apply the Tool in the planning and monitoring of their Multi Use Management Area (MUMA) management plans. Following the training, the Nature Conservation Division (NCD) of the Ministry of Physical Planning, Land and Forest Management (RGB) has used this tool to evaluate the practical management of the protected areas. The resulting METT assessment was used in updating the management plans for the 3 coastal MUMA’s (output2.3).</p>
<p>Sources of Evidence for results achieved</p>	
<ul style="list-style-type: none"> • National Mangrove Strategy • Report METT assessment 2016 • Concept MUMA Regulation for Bigi Pan users permits • Translated METT Tracking Tool 	

Output 2.2 - Economic (monetary) valuation study of the mangrove ecosystems conducted

Narrative			
An economic valuation study shall be initiated to help identify the selection of specific mangrove-related products to be included for more detailed financial strategic assessment. The Foundation for Forest Management and Production Control will perform the valuation studies in 2017.			
Output Indicator	Baseline	End target	Progress to date
2.2.1) Number of economic value reports. Products identified related to sustainable use of mangrove /in coastal. and potential market opportunities identified.	2.2.1 Economic valuation assessment of Mangrove Ecosystem in Bigi Pan; apart from fisheries and tourism no emphasis on other values in mangrove ecosystems identified	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.	Achieved Economic Valuation report of Bigi Pan Area, data has identified fishery, crab hunting, tourism and beekeeping as potential sustainable business opportunities in mangrove areas 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) 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	Existing micro-credit facilitating organizations and existing capacity building programs have been identified.
Planned Activities as per annual work plan		Progress against activities	
Activity 2.2.1 a: Valuation study initiated with value-added mangrove products identified and potential market opportunities explored.		The Anton de Kom University completed a valuation study for the Bigi Pan MUMA. Although the valuation studies for remaining Coastal MUMA’s have been included in mangrove monitoring initial assessment by Foundation for Forest management and Production Control (SBB); these reports have been completed yet.	

2.2.1 b Training of Local small entrepreneurs in sustainable alternatives of mangrove use	Six (6) lectures and four (4) field visits held on importance of coastal mangrove forest and bee pollinator services for Youth/Students of educational institutions and youth groups. One (1) Beekeepers organization officially established under the name “Cosu Imkers Vereniging Wroko was’Wasi” (CIVWW). 20 Beekeepers, 2 beekeepers organizations, University of Suriname, PTC college and Fire Department Marowijne received material and equipment.
Activity 2.2b: Using outputs from the valuation study, propose financial strategies that are supported by Output 2.1.”	The GCCA+ PMU met with financial institutions to discuss the creation of a micro-finance product for small entrepreneurs in collaboration with sector organization and /or CBO’s, aimed at increasing livelihood of mangrove communities and local organizations. However, the micro-credit facility did not materialize.
Sources of Evidence for results achieved	
<ul style="list-style-type: none"> • Economic Valuation Bigi Pan, District Nickerie • Video - Promoting Sustainable Livelihoods through Permapiculture for Mangrove Rehabilitation in Coastal Communities in Suriname 	

Output 2.3 - Existing management plans of 4 coastal MUMAs updated and implemented

Narrative			
Management plans for 4 coastal Multiple Use Management Areas (MUMAs) were created during the Suriname Coastal Protected Area Management (SCPAM). These plans are being reviewed based on recommendations from the SCPAM and PA- Management evaluation of NCD in Collaboration with Conservation International Suriname.			
Output Indicator	Baseline	End Target	Progress to date
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.	Partially Achieved Under leadership of the NCD, 3 Multi-use management Area (MUMA) management plans have been updated
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.	Partially Achieved Nineteen (19) District Disaster Management Plans have been developed for 9 districts. However, these don't include investment plans, MUMA zoning regulations and integrate future recurrent and capital expenditure.
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 identified and linked to national system	Achieved Mangrove monitoring is incorporated in the National Forest Inventory (NFI) System of forest cover monitoring. 11 Permanent sample plots established along the coast for data collection
Planned Activities as per annual work plan		Progress against activities	
Activity 2.3a Revision to National and District Development Plans with new land planning guidelines, tailored towards improving mangrove conservation (Output 2.1 and Output 2.2);		Three (3) Management Plans for coastal MUMAs have been updated and approved which incorporate active participation of all involved stakeholders. The Ministry of Regional Development, the district commissioners and regional board are specifically targeted to ensure district development plans and MUMA Management Plans are aligned.	

	Because the North Commewijne, Marowijne MUMA does not have a recent management plan such as the other three, the Ministry has decided that a new management plan needed to be developed. The development of a new management plan required more time and resources, which was not possible for the remainder of the project.
Activity 2.3b Review of coastal MUMAs (4) each defining sets of maintenance targets (aka “Investment Plans”) and to integrate future recurrent and capital expenditure needs.	Review of coastal MUMA’s management plans incorporates the review of the maintenance targets of each coastal MUMA. These targets will be fine-tuned based the needs of the stakeholders in each area.
Activity 2.3.c. A Mangrove Biodiversity Monitoring Program is developed and functioning.	SBB has executed the ground truthing, after the development of new Inventory protocols for Mangrove Areas. In collaboration with CELSO, the national zoological collection of the ADEKuS. Biodiversity data of fauna, flora, soil and water have been collected. Regarding mangrove it was determined that the black mangrove species (<i>Avicennia germinans</i>) dominate the mangrove forest cover area in Suriname. The black mangrove species cover 74.914ha while the red mangrove species (<i>Rhizophora mangle</i>) cover 15.898ha. Mangrove biodiversity monitoring is incorporated into the NFI by SBB, near real time monitoring of mangrove forest cover. National mangrove forest cover is 90,812 ha.
Sources of Evidence for results achieved	
<ul style="list-style-type: none"> • Bigi Pan MUMA Management Plan • North Coronie MUMA management Plan • North Saramacca MUMA Management Plan • Final reports Mangrove Biodiversity Monitoring • Article research MUMA management: Building local support for a coastal protected area Collaborative governance in the Bigi Pan Multiple Use Management Area of Suriname • District Disaster Management Plan Paramacca Sipaliwini, is attached as an example of the Plans 	

Output 2.4 - Management structures at the 4 coastal MUMAs established and adequately equipped

Narrative			
Output Indicator	Baseline	End Target	Progress to date
2.4.1) Number of trained staff members at each coastal MUMA capable of implementing and using the new regulations set by the National Mangrove Strategy Policy Document.	2.4.1) Only one coastal MUMAs has a core group of trained staff in key aspects of MUMA management.	2.4.1) At least 7 core staff trained and assigned for each MUMA	No progress achieved
2.4.2) Institutional procedures and capacities aligned to new guidelines for mangrove management.	2.4.2) Insufficient/inadequate 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	MUMA management not aligned Connected with the assessment to update MUMA management plans, the capacity gap and required alignment determined.
Planned Activities as per annual work plan		Progress against activities	
Update of capacity gap and Design of Capacity Building programme.		Based on results of the MUMA management plan update, the capacity gap was identified. Five MUMA staff trained on the job for MUMA management.	

Output 2.5 – Patrolling, monitoring and enforcement activities improved

Narrative			
The Nature Conservation division of the ministry of Physical Planning, Land and Forestry is responsible for patrolling and enforcement aimed at conserving protected Areas and wildlife in Suriname. This output serves to increase the capabilities and the effectiveness of this unit. To reach this goal new vehicles were purchased, and revised patrolling plans developed.			
Output Indicator	Baseline	End target	Progress to date
2.5.1) Number of patrolling, monitoring and enforcement activities agreed within updated MUMAs plans. Facts sheets with patrolling, monitoring and enforcement information	2.5.1) Patrolling, monitoring and enforcement activities hampered by lack of equipment and resources	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.	One briefing note reflecting the enforcement activities; Fact sheet compiled with relevant patrolling and monitoring information.
2.5.2) Number of persons trained to implement the new National Mangrove Strategy and supporting guidelines/codes of practice.	2.5.2) Capacity at the national level relevant to the integrated planning and management of mangrove is limited to a core group of experts within GoS and research institutions. Baseline is < 10	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.	No training conducted on climate-resilient coastal planning
2.5.3) Percentage of national sectoral planners with improved understanding of climate change risks and adaptation measures.	2.5.3) There is lack of an 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 50% of 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	All of 19 District Commissioner’s Offices have been trained in Disaster Risk Management and have district disaster risk management plans. Staff (107 women and 165 men) has increased knowledge of Climate Change as related disaster risks
Planned Activities as per annual work plan		Progress against activities	
“Activity 2.5a: Coastal and Water resources management processes (Output 1.3) developed and tested to support mangrove conservation needs.		Inventory water resource management plans, through Stakeholder’s meetings and data mining for the development of a Status Report on Water management. No Coastal and water resource management processes developed. Output 1.3 did achieve the hydro-modelling of 4 mayor rivers through use of the Hydro-Bid Model.	

Activity 2.5b: Training programmes on new regulatory/operational procedures set out in outputs 2.1/2.3 and 2.4.”

Although the staff of the NCD received on the job training during the update of the MUMA management plans, no training on new regulatory procedures were conducted.

Output 2.6 - Public and community awareness campaigns designed and implemented

Narrative			
The output is important for creating awareness and ownership in all layers of the community, especially the vulnerable groups. Ownership will increase the efficiency and durability of the program and will help society adapt to the effects of climate change. In collaboration with Suriname Conservation Foundation and a local multimedia company a radio program has been developed to raise awareness on the effects of climate change and Mangrove			
Output Indicator	Baseline	End target	Progress to date
2.6.1) Percent of population who have received or consumed knowledge products such as brochures, media releases, video and radio documentaries, feature press article, and websites produced, distributed and used in training and capacity building activities	2.6.1) Limited communication channels and materials to educate people on benefits of improving biodiversity and wider environmental conditions, including mangrove management issues.	2.6.1) At least One hundred (100) community members involved in awareness activities regarding sustainable mangrove management and resource use, including women and youth. - 30% of all coastal populations have been exposed to mangrove protection knowledge projects by end of year three.	Achieved More than 2000 community members in total were reached and involved in mangrove awareness activities. Achieved Information was shared through radio programmes, news articles in local newspapers, television, social media
2.6.2) Number of reporters/ media trained and/or sensitized on mangrove ecosystem related issues. Number of male and female communication officers from participating institutes trained.	2.6.2) The Media/ journalists only have a basic understanding of mangroves in relation to the coastal area.	2.6.2) 50% of reporters/media in Suriname trained/sensitized on mangrove related issues by end of year three. At least 30% of trained officers are female.	Achieved 21 media workers representing 60% of registered media workers were trained, of which 19 (85%) were female
Planned Activities as per annual work plan		Progress against activities	
Activity 2.6.a. Dissemination, outreach and research on Mangrove Ecosystems Management delivered to community and sectoral stakeholders and the broad public		Dissemination of information on Mangrove Ecosystems was as follows: -854 community members spread across Paramaribo, Commewijne, Coronie and Nickerie reached through Stichting DAF. -12 community members in Coronie trained through Stichting SORTS. -973 community members in Nickerie reached through AdeK SMNR. The coastal population has been exposed to Mangrove protection knowledge through the Radio Program “Wist je dat” which runs twice a day; for five days per week on one of Suriname’s most popular Radio Stations. The UNDP Suriname’s web page and Facebook account have been used to create more awareness on climate change adaptation and mangrove	

	<p>conservation. The use of social media has also increased the visibility of on the project, including post on activities from GCCA+ Suriname and its partners.</p> <p>Female media professionals were trained/sensitized on climate change reporting, mangrove conservation and related issues. The 21 professionals represent 60% of registered members of the Association of Journalists in Suriname.</p>
<p>Activity 2.6.b. Awareness programs for media (TV/Radio/Journalists) on appropriate Mangrove Ecosystems Management delivered to professionals in the media field.</p>	<p>In observance of World Environment Day, the project had a drawing competition in the North- eastern village of Moengo in June 2017, involving 5th grade students of three primary schools. The theme of the drawing competition was ‘The impact that climate change is having and how we can change that’. The event was organized in collaboration with the UNDP’s Small Grants Programme (SGP) and a local CBO Kibi Foundation.</p> <p>A two-day Climate Change and Mangrove Conservation training was organized for the Media professionals in collaboration with the JCCCP. The first day included a field trip to two coastal areas, to expose the participants to the processes which involve both possible impacts of sea-level rise and loss of mangrove, as well as the role of intact mangroves in climate change adaptation and mitigation in the coast of Suriname. The second day was focused on familiarization with climate change terminology, climate change and gender, but also how to get climate change stories on the front page and other technical writing skills. The training has received positive feedback and the Association of Journalists has requested a follow-up session.</p>
<p>Sources of Evidence for results achieved</p>	
<ul style="list-style-type: none"> • Audio - Awareness program “Wist je dat” • Audio - Awareness song “Kibri Wi Parwa” • Video – Workshop Journalists on Climate Change 	

PROJECT IMPLEMENTATION CHALLENGES AND LESSONS LEARNED

During the life of the project, there have been various challenges to maintain consistency in the pace and momentum of project execution towards the achievement of results. The project suffered some setbacks in the speed at which due to the lack of capacity in government institutions to assimilate and respond to actions needed for project implementation.

The PMU encountered the following difficulties in balancing the all the elements of this complex project:

- For the core results of the project the governmental and semi-governmental institutions were key partners. The achievement of these results has been impacted by delay in decision making and insufficient leadership as well as availability of financial resources and high turn-over of instrumental staff in some cases. The internal capacity to record and register results and achievement within government agencies, is also not sufficient to respond to the requirements for timely reporting of project activities. The PMU responded with the recruitment of additional support staff to address the gap in capacity, partners responded positively to the suggestions and there was an improvement in reporting.
- The recruitment of support services for project execution has also proven to be quite challenging. Apart from respondents' challenges with the intricate UNDP procurement processes, specialized services have proven hard to acquire. Throughout the duration of the project, the PMU was faced with the low percentage of successful response to procurement advertisements. The PMU responded with different strategies which include: allowing more time and separating the tasks to reduce the complexity of services required, procuring firms or, composed attractive calls for proposals or requests for quotations. Also locally procure successful partners to make use of existing partnerships and experience in the field of expertise needed. After application of various procurement strategies, the required services were eventually hired.
- Although the GCCA+ project is designed to increase the national resilience against climate change, ironically the project has suffered from delays caused by the super hurricane season in the Caribbean region in 2017. Materials for construction of irrigation systems and greenhouse were stuck in intermediate ports by the inability the travel due to the cancellation of freight by boat because of the hurricanes.
- The optimal operation of the meteorological and hydrological instruments after installation was delayed due to a manufacture error. With the assistance of the PMU the delivering company resolved the problem at no extra cost to the project. Other smaller issues with mechanical equipments have also been identified, but partners have adressed these through close monitoring and mitigation of impact, and will continue to do so for the sustainability of the operations.

- The experience of the PMU in relation to collaboration amongst data- and information owners is that they do not easily share or make information readily available for use. It is commonly agreed by most stakeholders that coordination on data and information sharing needs to be reinforced urgently to create cohesion and synergy amongst initiatives and programmes of climate change data collection, adaptation and mitigation. In practice, a lot of effort and time is consumed to create effective partnerships amongst different departments within the government.
- Climate Change is not restricted to one sector or Ministry, but pluri- and cross sectoral. Clear definition of roles and responsibilities on aspects of climate change adaptation is needed because there is overlap and fragmentation of responsibilities and mandates with regards to water management and data collection, hydrological and weather information and dissemination, land-use planning, mangrove conservation and climate change actions in different ministries.
- An important lesson learned is that regular inter-departmental consultation/discussion is needed on all levels, including policy level and technical level. This allows the optimal use of the limited capacity in the country. Regular gatherings lead to efficient use of funds, data standardization enhanced collaboration and participation amongst government partners in benefit of the project objective. This has influenced the decision-making process for prioritization, development and alignment of activities amongst all involved parties, resulting in improved coordination of CC Adaptation initiatives at national level.
- Due to the complexity of climate change, involving a number technical subjects, sectors and institutions the PMU has invested substantial time and effort in building and maintaining partnerships with strategically positioned partners. The partnerships have enabled the effectiveness and quality of the results achieved by the project. Without the support, involvement and collaboration of our partners, the project would not have been able to reach the targets and level of sustainability which it did.
- For climate change to become a living subject with the public, the media needs to be informed and involved to recognise the issues which are related to: i) climate change or the relation between climate change adaptation, water management, food security, farming, extreme weather events caused by climate change and, ii) people's behavior, mitigation efforts, government decisions on land-use management; mangrove conservation and sea-level rise. The media needs to become an active, involved and committed partner to increase local and national resilience against climate change, because they are the agents who will translate and bring important technical information in an attractive, digestible form to the common man or woman.

GENDER WITHIN THE CONTEXT OF CLIMATE CHANGE IMPACT AND ADAPTATION

Suriname is not unique in the fact that there is limited knowledge on climate change impact on gender. Suriname's key documents on climate change lack a reliable information, data, statistics on. GCCA+ project has made some progress to incorporate gender considerations during the execution of the project. Below are some results of the gender related initiatives:

- Enhanced knowledge and skills on gender in climate change among the GCCA+ partners***
 Through a series of feedback on project proposal and reports, orientation and capacity building workshops, dissemination of 'gender guidelines and checklist' and regular field monitoring visits; partners have been sensitized on gender mainstreaming in climate change related projects. The GCCA+ organized capacity development workshop on gender in climate change context; Was a significant moment of sensitization for several participants as they had never realized that there was a to gender aspect in the climate change context. The pre-survey and post survey result showed that there was an 11% of increment in knowledge on gender among participants immediately after the session.
- Observed notable gender consideration within the project activities implemented by the partners:***
 The partners of all grant projects put efforts in maintaining gender balance and encouraging women to participate. For example, progress reports submitted by all partners included the information on total population and gender disaggregated data of the beneficiaries.
 Adequate attention was given to capture the perspective of men and women. Besides maintaining gender balance among the participants, the project also strived to capture perspective of men and women by designing gender sensitive tools and methodology for consultations. For instance, a needs assessment questionnaire was developed which captured adequate information related to men and women regarding climate change. In addition, a larger number of women surveyors were mobilized collect information of women from the sample population.

Stakeholders received generous sensitization on gender in relation to various climate change issues through the allocating separate sessions on gender during knowledge sharing events. For instance, gender aspects were incorporated during media training of media professionals; development of district disaster plans on Disaster Risk Reduction (DRR) with district commissioners' offices.

- Production of gender responsive documents including research reports, website news stories, human interest stories, national policy documents etc.***
 To promote gender equality in project activities; climate change related women's concerns, issues and perspectives are given priority in communication. The project has published four human interest stories related to project intervention under the theme of climate change (SDG13) and gender equality (SDG5).

Lessons learned:

- Traditionally, technical sectors do not have gender consideration in the gathering and dissemination of data and information. In the field of Climate change and climate related these, that is also the case. Although the project has created more awareness about the different ways in which Climate Change impacts on men and women; the departments which provide climate related data have not been able to come up with a specific strategy to diversify the information sharing.

- More gender based research is needed to make the vulnerabilities of women and other marginalized groups more visible in relation to climate change adaptation. In most cases the impact that climate change has on women is not documented and thus remains an area which is difficult to address. In the 2nd phase of the GCCA+ project it is advisable to determine indicators which can be used to measure the status and any progress being made in improving climate change gender responsiveness.

COMMUNICATION AND VISIBILITY

According to the Visibility and Communication plan (in attachment) the following actions have been executed:

REACHING OF TARGET AUDIENCE

Regarding communication the project has been able to reach the target audience on public awareness and knowledge around the project about adaptation and mitigation aspects regarding climate change issues and ensure that the beneficiary populations are aware of the threat posed by mangrove deforestation at local, national, regional and global level. The target audience as described in the Communication and visibility plan include:

- Government: the relevant Ministries: Ministry of Natural Resources, Ministry of Agriculture, Animal Husbandry and Fisheries, Ministry of Public Works and Ministry of Natural Resources
- Local government and relevant institutions
- The beneficiary populations (including the indigenous and maroon communities)
- Private sector; including farmers and small entrepreneurs in the coastal mangrove areas
- International and Regional Organizations
- Civil society organizations (CSOs)
- Media – international, national and local (where relevant)

COMMUNICATION AND VISIBILITY TOOLS

Visibility activities which have been used during the implementation period included:

- Press Releases: each newsworthy event has been released for activities and event organized by the PMU and also by partners who have received funds from the Project.
- Leaflets, brochures and newsletters: newsletters have been prepared not only by the PMU but also by partners who have received funds from the Project.
- Posts on Facebook and UNDP Suriname webpage as well as Facebook pages of collaborating partners
- Display panels: the project Building has display of the logos of the three collaboration partners and the name of the project.
- The project developed three banners which are being used at events related to the project.
- Supplies and equipment: Supplies and equipment of the project are provided with signs or stickers, in representation of the EU, the UNDP and the government of Suriname
- Promotional items: Bags; t shirts; pens and pencils;
- Photographs: each event has been recorded with photos and in some cases with video recording.
- Audiovisual productions; 1 Radio programme and 4 Video productions for awareness purposes
- Public events and visits: Workshops have been recorded in proceeding or meeting reports
- Information campaigns, trainings, workshops; in total at least 10 sessions have been organized
- Media {Print and Electronic (TV and Radio)}

HUMAN RESOURCES

Towards the end of the 2nd year of project implementation the PMU has received technical assistance in communication through the recruitment of a Communication officer. A communication plan was developed which has since made it easier for the project to increase the exchange of appropriate and timely information and to raise awareness on the impact of the GCCA+ activities, as well as the visibility of the project.

The radio programme which was initiated in the first year providing information of Mangrove, climate change and water to the public has now been increased in frequency from three times per week to a five-day programme with twice daily broadcast. Each broadcast ends with a disclaimer on the enabling role of the collaborative partners, the European union, the government of Suriname and the UNDP.

GCCA+ grantees and partners have been very consistent in communication of Climate Change, Climate Change Adaptation; Mangrove Conservation, Sea level rise and Disaster risk reduction related to Climate Change.

VISIBILITY

The visibility of the GCCA+ project has been ensured through the following actions:

- Use of project banners with the logos of the EU, the UNDP and the government of Suriname during all GCCA+ related activities in meetings, workshops, meetings and public awareness activities with collaborating partners.
- A sign is attached to the building in which the project office is housed which displays the name of the GCCA+ Suriname Adaptation project and the logos of the EU, the UNDP and the government of Suriname
- During the Knowledge sharing activity in December 2017, awareness and promotional materials (pens, bags, notebooks; T shirts) have been produced with the logos of the EU, the UNDP, the government of Suriname and the GCCA+ Suriname project.
- Game wardens and other NCD staff have received T-shirts as part of the working attire with logos of the EU and the UNDP on the sleeve.
- When on field activities PMU staff uses T-shirts with the name of the GCCA+ project and the logos of the EU, the UNDP and the Suriname National Flag on the back.

Two Human interest stories have been published on the UNDP Suriname website, as well as posts on Facebook, related to world mangrove day; media training on climate change and mangrove conservation by GCCA+ project, testimonials of trainees; training of MDS staff; world water day; Suriname participation at 8th World Water Forum; Women and Climate Change on March 8th and the launch of the mangrove rehabilitation project.

The GCCA+ activities have been continuously published through national media during events and noteworthy actions. The PMU is still making good use of the UNDP Facebook account as a frequent medium for sharing information on progress of the project. The PMU has been trying to solve issues with a dedicated GCCA+ twitter account within UNDP. The account was created, but somehow seems to have some technical problems, which the communication officer was not able to resolve. A dedicated page of the GCCA+ project was created on the UNDP Suriname website.

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PROJECT EXPENDITURE

Summary	
Total Budget	EUR 3,405,000.00
EU contribution	EUR 3,000,000.00
Total received from the EU	EUR 3,000,000.00
Total received from UNDP*	EUR 405,000.00
Expenditures (including legal arrangements)**	EUR 3,405,000.00

Note*: The detailed budget is attached.

ANNEX: RISK LOG

Global Climate Change Alliance Suriname Adaptation Project

“To reduce Suriname’s vulnerability to negative effects of climate change”

#	Description	Date Identified	Type	Impact / Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
1	Climate change Impact undermines conservation goals in MUMAs	Sept 2015	Scope	High /Medium	Update MUMA management plans and Mangrove Strategy as well as Coastal protection framework Act to reduce risk	PMU	UNDP	Jan 2020	Closed
2	Insufficient funding for Protected Area management mayor obstacle to the sustainability of improvements in MUMA effectiveness.	Sept 2015	Resource	Medium/Low	Build on SCPAM recommendation, strengthening of MUMA management structure and increase opportunities income generation	Min of RGB	UNDP	Jan 2020	Closed
3	Insufficient improvement of livelihoods causing low stakeholder engagement and comprehensive participation.	Sept 2015	Customer/ Sustainability	Low /Medium	Priority needs and corresponding activities taken into consideration in project activity implementation monitoring of impact on livelihoods	PMU	UNDP	Jan 2020	Closed
4	Envisaged end users do not make full use of the outputs of the action (data & information, models, technologies, strategies, equipment).	Sept 2015	Technology/ Customer	High / Medium	Development of models, technologies. Generation of data in close collaboration with target ministries and consumers in order to increase/build ownership	Min of RGB & Min of PW	UNDP	Jan 2020	Closed

#	Description	Date Identified	Type	Impact / Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
5	Insufficient trained staff, high turnover undermining installed technical capacity in target ministries	Sept 2015	Human resource/ Sustainability	High / Medium	Build political commitment of line ministries and offer training (tailor-made) for target ministry staff	Min of RGB & Min of PW	UNDP	Jan 2020	Closed
6	Certain institutions fail to provide access to required data and databases under their custody.	Sept 2015	Technology	Medium / Medium	Increase collaborative actions to promote data sharing	PMU	UNDP	Jan 2020	Closed
7	Delayed recruitment of qualified project.	Sept 2015	Project management/ Human resources	High/ Medium	PMU staff hired, supporting staff Senior Technical Advisor and gender expert expected to be recruited soon	PMU	UNDP	Jan 2020	Closed
8	Duplication, dispersion and fragmentation caused by large number of stakeholders and involved partners/actors	Sept 2015	Customers/ technology	Low/ Medium	Increase collaborative actions to identify opportunities for collaboration and risks of duplication.	PMU	UNDP	Jan 2020	Closed
9	Lack of EU visibility for the action	Sept 2015	Donor	Low	Communication plan with clear visibility provisions in the agreement with UNDP, joint agreement on a visibility plan and close monitoring throughout the project implementation	PMU	UNDP	Jan 2020	Closed

ANNEX: COMMUNICATIONS ACTIVITIES AND VISIBILITY ELEMENTS

Campaigns, trainings, workshops:

Climate Smart Technologies



Impressions of climate smart technologies training at “Weg naar Zee”

Training of media professionals



Impressions of Media Training. Field visit of media professionals to mangrove



Impressions of Media Training. Field visit of media professionals to Mangrove Education Centre Coronie



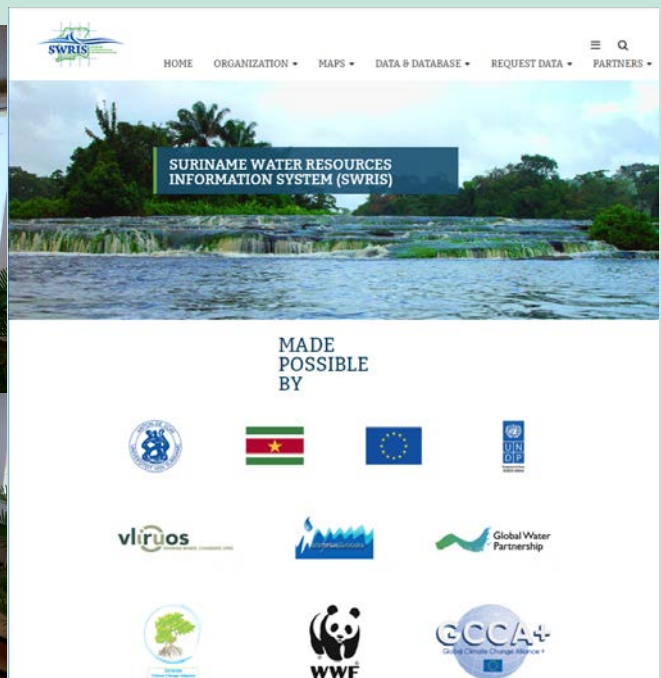
Impressions of the World Water day Symposium Paramaribo



Impressions of 8th World Water Forum in Brazil



Impressions of Automatic Water Station training in Barbados in which staff member Meteorological Service of Suriname participated



Impressions of Launch of the Suriname Water Resources Information System (SWRIS) web portal.

Knowledge Sharing event “Koni de Fu Prati di a weer e kenki”



Impressions of the Knowledge sharing event “Koni de fu prati di a wer e kenki” (December 2017)



Impressions of the Knowledge sharing event “Koni de fu prati di a wer e kenki” (June 2018)



Impressions of stakeholder engagement in Nickerie during launch of Mangrove rehabilitation project at NICKERIE (February 2018)



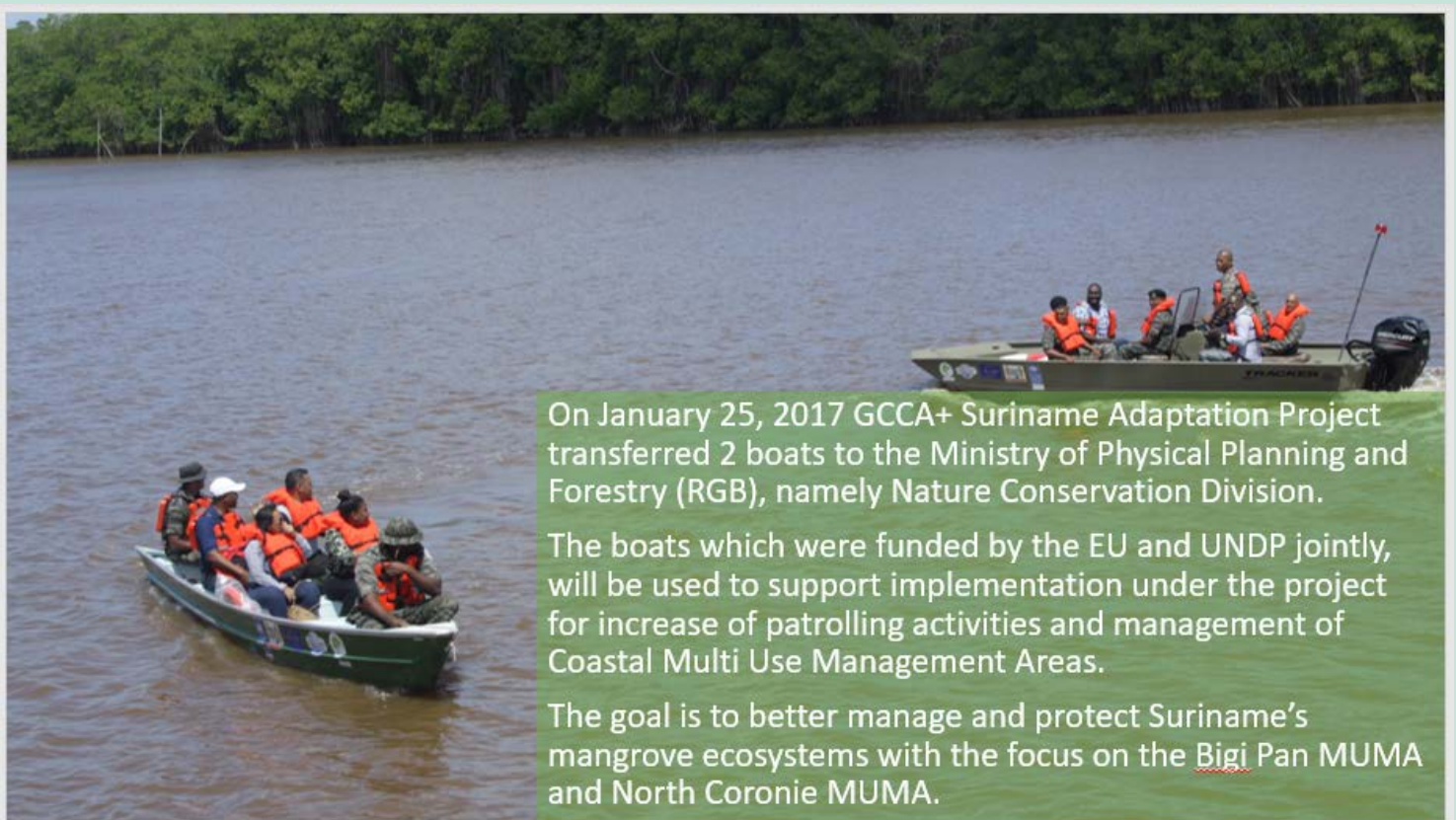
Impressions of the stakeholder engagement community Pikin Slee (Upper Suriname) with Partner Tropen Bos Int'l Suriname (June 2017)



Impressions of the Stakeholder engagement Anton de Kom University - SMNR (August 2017)



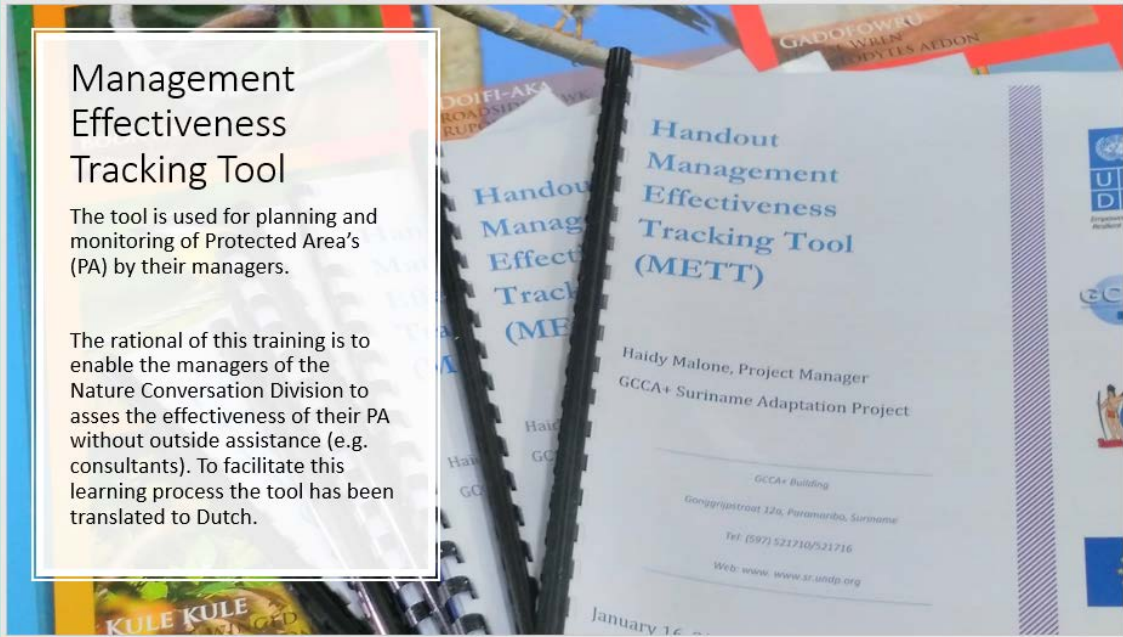
Impressions of the Gender Sensitization event, of all partners of the GCCA+ Suriname adaptation project (august 2017)



On January 25, 2017 GCCA+ Suriname Adaptation Project transferred 2 boats to the Ministry of Physical Planning and Forestry (RGB), namely Nature Conservation Division.

The boats which were funded by the EU and UNDP jointly, will be used to support implementation under the project for increase of patrolling activities and management of Coastal Multi Use Management Areas.

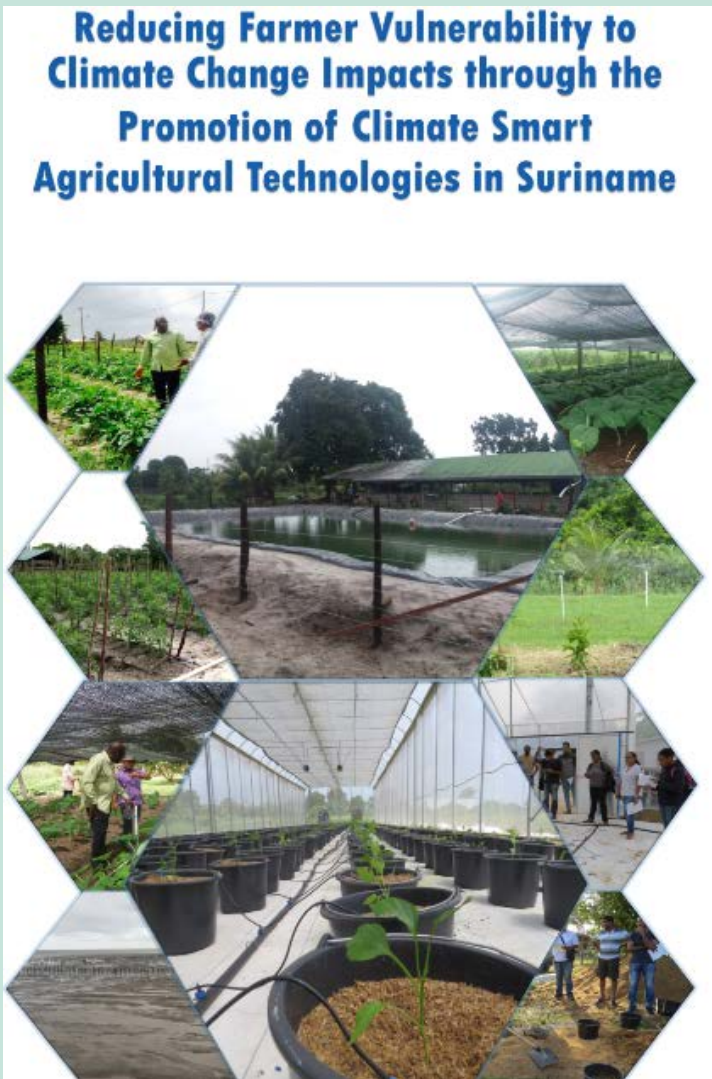
The goal is to better manage and protect Suriname's mangrove ecosystems with the focus on the Bigi Pan MUMA and North Coronie MUMA.



Management Effectiveness Tracking Tool

The tool is used for planning and monitoring of Protected Area's (PA) by their managers.

The rational of this training is to enable the managers of the Nature Conversation Division to asses the effectiveness of their PA without outside assistance (e.g. consultants). To facilitate this learning process the tool has been translated to Dutch.



Reducing Farmer Vulnerability to Climate Change Impacts through the Promotion of Climate Smart Agricultural Technologies in Suriname



Learning mission to Israel to increase knowledge on Integrated Water Resource Management (IWRM)



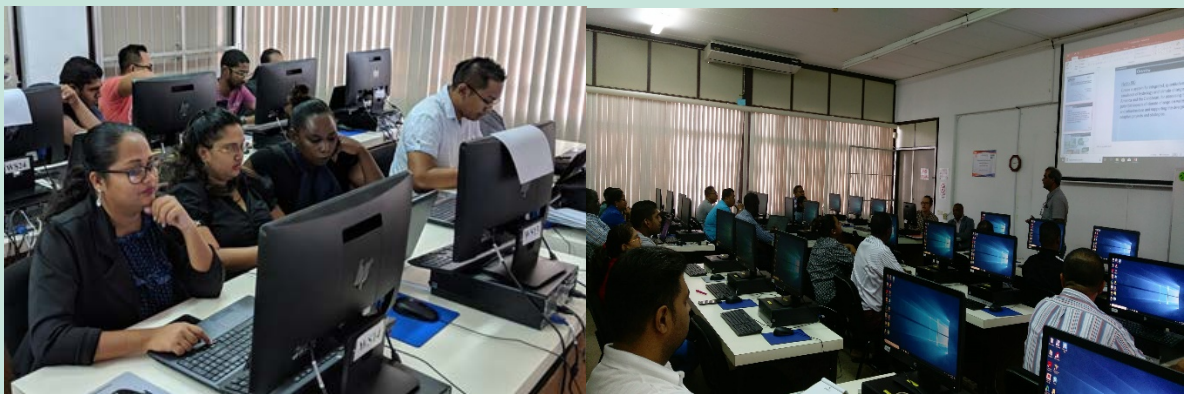
Impression of handover equipment to the Minister of Public Works, Transport and Telecommunications for the increased climate data collection



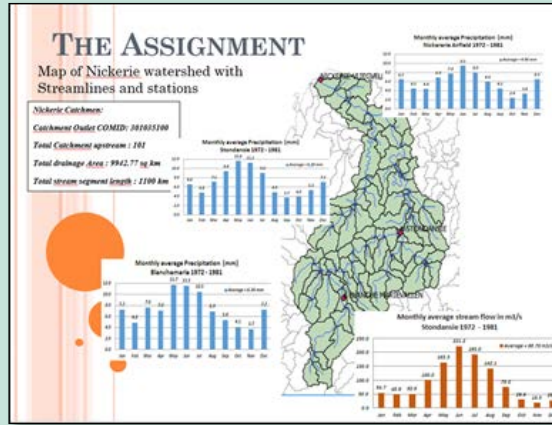
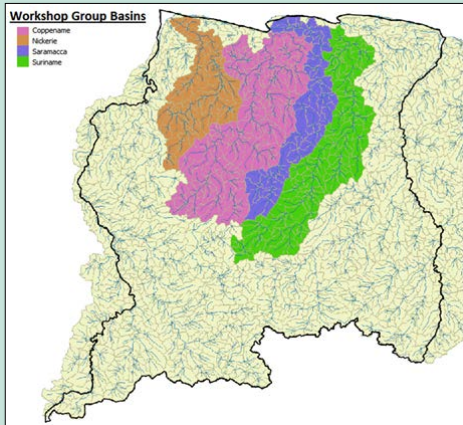
Volunteer Suri Corps working on digitization historic data of MDS



Handover Integrated Water Resource Management Action Plan to the Minister of Natural Resources



Training in use of Hydro-Bid- model



Impressions of Hydro-modelling training and results of calibration exercise



Mangrove Strategy hand-over to Permanent Secretary Ministry of RGB and Board Mangrove Forum Suriname



11 permanent sampling plots installed for Mangrove Biodiversity Monitoring



Sediment trapping unit and planting of young Mangrove for Mangrove rehabilitation and conservation



Perm-apiculture for livelihoods improvement in mangrove areas

Awareness Materials



Stickers



Notebooks



Screen shots from awareness video on recycling from SuReSur



Screen shots from awareness video on Mangrove from DAF

ANNEX: SOCIAL MEDIA/ WEBSITE/ WEBPAGE

UNDP Suriname Website

<http://www.sr.undp.org/>

UNDP Suriname Facebook

<https://www.facebook.com/undpsuriname/>

SURESUR website

<http://suresur.org/over-suresur/>

Video productions

- Climate Smart Agriculture
- Mangrove Conservation and Rehabilitation
- Climate and Water data for Water Resource Management
- Knowledge Sharing Event-Koni De Fu Prati Di A Weer E Kenki-Pikin Slee
- Reflections and testimonials of the GCCA+ Project in Suriname
- Belang van Integraal Waterbeheer voor Suriname
- Promoting Sustainable Livelihoods through Permapiculture for Mangrove Rehabilitation in Coastal Communities in Suriname
- Workshop Journalists on Climate Change

ANNEX: DETAIL BUDGET