

2019

Project Implementation Review (PIR)

**Early Warning Systems - Sao Tome and Principe**

[Basic Data](#_Toc1)

[Overall Ratings](#_Toc2)

[Development Progress](#_Toc3)

[Implementation Progress](#_Toc4)

[Critical Risk Management](#_Toc5)

[Adjustments](#_Toc6)

[Ratings and Overall Assessments](#_Toc7)

[Gender](#_Toc8)

[Social and Environmental Standards](#_Toc9)

[Communicating Impact](#_Toc10)

[Partnerships](#_Toc11)

[Annex - Ratings Definitions](#_Toc12)

# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 5103 |
| GEF ID | 5004 |
| Title | Strengthening climate information and early warning systems in Saoo Tomé and Principe for climate resilient development and adaptation to climate change |
| Country(ies) | Sao Tome & Principe, Sao Tome & Principe |
| UNDP-GEF Technical Team | Climate Change Adaptation |
| Project Implementing Partner | Government |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| The small archipelago state of São Tomé and Príncipe (STP) is particularly vulnerable to climate-related hazards such as floods, coastal/river mouths flash floods and storms. The increasing frequency and severity of such flash floods, severe storms (hail, thunder, lightning and violent winds) and drought episodes, and their impacts on sectors such as agriculture, fisheries, as well as infrastructures mostly located in the coastal zone are having increasingly adverse effects on the country and future climate change is likely to further exacerbate the situation.Of particular concern are the coastal communities and sectors such as agriculture and fisheries which are an important component of the economy and forms the basis of rural livelihoods in STP. São Tomé and Príncipe’s capacity to adapt to climate-related hazards should therefore be developed to limit the negative impacts of climate change and address the country’s socio-economic and developmental challenges effectively. One way to support effective adaptation planning – in particular for an increase in intensity and frequency of droughts, floods and severe storms – is to improve climate monitoring and early warning systems. For São Tomé and Príncipe to improve the management of these climate-related hazards it is necessary to: i) Improve the hydro-meteorological monitoring network and forecasting capacity; ii)Build skilled human resources to guarantee long-term sustainability of hydro-meteorological Services; iii) Develop an efficient and targeted delivery system of climate information as well as the preparedness and responses capacity of CONPREC and Civil Protection to Warnings; and iv) Improve ability of stakeholders to identify climate linked risks/vulnerabilities to support decision making and sector planning.Barriers that need to be overcome to establish an effective EWS in São Tomé and Príncipe include the following: i) weak weather, climate and hydrological monitoring network to support Early Warning System; ii) limited infrastructure, skills and capacity to effectively produce accurate forecasts; iii) weak capacity for warning issuing, dissemination and response; and iv) absence of environmental databases and national framework for data sharing to support sectoral development policies.This LDCF financed project, implemented by the by the Ministry of Public Works, Infrastructures, will: i) establish a functional network of meteorological and hydrological monitoring stations and associated infrastructure to better understand climatic changes; ii) develop and disseminate tailored weather and climate information (including colour-coded alerts – advisories, watches and warnings – for flood, drought, severe weather and agricultural stresses, integrated cost-benefit analyses and sector-specific risk and vulnerability maps) to decision makers in government, private sector, civil society, development partners and communities in all district of the Island including the autonomous region of Principe; and iii) integrate weather and climate information into national policies, annual workplans and local development including the National Policy for Disaster Preparedness and Management, and districtdevelopment plans in priority communities of coastline villages of Neves, Santa Catarina, Malanza and Ribeira Afonso. The project is expected to be completed by 2017. |

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| **Project Contacts** | |
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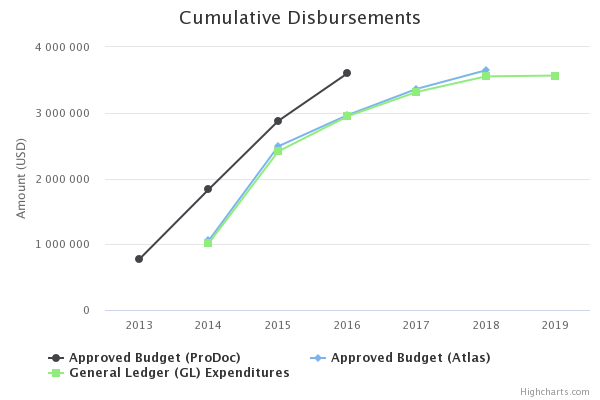
# Overall Ratings

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| Overall DO Rating | Moderately Satisfactory |
| Overall IP Rating | Moderately Unsatisfactory |
| Overall Risk Rating | Substantial |

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **To strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in São Tomé and Principe** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| 1.Capacity as per capacity assessment scorecard    2.Domestic finance committed to the relevant institutions to monitor extreme weather and climate change | 1.Limited capacity to generate EWS and CI on a national scale for extreme hydro-meteorological phenomena  Limited disaster risk prevention capacity on local levels within CONPREC - CP  No Standard Operating Procedure (SOP) for alert communication by CONPREC - CP with the support of NGOs/CSOs  Current score: 22    2.Existing budget plans do not have sufficient funds to maintain and operate environmental monitoring infrastructure  Current budget: $500,000 | *(not set or not applicable)* | 1. Capacity assessment Target score 161 for all combined EWS agencies    2. 30% increase in domestic financing for equipment operation and maintenance across all institutions | The overall implementation of the EWS project in Sao Tomé and Principe is in the completion phase. A robust early warning system was established with acquisition and operationalization of 28 hydro meteorological station for monitoring hydro-meteorological phenomena and issuing alerts and climate change information to end users such fishermen and farmers. 33 Local committees for risk management, which are key implementing partners of the project, were created in all districts of São Tome and in Príncipe. The members of this committee were trained and provided with the necessary emergency communication means (VHF radio) so that they can intervene with the communities prior to the occurrence of some natural phenomenon.  The Early Warning System Project is about to finish the development of a "Standard Operational Protocol of Communication” that will contribute to the establishment of a clear and robust communication system throughout all the institutions members of the National Disaster Preparedness and Response Council (CONPREC) in cases of natural disasters. The overall system aimes at reducing the number of deaths at community, local and national level and to prevent adverse impacts climate change events .  On June 30th 2018, the project has implemented most of activities and achieved a large number of targets in outcome 1, having substantially reinforced the national capacity for weather forecast and modelling. The quality of the meteorological and hydrological forecasts is now higher and the country is better prepared for early warning alerts. Achievements are: i)Installation of 28 automatic meteorological and hydrological stations that cover 60 % of the National territory (24 in S.Tomé and 4 in Principe); ii)Training in meteorological modeling of the technicians of the national institute of meteorology; iii)1 year training course for 10 weather observers; iv)Advanced degree in meteorology for 4 national citizens; v)Training of 6 hydrologists; vi)Training of 12 technicians in the management and maintenance of automatic hydro meteorological stations (staff of the general directorate of natural resources and energy and the national institute of meteorology to ensure the sustainability of equipment and long – term system);vii) Two training courses benefiting 24 journalists and media technicians in the field of environmental journalism. | The overall implementation of the EWS project in Sao Tomé and Principe is operationally completed as of 31December 2018, excluding the terminal evaluation.  An initial capacity assessment was carried out in 2014 by an independent international consultant. The objective of this assessment was to identify the needs of the national EWS agencies to issue alerts and climate information. This assessment informed the project management for the acquisition of equipment and to adjust and focus the capacity building activities.  A robust early warning system was established through the installation of 28 hydro meteorological stations throughout the country (24 in S.Tomé and 4 in Principe)- that will allow for monitoring hydro-meteorological phenomena and also and most importantly, issuing alerts and climate information to the population including vulnerable groups such as fishermen, cattle breeders and farmers. Key target groups were the 33 local committees (254 members) for risk management, created in all districts of São Tome and Príncipe.  The members of these committees received training and were equipped with emergency communication and kits (VHF radio, tents, water tanks, medical equipment, first aid kits, etc.) so that they can intervene to prevent life losses when climate emergency occurs.  The project reinforced the technical and human capacity of the CONPREC (National Disaster Preparedness and Response Council) by providing: i) communication equipment: HF and VHF radios, office equipment, SMS Frontline system; ii) training for 24 communication operators in communication for emergency; iii) Disaster risk reduction training for the CONPREC managers and Fire Department managers.  The Early Warning System Project concluded a "Standard Operational Protocol of Communication” meant to establish a clear and robust communication circuit to be used by all the member institutions of the National Disaster Preparedness and Response Council (CONPREC) in the event of natural disasters. The overall system aims at reducing the number of deaths at local and national level and to prevent adverse impacts climate change events.  The project substantially reinforced the national capacity for weather forecast and modelling through the provision of the following: i)1 year training course for 10 weather observers; ii) Training in the fundamentals of meteorological modeling for the technicians of the National Institute of Meteorology in partnership with the Brazilian cooperation); iii)Advanced degree in meteorology for 4 national citizens; iv) training in meteorological prevision for 5 technicians in Dakar, Senegal .  Besides, the local capacities for hydrological management were much developed from basic level to modelling through the provision of: i)International training of 6 hydrologists in hydrological management; ii) In country training of 12 technicians in the management and maintenance of automatic hydro meteorological stations (staff of the General Directorate of Natural Resources and Energy and the National Institute of Meteorology to ensure the long – term sustainability of the equipment);iii) In country training of 13 technicians in hydrological modelling part I in partnership with the Brazilian Cooperation; iv) International training of 3 technicians in hydrological modelling part II in partnership with the Brazilian Cooperation;  Also, there was an investment in local communication capacities by providing training to 24 journalists and media technicians in the field of environmental journalism.  Indicator 1: National coverage of the climate monitoring network by over 60%.  baseline 20%, result 2018 60%  Indicator 2: Data transmission frequency (base: 6 AWS x once daily; target: 18 AWS x twice daily).  Achievement December 2018: 28 stations installed, reporting every 15 minutes. Achievement rate: 155%  Since the installation of equipment, the project continued to support the national institutions with maintenance and technical assistance until the end of the project in December 2018. Recently and as part of the exit strategy, the National Institute of Meteorology and the General Directorate of Natural Resources and Energy are providing joint maintenance to the stations in order to save costs. There is no investment level set from the government for the stations although consultations have been done between the hydrology and meteorology departments and the line Ministry in order to devise a solution for the present/future maintenance of the stations.  The project developed South-South cooperation agreements with Brazil, Mozambique, Senegal and Portugal that greatly facilitated the capacity building of technical staff as mentioned above. |
| - | - | *(not set or not applicable)* | - | *(not set or not applicable)* | *(not set or not applicable)* |
| **The progress of the objective can be described as:** | | **Achieved** | | | | |
| **Outcome 1**  **Enhanced capacity of national hydro-meteorological (NHMS) and environmental institutions to monitor extreme weather and climate change** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| 1.% national coverage of climate/weather and hydrological monitoring infrastructure    2.Frequency and timeliness of climate-related data availability | 1.Currently, there is less than 20 % national coverage for climate/weather monitoring with respect to the optimal arrangements defined in NIM/DGRNE feasibility reports and WMO standards.    Baseline is 7 AWS, 2 Automatic water level stations and 58 manual synoptic/ agro/ hydrometric stations needing upgrades.    2.Data from manual weather and hydrological stations is collected monthly and transmitted by post. | *(not set or not applicable)* | 1. Increase to 60 % national coverage to take steps in achieving NHMS optimal monitoring arrangements as defined in feasibility studies.    Target: 31 AWS, 14 automatic water level stations and 58 manual synoptic/ agro/ hydrometric stations upgraded.    2. Target for data transmission frequency: daily. | Progress towards indicator target is 100%.  The project has installed 28 automatic meteorological and hydrological stations that cover 60% of the national territory, it has provided training for the technicians of the national institute of meteorology and the general direction of the natural resources and energy. Considering that the country did not have any hydrological stations and only 6 meteorological stations, these actions have substantially reinforced the national capacity (human and technical) for weather forecast and modelling. The quality of the meteorological and hydrological data to produce forecasts is now more complete and reliable and the country is better prepared for early warning alerts.  With the training of technicians, the National Institute of Meteorology considerably improved the quality of the forecasts and this had very positive consequences on the activities of farmers, fishermen and cattle farmers. These forecasts are updated every 6 hours and this has helped in the scheduling of daily activities, thus contributing to life improvement for vulnerable population.  The project funded the reactivation of the National Council for Prevention and Response to Disasters (CONPREC), as well as the National Emergency Operations Center (CENOE). Additionally, 33 local disaster risk management committees have been established throughout the country and trained in the most vulnerable communities of the country. Most members of these local disaster risk management committees were trained in the use of communication devices, first aid response and disaster early management. They receive daily forecasts from CENOE and then disseminate these forecasts to their respective communities, which has contributed much to safeguarding life and protecting the assets of fishermen, farmers and cattle ranchers.  In order to guarantee local capacities to maintain the stations, three technicians were sent for a training in Spain, hosted by the stations provider. Also, six technicians from the Directorate of Natural Resources and Environment were trained in Portugal in advanced knowledge on hydrological processes and issues.  With this training the technicians of this direction have improved their capacities and are now able to produce a daily hydrological bulletin, timely informing the population on the risks of floods. | Progress towards indicator 1 target is 100%.  From the target set at 31 AWS, 14 automatic water level stations and 58 manual synoptic/ agro/ hydrometric stations upgraded, the project achieved as follows:  A total of 16 AWS and 12 automatic water level stations with remote data archiving and transmission were installed from February to November 2015 at various strategic points in the country, covering all districts, including the Autonomous Region of Prince (RAP) in total more than 60% national territory. The location of this equipment, considered enough to cover the national territory, was made after studies that confirmed that these locations met the requirements for collecting the desired data, ie the location of the old stations in the colonial era and the new locations identified.  As for the 58 existing degraded manual synoptic/ agro/ hydrometric stations needing upgrading according to the Prodoc, it is considered a possible mistake of the log frame since the country did only have 27 manual stations in advance degradation. The Government decision at the time was to replace the old degraded and obsolete manual stations for the AWS bought by the project. The non-rehabilitation of classic stations, as foreseen by PRODOC, was a decision taken after much reflection and collection of different opinions. It was based on the need for constant commuting to the stations during the data collection process, which would set back the early warning system and condition the consistency, quality and continuous access of the data. The impact of this replacement of old manual stations for automatic stations has improved data collection and reduced its cost substantially. Currently, data collected by AWS every 10 minutes is automatically sent to the INM data center at 30-minute intervals and viewed on two available software: Hydras 3 and Ecodata.  Additionally, based on the needs identified at that time, the Government and the project managers opted for the acquisition of two synoptic stations for the two airports.  Data receiving centers are responsible for receiving, storing and processing data produced by AWS and Automatic water level stations, of which National Institute of Meteorology and the General Directorate of Natural Resources and Energy centers are central, receiving data from all over the country, while the smaller capacity Principe Region allows technicians only view the data collected by the weather and hydrological stations installed on the island. That information is then sent to CONPREC that gathers and processes the weather information and produces messages and alerts.    For the efficient and reliable transfer of data from the stations to the data centers, and as it was the final year of the project, a MoU was established with a local telecommunication company to guarantee the service for two years ahead. As mentioned above, the data centers send the information to CONPREC that produces messages and weather alerts that are sent via frontline SMS to the local committee platforms in vulnerable communities and also through an extensive e-mail list and national media (public and private, community radio).      With regard to the hydrology sector, there was a lack of technicians able to furnish hydrological forecasts. Thus, 4 technicians from the General Directorate of Natural Resources and Energy were selected, with the support of South-South Co-operation with Brazil, to be trained in hydrological modelling. This permitted the publication of hydrological bulletins, post their training. The information collected was disseminated through CONPREC and later by social media and by the local risk and catastrophe management committees. The remaining challenge after this training lies with the hydrology sector’s inability to produce warnings 24/7 because the technicians follow the regular civil servant work schedule, thus “impeding” the occurrence of risks and catastrophes after the close of business.  The elaborated post-project strategy includes a group of actions, such as joining the hydrological forecasts to the meteorological forecasts, which should guarantee that many of the implemented actions can effectively enjoy sustainability post-project. |
| **The progress of the objective can be described as:** | | **Achieved** | | | | |
| **Outcome 2**  **Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| 1.% of population with access to improved climate information and flood, drought, strong wind and coastal warnings (disaggregated by gender).    2. GoSTP Development Plans and land-use plans at National/ District that integrate climate information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels.    3.Sector-specific EW products and strategies that integrate climate risks in fisheries, tourism and land management sectors). | 1. There are existing EWS initiatives for regional drought and famine alerts; however, a national alert system concerned with extreme hydro-meteorological phenomena is not available. There is a limited understanding of technical alert jargon (alerts are not translated into national languages). No mechanism exists for most vulnerable populations to be involved in the alert process to ensure its sustainability.    Current access to warnings: 30% men, 20% women.    2.Development frameworks do not incorporate any EWS/CI products such as risk maps or climate change predictions into long-term planning.    Current score: 0    3. Sector specific strategies do not include EWS/CI because the quality of weather forecasts and climate predictions is poor and not tailored for specific uses, particularly seasonal forecasts.    Current score: 0 | *(not set or not applicable)* | 1. Increase to 50% for both men and women who have access to improved EWS/CI.    Target: 50% men; 50% women    2. At least 2 of the PRSP policy briefs incorporate analyses of risk maps and/or climate change projections influencing long-term planning proposals (at least 1 national and 1 district plan).    Target score: 2    3. Development of at least 2 tailored climate products and presentation of a market research plan on how to implement mobile phone based fishing and agricultural advisories, both supporting targeted weather/climate service delivery.    Target score: 2 | Progress towards indicator target is on track (80% of the population with access to improved climate information and flood, drought, strong wind and coastal warning), 3000 people from the fishing and farming community are being reached by the frontline SMS system. 3000 solar radios are being purchased to reach the most vulnerable population that cannot read and interpret the sms.  A communication system was established at the early stage of this project to communicate weather forecasts and early warning messages to the population. This system entails the collection of data from the Meteorological institute, its interpretation and its dissemination through SMS to the district platforms.  A database was created with the telephone numbers of fishermen, farmers and livestock breeders in order to facilitate the dissemination of hydro meteorological forecasts and warnings for all 33 communities.  During the first two years, the project focused and invested in a large information and sensitisation campaign across the 33 most vulnerable communities, in order to disseminate the potential impacts of CC and to allow the population to recognise the weather events and to protect themselves against human and material loses. With the installation of the early warning system we no longer have registered fishermen who lose their lives or their property offshore because of bad weather. No farmer does phytosanitary treatment of its crop without taking into account the climatic conditions    Information and awareness about climate change issues produced by this and other interventions such as the GEF/UNDP PIM4645 has considerably raised the general CC awareness in the country and have contributed largely to decision-makers attitude towards the impact of CC in the country. Worth mentioning that CC events have multiplied in the country in the last few years (extreme rains, sudden out of season draught periods , floods, sea invasion), therefore the concerns are higher since based also on this evidence. The integration of CC issues and the permanent presence in government declarations and communications is now evident and clear. Sectorial strategies and plans integrate now the risks associated to CC.  In order to add some quality and celerity to the CONPREC communication system, the project has developed a "Standard Operational Protocol of Communication”. It is undergoing the public discussion phase and collecting information from the most relevant stakeholders. The protocol will be validated by mid September before the 2018 election. | To increase the % of population with access to CI, the project initially promoted the creation of 17 additional DRR local committees to add up to the existing 14 committees.  Subsequently, the 31 committees received training in first aid, DRR, communication, identification of risk/safe areas, etc through professional health workers and communication/sensitization specialists. Gender balance in these committees was assured, at least 30% were women.  CONPREC assures that the committees and the rest of the target population receive the climatic alerts through the SMS frontline system and the VHF radio system.  The committee members disseminate the information received from CONPREC to the other community members.  An important result of the project is the updating of the National Contingency Plan which was done at the project onset and is currently guiding the official contingency actions when disasters occur by related national DRR institutions. Donors working in DRR also utilize this plan.  In order to enlarge the coverage of the climate information the project opted for the acquisition of 3000 radios. Those were distributed among the fishing community that are among the most vulnerable due to the precarious fishing techniques and safety equipment. With the radios distributed to 3000 fishing families (according to the last census conducted in 2012 by the Fisheries department there are 3194 registered fishermen) the project achieved a coverage of almost 100% of fishing community and assured they have access to meteorological information even when they are out at sea or in situations of electricity shortage, very common in the country. The distribution was done in partnership with the Fisheries Department of the Ministry of Agriculture and Fisheries and the local specialized NGO MARAPA, that carried out the awareness campaign and the training sessions to the fishermen for the correct use of the radios.  In relation to the issuance of climatic information through the national television, there were consultations between the Institute of Meteorology and the National Prevention and Catastrophe Response Council with the Director of the television to guarantee that the population has access to early warnings. The negotiations were unsuccessful with the former national television director, due to political reasons. Lately, with the change in government and the substitution of the national television direction, negotiations have been resumed.  As for the indicator 2 “GoSTP Development Plans and land-use plans at National/ District that integrate climate information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels” the project has been crucial to disseminate the concept of DRR and to mainstream it into the different line ministries. Building on the contribution provided by the project, other agencies, such as the World Bank and UNISDR-Regional Office Nairobi, the country has celebrated several training programs and develop a risk profile and a platform for the registration of climate and natural disasters.  With regards to indicator 3.Sector-specific EW products and strategies that integrate climate risks in fisheries, tourism and land management sectors, the projects achievements are:  \_The partnership and permanent dialogue with the Fisheries Department of the Ministry of Agriculture that supported the decision that led to the distribution of radios to the fishing population. The dialogue also included the UNDP support to the on-going drafting of the Blue Economy strategy by this institution.  \_The tourism sector is reinforced since the country is more able to produce climate information for the aviation sector, that is the main transportation system for tourist to the island country.  \_In the agricultural sector, this project in partnership with another GEF funded project, PIMS 4645, supported the Ministry of Agriculture’s Research Center into carrying out a study that establishes links between new diseases and CC in the different regions of the 2 island in the country. The Research center is planning to produce a agro-meteorological bulletin based on the study results that will inform farmers for smart agriculture practice by the end of 2019. |
| **The progress of the objective can be described as:** | | **Achieved** | | | | |

# Implementation Progress



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| Cumulative GL delivery against total approved amount (in prodoc): | 89.14% |
| Cumulative GL delivery against expected delivery as of this year: | 99.04% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 3,565,515 |

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| **Key Financing Amounts** | |
| PPG Amount | 100,000 |
| GEF Grant Amount | 4,000,000 |
| Co-financing | 0 |

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| **Key Project Dates** | |
| PIF Approval Date | Jun 29, 2012 |
| CEO Endorsement Date | Sep 12, 2013 |
| Project Document Signature Date (project start date): | Nov 8, 2013 |
| Date of Inception Workshop | *(not set or not applicable)* |
| Expected Date of Mid-term Review | Dec 1, 2017 |
| Actual Date of Mid-term Review | Oct 31, 2016 |
| Expected Date of Terminal Evaluation | Oct 30, 2018 |
| Original Planned Closing Date | Sep 30, 2017 |
| Revised Planned Closing Date | Dec 30, 2018 |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |

# Critical Risk Management

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| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Organizational | Risk statement: Insufficient working hours and human capacity to manage the data center in hydrology department.  The data center is placed at the hydrology department within the General Department of Natural Resources and Energy. The project trained initially one technician and later another technician therefore the capacity issue was resolved.  However, the General Department of Natural Resources and Energy does not have the means to maintain a 24/7 unit to cover the data center. The project recommended the government through different consultations and negotiations towards the end of the project that the hydrology data center should be transferred to the Institute of Meteorology as it is the case in other countries. The government decision is yet to be made. |
| Security | Risk statement: Maintenance and safety of the stations  Many of the stations are located in isolated places of difficult access and where either the surrounding population or the fast-growing greenery put their safety at risk.  In the past, several sensitization campaigns were launched with the objective of engaging the communities with regards to preserving these infrastructures. Besides MoU were signed with the District Authorities in order for them to be responsible for the maintenance due to their proximity to the sites. In this reporting period, at the end of the project, those MoU have been reviewed with the new District Presidents (after elections in October 2019) and reassured that their role is crucial to make the stations last and render the service they are meant for.  A remote monitoring service by the company ADASA (that supplied and installed the stations and trained the technicians in country and in Spain) was also provided by the project until the end of July 2019. The national institutions developed a relationship with the company, independent to the project, that allows for this remote assistance to continue beyond the project timeframe.  During this reporting period the project met several times with the institutions in charge (meteorology and hydrology) in order to promote dialogue for a joint maintenance program, which has already started in mid-2019. |

# Adjustments

**Comments on delays in key project milestones**

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| **Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The TE was not possible at the scheduled period because the electoral campaign was in place since July 2018 and it had a twofold risk: the territory where the stations are placed was dangerous for field missions and the decision makers where not available to meet with consultants.  Legislative and district/regional elections took place in October 2018 which resulted in a completely new government at national and district level. This delayed the entry of duty of new directors and technicians in the public administration which obliged us to postpone the TE until the beginning of the year. |

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| **Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| Once the electoral process was finished and the new government was in place, the conditions weer set for the TE to take place. However, the delay until April was due to the lengthy period of year end reconciliation which left the CO without ASL until the beginning of April.  The consultants team was selected and ready to being deployed in January but later, they were put on hold waiting for the resources availability.  Terminal Evaluation was finally carried out in May 2019 and the report is already completed in Portuguese and English.  The meeting of the Steering committee normally scheduled for the first quarter did not take place due to the change in government.  However, a meeting took place in March 2019 and was considered as the institutional closure of the project, since it gathered all institutions involved in the project implementation. |

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| **UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The terminal evaluation was conducted 6 months after the expected end of project. This has been explained by the problems faced by the project to access the 2019 ASL. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | Project implementation was satisfactory given that programmed objectives were reached thanks to the involvement of partner institutions in:  - Improved national coverage in terms of the hydro-meteorological network;  - Improved national coverage with hydro-meteorological information;  - The creation of a national emergency operations center;  - The creation of an emergency response communications system and local committees with greater intervention capabilities within the communities;  - Greater awareness by the population with regard to natural disasters;  - Weather reports. The EWS allowed for the development of the National Meteorological Institute’s competencies and the creation of a Hydrology Department;  - Weather reporting changed the previous communications system to the SAP thus permitting the reduction of the impact of disaster risks in the country;  - The EWS increased national coverage of climate information by 60 per cent; and,  - It also allowed national institutions to work together in a coordinated fashion to obtain improved results,  All the stations, whether meteorological or hydrological, are programmed to collect data every 15 minutes and transmit them to the data reception centres every 60 minutes. This represents a higher frequency of transmission than that originally planned.  The automatic meteorological stations were designed to also allow farmers, agronomists, and researchers to monitor atmospheric and soil conditions affecting plants, thus offering observation data representative of the surrounding area.  Equally, the automatic hydrological stations each have a 6-metre tower in support of the meteorological sensors. In addition, a multiparametric (measuring pH, conductivity, turbidity and temperature) probe to monitor river levels and basic parametres with regard to water quality is a planned acquisition.  It is important to note that along with the automatic meteorological stations of the National Meteorological Institute installed near the São Tomé International Airport and at the Príncipe Airport, a ceilometer (to measure cloud height) was installed at each airport site.  The installation of the enlarged network of automatic meteorological and hydrological stations with remote data transmission is an evolution of the relevant sectors. Prior to the SAP project, there were only classic (manual) stations requiring frequent field trips to collect data, a major constraint which also led to human error in data collection. Automatic remote data collection and transmission allows for timely knowledge (with 60-minute intervals) resulting in the continuous production of reliable information as well as the monitoring of extreme climatic and hydrological conditions. In the future, this will lead to the creation and operation of an early warning system coordinated by CONPREC.  The project co-ordination team reached the conclusion that the proposal for the installation of 4 synoptic stations, as proposed in the project’s PRODOC was not justified given that this type of station is usually installed at airports and STP, having only 2 airports, acquired only 2 synoptic stations.  A synoptic station is different from a meteorological station designed for the study of atmospheric conditions occurring with greater frequency in one region or another and whose collected variables are utilised for weather reports.  Data collected by the synoptic stations every 10 minutes are automatically transmitted to the data reception centre every 30 minutes and visualised in one of two available software platforms: Hydras 3 and Ecodata.  The collection of information from the older stations is costly since periodic field trips are involved, and the collected data hardly contribute to climate research.  To strengthen the SAP, 2 extra meteorological stations were acquired and installed in substitution of the 2 synoptic stations discarded as unnecessary, thus bringing the total to 16 meteorological stations.  The non-rehabilitation of the older stations, as planned in the PRODOC, was a decision taken after much reflection on the reality of constant field trips leading only to a faulty collection of data, i.e., a de facto setback for the early warning system which would also condition the consistency and quality of, as well as the continuous access to, the data.  For the efficient and reliable transfer of data, a contract with a local telecommunications company was established for mobile communications as well as internet signal.  Forecast.  Of the 10 planned work stations, only 7 were installed in the 2 data reception centres (one on São Tomé and the other on Príncipe), of which 4 were allocated to the National Meteorological Institute, 2 to the Natural Resources and Energy General Directorate and 1 to the RAP.  The data reception centers are responsible for the reception, storage, and treatment of data generated by the meteorological and hydrological stations. The 2 on São Tomé are central and receive data from the whole country while from the one on Príncipe, of less capacity, only local (Príncipe) meteorological and hydrological date can be visualised.  The 3 data centres are in full operation allowing the technicians to treat received data and send them along to CONPREC who then retransmits them to the usual institutions responsible for its publication, as well as to the local risk and catastrophe management committees.  To address the monitoring of climatic conditions and support weather reporting, hard and software (ASMED – SYNERGIE) and 3 ray detectors (2 on São Tomé and 1 on Príncipe) were acquired and installed to guarantee 100 per cent national coverage. These detectors allow the National Meteorological Institute to monitor and follow movements and shocks among the clouds facilitating the study of thunder and ray phenomena important to flight safety.  A SADIS system was also installed. This system collects data in support of flight navigation and to permit the meteorological sector to elaborate meteorological flight reports to be subsequently included in flight plans.  The above-mentioned systems were acquired to strengthen the National Meteorological Institute and ensure the safety of national air navigation.  To reduce the lack of cadres, training was financed for principle cadres in meteorology, oceanography and geophysics.  With regard to technicians from both the National Meteorological Institute and General Directorate of Natural Resources and Energy, the firm supplying the and installing the equipment was also charged with training session for 15 technicians from both institutions (12 men and 3 women) on the different instruments and on their maintenance. To complete their local training on equipment maintenance, 6 technicians (2 from Natural Resources, 2 from the Meteorological Institute and 1 mechanic) were sent to Spain and Portugal.  Equally, 6 meteorologists were sent to Dakar for training in meteorological forecasting for television. However, the conditions conducive to televised weather and climatic reporting do not yet exist nationally.  South-South Co-operation was one of the modalities implemented by this project. Mozambique is a country with wide experience with regard to natural catastrophes. Thus, 3 national technicians participated in an interchange with the Mozambican National Institute for the Management of Catastrophes with a view to identifying good practices adopted by Mozambique which could also be usefully implemented in STP. From this interchange of knowledge, the national emergency stock arose.  Insofar as training is concerned, the project trained journalists on the environment. This effort involved 27 journalists from public and private media organisations as well as 3 Meteorological Institute technicians during 10 days of practical workshops and theoretical material on key environmental journalism concepts  The elaboration of hydrologic bulletins is a novelty for the country as previously there were no technicians capable of data treatment of information generated by the weather stations. The project therefore supported the Natural Resources Direction in the training of 15 technicians in hydrologic forecasting and modelling in the first phase and, during the second phase, 3 technicians were trained in Brazil.  The local risk and catastrophe management committees are key elements to the early warning system and had an important rôle to play in their communities acting, on the one hand, as sensitisers and diffusers of warnings emitted by CONPREC and, on the other hand, reporting them to the National Operational Emergency Centre (CENOE), as well as in supporting, guiding and supplying first aid to the population in the case of extreme natural phenomena or catastrophes  The creation, within the project’s framework, of 17 local risk and catastrophe management committees surpassed the 5 originally planned in 5 vulnerable pilot communities. Thus, today the country can count on a total of 31 committees distributed throughout the land, with 250 members, trained, structured and readied to act swiftly and with efficacy in their communities in case of emergency. Since their creation, local committee members were involved in various project activities and played the rôle of intermediaries between the communities and CONPREC, facilitating the implementation of project activities as well in the communities and implementing sensitisation campaigns to ensure equipment security. They were also trained in catastrophe management, emergency communications, and in providing first aid to better execute their community responsibilities.  The 4 community radio stations in the country together constitute a strong information dissemination tool for the sensitisation and warning of the communities. The project therefore relied on the improvement of their technical and human resources situations, through the signing of a protocol to thus ensure their support in the dissemination of information and warnings.  Members of the local committees, the police force, the SNPCB, the National Meteorological Institute and the Coast Guard were trained in the use of instruments and in communications and are now better apt in the transmittal of relevant information via radio.  The Data Control Centres of the DGRNE and the National Meteorological Institute were constructed and equipped to permit climate data reception, storage and manipulation from information generated by the automatic meteorological and hydrological stations.  With the objective of establishing an efficient and robust communications system through strong interlinks and channels of communication to act in a timely and appropriate manner about the reduction of potential physical damages, loss of life and damages to property and the environment, the Operational and Normalised Communication Protocol (PONC) was created and validated  PONC defines and structures the normalized information circuit to produce hydro-climatic information and the emission of warnings, involving various institutions and determining the channels and the means of communication.  Also elaborated and subsequently validated were the National Action Framework for the Reduction of Catastrophic Risks (2016-2019) and the National Contingencies Plan.  In addition, a survey was carried out of all communities backed by the project with the objective of acquiring improved understanding of the effects of the various climatic factors, about primary activities (fishing, farming, livestock rearing) and day-to-day life in the communities. This survey involved 1,275 people, of which 623 women and 652 men.  During project implementation, intersectoral relations were strengthened as a result of the various activities developed, resulting in a swift and efficient exchange of information between the sectors on the early warning system. The climate and hydrological data produced by the Meteorological Institute and the DGRNE are transmitted to the CONPREC (concretely, the CENOE) as daily reports allow to plan adequately according to the information received.  Project implementation led to the creation of basic conditions for an early warning system.  The continued capacity-building efforts in favour of national technicians is vital for the successful operation of the early warning system as they are directly responsible for the maintenance of the stations and for the manipulation of the information generated by them.  The institutions saw their capabilities improve from the training of their technical cadres, from the exchange of knowledge with partnering countries and from the supply of equipment, including vehicular, facilitating the development of its activities.  All the parties involved in the project were made aware of the importance of an early warning system, thus contributing to the implementation of important planned activities.  CENOE is an organic unit of CONPREC, created to centralize intersectoral, interinstitutional and international co-ordination efforts to enable the protection of the population efficiently and effectively in response to situations of catastrophe and extreme events.  By virtue of its vital rôle of this institution about the early warning system, the conditions for its effective operations were facilitated by the project.  By project termination, basic conditions for the nation’s early warning system were created. The challenge will centre on the sustainability of the delivered infrastructures. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Moderately Satisfactory | Moderately Satisfactory |
| Overall Assessment | The DO 2019 Rating is “Moderately Satisfactory” like last year 2018 rating, due to the limited local capacity and appropriation that will jeopardize the sustainability of results achieved by the project. The political instability was also a factor that had an impact since different parties have different political perspectives on DRR and associated policies.  Nonetheless, from an overall perspective and considering 4 years of implementation, the project has certainly helped with the mainstreaming of the DRR concept and need to streamline it in sectorial policies and strategies. The project reinforced the national capacity to collect, interpret and disseminate meteorological/ hydrological data, it reinforced the existing institutions in charge of producing the early warning alerts and it has leveraged the communities’ capacity to protect themselves against extreme weather events, strengthening the capacity for responding to climate shocks and planning adaptation to climate change, in line with the project’s overall objective.  Outcome 1 focused on enhancing capacity of national hydro-meteorological (NHMS) and environmental institutions to monitor extreme weather and climate change. Target 1 is accomplished by the installation of the NHMS (12 automatic water level (AWS) stations and 16 meteorological stations upgraded). Target 2 related to daily data transmission has been accomplished during the related period, through the signing of a MoU between the IP and an internet service provider.  Outcome 2 addresses the efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans which presents results less favorable than outcome 1. Target 1 has been tackled by improving the SMS frontline service, having lately realized of the need to find alternative ways to communicate weather alerts to those rural population not able to read. A solution includes the acquisition and distribution of solar radios. With relation to Target 2 that focuses on the mainstreaming of climate information in policies and strategies, the related institutions meant to be interpreting data and providing forecasts and trends could improve their expected contribution, if they furthered investment in capacity building for modelling and also if national high-level commitment of the institutions was higher. To Target 3 more development partners contributed, such as the World Bank that developed a decision-making tool based on climate events and the UNISDR who provided some training to operate a database to allow for event registration, thus developing a country risk profile. The WB is ready and is designed to serve national authorities to monitor extreme weather and climate change (outcome 1).  The IP rating is “Moderately satisfactory” provided the project had to be extended for 15 months to complete the expected results. The overall delivery rate is “satisfactory” considering the project available resources were spent.  The project with the support of UNDP provided for a series of high-level meetings with the Ministry of Defense and Internal Affairs to discuss outstanding issues during the reporting period.  Two concerns related to the sustainability of achieved results still remain after the project’s end: i) the safety and maintenance of the meteo-hydro stations installed and ii) the lack of financial and human capacity of the hydrological department to sustain operations of the data center 24/7. I)Indeed the project provided for the operational expenses of the maintenance of the stations (basic, technical, communications) through a protocol between the National Institute of Meteorology and the General Directorate of Natural Resources and Energy (Hydrological department) with the district authorities. At project’s end, the government will need to assure the funding for this purpose which is of crucial importance to the survival of the stations. Consultations and negotiations have taken place at high level and the government seems sensitive to the relevance of the stations, so some budget line is expected for this purpose in the 2020 State budget; ii) the TE recommendation on this respect is to merge the data centers between hydrology and meteo since the latter has a 24/7 response in place.  As for the formerly identified issue related to the role of CONPREC (national counsel for DRR), with the new government, it seems to be clearer and more streamlined with other institutions such as the Fire department in order to attain full territory and functional coverage in case of disaster.  In relation to gender issues, the project integrated women and men considering their livelihoods and daily activities. Despite this, their disadvantage in rural milieu regarding literacy, sometimes resulted in inequalities. Women represent 1/3 of the Local Committees members. In urban contexts it resulted in more balanced structures such as CENOE and CONPREC.  Overall, this project has contributed to the intended objectives and has provided the country with data collecting infrastructure and human capacities to issue early warning alerts that did not exist before the project. The appropriation of this infrastructure and the adequate use of the established capacities are challenging issues for the future. Negotiations and consultations have been done with other agencies and with the new government and solutions are under way.  The project TE issued relevant recommendations to the government of São Tomé and Principe that can be summarized as follows:  1. Consideration should be given to merging the hydro-meteorological service into the NIM so as to ensure:    • consistency in the collection, treatment, accuracy, hours and mode of operation of the services, and frequency of the dissemination of climate information.  • the overall sustainability of both services by the provision of a pool of “client” users of meteorological and water data.  2. Establish the legal and financial measures that will allow the consolidated meteorological services to charge “clients” for their services and create accounts they can manage directly with a view to ensuring the maintenance, repair and replacement of the equipment necessary for the provision of their services.  3. Ensure clarity in the Roles of CONPREC and the Fire Department and their cooperation.  4. The Government should ensure that the Fire Department carry out periodic, regular “emergency simulation exercises” so as to identify weaknesses in the EWS system BEFORE AN EMERGENCY OCCURS.  5. The Government should ensure that the Fire Department carry out annual reviews of the assets that can be easily located and mobilized in case of an emergency such as:  • transportation for rescue and supply operations.  • construction equipment -  • sources of potable water -  • health supplies  • health human resources  • average stock of food supplies  • other supplies.    Also, the TE issued some recommendations for UNDP/GEF, as follows:  There is the risk that the investment made may not produce the desired results. Therefore, the Evaluation recommends to find from other projects or sources, funds to remedy the deficiencies outlined in the TE report.  For future projects, the Evaluation Mission recommends that the UNDP office monitor the work of the project PIUs with greater frequency and depth.  Again for future projects, the Evaluation Mission recommends that no Project Document be signed until it contains a detailed Exit Strategy. The strategy should contain plans for ensuring the post-project sustainability of the effort. Mainly, a “human resources stability plan”, as well as “financial sustainability plan” that preferably relies on sources of extra-budgetary funding. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | During four years the country benficiate from the Early Warning System ( EWS STP) activities to improve the hydrological and meteorological network , and the ability to forecast, develop qualified human resources to ensure long - term sustainability of hydrometeorological services in order to guarantee effective for EWS in the archipelago.    The project help the country to strengthen the capacity for climate monitoring, early warning and information systems available to respond to climate shocks and help in the planning of adaptation measures to climate change and monitoring in formation resistant to climate and its subsequent dissemination .  Extensive work have been done also with population in order to preserve hydrometeorological network.  The EWS project not only contributes to the reduction of vulnerability and risks in the country, but also allows better dissemination of climate information to fishermen, livestock farmers, investors and the general population, thus allowed the improvement of people's lives | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Implementing Partner** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | With this project, basic conditions for an efficient early warning system were created.  Constant capacity-building for the national technicians is crucial for the good operation of the early warning system since they will be the ones maintaining the stations and manipulating data produced by them.  The institutions’ capabilities were improved through capacity-building actions for its technical cadres, in the exchange of information with partner countries and in the sourcing of equipment including vehicles, which facilitated the development of project activities.  The various sectors are able now to work together despite further improvements needed in terms of co-ordination and institutional measures.  The local risk and catastrophe management committees are key elements to an early warning system and play an important rôle in the community acting, on the one hand, as activists and publicisers of warnings emitted by CONPREC and, on the other hand, assuming responsibility for monitoring the most relevant natural phenomena and reporting them to the National Operational Emergency Centre (CENOE), and in the support, guidance, and performance of first aid on the population in case of extreme natural phenomena or catastrophes.  All involved in the project were made aware of the importance of an early warning system which contributed to the implementation of important planned activities.  Following project implementation, basic conditions for an efficient early warning system were created.  Constant capacity-building for the national technicians is crucial for the good operation of the early warning system since they will be the ones maintaining the stations and manipulating data produced by them.  The institutions’ capabilities were improved through capacity-building actions for its technical cadres, in the exchange of information with partner countries and in the sourcing of equipment including vehicles, which facilitated the development of project activities.  The various sectors are able now to work together despite further improvements needed in terms of co-ordination and institutional measures.  The local risk and catastrophe management committees are key elements to an early warning system and play an important rôle in the community acting, on the one hand, as activists and publicisers of warnings emitted by CONPREC and, on the other hand, assuming responsibility for monitoring the most relevant natural phenomena and reporting them to the National Operational Emergency Centre (CENOE), and in the support, guidance, and performance of first aid on the population in case of extreme natural phenomena or catastrophes.  All involved in the project were made aware of the importance of an early warning system which contributed to the implementation of important planned activities.  In the 5 years of project implementation, the project’s co-ordination team experienced several situations which were to become lessons to be learnt, as listed below:  •Listening to the communities and involving them in the decision-making processes facilitate the implementation of activities on site and increases their level of knowledge, appropriation and acceptance;  •The existence of a warning and response to catastrophes system within the communities guarantees a better comprehension of the risks and the assumption of that action;  •To secure the sustainability of the actions taken, the definition of the objectives should be participatory and inclusive, duly involving political leaders, civil servants, civil society and the private sector;  •Good advocacy at the highest levels guarantees public support and commitments crucial to the project’s success, including decision making at the legislative level with a view to the sustainability of actions;  •Constant changes in government, municipal and regional authorities require continual advocacy and sensitisation;  •Information sharing is an important aspect in saving lives, previously not recognised or practiced by most of the sector; and,  •The replication of international experiences allows knowledge sharing.  Challenges presented were:  •System sustainability;  •Station maintenance and security;  •Local committee operations; and,  •Establish public/private partnerships to secure funds for the periodic maintenance of the stations and emergency operations.  While future perspectives are to:  •Acquire adequate and secure stations as needed;  •Have available specialised suitably equipped technicians in key domains;  •Ensure that both the hydrological and meteorological sectors can offer continuous data, 24/7; and  •Acquire specific emergency means and equipment.  The action plan was fully (100 per cent) executed during the last cycle.  Given the above-described scenario, we consider the project as Satisfactory in the Development of Proposed Objectives. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | In the end of this project we couldn’t be more thankful to all the achievement made but this project during the implementation period and we hope that in 3 or more years we will continue to see the impact of the basis this project created. One of them is that today the has country has a working hydrological service capable to offer an early warning for flood and drought, something never done before. The challenge continue the fact that it still a new instrument that was given to the country and we should learn how to better explore the opportunity. We still believe that the project accomplished his goals. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Moderately Unsatisfactory | Moderately Unsatisfactory |
| Overall Assessment | The Development Objective of the project was rated as moderately unsatisfactory due to the concerns raised in the Terminal Evaluation (conducted in June 2019). The project will only partially achieve its end-of-project targets with significant shortcomings. In particular, significant gaps in terms of the sustainability of the intervention were raised. This can be explained as some of the stations installed are already inoperable, some of the equipment was stolen (partly due to poor protection), key stakeholders are not sufficiently knowledgeable about climate information analysis and use and some of the actors fail to fulfil their responsibility.  Under outcome 1, out of the 28 stations that were procured by the project, only 23 are operational. This includes 16 AWS and 12 automatic water level stations with remote data archiving and transmission. It is estimated by the project team that this number of stations were sufficient to achieve the target of 60% of the national territory covered by climate information - as compared to an initial objective of 31 AWS and 14 automatic water level stations procured and 58 manual stations upgraded. Even though these stations are able to cover the entire territory, the hydrology service at the DGNRE is only working during working hours, and early warnings cannot be sent outside of these hours. In addition, it was observed that the hydrometeorology services have not issued daily bulletins for several months. The TE team has recommended that the National Meteorological Institute (NMI) be responsible for the dissemination of climate information, instead of the DGNRE. The team also recommended the payment of fairer fees to NMI for the services provided to the ENASA (National Airport Services Company), which have recently been cut by halve while they were already not covering the associated costs. The payment of fairer fees will be a guarantee for the sustainability of the activities under the outcome 1.  Under outcome 2, the weather stations procured under outcome 1 and the trainings for the collection, analysis and dissemination of EWS/CI enabled the access of 50% of the population to EWS/CI. However, there are significant limitations to the achievement of the other indicators, in particular the incorporation of analysis of risk maps and/or climate change projections influencing long-term planning proposals as well as the development of tailored climate products. Another limitation includes the inaccessibility of the radio system transmission in several communities in the north of Sao Tome, this affects the capacity of beneficiaries to access the climate information and take adequate action. However, the project has supported the updating of the National Contingency Plan to integrate mitigative options during the occurrence of disasters.  The IP is rated moderately unsatisfactory, with little activities conducted during this last reporting period. In spite of the 18 months project extension, the terminal evaluation was only conducted in June 2019, 6 months after the expected end of the project. However, this terminal evaluation has provided relevant recommendations, that can be shared with other on-going projects in Sao Tome and pursued by national partners and UNDP. These recommendations will be critical if we want to observe a sustainable impact of the project. Currently, some of the equipment has been stolen, a number of institutions do not have the capacity to perform their responsibilities and the sustainability mechanisms are not properly functioning (this is the case with the payment of the fee to NMI that does not cover its costs).  Regarding gender, the terminal evaluation team observed that a gender-focus was not adopted, nor was the project designed to take gender concerns into consideration. However, by targeting the population as a whole, the project has benefited, in average, equally to men and women.  Finally, unfortunately, the project did not achieve its project targets, in spite of the project extension. A strong baseline has been set, and most of the needed equipment is available, but national partners, UNDP and other on-going project will have to play an important role in ensuring the sustainability of the project interventions.  Both DO and IP ratings were provided based on the results of the terminal evaluation and might therefore differ from the perception of the project team and country office (who rated the project as satisfactory/moderately satisfactory). Even though most of the activities have effectively been carried out, which explains the satisfactory ratings from the CO and the project manager, in my opinion, the sustainability mechanisms seem to have failed. The Terminal Evaluation team stressed the underlying risks at length in the report, which is a critical risk for the project at this time of closure. | |

# Gender

**Progress in Advancing Gender Equality and Women's Empowerment**

This information is used in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee and for other internal and external communications and learning.  The Project Manager and/or Project Gender Officer should complete this section with support from the UNDP Country Office.

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| **Gender Analysis and Action Plan:** *not available* |
| **Please review the project's Gender Analysis and Action Plan. If the document is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis and all projects approved since 1 July 2018 are required to have a gender analysis and action plan.** |
| *(not set or not applicable)* |

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| **Please indicate in which results areas the project is contributing to gender equality (you may select more than one results area, or select not applicable):** |
| Contributing to closing gender gaps in access to and control over resources: Yes |
| Improving the participation and decision-making of women in natural resource governance: No |
| Targeting socio-economic benefits and services for women: No |
| Not applicable: No |

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| **Atlas Gender Marker Rating** |
| **GEN2:** gender equality as significant objective |

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| **Please describe any experiences or linkages (direct or indirect) between project activities and gender-based violence (GBV). This information is for UNDP use only and will not be shared with GEF Secretariat.** |
| N/A. |

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| **Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.**    **Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.** |
| The importance of women within the family and the community was taken into consideration in the planning and execution of project activities; in fact, the intensive sensitization programme was officially targetting women. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| The participation of women in the prevention and response to disasters is low. The project nevertheless attempted to incentivize female involvement in its activities, with the following results:  •in the 31 local committees, only 41 per cent of the members are women and housewives and involve their families in the prevention and response to natural disaster risks;  •2 of the 4 young people sent to Aveiro (Portugal) to study meteorology, oceanography and geophysics were women;  •women represent 70 per cent of the meteorological observers trained by the project. |

# Social and Environmental Standards

**Social and Environmental Standards (Safeguards)**

The Project Manager and/or the project’s Safeguards Officer should complete this section of the PIR with support from the UNDP Country Office. The UNDP-GEF RTA should review to ensure it is complete and accurate.

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| **1) Have any new social and/or environmental risks been identified during project implementation?** |
| No |

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| **If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.** |
| N/A. |

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| **2) Have any existing social and/or environmental risks been escalated during the reporting period? For example, when a low risk increased to moderate, or a moderate risk increased to high.** |
| No |

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| **If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.** |
| N/A. |

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| **SESP:** [SIGNED ESSP EWS.pdf](https://undpgefpims.org/attachments/5103/213806/1680482/1680763/SIGNED%20ESSP%20EWS.pdf)  **Environmental and Social Management Plan/Framework:** *not available* |
| **For reference, please find below the project's safeguards screening (Social and Environmental Screening Procedure (SESP) or the old ESSP tool); management plans (if any); and its SESP categorization above. Please note that the SESP categorization might have been corrected during a centralized review.** |
| *(not set or not applicable)* |

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| **3) Have any required social and environmental assessments and/or management plans been prepared in the reporting period? For example, an updated Stakeholder Engagement Plan, Environmental and Social Impact Assessment (ESIA) or Indigenous Peoples Plan.** |
| No |

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| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| N/A. |

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| **4) Has the project received complaints related to social and/or environmental impacts (actual or potential )?** |
| No |

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| **If yes, please describe the complaint(s) or grievance(s) in detail including the status, significance, who was involved and what action was taken.** |
| N/A. |

# Communicating Impact

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| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| Early warning system was a regional project implemented in 11 countries, including Sao Tome and Principe. The project aimed at creating an efficient early warning system able to inform and alert most vulnerable communities in case of climate-related risk and assure that the information is accessible to the population. To achieve this goal, the project supports the country with the installation of efficient and automatic weather and water level stations. These stations replace the outdated manual equipment, unable to provide timely information. The new AWS and HWS enabled the technicians to access all relevant data in the data collection centers installed by the project. For the first time the country was able not only to produce meteorological information, but also early warnings for hydrology. The project identified 5 coastal communities as pilots for this initiative and additional 26 communities benefitted from the installation of stations and the creation of local DRR committees. The National Disaster Preparedness and Response Council (CONPREC) emits alerts to these local DRR committees, based on the information they received from meteorology and hydrology sectors.  José Neto is one of the members of the local committee in Praia Gâmboa, a fishery community in Agua Grande district. He receives daily information from CONPREC using the VHF radio distributed by the project to CONPREC to ensure that the information reaches the most vulnerable communities. “When I receive the information, if the alert is about a serious risk, I quickly inform other fishermen in my community not to go to sea or, if they decided to go, they at least, will go knowing what risks they could be facing”, he said.  Afonso has been a fisherman for more than 30 year. He used to look at the moon before deciding if going fishing would be safe or not. “But now I’m glad to have other options to confirm if its safe form me to go work”, he add.  Wildine Trovoada is a technician with the National Institute of Meteorology in São Tomé. He feels everyday how different and more easier it is now to collect data from the automatic stations. Since the installation of meteorological stations, Wildine has been the technician accompanying the whole process. He was trained and went to Spain to learn how to maintain this type of equipment: “I learnt how to install this equipment and I can now support and monitor the installers and continue to maintain the equipment”, he said. He is also regularly going on field trips to ensure that data transmission is functional. &quot;Maintaining these stations is now much easier than the old type of stations”, he added. And that is not the only difference. “Now all I have to do is click while before I had to actually go visit each station and collect the data from, for example, Uba Budo or Ponta Figo”, he stated. Nevertheless, these changes come with many challenges, in particular the guarantee that the data arrive in a timely fashion and thus ensure the production of meteorological information and its earliest dissemination. “The National Institute of Meteorology lacks technicians although through the project we were able to train 8 observers and we are finalizing the training of 2 meteorologists in Portugal; however, these are too little for our current needs”, stated the Institute’s Director, Aristómenes Nascimento. |

**Knowledge Management, Project Links and Social Media**

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| **Please describe knowledge activities / products as outlined in knowledge management approved at CEO Endorsement /Approval.**    **Please also include: project's website, project page on the UNDP website, blogs, photos stories (e.g. Exposure), Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source. Please upload any supporting files, including photos, videos, stories, and other documents using the 'file lirbary' button in the top right of the PIR.** |
| Climate Change at São Tomé e Príncipe - Play - : https://www.youtube.com/watch?v=jnoK-UMoXGs  https://www.youtube.com/watch?v=5p20-miQSvQ&feature=youtu.be&fbclid=IwAR3rJAMV6D9Tv5IbgH4qfY0BpGdxrfVm\_oI\_TqWP7xXFJmt\_N63p7uAFInc  https://www.facebook.com/pnudstp/ |

# Partnerships

**Partnerships & Stakeholder Engagment**

Please select yes or no whether the project is working with any of the following partners. Please also provide an update on stakeholder engagement. This information is used by the GEF and UNDP for reporting and is therefore very important!  All sections must be completed by the Project Manager and reviewed by the CO and RTA.

|  |
| --- |
| **Does the project work with any Civil Society Organisations and/or NGOs?** |
| Yes |

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| --- |
| **Does the project work with any Indigenous Peoples?** |
| Yes |

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| --- |
| **Does the project work with the Private Sector?** |
| No |

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| **Does the project work with the GEF Small Grants Programme?** |
| No |

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| --- |
| **Does the project work with UN Volunteers?** |
| No |

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| --- |
| **Did the project support South-South Cooperation and/or Triangular Cooperation efforts in the reporting year?** |
| Yes |

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| --- |
| **CEO Endorsement Request:** [RESUBMISSION\_5103\_Sao Tome\_ EWS\_CEO Endorsement\_22July 2013.doc](https://undpgefpims.org/attachments/5103/213806/1680479/1680760/RESUBMISSION_5103_Sao%20Tome_%20EWS_CEO%20Endorsement_22July%202013.doc) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| Overall project:  \_Partnership South-South with Senegal, Mozambique and Brazil for training purposes of the Counsel for DRR, Institute of Meteo, Department of Hydrology and project staff.  \_Partnership with specialized local NGO MARAPA to distribute radios to fishing community  \_Indigenous people: the project signed MoU with District authorities and works with fishing community |

# Annex - Ratings Definitions

**Development Objective Progress Ratings Definitions**

(HS) Highly Satisfactory: Project is on track to exceed its end-of-project targets, and is likely to achieve transformational change by project closure. The project can be presented as 'outstanding practice'.

(S) Satisfactory: Project is on track to fully achieve its end-of-project targets by project closure. The project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only.

(MU) Moderately Unsatisfactory: Project is off track and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately.

(U) Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets by project closure. Project results might be partially achieved by project closure if major adaptive management is undertaken immediately.

(HU) Highly Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets without major restructuring.

**Implementation Progress Ratings Definitions**

(HS) Highly Satisfactory: Implementation is exceeding expectations. Cumulative financial delivery, timing of key implementation milestones, and risk management are fully on track. The project is managed extremely efficiently and effectively. The implementation of the project can be presented as 'outstanding practice'.

(S) Satisfactory: Implementation is proceeding as planned. Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. The project is managed efficiently and effectively. The implementation of the project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well.

(MU) Moderately Unsatisfactory: Implementation is not proceeding as planned and faces significant implementation issues. Implementation progress could be improved if adaptive management is undertaken immediately. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are significantly off track. The project is not fully or well supported.

(U) Unsatisfactory: Implementation is not proceeding as planned and faces major implementation issues and restructuring may be necessary. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are off track with major issues and/or concerns. The project is not fully or well supported.

(HU) Highly Unsatisfactory: Implementation is seriously under performing and major restructuring is required. Cumulative financial delivery, timing of key implementation milestones (e.g. start of activities), and management of critical risks are severely off track with severe issues and/or concerns. The project is not effectively or efficiently supported.