Guiné-Bissau

TERMINAL EVALUATION OF THE

"Strengthening Resilience and Adaptive Capacity to Climate Change in Guinea-Bissau's Agrarian and Water Sectors Project"

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UNDP, Guinea-Bissau
02 May, 2019

i. Project brief

Title of UNDP supported GEF financed project	Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors Project
UNDP and GEF project ID #	GEF Project ID # 3575 UNDP PIMS ID # 3650
Implementing agency	United Nations Development Programme
GEF project ID	3575
UNDP PIMS ID	3650
Evaluation time frame and date of evaluation report	January 26-February 10, 2019
Region and countries included in the project	West Africa, Gunea-Bissau
GEF Operational program/strategic program	LDCF, the project is part of GEF's Strategic Program for West Africa.
Total budget	4,320,000.00 USD
Total expenditure	4,320,987.16 USD (**100.02%**)
Implementing partners And other project partners	Secretariat of State of Environment Gabu Regional Government; Secretariat of State of Environment; Ministry of Agriculture and Rural Development (General Directorate of Agriculture; General Directorate of Livestock; General Directorate of Forestry); Ministry of Energy and Natural Resources (General Directorate of Water Resources); Ministry of Economy, Planning and Regional Integration (General Directorate of Planning); State Secretariat for Transportation and Communications (National Institute of Meteorology)
Evaluator	• Nizamuddin Al-Hussainy

Disclaimer

'*This evaluation was supported and guided by the UNDP- Guinea-Bissau and presented by an independent consultant. The report does not necessarily reflect the views and opinions of the UNDP' but of stakeholders and beneficiaries*'.

Acknowledgements

I would like to thank the project team and all respondents who participated in the interviews, as well as all stakeholders whom the I have interacted/interviewed during the field mission.

I would also like to render special thanks to Mr. Dauda Sau, UNDP Guinea-Bissau Head of Sustainable Cluster who took time to answer repeated questions about the project and facilitated all logistics of the evaluation mission, even at the expense of his own personal time.

I would like to thank all the government officials from the Secretariat of State of Environment, Agriculture, Livestock, Meteorology, Water resources, Planning, Forest and others. GEF Political and Operational Focal Points of Guinea-Bissau and Mr. Viriato Luís Soares Cassamá for providing all field support & needful information indeed deserve many thanks.

NGO representatives at Gabu regional level and indeed the members of the beneficiary communities who allocated their time and other resources to allow me for a successful evaluation mission.

Nizamuddin Al-Hussainy

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i. EXECUTIVE SUMMARY

Table 1: Project summary table

Stages	Date
▪ Date of submission of the Project Identification Sheet (PIF)	▪ June 3th 2009
▪ Approval date of the PIF	▪ July 1st 2009
▪ Approval by the GEF Secretariat of PRODOC (CEO Endorsement)	▪ December 30th 2010
▪ Approval by the Local Project Review Committee (CLEP)	▪ February 17th 2011
▪ Signature of the Project Document (PRODOC)	▪ April 12th 2011
▪ Recruitment of the National Coordinator	▪ August 2011
▪ Start-up/Inception workshop	▪ 5 – 8 Mars 2012
▪ MTR	▪ December 2015[1]
▪ End of Project	▪ Jun. 2017
▪ Terminal evaluation	▪ Jan-Feb. 2019[2]

- **Project brief**

'Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors Project'was implemented between 2011 and 2017 with financial support from the Least Developed Country Fund (LDCF) 5.30 million USD and the United Nations Development Program (UNDP) 0.80 million, additional funding from the FAO 8.0 million (in kind), AfDB, 1.5 million US$(in kind) as well, in-kind contributionfrom the Government of the Republic of Genia-Bissau (RGB). The total budget amounted to 15.61 million US Dollars (USD) in cash and in kind, including RGB's in-kind contribution valued at 1.5 million USD.[3]

The project was implemented by the United Nations Development Program, as GEF agency and the Secretariat of State of Environment (part of the State Secretariat for Environment and Sustainable Development), as national agency with the support of the Ministry of Agriculture and Rural Development (General Directorate of Agriculture; General Directorate of Livestock; General Directorate of Forestry); Ministry of Energy and Natural Resources (General Directorate of Water Resources); Ministry of Economy, Planning and Regional Integration (General Directorate of Planning); State Secretariat for Transportation and Communications (National Institute of Meteorology), 4 national NGOs as implementing partners and members of the ProjectSteering Committee.

The project had a field component, implemented in Gabu region[4] and a policy and documentation components of national scope.

[1] Actual date of MTR accomplishement. Planned date was Feb. 2013.
[2] Due to some unavaidable political circumstances the Terminal Evaluation (**TE**) could not be carried out though several ateemps were made by the UNDP-RGB during 2016-2018.
[3] Resilience Project closing report 2018
[4] Annex **H**: Description of Gabu Field Sites correlated to climate changed data

- **Terminal Evaluation**

The objective of the mission, as proposed in the Terms of Reference (**ToR**), included in annex-**A** is to provide the project partners (GEF, UNDP) and the Government of Guinea-Bissau with two independent TE consultants recruited by the UNDP on behalf of the project. The main purpose of the TE is to promote responsibility and transparency, evaluate and disseminate the project's achievements, summarize lessons learned, contribute to the overall evaluation of the strategic global results of the GEF and measure the convergence of the project with other UN priorities.

Terminal Review methods included extensive documentation review, primary & secondary data analysis, in-person face to face key informants'interviews and FGD with direct beneficiaries, and direct observations[5].

This TE report is meant to provide the project partners- GEF, UNDP, FAO, AfDB, and the Government of Guinea-Bissau and other interested people with an independent TE of the project.

The methodology and analytical process were comprehensive, providing rigor and validity through triangulation of both sources and methods. The evaluation team conducted visits to all project sites and conducted Key Informant's Interviewed (**KII[6]**) of **23** (from DNP, DG Ag, DG RH,DGP, INM, INPA, AAAC, GF Gabu, GF Benfica, GF Camalidba, GF Camalidja, GF Sedjo, UNDP,GEF focal point, GoFP) Experts & decision makers,& about **237** participants- representatives of NGOs, direct beneficiaries, communities people of the project, including national and local government officials[7], UNDP officials, former project management unit's team members, and GEF focal point working in Bissau.The terminal evaluation assessed five project dimensions: project formulation, project implementation, including monitoring and evaluation(M&E), relevance, effectiveness, sustainability, efficiency of outcomes and impact.

The project strategy is based on the priority adaptation option identified in Guinea-Bissau's **National Adaptation Programme of Action (NAPA**) submitted to GEF in 2009[8]. The impacts of climate change affects on Guinea-Bissau's agricultural production and food security, livestaock, water resources, human health. Predicted climate change scenarios are likely to constrain long-term development.

The Project objective was to increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau. Three outcomes contributed to the Project objective[9]/[10]:

[5] UNDP Evaluation Guidance for GEF-Financed Projects, version for external evaluators, March, 2011

[6] KII=Key Informants Interview

[7] Evaluator's primary data, Feb.2019

[8] GEF, 2009

[9] Adapted from Project Identification Form (PIF), submitted toGEF,2009

[10] *'increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau'*

1. Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock management.
2. Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected region.
3. Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes are disseminated.

Table2: Evaluation RatingTable

Criteria	Rating	Justification
1.Monitoring and evaluation (4.28)		
M&E design at entry	**S**	Project design & foreseen results are of SMART quality-(**satisfectory**).
M&E plan implementation	**MS**	The project efficiently and systematically recorded and managed relevant information on progress of activities, good data collection and data management. Monitoring and evaluation findings, e.g. from the MTR incorporated into project workplans.
Overall quality of M&E	**MS**	Some deficiencies in the project's indicator framework were corrected after the midterm review. Actual project monitoring was conducted seriously and professionally, and monitoring results played an important role in managing the project. Therefore, the terminal evaluation rates design, actual implementation and overall quality of the project's monitoring and evaluation system as Moderately Satisfactory-MS.
2.IA &EA execution (4.39)		
Overall quality of project implementation by UNDP	**S**	UNDP provided adequate, timely administrative, financial & technical support throughout the project implementation timeframe.
Quality of execution-executing agency performance	**MS**	Implementing and executing agencies provided adequate support to a motivated and empowered PMU.
Overall quality of implementation/execution	**MS**	UNDP and Secretariat of state Environment effectively collaborated & participated in the management structures and ensured cooperation at central & field levels. **Moderatelysatisfactory**.
3. Assessment of outcomes (5.39)		
Relevance of the project outcome	**R**	Project strategy is an explicit action of RGB's NAPA.
Effectiveness	**S**	All project targets and achievements, output targets achieved.[11]
Efficiency	**S**	Project's financial expenditure was 4,320,987.16 USD (100.02%) as timely released resources &delivered outputs within expected timeframe and excellent rates of return.

[11] For Summary of projecttargets and acheivements, please see Annex-**I**

Criteria	Rating	Justification
Sustainability (likely)		
Financial resources	**L**	Mid-term and final sustainability implemented through donor support and interest shown by the Secretariat of State of Environment in continuing efforts, based on the project outcome, 5 new follow-up projects are in the pipeline with strong commitments from foreign donor's support.
Socio-political	**L**	Socio-political environment was substantially positive abd supportive. Local government and Secretariet of Environment Department support high, if mainstreams for said organizations not affected.
Institutional framework and governance	**L**	Mainstreaming of the project's recommendations regarding policy reform from the point of view of climate change, disaster management issues into the national agriculture, livestock, water policy (and others) are already in place.
envoronmental	**ML**	**Moderately likely**of a major disturbance that would not severely damage productive infrastructure and provoke population changes
Overall likehood of sustainability	**ML**	5-10 years' sustainability likely in absence of major disturbances, due to land tenure security, local government support and accretion/ erosion ratio consistently more than one
Impact (Significant)		
Overall impact of the project results	**S**	logical framework with impact indicators as designed in Project document acheived, as a result Increased in agriculture, livestock produes, prices of products are high &substantially increased, water ponds, tubewells, seed bank, dam continue to work as during project period.In order to feel more impacts of the Project, the results obtained must be replicated throughout the region, as the Gabu Region has approximately 750villages;the Government should continue to support successful implemented actions.

(For rating scales and definitions please see **Annex- F)**

Conclusions, recommendations & lessons

Conclusions

i. The project preparation was participatory and consultative - resulted in a quality project document, the interventions were logic and relevant, the logical framework was well constructed and the project was very consistent with Guinea Bissau's National priorities and international commitments.

ii. At the end of the Project, all planned performances were successfully acheived those can be utilized with high confidence level to other Guinea-Bissau areas and lessons learnt can be successfully disseminated.

iii. No one of the 12 partners of the Project did face substential problems during the implemention of the planned activities, even though the

difficulties encountered during implementation, the project did manage to achieve its main objectives and overall outcomes at the end of Project period.

iv. All 14 villages were equipped with '*Contingency Plans*'[12] and actively managed and therefore provided rapid responses to some flood events. Elaborated the Plan of engagement of the key actors in the management of climatic risks. Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporated into the climate change dimension since March 2015.

v. Nnew documents yieided: Durable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological Charter and Vulnerability of the Region of Gabu.

vi. Technically developed and approved the PIF of the project "Assembly and Operationalization of an Early Warning Systems.Developed the NAP Project that will be submitted to the FVC through the Readiness Fund (3,000,000 USD); Strengthened the capabilities of the National Institute of Meteorology in climate prediction;Prepared and disseminated annually the Agro-meteorological Bulletins of the follow-up of the agricultural campaign through the Multidisciplinary Working Group; Achieved: Average yields of major dry cereal crops increased: bacillus maize: 962 kg / ha (48%), sorgum: 919 kg / ha (30%); black maize: 886 kg / ha (32%), peanut: 1030 kg / ha (32%) and rice: 1615 kg / ha (50.46%).Availability of guaranteed food for two more months (last joint mission report, June-July 2017) through storage of cereals in banks, improved animal health - provision of medicines; introduction of improved breeds of animals and cultivation of forage plants; The average water consumption per inhabitant increased by 39.05 liters in the plots covered by the Project Mobilized more than 113000 m3 additional water per year.

vii. The number of total beneficiaries in the 14 villages was 13,000 inhabitants. More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project.

viii. Elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video filmes in Portuguese and English, 300 Bidigor

[12] *A contingency plan is a course of action designed to help an organization respond effectively to a significant future event or situation that may or may not happen. A contingency plan is sometimes referred to as "Plan B," because it can be also used as an alternative for action if expected results fail to materialize. Contingency planning is a component of business continuity, disaster recovery and risk management.*(*source*: https://whatis.techtarget.com/definition/contingency-plan) Here, Basic objective of this initiative was to support the integration of disaster risk reduction and climate change adaptation.

Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www.climatechange-gb.org) and facebook (climate change).

ix. The project final total budget amounted to 4,320,000 USD. 5,300,000 USD grant was allocated for this project from the Least Developed Country Fund (LDCF), out of which 130,000 was initially utilized for project document formulation by an external consultant and remaining 4,000,000 USD left for project activities. To this amount 320,000 USD grant was added by UNDP. But at the end of the project, UNDP's spent amounted to 467,548.16 USD which was utilized for the project. The Government of RGB through its Secretariat of environment provided an in-kind contribution valued at 1,500,000 USD. Additional in kinds grants were secured from FAO, afDB. At the end of the project period, 100.02% of total budget was utilized for the project during 2011-2017 (see table 5 for details). The project co-financement (in kinds) has not been properly monitored.

x. The project results included three outcomes articulated in several outputs. Results were well formulated, i.e. they used change language and were consistent with SMART criteria. All Outputs support 3 outcomes which contributed for expected results and led to the fulfillment of oneobjective of the project. The project logic was solid and consistent. Realization of the project's effects (outcomes) led to the change, provided project assumptions hold true.

xi. Out of 18 recommendations of the Mid term-evaluation 13 were fully implemented, 4 were partially implemented and, 1 could not be implemented.

xii. The project counted with a good monitoring and evaluation system, which was improved by suggestions made by the midterm review team. Monitoring was appropriate to local realities and was conducted, at least partially, as regular tasks of line government agencies. Actual project monitoring was conducted seriously and professionally, and monitoring results played an important role in managing the project. Therefore, the terminal evaluation rates design, actual implementation and overall quality of the project's monitoring and evaluation system as Moderately Satisfactory-MS.

xiii. Both the implementing (UNDP) and executing (Secretariat of State of Environment) agencies provided adequate and proactive support both in technical and administrative terms, thus enhancing significantly the performance of the project. Therefore, the terminal evaluation respondents' rates both agencies' performance as Moderatelysatisfactory. However, a better coordination at field level could have avoided the significant transaction costs involved in the project's field activities.

Recommendations

- **Corrective actions for the design, implementation, M&E of the project**

i. Issues of availability of inputs after project end may be considered, and, when suitable, the possibility of developing local alternative to expensive or unavailable inputs, e.g. organic fertilizer production, integrated pest management or unconventional livestock feed. Suitability will depend on local factors and expected yields based on the effectiveness of the alternative inputs, e.g. cattle protein requirements are notoriously more rigid than land animals. Moreover, individual initiative seems to be an important factor of sustainability, with more engaged or pro-active households leading solutions to shortcomings and limitations. Thus, project field staff could have worked to identify champions among the communities and, as the project did, facilitated the seed bank to serve as venue for the exchange of solutions and sources of seed money to cover for pre-harvest expenses.

ii. Based on the theoritical and practical aspects it is necessary to conduct in Depth research on 'gender and climate change', analyze concerns of unequal environmental decision-making processes. Based on the gender análisis formulate next Project to establish equal opportunities based on different needs of men and women, boys and girls.

- **Action to follow up or reinforce initial benefits from the project**

iii. Implement the second phase of the Project (*Promotion of Intelligent Climate Agriculture in the Lesta Region of Guinea-Bissau*) based on the lessons learned from the first phase of the Project.

iv. The inter-institutional partnership should continue to function and the government should continue to support populations with the availability of short duration, high yielding varieties of Beans, Rice, Amedoin, Maize and Sorghum adaptable to changed climatic conditions.

- **Proposal for future directions underlining main objective**

v. Water Management Committees and built hydraulic infrastructures should continue their work in order to ensure the sustainability of these infrastructures.

vi. In order to enhance more impacts of the Project, the results obtained in pilot phase must be replicated throughout the region, as the Gabu Region has approximately 750 villages. The Government/private investors should participate/continue to support successful implemented actions.

vii. Introduce motor-cultivators, tractors, grain grinding and deboning machines (powertiller and thersher) and provision of farming mecheneries & equipments, excavating holes/water reservoir using

the solar panel to pump water at the same time, encourage farmers to Organize cooperatives for the marketing of agricultural products.

viii. Support in the conservation of community forests of village, Construction of more dams needed for smooth Flow of wáter, Support village communities for disaster recovery and 'contengency planing' maintenance by updating regularly, Include local community to M&E committees.

- **Lesson Learned**[13]**/**[14]

As exposed above, the project has been successfully implemented, has achieved most of its targets and has had significant and sustainable impacts, at least within its geographical scope and in the project span time.

The terminal evaluation identifies the drivers behind this success as:

i. The project governing structures included all relevant stakeholders, at both national and local level. Inclusion of the main implementing partners, at national level, in the Project streering committee has facilitated implementation at field level and will serve to facilitate the project's policy link, i.e. adoption of policy mainstreaming recommendations submitted by the project. Moreover, the co-management committees at Gabu region level worked to ensure cooperation and synergies with the local government, NGOs and field offices of the national agencies involved. As the steering committee could not 'sit' periodically as planned (bad practice) performance and success of the project was not 'satisfectory' in every aspect. In future projects, this 'practice' should be avaided.

ii. This project outcome results Played catalytic role in formulation of new 5 projects with commitment from donors for financial support to continue pilot activities of the project.

iii. In mainstreaming of climate change options in 5 policies.

iv. The empowerment of the project management unit was critical for project success. This is not only due to the expertise mix provided by its staff, but, more importantly by the dynamism and capacities of the project manager. Future projects must encourage the selection of project manager that possess leadership skills, and whose technical capacities are known and recognized by relevant stakeholders.

v. Detail and thorough monitoring and effective reporting of monitoring data, in terms of project data (financial expenditure and indicator framework), as well as beneficiaries have effectively supported adaptive management.

vi. Including communities, NGOs in the management of resources, they are being supported with livelihood alternative that allowed them to abandon, or at least decrease, activities detrimental to ecosystem functions that provide critical adaptive services in this case.

[13] Primary and secondary data /information based

[14] lessons that have been taken from the evaluation, including best practices that can provide knowledge gained from programmatic and evaluation methods used, partnerships, financial leveraging, that are applicable to other GEF and UNDP interventions.

ii. Acronyms and Abbreviations

AfDB	African Development Bank
AWPs	Annual Work Plans
BP	Business Plans
CPD	Country Program Document
GB	Guinea-Bissau
GEF	Global Environmental Fund
GCCA	Global Climate Changes Alliance
INEP	National Institute of Studies and Research
LDCF	Least Developed Country Fund
LFW	Logical Frame Work
M&E	Monitoring and Evaluation
MADR	Ministry of Agriculture and Rural Development
MTR	Mid Term Review
PA	Protected Area
PIR	Project Implementation Report
PMU	Project Management Unit
PPG	Project Preparation Grant
PRODOC	Project Document
PSC	Project steering committee
QPR	Quarterly Progress Reports
RBM	Results Based Management
RTA	Regional Technical Advisor
SEADS	Secretariat of State for the Environment and Sustainable Development
SNAP	National Progrected Areas System
SPWA	GEF's Strategic Program for West Africa
TE	Terminal Evaluation
ToR	Terms of Reference
UN	United Nations
UNDAF	United Nations Development Action Framework
UNDP	United Nations Development Program
UNEG	United Nations Evaluation Group
USD	United State Dollar
%	percentage

1. Introduction

Guinea-Bissauis one of the most climate vulnerable countries in the world. This country is highly vulnerable to climate change because of a number of hydro-geological and socioeconomic factors such as geographical location, topography, extreme climate variability, poverty incidence and dependency of agriculture on climate. Presently this country has been experiencing different hydro-meteorological disastrous events that have never been experienced before. Along with other natural disasters, shortage and shifting of rainfall are expected to be impacted by climate change in full dependency on ***rainfed agriculture*** in the future. Other factorslike sea level rise, weather variability severely affecting the livelihoods of majority of its people. Climate change-related rainfall timing change, salinity intrusion and extreme events- like flush floods, are affecting all facets of their livelihoods. Concerns about climate change impacts have led government institutions, NGOs and private sectors to undertake numerous initiatives to develop and test adaptation[15] knowledge, strategies and technologies. How such knowledge from different sources can systematically be organized and transferred to potential users at various levels is arguably the most important key question.

The project was based on the priority adaptation option identified in Guinea-Bissau's **National Adaptation Programme of Action (NAPA**). '*Participatory evaluations on vulnerability and adaptation carried out under NAPA on the basis of various studies and sector consultations already made, revealed that the sectors that ensure the subsistence of the overwhelming majority of Guinean households and constitute the country's economic basis are the most vulnerable ones to climate change: the agrarian (agriculture, forests and livestock), and the water resources and the fishing sector. Anthropic pressure on natural resources, with increasingly onerous and worrying impacts, aggravates this vulnerability'*[16].

'The impacts of climate change on Guinea-Bissau's agricultural water resources will affect human health, agricultural production and food security. Predicted climate change scenarios are likely to constrain long-term development through: (i) increased temperatures, affecting crops, vegetables, livestock productivity, disease spread and water availability; (ii) changing rainfall volumes and variability, including more frequent events of short and intense rains, causing flush-floods in several catchment areas; (iii) progressive sea level rise and salt water intrusion. Consequently, a major challenge for Guinea-Bissau is to mainstream climate change adaptation measures into integrated in all components of agricultural and water resource management across different institutional, social and spatial frameworks. Technical capacity of both government and local communities to manage the emerging threats imposed by climate change is required. The likely impacts of climate change are still poorly understood and the need for adaptation not sufficiently incorporated into

[15] Climate change adaptation is a response to global warming, that seeks to reduce the vulnerability of social and biological systems to relatively sudden change and thus offset the effects of global warming (Source: Wikipedia)

[16] source: http://preventionweb.net/go/21647

relevant frameworks. The project built adaptive capacity and increases the agriculture and water sector's resilience to climate change'[17].

Financial resources from the Least Developed Countries Fund (LDCF) was used to address systemic, institutional and individual capacity gaps to manage agricultural and water resources for human, livestock, agricultural and other uses in the face of a changing climate, which included focused capacity-building measures that are additional to the existing baseline both at the national and regional level for agrarian and water planning and management systems, and development of policies, strategies, decision-making processes, relevant budgeting and monitoring systems. The project also supported the demonstration and implementation of climate-resilient water and land management techniques located in the semi-arid rural area of eastern Guinea-Bissau. Lessons-learning and relevant knowledge dissemination equally enhanced.

The Project Objective was to '*increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau'*. The following **Three outcomes** were supposed to contribute to the acheivement of the objective of the project[18]:

1. Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock management.
2. Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected region.
3. Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes are disseminated.

- **Purpose of the evaluation**

Terminal evaluations for UNDP-supported GEF-financed projects are mandatory, unbiased, independent assessments of the relevance, effectiveness, efficiency and impact of a project in achieving its intended results, as well as unintended results, performance of the project partners and the sustainability of outputs as contributions to medium-term and longer-term outcomes[19]

The purpose of the terminal evaluation of a UNDP-GEF project is to promote accountability and transparency by assessing and disclosing the extent of project accomplishments, and, more importantly, to synthesize lessons that can help to improve the selection, design and implementation of future GEF financed UNDP activities.[20]

[17] TOR for Terminal evaluation, 2018
[18] Adapted from Project Identification Form (PIF), submitted toGEF,2009/ PRODOC 2011
[19] UNDP, 2012, GEF, 2008
[20] UNDP ,2012

- **Scope and methodology of the evaluation**

The terminal evaluation was conducted in January-February 2019 by an international consultant with expertise in the GEF project cycle and climate change adaptation, gender, agriculture and policy with the field assistance of the project staff.

The terminal evaluation has followed the guidance issued by UNDP and GEF for the conduction of terminal evaluations and has therefore triangulated information from primary sources, by means of field visits and interviews with project stakeholders and beneficiaries, as well as secondary sources, including all documentation produced by UNDP as well a peer review and review of literature/internet.

Project stakeholders included representatives of the implementing agency, UNDP, officials of the executing agency, the environment, agriculture, water resources, livestock, meteorological Departments, as well as NGOs-the other implementing partners. Moreover, local government officials at Gabu, as well as representatives of the household beneficiaries were interviewed at all project sites. Qualitative methods were used for the collection of primary information: semi-structured interviews for officials and focus group discussions for project beneficiaries. Documentation reviewed included project reports, particularly Project document, Project Implementation Reports, financial documents, minutes of Project Steering Committee's meetings, as well as policy documents and peer reviewed literature.

Scope of evaluation

A. Design and formulation of the Project
B. Project execution and adaptive management
- Management mechanisms
- Financing and co-financing
- Monitoring and evaluation systems at the project level
- Involvement of interested parties

C. Project Results
- National Implication
- Integration
- Sustainability
- Catalytic function
- Impact

This terminal evaluation field visits were carried out by two independent consultants from the 28th of January to February 08, 2019. Before the beginning of the TE, the inception report was sent to UNDP detailing the assessment methodology. UNDP validated it and shared it to other stakeholders. Theinception report was a data collection tool designed by Team leader during the desk review of the relevant documents (from 15th to 20th of Jan.2019). It aimed at facilitating the process to data collection during the field mission (face-to-face consultations, key informant's interviews, Focus group discussions and direct observations of project results and activities). All project sites were visited. The mission itinerary and list of persons interviewed can be found at

Annex-B. 54% of beneficiaries consulted through FGD are shown in below table **3.**

Representatives from project beneficiaries, i.e. communities residing at the Gabu region at all project sites were interviewed by focus group discussions, included women. Discussions were led by International Consultant and a field assistance provided support as translator for the beneficiaries in local language.

An NGO oficial of the project were present in FGD-interviews with community members. Although this should normally be avoided[21] in this case, the trust developed between the project implementing partners and the communities made it advisable that the evaluator was accompanied at all times by said official and field assistant to allow a more effective interaction, which would not have taken place were the communities left alone with total strangers, as was the case of the evaluation team. From this table 3, it can be found that 54% of total benficiaries were consulted through FGD.

Table 3: Beneficiary Interviewees/FGD[22]

date	Project sites at Gabu region	Name of NGO working	FGD conducted with (persons)	Population of the area (Total)	Total, Direct beneficiaries of the Project (households)	% of benefeciaries attended the FGD
31/1/19	Madina Benfica	APESS GDVR	36	741	123	29
31/1/19	Camadjaba	APESS GDVR	89	605	101	88
1/2/19	Camalidja	APESS	46	790	132	35
1/2/19	Sedjo Mandinga	APESS	66	628	105	63
	Total	**2 NGOs**	**237**	**2764**	**461**	Average:54%

- **Structure of the evaluation report[23]**

As per the *'UNDP-GEF terminal evaluation guideline for GEF financed projects version for external evaluators of 17.3.2011'*, this evaluation report is structured, as follows:

Title and **opening page** Provided the following information:

i. Name of the UNDP/GEF project ☐ UNDP and GEF project ID#s. ☐ Evaluation time frame and date of evaluation report ☐ Region and countries included in the project ☐ GEF Operational Program/Strategic Program ☐ Executing Agency and project partners ☐ Evaluation team members ☐ Acknowledgements.

ii. **Executive Summary** 2 -3[24] pages that: ☐ project summary table☐ project description(brief) ☐ evaluation rating table☐ Summarizes principle conclusions, recommendations and lessons learned.

[21] UNDP, 2012
[22] Evaluator's primary source, 2019
[23] As per UNDP evaluation guidance for GEF-financed projects version for external evaluators, final draft, march 17th 2011.
[24] Could not manage in 2-3 pages, it was 8 pages.

iii. Acronyms and Abbreviations

1. **Introduction**☐ **Purpose of the evaluation** o Briefly explain why the terminal evaluation was conducted (the purpose), why the project is being evaluated now, why the evaluation addressed the questions it did, and the primary intended audience. ☐ Key issues addressed o Providing an overview of the evaluation questions raised ☐**Methodology of the evaluation** o Clear explanation of the evaluation's scope, primary objectives and main questions. The Evaluation ToR may also elaborate additional objectives that are specific to the project focal area and national circumstances, and which may address the project's integration with other UNDP strategic interventions in the project area o Stakeholders' engagement in the evaluation, including how the level of stakeholder involvement contributes to the credibility of the evaluation findings, conclusions and recommendations.☐ Structure of the evaluation o Acquaint the reader with the structure and contents of the report and how the information contained in the report will meet the purposes of the evaluation and satisfy the information needs of the report's intended users ☐ Evaluation Team o Briefly describing the composition of the evaluation team, background and skills and the appropriateness of the technical skill mix, gender balance and geographical representation. ☐ Ethics of The evaluators should note the steps taken to protect the rights and confidentiality of persons interviewed. Attached to this report a signed 'Code of Conduct' form from each of the evaluators.
2. **Project Description and development context** ☐ Project start and duration ☐ Problems that the project seeks to address ☐ Immediate and development objectives of the project ☐ Main stakeholders
3. **Findings** (In addition to a descriptive assessment, all criteria marked with **(*)** was rated, the ratings are: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory). 3.1 **Project Formulation**☐ Analysis of LFA (Project logic /strategy; Indicators) ☐ Assumptions and Risks ☐ Lessons from other relevant projects (e.g., same focal area) incorporated into project implementation ☐ Stakeholder participation (*) ☐ Replication approach ☐ Cost-effectiveness ☐ UNDP comparative advantage ☐ Linkages between project and other interventions within the sector, including management arrangements **3.2Project Implementation**☐ The logical framework used during implementation as a management and M&E tool ☐ Effective partnerships arrangements established for implementation of the project with relevant stakeholders involved in the country/region ☐ Feedback from M&E activities used for adaptive management o Financial Planning o Monitoring and evaluation (*****) o Execution and implementation modalities o Management by the UNDP country office o Coordination and operational issues **3.3Project Results**☐ Attainment of objectives (*****)☐ Country ownership ☐ Mainstreaming ☐ Sustainability (*****) ☐ Catalytic Role ☐ Impact
4. **Conclusions, recommendations& lessons**
5 **AnnexesA**. TOR **B**. Itinerary **C**. List of persons interviewed **D**. Summary of field visits **E**. List of documents reviewed **F**. Questionnaire used and

summary of results **G.** signed Evaluation Consultant Agreement Form.**H** accomplishments of project planned activities

2. Project Description and development context

- **Project start and duration**

'The Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors Project' concept was developed in June, 2009, and the Project Identification Form (PIF) was approved by the GEF council in July, 2009. A project preparation grant (PPG) of USD 130,000 was used to develop the full project document, which was submitted and approved in December 2010 and finally endorsed in February 2011 (see the below table-4 for details dates and events). In real sense the Project started its work in 2012 and ended in December 2017.

Table 4: Main Stages of the Project

Stages	Date
▪ Date of submission of the Project Identification Sheet (PIF)	▪ June 3th 2009
▪ Approval date of the PIF	▪ July 1st 2009
▪ Approval by the GEF Secretariat of PRODOC (CEO Endorsement)	▪ December 30th 2010
▪ Approval by the Local Project Review Committee (CLEP)	▪ February 17th 2011
▪ Signature of the Project Document (PRODOC)	▪ April 12th 2011
▪ Recruitment of the National Coordinator	▪ August 2011
▪ Start-up/Inception workshop	▪ 5 – 8 March 2012
▪ MTR	▪ December 2015[25]
▪ End of Project	▪ June, 2017
▪ Terminal evaluation	▪ Jan-Feb. 2019[26]

Project activities implementation started in 2012, instead of 2011 with a timeframe of four years, i.e. 2012-2016. However, the final closure of the project did not occur till June, 2017. The delay to end the project was mostly due to the process of procurements of some planned works like dams, constructions of seed banks in hard to reach areas, purchasing equipments and heavy mechineries etc. of the project and revision of the project document after commitment of additional (in kinds funds) by two different development

[25] Actual date of MTR accomplishement. Planned date was Feb. 2013.
[26] Due to some unavaidable political circumstances Terminal evaluation could not be carried out though several ateemps were made by the UNDP-RGB during 2016-2018.

agencies (FAO, AfDB) for the 'Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors project'

- **Problems that the project sought to address**

The *'Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors project'* was developed between 2009 and 2010 under the past programming cycle of the UNDP and country program document. An independent evaluation of this programming period, assessment of development results, conducted in 2010 recorded increasing environmental threats and degradation, as well as strengthened focus of UNDP priorities towards climate change and adaptation. This project was one of the first projects of the UNDP portfolio to give answer to adaptation needs in agriculture and water sectors.

Consistent with the previous programming cycle, and in line with the national development priorities and the lessons learned from the assessment of development results, the current country program document focuses on democratic governance and human rights, pro-poor growth with equity and climate change, disaster risk reduction and response.

This project has contributed, beyond its own strategic area, i.e. climate change and development, to UNDP's strategic area pro-poor economic growth with equity, specifically to outcome 2 that aims to**– '***Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions'*and has contributed through trainings and technology transfer to enable population residing in climate change vulnerable Gabu area to develop viable agricultural production resulting in significant income increases for 15000 households.

Moreover, the project has promoted and facilitated with the contribution from FAO for establishments of seed banks, tube wells that can act as social safety nets by developing contingency funds and providing venue for exchange of ideas and solutions.

- **Immediate and development objective of the project**

Immidiate and development objective of the project is to increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau.To do that The project logic revolved around outcome 1 and 2 (Outcome 1 – Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock resource management. Outcome 2 – Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions) which involved the design and implementation of adaptation measures, basically improved adaptation of agricultural, livestock rearing practices /methods and enhanced livelihood options. Outcome 3 should collect lessons learned from the field and revise and suggest modifications to the main government policies affecting the climate change issues in agriculture, livestock, water resources use áreas. Outputs Will support acheiving 3 outcomes thus

reaching objective of the Project, which have been shown in the following table-5.

Table 5: Outputs, outcome and objective correlations

Outputs»	***Outcomes»***	***Objective***
Community based adaptation initiatives (villages management plans – Contengency Plans) defined for 14 villages in Gabu-region	1. Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock management.	To increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau
Climate resilient and community-based agriculture, livestock, water sector adaptive measures mainstreamed and implemented.		
Climate resilient livelihood options enabled and promoted.		
Forecast system (temperature and rainfall improved)		
5 keys Policies were made more climate proof.		
2 new documents: Sustainable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological and Vulnerability Maps of the Region of Gabu		
The institutional capacity of INM was strengthen and the technical staff trained to adressed the climate changes issues.		
National planners and policy makers trained in climate-resilient development	2. Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected region.	
Gabu region government officials, NGO workers trained in facilitating community-based adaptation in agro-based resilience programmes		
Gabu regional decision makers trained in promoting and facilitating local climate risk resilience.		
Gabu based NGOs/community-based organizations trained in climate risk reduction. Given the role and influence of civil society organizations in the communities, the UNDP sought NGOs contribution to the effectiveness of project interventions, especially with respect to marginalized and vulnerable groups.		
Community awareness campaign on climate risk and community-based adaptation defined and implemented		
Policy effects on livelihood, resilience analyzed, and policy recommendation mainstreamed and developed	3. Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes are disseminated.	
Land use policies promote sustainability of protective system in Gabu regional areas		
Coordination mechanism for climate-resilient policy development and local level contingency planning establishments		
Coordination mechanism for climate-resilient policy mainstreamed and acted accordingly		
Web-site and facebook addresses opened and keys informations incorporated for publics.		

- **Baseline indicators established**

The following policies / plans were not climate-proof: National Plan of Agricultural Investment (PNIA), National Program on Food Security, Water Directive / Water Code, Poverty Reduction Strategy II., livestock policy, wáter resource policy, land use policy was not in place etc.As of results after the application of the tool at project inception, Very low level of incorporation, there was any current seasonal climate forecast system is in place, Once in place for at least 6 months, a baseline in terms of potential and actual end-users was set, National and/or regional (Gabú) average agricultural productivity for key crops to be applied as baseline for comparison, As per WFP data for selected villages among target sites, average yields of main crops were recorded , there was not available – target households for improved water management were not yet established at the baseline period. Stakeholders to be targeted for awareness-raising activities was defined upon inception, as of results after the application of the tool at project inception it was found very low level of incorporation.

- **Main stakeholders**

The following main stakeholders were identified:

Gabu Regional Government; Secretariat of State of Environment; Ministry of Agriculture and Rural Development (General Directorate of Agriculture; General Directorate of Livestock; General Directorate of Forestry); Ministry of Energy and Natural Resources (General Directorate of Water Resources); Ministry of Economy, Planning and Regional Integration (General Directorate of Planning); State Secretariat for Transportation and Communications (National Directorate of Meteorology), Gabu based 4 local NGOs.

- **Expected results**

The project results included three outcomes articulated in outputs. Results were well thought and later formulated, i.e. they use change language and are consistent with SMART criteria. Based on the acheivements/performance and results of the Project, as stated above evaluators could mention that the objective of the Project "*To increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to water and agriculture sectors in Guinea- Bissau*" has acheived sucessfully.

Given the fact that the project was being implemented by the Envoronmental secretariat, in close coordination with other relevant ministries, it would be, a priority, safe to assume that such policy recommendations would be seriously considered and mainstreamed (incorporated) into the other policy frameworks, thus the adaptation measures of outcome 1, 2 were indeed successful.

Twelve (12) implementing partner organizations have acheived all planned activities. Implementing agencies, their working áreas, planned target in numbers for the Project period, acheivements at the end of the Project and if not acheived what were the reasons- all these supportive information have been shown in a table given at **Annex I**. From that table of Annex I, it can be seen

that the no one of the partners of the Project did face any substential problem during the implemention of the planned activities,even though the difficulties encountered during implementation, the project did manage to achieve its main objectives and overall outcomes and thus rated the project's effectiveness as **satisfactory.** The use of financial resources has been relatively efficient in relation to the different activities that were supported and the level of implementation of the expected outputs.

3. Findings

3.1 Project design/formulation

As the project preparation was participatory and consultative and resulted in a quality project document. the intervention logic is relevant, and the logical framework is well constructed. The project is very consistent with Guinea Bissau's national priorities and international commitments. The project logic was solid and consistent. Realization of the project's effects. Outcome 1 – Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock resource management. Outcome 2 Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions lead to the objective, provided project assumptions hold true. Based on the results, it was revealed that the project mainstreamed Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporating the climate change dimension since March 2015. Furthermore, elaborated 2 new stretegic documents: 1. Durable Financing Strategy for Adapting Climate Change in the short, medium and long term and 2. The Agro-ecological Charter and Vulnerability of the Region of Gabu.

- **Analysis of Project Logical Frame-work (LFA)/Results frame-work (project logic/strategy; indicators)**

Project's logframe indicators and targets, assessed how "SMART" the end-of project targets were (Specific, Measurable, Attainable, Relevant, Time-bound), How the project's objectives and outcomes or components are enough clear, practical, and feasible within the time-frame.**Project logic** was that if thegovernment of GB allow and facilitate smooth implementation of the project and its activities in timely mannar, if the institutional capacities co-ordinate and finance the management, If the coordination and the dialogue among departments, institutions, sectors and communities, donors are well and Good, then, the mainstreaming of climate changes policy/adabtation issues into national policies regarding agriculture, livestock, wáter resources will fucntion effectively in adapting in chaanged climatic situations for better resilience of communities will be a success. Hence, as indicated on the prodoc's logical framework and expressed above, the project had three main results (outcomes) required to obtain the project's objective to increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to

water and agriculture sectors in Guinea- Bissau and Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock resource management.

The logical framework provides concrete targets per result (outcome) which allowed an effective measurement as well as the planned outputs (products) required for the achievement of the results. In this regard, the following findings and table shows the expected indicators at the objective and outcome level and their original targets and acheivements by the end of the project timespan.

At the end of the project, as the project facilitated mainstreaming climate changes issues into government's existing 5 policies. On the other hand, external donors pleased to support the vulnerable people of Guinea-Bissau to mitigage/adapt in the changed situations utilizing different technologies. Thus, with the facilitation of the project, Guinea-Bissau Achievied new Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporated the climate change dimension since March 2015.

Elaborated 2 new documents: sustainable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological Charter and vulnerability of the Region of Gabu.

Elaborated and technically approved the PIF of the project" *Operationalization of an Early Warning System"* (US $ 6,000,000 - finance from LDCF).

Funded the Scaling-up of the *'Climate-Intelligent Agriculture in the Eastern Regions of Guinea-Bissau'* (USD 10,000,000, in partnership with BOAD - Adaptation Fund) and *'Strenghthen the resilience of vulnerable coastal areas and communities to climate change in Guinea-Bissau'*(USD 12,000,000 UNDP/GEF).

€ 4,000,000 from the European Union to implement the 'Global Climate ChangesAlliance (GCCA)'in which approximately € 350,000 is earmarked for the operationalization of the Secretariat for the implementation of the Adaptation Durable Financing Strategy in the short, medium and long term.

Mobilized USD 60,500 through a partnership with national implementing partners (Directorate General of Engineering and Rural Development, Directorate General of Agriculture and the National Institute of Agrarian Research) for the breeding and raising of animals, acquisition and distribution climate friendly seeds.

$ 877,000 to *'support climate change risk management in the Gabu, Bafata and Cacheu regions'* through development partners (GoGB - $ 57,000, EU - $ 400,000, GEF / LDCF - $ 300,000, Australian Government - $ 70,000 and GEF / SGP - USD 50,000.)

Achivied: All 14 villages were equipped with Contingency Plans and actively managed and therefore provided rapid responses to some flood events.

Elaborated the Plan of engagement of the key actors in the management of climatic risks. Achieved by: More than 6 key agencies (DGAgriculture, DGEDR, DGP, INPA, DGRH, Gov. Regional de Gabu).

Achivied: Technically developed and approved the PIF of the project *"Assembly and Operationalization of an Early Warning Systems."*Developed the NAP Project that will be submitted to the FVC through the Readiness Fund (3,000,000 USD);

Strengthened the capabilities of the National Institute of Meteorology in climate forecast;Prepared and disseminated annually the Agro-meteorological Bulletins of the follow-up of the agricultural campaign through the Multidisciplinary Working Group.

Achieved: Average yields of major dry cereal crops increased: Bacillus Maize: 962 kg / ha (48%), Sorgum: 919 kg / ha (30%); black Maize: 886 kg / ha (32%), Peanut: 1030 kg / ha (32%) and Rice: 1615 kg / ha (50.46%).

Achieved: Availability of guaranteed food for two more months through storage of cereals in banks, improved animal health - provision of medicines; introduction of improved breeds of animals and cultivation of forage plants.

Achieved: The average water consumption per inhabitant increased by 39.05 liters in the plots covered by the Project.

Mobilized more than 113000 m3 additional water per year. Utilizing dam's facilities established by the project.

Achivied: The target population in the 14 villages was 13,000 inhabitants. More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project.

Achieved: Elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video filmes in Portuguese and English, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project emblamed caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website:www.climatechange-gb.org and facebook (climate change). But unfortunately, after completion of Project period, the website is disfunctional due to shortage of funds. But 'fb' account is still alive.

The project did not suffer any substantive changes on its environmental or development objectives during its implementation. The project suffered considerable delays during 'inception period' and during the hiring the project staff process as well as the organization of the inception workshop. GEF considers adaptive management if the original objectives were not sufficiently articulated or if the project was restructured because overly ambitious original objectives or if there was a lack of progress. The evaluators consider that this is not the case. The project suffered numerous delays during its initial phase due to the 2012 coup d'état. The products the project intended to attain were not modified and the activities shifted to other years as it was reflected on the AWPs

and approved by the Steering Committee. Nevertheless, the original objectives were not modified, and they were accomplished.

The project logic revolved around outcome 1 and 2 (Outcome 1 – *Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock resource management*. Outcome 2 – *Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions*) which involved the design and implementation of adaptation measures, basically improved adaptation of agricultural, livestock rearing practices /methods and enhanced livelihood options. Outcome 3 should collect lessons learned from the field and revise and suggest modifications to the main government policies affecting the climate change issues in agriculture, livestock, water resources use areas, Outcome 1and 2 would be 'support'ive outcomes providing training for national and local officials and documenting and disseminating lessons learned from this project.

Based on the acheivements/performanceand results of the Project, as stated above, evaluators could mention that the objective of the Project "*To increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to water and agriculture sectors in Guinea- Bissau*" has acheived sucessfully.

Given the fact that the project was being implemented by the Envoronmental secretariat, in close coordination with other relevant ministries, it would be, a priority, safe to assume that such policy recommendations would be seriously considered and mainstreamed (incorporated) into the other policy framework, thus the adaptation measures of outcome 1, 2 were indeed successful.

12 implementing partner organizations have acheived all planned activities. Implementing agencies, their working áreas, planned target in numbers for the Project period, acheivements at the end of the Project and if not acheived what were the reasons- all these supportive information have been shown in a table given at **Annex I**

From the table it can be seen that the no one of the partners of the Project did face any substential problem during the implemention of the planned activities, even though the difficulties encountered during implementation, the project did manage to achieve its main objectives and overall outcomes and thus rated the project's effectiveness as satisfactory. The use of financial resources has been relatively efficient in relation to the different activities that were supported and the level of implementation of the expected outputs. The risks were considered to, in general terms, as medium during project design. Several risks have changed to a lower rating and were properly monitored by the implementing agencies. The mitigation measures proposed were appropriate.

In the below LogicalFrame-Work **table-3** a column shown as "**end of the Project performances"** (at the 4th column) which shows which indicators are successfully acheived as planned at the end of the Project period, those can be utilized with high confidence level to other Guinea-Bissau areas and lessons learnt can be successfully disseminated.

Table 6: Logical Framework Analysis

Objective/ outcome	Indicator	Baseline	End of Project performance	Source of Information	Risks and assumptions
Objective – To increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to water and agriculture sectors in Guinea-Bissau	1. High level policies and management plans relating to agriculture and water sectors explicitly consider climate change risks and opportunities *(Refer to* **Error! Reference source not found.** *for an analysis of the level of incorporation of climate change into relevant policy frameworks; refer also to* **Error! Reference source not found.** *for a discussion on the policy frameworks targeted under this indicator)*	The following policies / plans are not climate-proof: - National Plan of Agricultural Investment (PNIA) - National Program on Food Security - Water Directive / Water Code - Poverty Reduction Strategy II	Achievied: Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporating the climate change dimension since March 2015. Elaborated 2 new documents: sustainable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological Charter and Vulnerability of the Region of Gabu	Verification by final evaluations of the project	Risks: Political unrest/changes resistance to adjust 'governance frameworks' (i.e. policies, plans, strategies, programmes etc.) Globally-induced recession in the years to follow will impact public expenditure negatively affecting the expected allocation for adaptation. Assumption: Baseline conditions in the selected areas can be extrapolated with high confidence level to other Guinea-Bissau areas and lessons learnt can be successfully disseminated.
	2.Government and international funding allocated to m1anaging climate change risks increased	<25,000 USD/year	Achieved: Elaborated and technically approved the PIF of the project " Operationalization of an Early Warning System (US $ 6,000,000 - LDCF) Funded the Scaling-up the Climate-Intelligent Agriculture in the Eastern Regions of Guinea-Bissau (USD 10,000,000, in partnership with BOAD - Adaptation Fund) and Strenghthen the resilience of vulnerable coastal areas and communities to climate change in Guinea-Bissau(USD 12,000,000 UNDP / GEF).	Monitoring and update of government and international funding available	

Objective/ outcome	Indicator	Baseline	End of Project performance	Source of Information	Risks and assumptions
			€ 4,000,000 from the European Union to implement the Global Climate Changes Alliance (GCCA)in which approximately € 350,000 is earmarked for the operationalization of the Secretariat for the implementation of the Adaptation Durable Financing Strategy in the short, medium and long term. Mobilized USD 60,500 through a partnership with national implementing partners (Directorate General of Engineering and Rural Development, Directorate General of Agriculture and the National Institute of Agrarian Research) for the breeding and raising of animals, acquisition and distribution of seeds $ 877,000 to support climate change risk management in the Gabu, Bafata and Cacheu regions through development partners (GoGB - $ 57,000, EU - $ 400,000, GEF / LDCF - $ 300,000, Australian Government - $ 70,000 and GEF / SGP - USD 50,000).		
	3. Scores of UNDP's Vulnerability Reduction Assessment (VRA) to be applied upon inception, mid-term and end-of-project in project-site communities	As of results after the application of the tool at project inception	Achivied: All 14 villages were equipped with Contingency Plans and actively managed and therefore provided rapid responses to some flood events. Elaborated the Plan of engagement of the key actors in the management of climatic risks	Independent technical vetting of the results of the VRA by UNDP/GEF upon inception, and by the evaluators by mid-term and project end	

Objective/ outcome	Indicator	Baseline	End of Project performance	Source of Information	Risks and assumptions
Outcome 1 – Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock resource management.	1. Key policy frameworks relevant for the agriculture and water sectors effectively incorporate climate risk consideration and adaptation measures as assessed through the UN Climate Screening Methodology.	Very low level of incorporation	Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporated into the climate change dimension since March 2015. Elaborated 2 new documents: Durable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological Charter and Vulnerability of the Region of Gabu	Application of the UN Climate Screening Methodology. Key policies included the PRSP II and the Charter for Agricultural Policy Development, Water Code and National Plan for Environmental Management, also included others including regional development policies. upon inception.	Risk: Political unrest prevailed Assumptions: Increased awareness and capacity led to a change in behaviour with respect to climate risk mainstreaming into relevant `governance frameworks. International finance from GEC and UNDP was available; and Guinea Bissau was eligible for such funding.
	2. Number of key agencies having taken institutional measures to respond to climate change through capacity building and mainstreaming activities	Currently, only SEADD – hence 1 agency	Achieved: More 6 key agencies (DGAgriculture, GEDR, DGP, INPA, DGRH, Gov. Regional de Gabu)	Qualitative surveys covering selected agencies with results vetted independently by UNDP/GEF upon inception, and by the evaluators by mid-term and project end	
	3. Percentage of end users utilizing climate risk information from seasonal climate forecast systems in decision-making.	No current seasonal climate forecast system is in place	Achivied: Technically developed and approved the PIF of the project "Assembly and Operationalization of an Early Warning Systems. Developed the NAP Project that will be submitted to the FVC through the Readiness Fund (3,000,000 USD);	Climate change meteorology experts will define on project inception how seasonal information can be best improved and disseminated.	

Objective/ outcome	Indicator	Baseline	End of Project performance	Source of Information	Risks and assumptions
		Once in place for at least 6 months, a baseline in terms of potential and actual end-users will be set	Strengthened the capabilities of the National Institute of Meteorology in climate prediction; Prepared and disseminated annually the Agro-meteorological Bulletins of the follow-up of the agricultural campaign through the Multidisciplinary Working Group.	The actual relevance, usefulness and timeliness of the system will be independently assessed by the evaluators by mid-term and project end.	
Outcome 2 – Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions	1. Average agricultural productivity of key crops (kg / ha), measured at site level in pilot demonstration fields – showing improvements compared to national and/or regional average for Gabú	National and/or regional (Gabú) average agricultural productivity for key crops to be applied as baseline for comparison	Achieved: Average yields of major dry cereal crops increased: bacillus maize: 962 kg / ha (48%), sorgum: 919 kg / ha (30%); black maize: 886 kg / ha (32%), peanut: 1030 kg / ha (32%) and rice: 1615 kg / ha (50.46%).	Field data report with focus on pilot site activities #2 and #5 National and regional statistics on productivity per unit area maintained by the National Institute for Agricultural Research (INPA)	Risks: Cultural barriers in accepting new techniques can be expected. Conflicts may be exacerbated by drought and water scarcity if such event happens during project implementation. Assumptions: Baseline conditions in the selected areas can be extrapolated with high confidence level to other regions in eastern Guinea-Bissau and lessons learnt can be successfully disseminated (as above).
	2. Food security in pilot villages as a result of the effective uptake of technologies and techniques introduced by the project	As per WFP data for selected villages among target sites	Achieved: Availability of guaranteed food for two more months (last joint mission report, June-July 2017) through storage of cereals in banks, improved animal health - provision of medicines; introduction of improved breeds of animals and cultivation of forage plants.	WFP reports for the Gabú region Field data report with focus on pilot site activities # 2, 3, 4, 5 and 7, but also 10, 11 and 12	
	3. Water availability at the level of households that are benefitting from pilot measures to improve water management (litres / day / inhabitant over time)	Not available – target households for improved water management are not yet established	Achieved: The average water consumption per inhabitant increased by 39.05 liters in the plots covered by the project Mobilized more than 113000 m3 additional water per year.	DNGRH reports for the Gabú region Field data report with focus on pilot site activities # 8 and 9	

Objective/ outcome	Indicator	Baseline	End of Project performance	Source of Information	Risks and assumptions
Outcome 3 – Lessons learned and best practices from pilot activities are disseminated, and integrated in national plans and policies.	1. Percentage of stakeholders being targeted for awareness-raising activities affirming ownership of adaptation processes	n/a - stakeholders to be targeted for awareness-raising activities will be defined upon inception	Achivied: The target population in the 14 villages was 13,000 inhabitants. More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project	Application of the Most Significant Change at project start, mid-term and project end. Most Significant Change validated by the evaluators.	Assumption: Climate change adaptation measures will gradually become a national priority for the agriculture and water sector as knowledge and information is made available.
	2. Number of contributions to the Adaptation Learning Mechanism (ALM)	0	Achieved: Elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	ALM Website (www.adaptationlearning.net)	

- **Table 7. Assumptions and Risks**

Assumptions	Risks	Mitigational/adabtive mesures
Baseline conditions in the selected areas can be extrapolated with high confidence level to other Guinea-Bissau areas and lessons learnt can be successfully disseminated.	Political unrest/changes resistance to adjust 'governance frameworks' (i.e. policies, plans, strategies, programmes etc.). Globally-induced recession in the years to follow will impact public expenditure negatively affecting the expected allocation for adaptation	Political unrest/changes faced. No policies, plans, stretegies, programmes suffered though globally induced recession impacted a little on prices of mecheneries, equipments purchased. Those were readjusted with the collective decisions from the Project steering committee.
Increased awareness and capacity led to a change in behaviour with respect to	Political unrest prevailed Cultural barriers in	Conflicts did not arise by drought and water scarcity though such events

climate risk mainstreaming into relevant 'governance frameworks. International finance from GEC and UNDP was available; and Guinea Bissau was eligible for such funding	accepting new techniques can be expected. Conflicts may be exacerbated by drought and water scarcity if such event happens during project implementation.	happened during project implementation.
Baseline conditions in the selected areas can be extrapolated with high confidence level to other regions in eastern Guinea-Bissau and lessons learnt can be successfully disseminated.		***Conclusión*:** Those assumptions and risks as stated in the prodoc are practical, logical and well thought, and have helped to determine activities and planned outputs.

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- **Lessons from other relevant projects (e.g. same focal área) incorporated into Project design**

FAO, AfDB implemented Project activities in Gabu area in agriculture sector like construction of Seed bank, damb establishment, wáter reserviour-pond escavation were incorporated into this Project design as those were much effective to increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau. Those activities were also supported by FAO, AfDB in kinds for the beneficiaries of the Project.

Trainers' package for national and local authorities on climate change adaptation and due test of the package (implementation of training modules done with co-financing).

On-demand of the beneficiaries, provision of technical support services to relevant government agencies for infrastructure, rural development projects related to reducing exposure to climate change risks in agricultural and water resource management was also incorporated into project design and implementation.

Few Project activities at Gabu region.

- **Planned stakeholders' participation**

Approved Project Document incorporated aSteering Committee of the Project. Members of which were representatives from all stakeholders of the Project.i.g.

- Secretariat of State of Environment (**Chairperson**)
- Gabu Regional Government representatives
- Ministry of Agriculture and Rural Development (General Directorate of Agriculture);
- General Directorate of Livestock; (General Directorate of Forestry)
- Ministry of Energy and Natural Resources (General Directorate of Water Resources)
- Ministry of Economy, Planning and Regional Integration (General Directorate of Planning)
- State Secretariat for Transportation and Communications (National Institute of Meteorology)
- UNDP Guinea-Bissau
- 4 NGOs representatives

The Steering committee was empowered to approve annual plan, budget approval, change /incorporation of activities among others. Steering committee was supposed to sit 4 times a year, but it was not always possible during the tenure of the project. Steering Committee used to approve/re-design the AWPs and released money to implement planned activities of the project and recruitment of workforce accordingly. All members used to participate in those planned meetings.

All stakeholders were included in the governance structures of the project. Thus, at the national project board/streering committee level, Director Generals of the main implementation partners, namely the Department of Livestock, the Department of Agriculture and the water resources department, meteriological department, NGO representatives, local government representatives with the position of NPD (National Project Director) reserved for the Director General of environment department of the responsible agency. Also represented on the project board were representatives from the UNDP, GES, other donors.

Project activities were mostly within the mission and capacities of the participating agencies, as it meant an extension of activities already being conducted by them. For the 'extra mile' activities, namely the active involvement of communities and the climate-proofing of national policies, the project provided its own experts, either members of the project management unit, or external experts for specific activities.

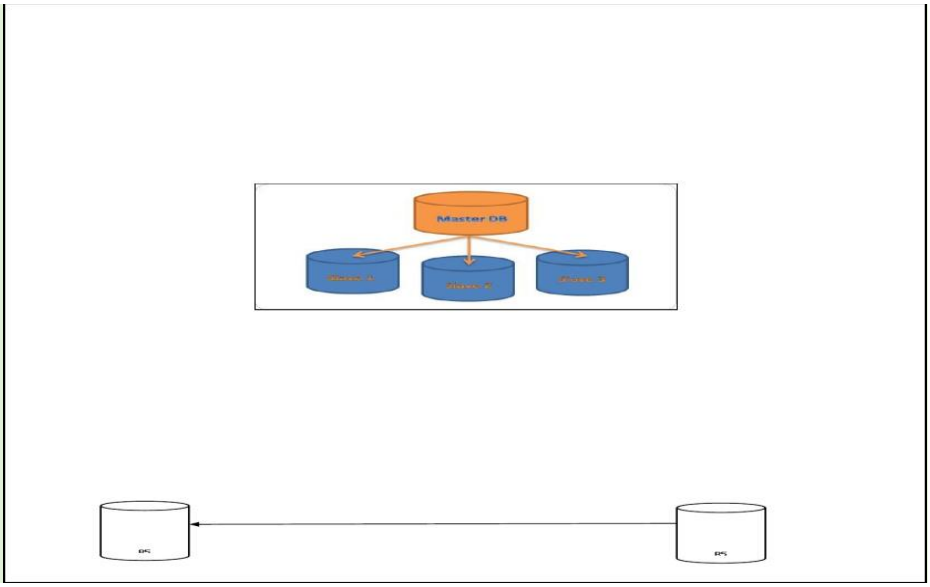
The four years provided for the implementation of the project would have been enough for the completion of the pilot activities, assuming the absence of major climate-related emergencies. The fact that the actual implementation of the project exceeded the allocated timeframe is mostly related to political disturbances, administrative processes arising from the additional in kinds funding mobilized by the project from FAO, AfDB.

Project activities were covered under the current legal framework for the project period and implementation of demonstrations/ trials and support for livelihood options under the operational plans of the Department of Agriculture and the Department of Livestock Services, Water resources department respectively.

Project involved the relevant stakeholders through information sharing in website and sought participation in project design, implementation but notfor M&E. The project was good in public awareness campaigns but did not consult with and make use of the skills, experience, and knowledge of **private sector entities** during implementation, and evaluation of project activities.

- **Replication approach**

Replication ofwell performed work, some lessons learned, from cluster to other clusters for adaptation and disaster recovery may be recommended.



image's source:https://ieeexplore.ieee.org/2019

The peer-to-peer communication, decentralization Works distribution experiences, self-organization which were adabted in course of Project implementations may be replicated in other projects/future projects in and out of Guinea-Bissau which will show that this strategy performed well compared with others approaches not only in a static environment but also under climate change envoronments.

- **UNDP comparative advantage**

UNDP's comparative advantage was that UNDP allocated and mobilized resources for environment and climate change issues from its own and the Global Environment Facility (GEF) sources for this Project, formulated project document and controlled resources alocation. UNDP also ensured quality of technical workforce recruitmrent, monitored their work performance and procurements of capital nature materials for the Project and monitored how resources have been used and how this has affected the direction and performance of UNDP-GEF's work in this project. This evaluation did not evaluate

GEF's performance or mandate. Worth mentioning that UNDP's partnership with GEF has enabled UNDP to provide effective and relevant support to Guinea-Bissau with this pilot project.

- **Linkage between Project and other interventions within the sector**

The Project was success in establishing cooperation and getting in kind support from FAO and AfDB who were implementing development Projects at Gabu región in agriculture and wáter facilitation sector for the rural poor and these two donors supported the Project beneficiaries with seed bank and tube-wells for drinking wáter for human beings and livestocks, house hold work wáter.

- **Management arrangement**

The GEF implementing agency, the United Nations Development Program (UNDP) did provide the project with adequate administrative and technical support, proactively managed risks and took keen interest in the good performance of the project.However, the project was delayed by the government administrative procedure associated with political unrest in the country.

- **Executing Agency/Implementing Partner's Execution**

The Secretariat of State of Environment acted as the national implementing agency for the project, under UNDP's National Implementation Modality (**NIM**). The project was very much aligned with the Secretariat's own mandate and goals and thus the project counted with enough administrative and technical support both at national and field levels. The project management unit was located at the Secretariat of State of Environment headquarters in Bissau and field office at Gabu.

The other main national implementing agencies, the Department of Agriculture, the Department of Livestock, water resources department, department of Meteriology and the local Gabu based 4 NGOs participated at high level in the project's Steering committee. Each of the agencies played specific roles and activities in the project in line with their expertise, under the leadership and coordination of the National Project Director (**NPD**), from the Secretariat of State of Environment.

3.2 Project implementation

- **Adaptive management (changes to the Project design and Project output during implementation)**

The project originated in an explicit adaptation measure included in the country's National Adaptation Plan of Action submitted to the UNFCCC. Although the development of the project document was led by the UNDP, the government of Guneia-Bissau was also proactively involved and committed during the PIF and PPG, implementation stages, and adequate preparations and arrangements for the project's implementation were made in the preparation phase.

After the mid-term evaluation of the project, some 20 recommendations were made by MTR and some changes to the project design and project output implementation proposed. Themid-term review (MTR) of the project was commissioned by UNDP covering period 2011-2015 to assess, among other things in addition to the performance of the program, the extent to which results frameworks and M&E systems have been put in place and are effective. The Mid-Term review permitted the UNDP to better envision the implementation of the project during the remaining period until 2017. Though the time remained till completion of the project was very short, majority of recommendations of the MTR were implemented and reflected in revised project proposal. (**vide below table 8**). Out of 18 recommendations of the Mid term-evaluation 13 were fully implemented (thus changed to the Project design and Project output during implementation period),4 were partially implemented and, 1 could not be implemented.

Table 8: **Analysis of MTR: Implementations Statusof 18 Recomendations(R)**

MTR Recomendations	**Status at TE[27]**
R1. To focus climate change integration work in development strategies at the regional and local level, namely in the Regional Development Plan of the Gabú Region and the local development plans of Pirada and Pitche, to enable mitigate the risk of political instability, particularly with the end of the transition period following the April 2012 "coup d'état" and the holding of the presidential elections in the second quarter of 2014.	More or less, policies were developed but their implementations were not totally accomplished.
R2. Continue efforts to disseminate improved agricultural, livestock and water management techniques disseminated in the villages, in order to limit the risk of non-appropriation by communities of these techniques and to promote better ownership.	Implemented
R3. Incorporate a risk assessment matrix into the quarterly and annual reports that would include: (i) a description of the risks identified; (ii) their classification according to their type (environmental, financial, operational, political, regulatory or strategic); (iii) their level (standard or critical); (iv) the response category (emergency plan, pointed follow-up or other); (v) the evolution of the risk (attenuation, stable, increase, problem); and (vi) the date of identification of the risk.Systematically complete the Risk Log on an annual basis when drawing up the RIP, based on the information presented in the risk assessment matrix and presenting in addition the body responsible for the management response to be implemented.	Implemented

[27] Source: Evaluators own data collection, 2019

R4. Initiate the preparation of the AWP sufficiently early, before November 15, to allow its finalization before the end of the year and its validation at the beginning of the following year, and thus allow the funds to be made available and activities to be started as soon as possible. the beginning of the year. Submit and systematically validate the AWP by the Project Steering Committee at the beginning of the year. In addition, strengthen the participatory and consultative aspect of the annual programming process, involving the entire project team, as well as institutional partners in the identification and budgeting of activities and the development of the AWP.	Implemented
R5. Put in place an annual procurement plan, detailing the purchases identified in the annual procurement plan, to speed up the administrative and financial procedures, which would be annexed to the AWP and which would include among other things the different markets to be launched in the year, and for each market the dates to be respected for the drafting of the ToRs, the publication of the call for tender, the selection and contracting of the service provider, the start of the activities, and the dates of payment of the different tranches of funds.	Implemented
R6. Put all possible measures in place within UNDP administrative and financial services to facilitate and improve the efficiency of administrative and financial procedures, while maintaining transparency and close monitoring of expenditures and limiting fiduciary risk.	Implemented
R7. Be more proactive and rigorous at the project team level regarding the rationale for the use of cash advances, to enable UNDP to process requests for renewal of advances in a timely manner.	Implemented
R8. Reinvigorate and strengthen the strategic and steering role of the Project Steering Committee. The project team will be responsible for planning and organizing two annual meetings on a biannual basis. Invitations to these meetings must be sent at least two weeks before the date of their meetings, together with the relevant documents and reports. The 1st annual meeting will have to be organized before the end of January, to validate the activity report of the previous year and to discuss and approve the new AWP. The next meeting of the PSC will have to be organized by the Project Management Team before the end of January 2014, to present in particular the results of this mid-term evaluation, to validate the management response that has been prepared in response to the recommendations made by evaluation, discuss the status of the project and validate the 2014 AWP. The	More less. The PSC met 5 times (2014-2016/7).

PSC meetings could be organized in Gabú.	
R9. Develop a training plan for project staff and identify opportunities for training.	Implemented
R10. When recruiting the new CTP, ensure that he or she is proficient in Portuguese to facilitate communication with partners and the project management team, but also English to provide technical support for the development reports required by the GEF. SEAT will have to be involved in the final recruitment. When the new CTP has been recruited: (i) ensure permanent presence within SEAT and the Resilience project management team offices; (iii) ensure that it is also present in the offices of Gabú; and (iv) ensure proper planning of its tasks and the technical support it has to provide over time, on an annual basis for example and in accordance with the procurement plan.	Not Implemented
R11. Strengthen the rolling capacities of the project management team based in Gabú.	Implemented
R12. Maintain existing partnerships with NGOs, and consult with NGO partners and, with the support of the UNDP Monitoring and Evaluation Service, a tool to monitor their performance in terms of facilitation in the villages. This tool should be accompanied by better annual planning of NGO activities, and be an integral part of a comprehensive monitoring and evaluation and capitalization plan that should be developed as soon as possible by the project management team.	Partially
R13. Extend grassroots partnerships with CBOs to ensure sustainability and more effective replication and dissemination of Resilience project activities and impacts.	Implemented
R14. Strengthen institutional communication towards institutional partners not directly involved in project activities and other initiatives likely to intervene in the Resilience Project area. This better institutional communication will involve a more systematic dissemination of the reports and documents produced by the project to the other relevant actors.	Implemented
R15. Develop, with the UNDP monitoring and evaluation team, a monitoring and evaluation manual that will include: (i) an updated results chain; (ii) a Performance Measurement Framework that will specify for each indicator the frequency of data collection, the sources to be consulted for mobilizing these data, and the division of responsibilities for collecting these data; (iii) reporting procedures (including gender reporting); and (iv)	Partially.

capitalization procedures for good practices and lessons learned.	
R16. Strengthen partnerships with other interventions likely to intervene in the same areas and likely to complement the activities initiated by the Resilience Project, notably through material support (for example the UNDP-funded OCB project, the second phase of the project). PRESAR project financed by AfDB, PEASA financed by the World Bank). This strengthening of partnerships will involve better collaboration / communication with these initiatives and the identification of synergies / complementarity in terms of grassroots activities. As the second phase of PRESAR is currently being formulated, this may be a good opportunity to identify these synergies now. More frequent meetings between the various initiatives would also be a means of reinforcing these synergies. These meetings could be organized on the initiative of the Resilience Project.	Implemented
R17. Formalize an extension of the Resilience Project, at no additional cost of 15 months, from March 31, 2015 as originally planned on June 30, 2016, to allow the project to implement all planned activities, enable it to achieve the expected effects and objectives, and allow it to consolidate the bases for the replication and durability of the effects obtained.	Implemented
R18. Develop a precise replication strategy, which should identify at least the targets and actions targeted in terms of replication, the resources to be mobilized to ensure this replication and a precise timetable to achieve the achievement of these targets by the end of the implementation of the project.	Implemented

- **Partnership arrangement** (changed to the Project design and Project outputs during implementation)

No change done to the Project design and Project outputs during implementation period of the Project. But incorporated Project partners like FAO and AfDB.They provided in kind support to the Project activities at Gabu región.

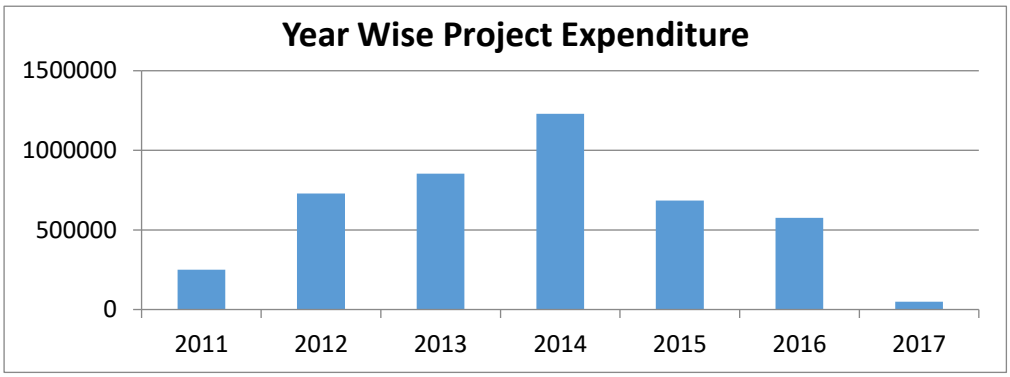
- **Feedback from M&E activities used for adaptive management**

14 MTE recommendationswas incorporated to change the Project M&E design/activities used for adaptive management and Project outputs during implementation period of the Project.

- **Project finance: Budget and Expenditure**

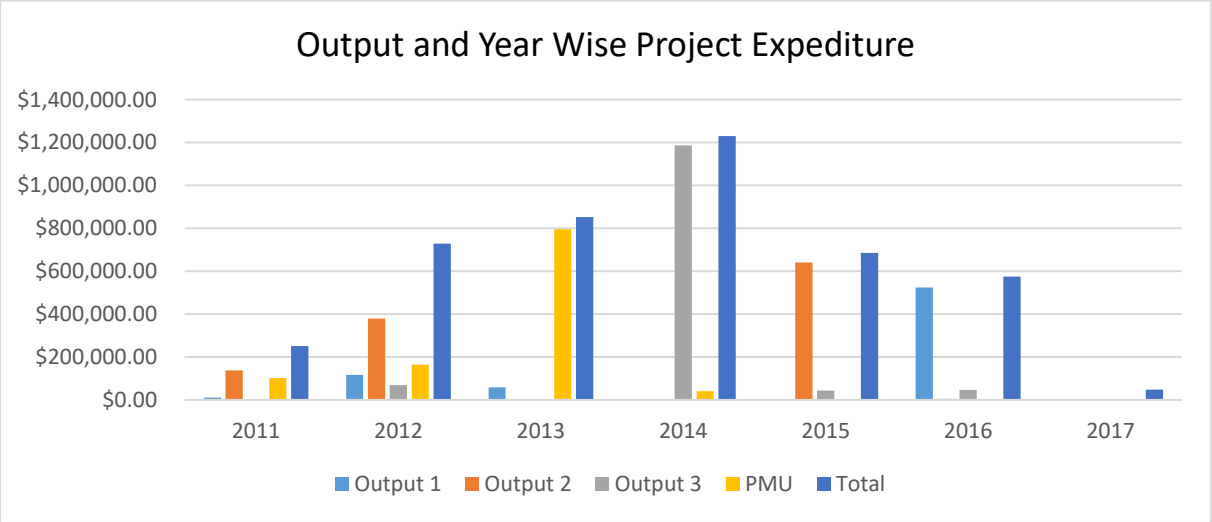
The project budget amounted to $4,700,000.00 USD, with contributions from GEF (4,000,000 USD, grant), UNDP (500,000 USD, TRAC funds, co-finance and PNUD

TRAC direct 200,000), (and others in-kind). The project started itsimplementation form 2011 and continued till 2017. Year wise expenditure as per year and outcomes shown in below graphs. In 2011-250,418 USD spent, in 2012 728,377 USD, 2013 year 852,946 USD, in 2014 1,229,383 USD, in 2015 684,630 USD, in 2016, 575,233 USD and in 2017 48,517 USD only (see below table). Breakdown of expenditure according to the three outcome, donors and PMU has also shown in the below tables(data/information source: UNDP, Guniea-Bissau, 2019). Maximum expenditure occurred in the year 2014 while political and social environment was most favoubarable. **Conclusion:** The project had adequate inancial and administrative controls and was able to expend 100.02%.



Project Budget and Expenditure 2011-2017

N.º	Partners	Budget($)	Total($)	Activities	Yearwise expenditure($)							Total Geral($)
					2011	2012	2013	2014	2015	2016	2017	
1	GEF	4,000,000		Output 1	10,343.03	116,022.78	57,978.37	2,806.21	0.00	524,771.25		711,921.64
2	PNUD TRAC-direct	200,000		Output 2	138,056.47	379,835.36		246.84	640,829.04	4,139.09		Output 2
3	PNUD TRAC-trought other project	500,000	4,700,000	Output 3	130.86	68,216.98		1,186,155.49	43,801.08	46,322.70		Output 3
				PMU	101888.39	164,301.45	794,967.46	40,174.31	0.00	0.00		PMU
Total			**4,700,000**		**250,418.75**	**728,376.57**	**852,945.83**	**1,229,382.85**	**684,630.12**	**575,233.04**	**48,517.30**	



- **Monitoring and Evaluation: design at entry and implementation (*[28]/[29])**

Monitoring and evaluation are two key elements of the project. The evaluator has analyzed the follow-up carried out by UNDP as GEF's Implementing Agency as well as the executing partner.

Evaluators met with the former NPD, implementing agencies head, GEF focal point, visited project sites and met beneficiaries, communities' people and discussed M&E aspects, questioned them to get real answers, carried out rating on M&E modalities. But unfortunately, the value and effectiveness of the monitoring and evaluation reports and evidences those were preserved at the project could not be seen or discussed with project staff as the terminal evaluation was carried our 2 years after completion of the project period and no staff was available at that time of TE conduction.

From secondary reports it was evident that the project had M&E plan at project start up, considering baseline conditions, methodology and roles and responsibilities, which was well conceived to yield sufficient results and track progress toward achieving objectives. The quality of M&E plan implementationsufficiently budgeted and funded during project document preparation and implementation, the effectiveness of monitoring indicators found from the project document for measuring the progress and performance, compliance with the progress and financial reporting requirements as per schedule, including quality and timeliness of reports; the value and effectiveness of the monitoring and evaluation reports and evidence those were discussed with stakeholders and beneficiaries only. PIR self-evaluation ratings were consistent with the MTE findings. M&E indicators wereSMART- Specific, Measurable, Achievable, Realistic and Timely. mid-term evaluation did not makeany recommendations regarding M&E modalities change. UNDP has been involved on financial and administrative monitoring of the project. The PMU was responsible for the preparation of the quarterly progress reports and the annual PIR that UNDP used to present to the GEF. The PIRs were developed for all the project years from 2012 to 2016 and were of good quality. The monitoring plan did not have aspects of gender, but the project worked and approved their AWP including activities related to gender. It has been verified during the evaluation mission and the documentary review that the PMU has monitored the status of the risks and was aware of new risks to the sustainability of the project. The prodoc presents a good and thorough monitoring plan consisting of the different monitoring phases and allocating enough resources. Also, the tools were provided to monitor specific indicators and Financial and Management Capacity Scorecards. Most of thel tools were used during the reporting periods.

After completion of the project, the mecheneries, equipments provided by the project to the Meteriologocal department were found **abandoned and unused in Bafata, Gabu region**.

[28] The details regarding ratings are shown in **Annex F**
[29] Rating conducted



Overall, the evaluators consider that the M&E plan was consistent with the project's objectives and outcomes, enough resources were allocated, and key evaluation activities conducted. In this regard, the evaluator rates the M&E as **Moderately Satisfactory-MS-(rated 4 out of 6).**

- **UNDP and implementing partner implementation/execution (*) coordination and operational issues**

The project was implemented by the UNDP, which provided administrative and technical support, under its National Implementation Modality (**NIM**) of implementation, with the State Secretariat of envoronment as executing and responsible agency. Other implementing partners included were Gabu Regional Government; State Secretariat for Environment and Sustainable Development; Ministry of Agriculture and Rural Development (General Directorate of Agriculture; General Directorate of Livestock; General Directorate of Forestry); Ministry of Energy and Natural Resources (General Directorate of Water Resources); Ministry of Economy, Planning and Regional Integration (General Directorate of Planning); State Secretariat for Transportation and Communications (National Directorate of Meteorology) and 4 national NGOs.

The project was very much aligned with the Secretariat's own mandate and goals and thus the project counted with enough administrative and technical support both at national and field levels. The project management unit was located at the Secretariat of State of Environment headquarters in Bissau and field office in Gabu. The Gabu región where the pilot Project activities implemented, located in eastern Guinea-Bissau and particularly the Pirada and Pitche sectors, are threatened by the effects of climate change, since in these contexts the capacity to adapt to these changes is limited.

Project activities implementation started in 2012, instead of 2011 with a timeframe of four years, i.e. 2012-2016. However, the final closure of the project did not occur till December 2017. The delay was mostly due to the process of procurements of dams, constructions of seed bank in hard to reach areas, purchasing equipments and heavy mechineries etc. of the project and revision of the project document after commitment of additional funds by two different development agencies for the 'Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors project'.

This work of identification of the main indicators of climate change and peasant adaptation strategies were carried out in collaboration with stakeholders.

Surveys of peasants' perceptions of climate change were carried out and climate data from Pirada, Gabú and Bafatá were analyzed under the supervision of the National Meteorological Institute and UNDP technical experts.

All stakeholders were included in the governance structures of the project. Thus, at the national project board/streering committee level, Director Generals of the main implementation partners, namely the Department of Livestock, the Department of Agriculture and the water resources department, meteriological department, NGO representatives, local government representatives with the position of NPD (national project director) reserved for the Director General of environment department of the responsible agency. Also represented on the project board were representatives from the UNDP, GES, other donors.

Project activities were mostly within the mission and capacities of the participating agencies, as it meant an extension of activities already being conducted by them. For the 'extra mile' activities, namely the active involvement of communities and the climate-proofing of national policies, the project provided its own experts, either members of the project management unit, or external experts for specific activities.

Project activities were covered under the current legal framework for the project period and implementation of demonstrations/ trials and support for livelihood options under the operational plans of the Department of Agriculture and the Department of Livestock Services, Water resources department respectively.

UNDP Put all possible measures in place within UNDP administrative, technical and financial services to facilitate and improve the efficiency of administrative and financial procedures, while maintaining transparency, accountibility, time bound and close monitoring of expenditures and limiting all shorts of risks.

UNDP in collaboration with the government strengthend the rolling capacities of the project management team based in Gabú, Maintained existing partnerships with NGOs, and consult with NGO partners and, with the support of the UNDP Monitoring and Evaluation Service, a tool to monitor their performance in terms of facilitation in the villages. This tool accompanied by better annual planning of NGO activities, and was an integral part of a comprehensive monitoring and evaluation and capitalization plan that was developed by the project management team, furthermore, extended grassroots partnerships with NGOs/CBOs/rural communities to ensure sustainability and more effective results/replication and dissemination of Resilience project activities and impacts.

- **GEF Execution**

The GEF as donor/implementing agency also with the active support fromthe United Nations Development Program (UNDP) did provide the project with adequate administrative and technical support, proactively managed risks and took keen interest in the good performance of the project. However, a better coordination/monitoring at field level works could have avoided the significant transaction costs involved in the project's field activities.

- **Awareness, information dessimination activities**

The project conducted extensive awareness and information activities, involving training of government officials, local government officials, publication of knowledge products, documentaries and training manuals, as well as organizing national dialogues and facilitating participation of local officials, policy makers in international conferences. Elaborated and disseminated on an average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www.climatechange-gb.org) and facebook (climate change).**but after completion of project period during this final evaluation those were not found**. Respondents reported that Due to shortage of money and workforce that was shut down.

The project has been very successful in engaging actors and stakeholders at different levels, from local government officials to international environmental and development organizations. These successes were attributed not only to the general success of the implementation, but also to a well design and executed communication and awareness strategy.

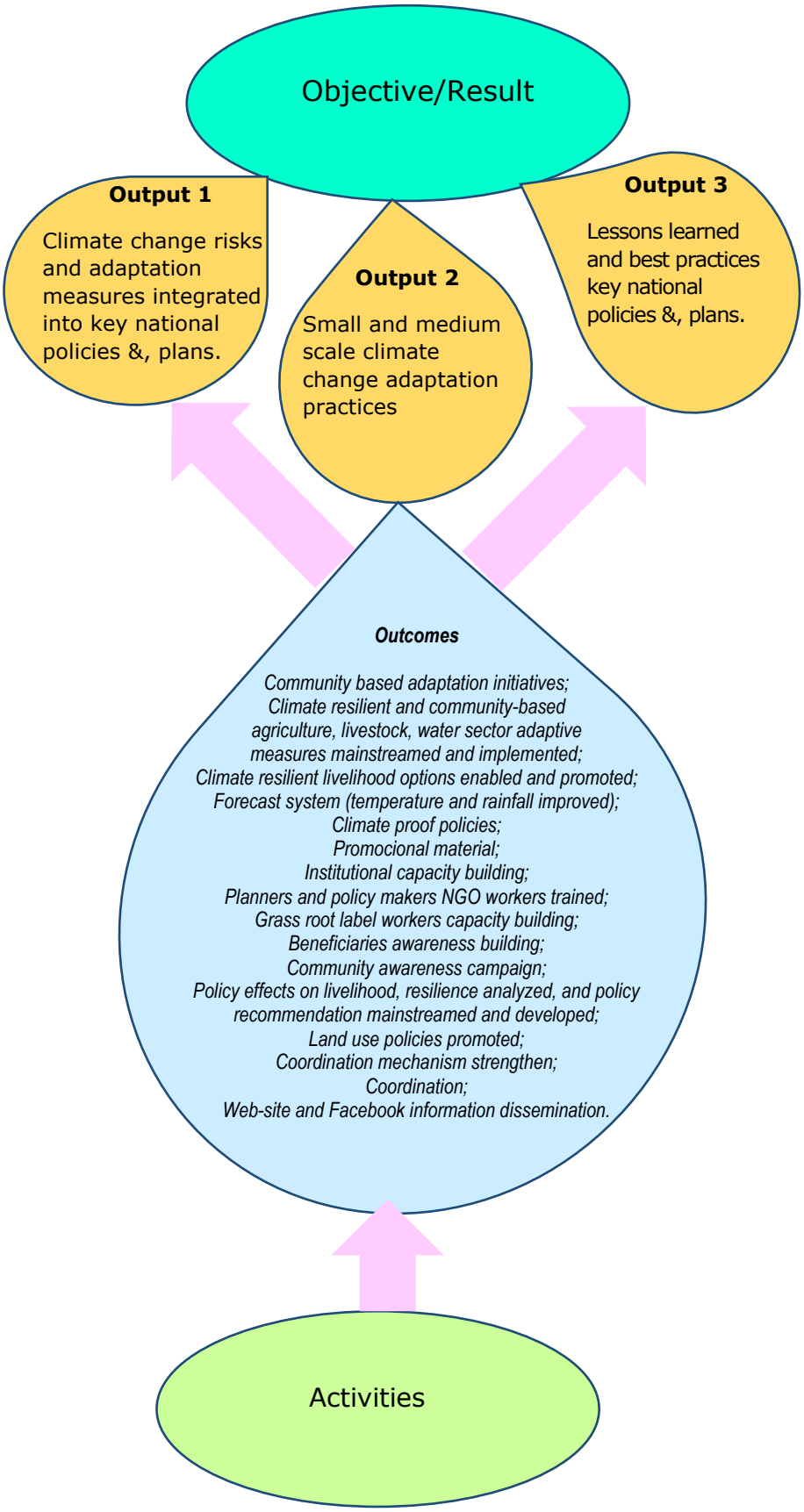
UNDP facilitated to use of the skills, experiences, and knowledge of the local government personnels, NGOs, community groups of Gabu área in implementation, and evaluation of project activities for better results. Based on these and other criteria like the '*end of the Project report' and* financial report and observations of the beneficiaries, Both the implementing (UNDP) and executing (Secretariat of State of Environment) agencies provided adequate and proactive support both in technical and administrative terms, thus enhancing significantly the performance of the project. Therefore, the terminal evaluation respondents' rates both agencies' performance as **Moderately satisfactory**

3.3 Project results (*)

- **Overall results (attainment of objective)**

The project expected results included three outcomes articulated in several outputs. Results were well formulated, i.e. they used change language and were consistent with SMART criteria. All Outputs supported 3 outcomes acheivements which contributed for expected results and led to the fulfillment of one **objective** of the project-*increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau*. The project logic was solid and consistent. Realization of the project's effects (outcomes) led to the **change**, provided project assumptions hold true.This change and the correlations of project planned activities for 4 years, those were implemented utilizing 100% financial resources of the project& utilizing efficiently all workforce towards outcomes of the project and subsequently achieving all 3 outputs of the project and one project objective as shown in the figure at next page, we could rate thisas **Moderately Satisfactory**.

FIGURE 1: THEORY OF CHANGE



- **Relevance of the outcomes (*)**

'*Relevance is the degree to which the objectives of a project remain valid and pertinent as originally planned or as subsequently modified owing to changing circumstances. Performance is the progress made by the project relative to its objectives and lastly, success, it is measured as the extent to which a project has brought about change to target groups and communities. Success is also based on the project's impact, sustainability and contribution to capacity building or institutional building'*[30]

Worth mentioning that, climate change is happening in Geinea-Bissau as in other countries, and those worst affected are poor and marginalised communities and people. Yet these people have contributed least to cause it. The Intergovernmental Panel on Climate Change (IPCC) – the leading body reviewing and assessing the evidence for climate change – and the UN Framework Convention on Climate Change (UNFCCC), both acknowledge Least Developed Countries (LDCs) as being particularly vulnerable to the climate crisis. It threatens to disrupt and even reverse the development efforts of the country, undermining efforts to eradicate poverty. Poor people are more vulnerable for a variety of physical, social, financial and institutional reasons. They tend to be located in geographic areas vulnerable to severe climate impacts, such as Gabu región of Geinea-Bissau. Poor communities of this área have no safety net and less capacity – either financial or through access to institutions and support structures – to cope with climate shocks[31].Adaptation that works with both natural systems and vulnerable communities, who often have considerable knowledge of adaptation, can provide cost-effective, sustainable, locally managed solutions giving temperatue and rainfall (climate change related) and poverty reduction benefits.[32] Many people already use natural resources and crops and livestock genetic diversity, as part of their adaptation processes. For instance, alternative crop varieties or wild relatives of food crops are used those often better survive the changing temperatures, water shortages and pest infestations associated with climate change. '*In other countries, biodiversity and ecosystem services are already the foundation of many successful adaptation strategies, especially for poor people – while also delivering livelihood and climate change mitigation benefits. 'Learning by doing' has become an-agenda of the 2009 UNFCCC climate talks. As scientists and policymakers work to find solutions to climate change, local communities often have a wealth of experience of how to cope. Resilience to climate change has many roots. A healthy, biodiverse environment is increasingly recognised as key to resilience, particularly in poor communities directly dependent on natural resources. Knowledge about ways of coping with climate variability is also essential – and for many of the poor who live in climatevulnerable regions, already an area of expertise. A look at the National Adaptation Programmes of Action of the Least Developed Countries show that many of these nations recognise and prioritise*

[30] Development Effectiveness, Review of Evaluative Evidence, UNDP, Evaluation Office, 2001.
[31] Source: www.iied.org/pubs/display.php?o=17078IIED
[32] http://dlc.dlib.indiana.edu/dlc/handle/10535/6272

the role that biodiversity, ecosystems and natural habitats play in adaptation. It is now up to policymakers to follow suit.'[33]

During the TE mission where the evaluators met with Government officials from the Office of Planning at Gabu region and GEF Focal Point in Bissau and they all confirmed that the current Government continues to prioritize the Biodiversity, i.e. the consolidation of the terrestrial Protected Areas as part of their Strategic and Operational Plan 2015 – 2025 - Terra RanKa. In the framework of sectoral policies, the project was also in line with the priorities defined in the second National Strategy Document for Poverty Reduction[34] .

All stakeholders interviewed agreed that the project preparation was participatory and consultative and resulted in a quality project document. The interventions and their outcomes were logic is relevant, and the logical framework was well constructed. In terms of alignment, most of the participants interviewed agreed that the project is perfectly aligned with national priorities that respond to international commitments and conventions signed and ratified by Guinea-Bissau.

The project's objective and outline of the strategy was explicitly included in the adaptation strategies listed in RGB National Adaptation Plan of Action (NAPA). Moreover, adaptation community involvement in agriculture and water sectors has been a national goal stretching back and implemented through few development projects with international donor support. The project had special significance as it promoted the adaptation and resilience which regulated co-management, i.e. obligations and benefits for communities from *Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian and water sectors Project*.

Livelihood opportunities and access to land was a unanimous concern of local communities at project sites, as well as local government officials. The project relevance involving adaptation measures based on access to agricultural inputs, land for poor communities was, and it is still, **relevant** to national government goals, as well as explicit needs of vulnerable to climate change communities.

Based on the information available and the interviews conducted, the project strategy, relevance of outcomes could be assessed as **satisfactory (S).**

- **Effectiveness and Efficiency of the outcomes (*)**

Effectiveness of the Outcomes: The effectiveness, *'the extent to which a project brings about desired outcomes, is measured by the relevance of the results, the project's performance and its success'*. As the project has achieved its three outcomes, all three outcomes are considered relevant and pertinent as they were key in achieving the project's main objective, stakeholders opiend that all activities were achieved Satisfactorily. The capacity building activities conducted throughout the life of the project. More importantly, this capacity rests within concerned ministries. Regarding participatory management techniques, the capacity building exercises and sensitization campaigns together

[33] www.iied.org/pubs/display.php?o=17078IIED
[34] DENARP II, June 2011

with the success of the piloting committees at Gabu as well as the promotion of alternative livelihoods helped the achievement of project outcomes. Worth mentioning that the project was not able to involve the private sector in adaptation, providing support for technologies or relisilence tasks.

The efforts of the project have resulted in a significant increase of the surface of agriculture, livestock, water supply coverage in the Gabu region. However, selecting the specific sites for pilot demonstration activities in far different locations involved a very active engagement by the project management office to coordinate with both the Secretariat of State of Environment and Ministry and the Agriculture/livestock Research Institutes. As a result, high transaction costs were involved due to locations of pilot project sites (in terms of staff time and implementation time).

The Secretariat of State of Environment must have had developed criteria before the start of the implementation of project activities that define the scope and the approach. Such criteria must have been communicated and consulted at site level, with enough time to allow for corrections and adjustments according to local conditions yet still aligned with the general criteria.

The stakeholders and evaluators rated the project's effectiveness as **Satisfactory**.

Effeciency of the Outcomes: Efficiency is the '*optimal transformation of inputs in timely manner into outputs*[35]. A strategic decision implemented by the project aligned to its effiency is the fact that, in a logic of cost reduction and simplification of the administrative and legal procedures, the level of implementation of activities and achievement of outputs is presented in a Table kept in **annex-I**

Though the project was planned to terminate in June 2016 with the given extension, did remain operative until December 2017 to ensure some activities to be accomplished. The respondents and evaluators consider that the use of financial resources has been **relatively efficient** in relation to the different activities that were supported and the level of implementation of the expected outputs.

Outcome 1 Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock management,forecast system (temperature and rainfall improved), 5 keys Policies were made more climate proof; 2 new documents: *Sustainable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological and Vulnerability Maps of the Region of Gabu,* The institutional capacity of NIM was strengthened and the technical staff trained to adressed the climate changes issues.

The Project has achieved: Average yields of major dry cereal crops increased: bacillus maize: 962 kg / ha (48%), sorgum: 919 kg / ha (30%); black maize: 886 kg / ha (32%), peanut: 1030 kg / ha (32%) and rice: 1615 kg / ha

[35] UNDP evaluation guidance for GEF-financed projects version for external evaluators, final draft, march 17th 2011

(50.46%). Also achieved: Availability of guaranteed food for two more months[36]*through storage of cereals in banks, improved, animal health - provision of medicines; introduction of improved breeds and vaccination of animals and cultivation of forage plants also increased*.[37]

Achieved: The average water consumption per inhabitant increased by 39.05 liters in the plots covered by the Project Mobilized more than 113000 m3 additional water per year.

Achivied: The target population in the 14 villages was 13,000 inhabitants. More than 25,000 people were sensitized about the role of community and people in reducing use of carbon and regarding 'climate change' issues at the level of the pilot villages and use of renewable energy (solar panels) in 69 surrounding villages using the promotional materials of the Project.

The project implemented all other planned activities with great satisfaction of the beneficiaries and management.A possible limitation in production would be access to necessary inputs for both agricultural and livestock models, i.e. seeds, fertilizer, insecticides, cattle feeds, water resources etc. However, attitude by respondents in front of limitation differed among sites, with some beneficiaries not deterred and confident in their ability to continue production and even train other communities to initiate their own agriculturalexploitations. Factors cited by communities and experts to explain this confidence include the extra income obtained by the communities and access to microcredit schemes. However, other communities' express distress at the end of project support and lack of self-reliance and confidence in their ability to continue production without further support.

The project has supported the formation of seed banks. These associations differ in financial and organizational strength but are still active to provide support to the farmers in preserving seed for the next seasons and a forum for resolution of problems.

The agricultural/ livestock models introduced by the project have been very successful and have had a significant impact in the lives of the beneficiaries of the project. The key to the success is the yield and productivity and food security obtained by the beneficiaries. Their ownership and self-reliance were evident at the sites visited by the terminal evaluation mission.

Sustainability of the project supported agriculture, and livestock production differs among communities and individual households: while some households and community association show more initiative and problem-solving ability, other seem to expect further assistance for the various inputs, e.g. fertilizers, feeds, medication needed.

Agriculture inputs, feed for cattle and water as limiting factor for projects aiming to increase yield are not new nor exclusive to this project. These supports need to be continued and expanded. Thus, issues of availability of inputs at affordable prices after project end must be considered, and, when suitable, the possibility

[36] last joint mission report, June-July 2017
[37] last joint mission report, June-July 2017

of developing local alternative to expensive or unavailable inputs, e.g. organic fertilizer production, integrated pest management or unconventional livestock feed. Suitability will depend on local factors and expected yields based on the effectiveness of the alternative inputs, e.g. cattle protein requirements are notoriously more rigid than land animals. Moreover, individual initiative seems to be an important driver of sustainability, with more engaged or pro-active households leading solutions to shortcomings and limitations. Thus, project field staff could have worked to identify champions among the communities and, as the project did,facilitated the establishment of seed bank to serve as venue for the exchange of solutions and sources of seed money to cover for pre-harvest expenses.The efforts of the project have resulted in a significant increase of the yields of crops, meat, milk and water supply.

Based on the results of performance levels, the evaluators consider that the level of efficiency of outcomewas **moderately satisfactory.**

Recommendation: Use of new short duration variety of crops adabtable to changed pattern of rainfall and temperature, use of reneable solar energy for electricity at home should be expanded in other affected areas of the country and region.

- **Country ownership**

The project does indeed address country priorities as they are explicitly stated in the National Adaptation Plan of Action (NAPA) that originated this project. UN system with the national government actively participated in identification of the project concept, the development of the project document and the final implementation of the project, thus the project has addressed national priorities. To this end, it was sought, both in the information provided in the reports and through the semi-structured interviews, evidence that the project has been adapted to the development priorities of the country. Origin of the project concept and alignment to national programs; Incorporated national sectoral and development plans; Participation of important representatives of the country (e.g. government officials, civil society, local community etc.) in the identification, planning or execution of the project; political commitment of the Government and approval of policies or modification of regulatory frameworks according to the objectives of the project. Therefore, the objectives and results were aligned with the country program strategies, as well as with the global climate change, environmental benefits required by the GEF. The project has integrated, other UNDP priorities, such as poverty reduction, governance, empowerment of women, *not in real sence:" Gender", as* gender issues were not assessed/analysed before project formulation.

- **Mainstreaming**

Mainstreaming (linkage of project to UNDP programming instruments and development priorities): The 'resilience' project was developed between 2009 and 2010 under the past programming cycle of the UNDP and country program document. An independent evaluation of this programming period, assessment of development results, conducted in 2010 recorded increasing environmental threats and degradation, as well as strengthened focus of UNDP

priorities towards climate change and adaptation. This project was one of the projects of the UNDP portfolio to give answer to adaptation needs in agriculture and water sectors.

Consistent with the previous programming cycle, and in line with the national development priorities and the lessons learned from the assessment of development results, the current country program document focuses on democratic governance and human rights, pro-poor growth with equity and climate change, disaster risk reduction and response.

This projecthas contributed, beyond its own strategic area, i.e. climate change and development, to UNDP's strategic area pro-poor economic growth with equity, specifically to outcome 2 that aims to**– '***Small and medium scale climate change adaptation practices for agriculture, water and livestock resource management are demonstrated and implemented in selected regions'*and has contributed through trainings and technology transfer to enable population residing in climate change vulnerable Gabu area to develop viable agricultural production resulting in significant income increases for 15000 households*.* Moreover, the project has promoted and facilitated with the contribution from FAO for establishments of seed banks, tube wells that can act as social safety nets by developing contingency funds and providing venue for exchange of ideas and solutions.

Linkage to better Preparations to Cope with Natural Disasters: The project has acted directly on drivers of vulnerability for 14 villages of Gabu region rural populations at the field sites: hazard intensity, by enhancing the protection service of resilience, by significantly raising the income of 15000 households. The local beneficiaries were also informed during various trainings about 'better preparations to cope with natural disasters. During and after a disaster, effective training and communications must coordinate response efforts in order to limit secondary morbidity and disease[38]. Governmental, non-governmental, community-based Organizations must communicate early and frequently with multiple stakeholders to prevent panic and implement an orderly response plan. The government and other decision makers need to know what response efforts ongoing, and what type of further assistance are required where in order to coordinate relief support, if needed. This Project's professionals also wanted to know which health risks or diseases are increased in the current environment, how best to advise their clients and how they can stay informed of emerging trends while working in the field. The public wants to know how to obtain assistance, what ongoing personal risks they face, and how they can protect themselves and their families. Platforms for this type of messaging include media publications or interviews, Internet articles and social media, local forums informing, and frequent timely communication among responders.

Each disaster serves as a learning opportunity for the Government, UN, Project people/NGOs how to communicate better in the next disaster. lessons lerned by determining how the local village better understood the messages that usually

[38] Sellnow TL, Sellnow DD, Lane DR, Littlefield RS. The value of instructional communication in crisis situations: restoring order to chaos. Risk Anal. 2012

communicated to them during a disaster. Gaps in a disaster communication plan such as technical or complex instructions. Decision makers can leave groups vulnerable to misunderstanding the message, while methods of dissemination, and demographics can result in the message never reaching certain target populations.Despite all the existing mechanism, there is still a lack of understanding about communication, identifying communication as a top priority area for further disaster hit.[39]

Thirty representatives from local government bodies, ministries overseeing the agrarian, water, economic and education sectors and parliamentarians have participated at a workshop to improve their knowledge about climate change **mainstreaming into public policies**. Separate meetings were held with the National Directorate of Agriculture, Livestock and Water Resources and they resulted in agreement for the creation of a National Working Team to support climate change mainstreaming into development plans. In liaison with the Food and Agriculture Organisation of the UN and the National Working Team, the draft of the Agrarian Investment Plan was revised, and it now incorporates issues related to climate change. Moreover, the National Institute of Meteorology has increased its climate monitoring capacity following the rehabilitation of seven auxiliary meteorological stations in Eastern Guinea-Bissau and the training of 28 participants (of them 9 were female). In addition, Gabu's Regional Meteorological Station has been constructed and equipped.

- **Mainstreaming 'Gender issues'**

Africa, and West-Africa in particular, rank among the most vulnerable regions to climate variability and change. Under current conditions these regions have naturally high levels of climate variability and rain-dependency, high reliance on climate sensitive activities, regular food crisis and water scarcity, and limited economic and institutional capacity to cope with, and adapt to, climate variability and change. In addition, *it is probable that, due to climate change, vulnerable people face while increases in temperatures, greater unpredictability of rainfall that is likely to exacerbate existing water shortages, very likely reductions of cereal crop productivity, and surges in disease, pest and weed pressure on crops and livestock*[40]. *Women and men are differently affectewd by issues of climate change and resource degradation*[41]. Much of the literature on gender and climate change acknowledge that womenand children are more vulnerable to climate change, and women are often represented as a homogenous group[42].

Direct beneficiaries of the project, the rural communities of Gabu, Guinea-Bissau maintained traditional gender roles that include women's participation in public affairs, but they do not get equal opportunities as men received from the project. Although women were present in the focus group discussions, maintained with representative beneficiary households, they were strictly separated from male respondents and needed special encouragement to participate in the discussion. Gabu regional government officials were aware of inequity issues affecting women and are thus supportive of the integrating

[39] Mackway-Jones K, Carley S. An international expert delphi study to determine research needs in major incident management. Prehosp Disaster Med. ,2018
[40] Niang et al., 2014.
[41] Ajibade et al., 2013
[42] Arora-Jonsson, 2011

approach of the project, i.e. inclusion of women in trainings and livelihood activities. In general, Women farmers are less likely than men used modern inputs such as improved seeds, fertilizers, pest control measures and tools, women had less education, less access to extension services, and less available free time, which put them it more difficult conditions to gain access to and use some of the other resources, such as land, credit and fertilizer. The real challenge for women, however, was not accessing outside institutions in general but specifically overcoming tremendous anti-women biases by public and private agencies that foster agriculture and livestock production. These biases make female-headed households highly vulnerable to food insecurity, and also increase the challenges in adapting their farming practices to economic and climatic risks. Though, gender plays an important role as some individuals may be constrained from pursuing particular adaptation options by a lack of access to or control over assets or social or cultural limitations.[43]Among vulnerable groups, comprised of both men and women, found that climate did not factor directly into their perceived risk assessments. Issues such as poor health, lack of money and infrastructure were much more prominent in their concerns.

As the implemented project made substantial contributions beyond its focus on climate change adaptation, and disaster risk reduction, to the critical strategic area of pro-poor economic growth, and the project outcome made important efforts towards women's empowerment by trying to integrate women in trainings and other project activities, however, evolution of traditional *'gender roles'* and associated *'inequity'* would need the combined ***mainstreaming*** initiatives and longer timeframes than that available for a project of this type only.*Gender alone*, however, is not a significant determinant of vulnerability. While the impacts of climate change on different genders needs to be taken into account, a broad perspective beyond agricultural concerns needs to be also considered.

Based on the above mentioned theoritical and practical aspects it is necessary to conduct in Depth research on gender and climate change, analyze concerns of unequal environmental decision-making processes. Al least, **based on the gender análysis formulate next Project** to establish equal opportunities baased on different needs of men and women, boys and girls.

- **Sustainability (*)**

The terminal evaluation visited Gabu implementation 'pilot model' sites two years after the last activities of the project in said sites took place. It was still found the agriculture and livestock production, utilization of seed bank, rain water storage throughexcavated pondsfor cattle, tubewells for drinking water, dam construction, Production of rice, maize, vegetables were still functioning in the field and was in full utilization by the beneficiaries and all interviewed beneficiaries reported about significant income increases during the focus group discussions. However, some beneficiaries also expressed concern and were expecting continuation of support for the agricultural inputs, as well as animal feeds, vaccination. Some respondents expressed that if there will be"no money support, there will be no sustainability"!

[43] Nyantakyi-Frimpong and Bezner-Kerr, 2015

As there are enough evidences in place at the project sites, as well as a consistent policy support to develop and implement livelihood activities in the line of the supports by this project, the terminal evaluation rates the institutional sustainability as **Moderately likely.**

Government and external financial support for agriculture, livestock, water supply including the 'pond' model supported by this project found secured till date. Moreover, agricultural production in most pilot sites is likely in most of the sites seems to be self-sustained and generating increasing income for households, despite the lack of self-reliance of some beneficiaries. Therefore, the terminal evaluation rates the financial sustainability of the project benefits as **Moderately likely**.

- **Socio-economic Dimention**

If Government of Guinea Bissau will continue rendering financial support for project's 'pilot activities' under the revised policies on agriculture, livestock, water resources (which were made as *'climate proof'* under this pilot project) for the current and next years to come, then it may be viable in terms of socio-economic dimention.(Respondents from the responsible national agencies, assured their commitment and moral support). Local government representatives interviewed by the terminal evaluation team manifested their understanding and awareness of the importance of '*adaptation and resilience project'.*

All concerned govt. stakeholders, 4 NGOs, local communities and beneficiaries are committed to the continuation of started pilot works, although conflicts among the mentioned stakeholders may occur occasionally, at the project sites, the combination of cooperation between Gabu local government and NGOs then the beneficiaries make the socio-economic sustainability of the project benefits **moderately likely**.

Likelihood of increasing exposure to climate hazards in terms of people living in the areas and development, i.e. an increase in the value of assets, including roads and communication, agro-based production is likely to increase in the next decades. In fact, the project has increased exposure by supporting establishment of vulnerable (because they are climate-dependent) production models in Gabu rural areas. This, together with the likelihood of a severe draught or a heavy rainfall, flush flood hitting projects areas in the next decade may make the sustainability of the project benefits **not likely in the long term.** However, the increased household income generated by the project activities have undoubtedly build up adaptive capacity and has, at least partially, increased the awareness levels, through trainings. This, i.e. the economic viability of the agricultural models to the **likelihood of sustainability in the short term (10 years or less**). Therefore, the terminal evaluation rate the sustainability of project benefits, in its environmental dimension terms as **moderately likely.**

Recommendation: The viable livelihood provided to almost 15thousand households in the project sites must be used by them to build up assets, particularly human capital in terms of education for the next generation that will

allow families to move out of farm jobs. A mid-term strategy to abandon climate sensitive activities in the Gabu area, must be encouraged by the government and its development partners by facilitating generation of non-farm jobs. A sound population and resettlement policy must be also developed to avoid migration to exposed areas. Of course, all these would depend to a high degree in the interplay among factors such as population growth, economic growth, and other dynamics that are way beyond the scope of any individual project.

- **Catalytic Role**

The project's outcome-1 achievements have played a strong catalytic role in formulation of new four (4) development projects, namely:

- Elaborated and technically approved the PIF of the project " *Operationalization of an Early Warning System* (US 6,000,000-LDCF) Funded the *Scaling-up the Climate-Intelligent Agriculture in the Eastern Regions of Guinea-Bissau* (USD 10,000,000, in partnership with BOAD - Adaptation Fund) and Coastal Strenghthen the resilience of vulnerable coastal areas and communities to climate change in Guinea-Bissau(USD 12,000,000 UNDP /GEF).
- € 4,000,000 from the European Union to implement the Global Climate Changes Alliance (GCCA) in which approximately € 350,000 is earmarked for the *operationalization of the Secretariat for the implementation of the Adaptation Durable Financing Strategy in the short, medium and long term.*
- Mobilized USD 60,500 through a partnership with national implementing partners (Directorate General of Engineering and Rural Development, Directorate General of Agriculture and the National Institute of Agrarian Research) for the breeding and raising of animals, acquisition and distribution of sedes.
- 877,000 to support climate change risk management in the Gabu, Bafata and Cacheu regions through development partners (GoGB - 57,000, EU - 400,000, GEF / LDCF - 300,000, Australian Government - 70,000 and GEF / SGP - USD 50,000).
- Rural women and communities have disseminated the climate adaption technology to other rural dwellers/farmers which has a ***'domino'*** effect of the Project outcomes.

- **Impact (*[44])**

Production of public goods, demonstration materials production, replication of awareness materials were done properly and dessiminated to target people in timely manner. As the first action-oriented and tangible national climate adaptation project in Guinea-Bissau, this project has an initial and important step to assist the country's shift towards a pathway of climate-resilient-

development. By the end of the project, Guinea-Bissau had received assistance to transform its 5 policies in that way, they included climate change concerns.

[44] * Rating conducted

Ultimately, the agrarian and water sectors will become more resilient to climatic pressures[45] .The current policy and regulatory framework, especially the agriculture, livestock, water resources Policies and support to enable the implementation of similar activities. Moreover, this enabling environment will only be enhanced if the policy recommendations submitted by the project to the Secretariat of State Environment are fully incorporated into their respective policies, what seems very likely in the case of the Secretariat of State Environment.

Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected regions.

Farmers have been supplied with short-cycle seeds for maize, rice, peanut and sorghum. Field trainings on climate-resilient agricultural techniques, the prevention of soil erosion, water management and restoration of soil fertility have been organised in targeted villages. Six villages were equipped with improved seed/cereal banks which contributed to the reduction of post-harvest losses. Livestock farmers started the production of fodder upon receipt of seeds. 24 collective demonstration fields for fodder production were successfully established and 73 hangars for fodder storage were constructed and and functioning in 21 villages. A vaccination campaign completed the project has increased the resilience of roughly 13,500 animals against common diseases. Nine villages have now access to potable water as a result of building improved wells and water holes and eleven villages have set up water-infrastructure management committees, of which 50 percent are female members.

3 Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes have been disseminated.

A Rural Climate Change Forum was established to promote climate change awareness, provide input on project communications and assess the impact of project activities on peoples' lives. A publication and video-film on climate change was produced and shared. Two success stories from farmers were shared. Ultimately, knowledge items and lessons will be documented, and a series of dissemination events and products will target other areas of Guinea-Bissau and the wider West African region.

Government, NGO officials manifested increased awareness on climate change and adaptation due to the plans, manuals and trainings provided by the project. Also, community respondents, for the most part, express confidence in the continuation of the benefits provided by the project and were, in general terms, satisfy with the capacities acquired with the support of the project.

The project has significantly contributed to increase adaptive capacity of human populations is changed, particularly vulnerable, rural area dwellers by providing them with technology, inputs and human capital for self-reliance.

[45] Source: Project briefs, 2016

The **impact of the project has been significant**, at the scale it operated, i.e. in 14 villages of Gabu region both in terms of agriculture, livestock production as well as adaption capacity for human, livestock populations. However, given the likely effects of climate change (changingrainfall seasons, temperature increase, change and intensity and frequency of rainfall) this should not be a long-term strategy, as increasing exposure at the plain land can actually lead to increased risks of loss and damages due to climate hazards.

4. Conclusions, recommendations & lessons

4.1 Conclusions

i. As the project preparation was participatory and consultative and resulted in a quality project document. the intervention logic was relevant, and the logical framework was well constructed. The project was very consistent with Guinea Bissau's National priorities and international commitments.

ii. At the end of the Project, all planned performances were successfully acheived those can be utilized with high confidence level to other Guinea-Bissau areas and lessons learnt can be successfully disseminated.

iii. No one of the 12 partners of the Project did face substential problems during the implemention of the planned activities, even though the difficulties encountered during implementation, the project did manage to achieve its main objectives and overall outcomes at the end of Project period.

iv. All 14 villages were equipped with '*Contingency Plans*'[46] and actively managed and therefore provided rapid responses to some flood events. Elaborated the Plan of engagement of the key actors in the management of climatic risks. Five (5) policy documents (Agricultural Development Policy Charter, Livestock Development Policy Charter, Water and Sanitation Scheme Directorate, National Poverty Reduction Strategy Paper (DENARP II) and Gabu) have been incorporated into the climate change dimension since March 2015.

v. Nnew documents yieided: Durable Financing Strategy for Adapting Climate Change in the short, medium and long term and the Agro-ecological Charter and Vulnerability of the Region of Gabu.

vi. Technically developed and approved the PIF of the project "Assembly and Operationalization of an Early Warning Systems.Developed the NAP Project that will be submitted to the FVC through the Readiness Fund

[46] *A contingency plan is a course of action designed to help an organization respond effectively to a significant future event or situation that may or may not happen. A contingency plan is sometimes referred to as "Plan B," because it can be also used as an alternative for action if expected results fail to materialize. Contingency planning is a component of business continuity, disaster recovery and risk management.*(*source*: https://whatis.techtarget.com/definition/contingency-plan) Here, Basic objective of this initiative was to support the integration of disaster risk reduction and climate change adaptation.

(3,000,000 USD); Strengthened the capabilities of the National Institute of Meteorology in climate prediction;Prepared and disseminated annually the Agro-meteorological Bulletins of the follow-up of the agricultural campaign through the Multidisciplinary Working Group; Achieved: Average yields of major dry cereal crops increased: bacillus maize: 962 kg / ha (48%), sorgum: 919 kg / ha (30%); black maize: 886 kg / ha (32%), peanut: 1030 kg / ha (32%) and rice: 1615 kg / ha (50.46%).Availability of guaranteed food for two more months (last joint mission report, June-July 2017) through storage of cereals in banks, improved animal health - provision of medicines; introduction of improved breeds of animals and cultivation of forage plants; The average water consumption per inhabitant increased by 39.05 liters in the plots covered by the Project Mobilized more than 113000 m3 additional water per year.

vii. The number of total beneficiaries in the 14 villages was 13,000 inhabitants. More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project.

viii. Elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video filmes in Portuguese and English, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www.climatechange-gb.org) and facebook (climate change).

ix. The project final total budget amounted to 4,320,000 USD. 5,300,000 USD grant was allocated for this project from the Least Developed Country Fund (LDCF), out of which 130,000 was initially utilized for project document formulation by an external consultant and remaining 4,000,000 USD left for project activities. To this amount 320,000 USD grant was added by UNDP. But at the end of the project, UNDP's spent amounted to 467,548.16 USD which was utilized for the project. The Government of RGB through its Secretariat of environment provided an in-kind contribution valued at 1,500,000 USD. Additional in kinds grants were secured from FAO, afDB. At the end of the project period, 100.02% of total budget was utilized for the project during 2011-2017 (see table 5 for details). The project co-financement (in kinds) has not been properly monitored.

x. The project results included three outcomes articulated in several outputs. Results were well formulated, i.e. they used change language and were consistent with SMART criteria. All Outputs support 3 outcomes which contributed for expected results and led to the fulfillment of oneobjective of the project. The project logic was solid and consistent. Realization of the project's effects (outcomes) led to the change, provided project assumptions hold true.

xi. Out of 18 recommendations of the Mid term-evaluation 13 were fully implemented, 4 were partially implemented and, 1 could not be implemented.

xii. The project counted with a good monitoring and evaluation system, which was improved by suggestions made by the midterm review team. Monitoring was appropriate to local realities and was conducted, at least partially, as regular tasks of line government agencies. Actual project monitoring was conducted seriously and professionally, and monitoring results played an important role in managing the project. Therefore, the terminal evaluation rates design, actual implementation and overall quality of the project's monitoring and evaluation system as Moderately Satisfactory-MS.

xiii. Both the implementing (UNDP) and executing (Secretariat of State of Environment) agencies provided adequate and proactive support both in technical and administrative terms, thus enhancing significantly the performance of the project. Therefore, the terminal evaluation respondents' rates both agencies' performance as Moderatelysatisfactory. However, a better coordination at field level could have avoided the significant transaction costs involved in the project's field activities.

4.2 Recommendations

- **Corrective actions for the design, implementation, M&E of the project**

i. Issues of availability of inputs after project end must be considered, and, when suitable, the possibility of developing local alternative to expensive or unavailable inputs, e.g. organic fertilizer production, integrated pest management or unconventional livestock feed. Suitability will depend on local factors and expected yields based on the effectiveness of the alternative inputs, e.g. cattle protein requirements are notoriously more rigid than land animals. Moreover, individual initiative seems to be an important factor of sustainability, with more engaged or pro-active households leading solutions to shortcomings and limitations. Thus, project field staff could have worked to identify champions among the communities and, as the project did,facilitated the seed bank to serve as venue for the exchange of solutions and sources of seed money to cover for pre-harvest expenses.

ii. Based on the theoritical and practical aspects it is necessary to conduct in Depth research on gender and climate change, analyze concerns of unequal environmental decision-making processes. Based on the gender análisis formulate next Project to establish equal opportunities based on different needs of men and women, boys and girls.

Action to follow up or reinforce initial benefits from the project

iii. Implement the second phase of the Project (Promotion of Intelligent Climate Agriculture in the Lesta Region of Guinea-Bissau based on the lessons learned from the first phase of the Project.

iv. The inter-institutional partnership should continue to function and the government should continue to support populations with the availability of short duration, high yielding varieties of beans, rice, amedoin, maize and sorghum adaptable to changed climatic conditions.

Proposal for future directions underlining main objective

v. Water Management Committees and built hydraulic infrastructures should continue their work in order to ensure the sustainability of these infrastructures.

vi. In order to enhance more impacts of the Project, the results obtained in pilot phasemust be replicated throughout the region, as the Gabu Region has approximately 750 villages. The Government/private investors should participate/continue to support successful implemented actions.

vii. Introduce motor-cultivators, tractors, grain grinding and deboning machines (powertiller and thersher) and provision of farming mecheneries & equipments, excavating holes/water reservoir using the solar panel to pump water at the same time, encourage farmers to Organize cooperatives for the marketing of agricultural products.

viii. Support in the conservation of community forests of village, Construction of more dams needed for smooth Flow of wáter, Support village communities for disaster recovery and 'contengency planing' maintenance by updating regularly, Include local community to M&E committees.

4.3 Lesson Learned[47]/[48]

As exposed above, the project has been successfully implemented, has achieved most of its targets and has had significant and sustainable impacts, at least within its geographical scope and in the project span time.

The terminal evaluation identifies the drivers behind this success as:

i. The project governing structures included all relevant stakeholders, at both national and local level. Inclusion of the main implementing partners, at national level, in the Project streering committee has facilitated implementation at field level and will serve to facilitate the project's policy link, i.e. adoption of policy mainstreaming recommendations submitted by the project. Moreover, the co-management committees at Gabu region level worked to ensure cooperation and synergies with the local

[47] Primary and secondary data /information based

[48] lessons that have been taken from the evaluation, including best practices that can provide knowledge gained from programmatic and evaluation methods used, partnerships, financial leveraging, that are applicable to other GEF and UNDP interventions.

government, NGOs and field offices of the national agencies involved. As the steering committee could not 'sit' periodically as planned (bad practice) performance and success of the project was not 'satisfectory' in every aspect. In future projects, this 'practice' should be avaided.

ii. This project outcome results Played catalytic role in formulation of new 5 projects with commitment from donors for financial support to continue pilot activities of the project.

iii. In mainstreaming of climate change options in 5 policies.

iv. The empowerment of the project management unit was critical for project success. This is not only due to the expertise mix provided by its staff, but, more importantly by the dynamism and capacities of the project manager. Future projects must encourage the selection of project manager that possess leadership skills, and whose technical capacities are known and recognized by relevant stakeholders.

v. Detail and thorough monitoring and effective reporting of monitoring data, in terms of project data (financial expenditure and indicator framework), as well as beneficiaries have effectively supported adaptive management.

vi. Including communities, NGOs in the management of resources, they are being supported with livelihood alternative that allowed them to abandon, or at least decrease, activities detrimental to ecosystem functions that provide critical adaptive services in this case.

5. Annexes

Annex A: TOR of the Assignment for Terminal Evaluation

PROCUREMENT NOTICE

UNDP-GEF-LDCF: Terminal Evaluation Procurement Notice

Strengthening adaptive capacity and resilience to Climate Change in the Agrarian and Water Resources Sectors in Guinea-Bissau

Position Title: Independent Evaluation Team

- International Consultant (Team Leader)
- National Consultant
-

Period and duration of the Mission: 30 calendar days, beginning April 23rd, 2018.

Proposals should be sent to:umaro.seidi@undp.org or http://jobs.undp.org,email no later than 15th May 2018.

1 - PROJECT BACKGROUND INFORMATION AND OBJECTIVES

The proposed project is based on the priority adaptation option identified in Guinea-Bissau's National Adaptation Programme of Action (NAPA). The impacts of climate change on Guinea-Bissau's agricultural water resources will affect human health, agricultural production and food security. Predicted climate change scenarios are likely to constrain long-term development through: (i) increased temperatures, affecting crop productivity, disease spread and water availability; (ii) changing rainfall volumes and variability, including more frequent events of short and intense rains, causing flash-floods in several catchment areas; (iii) progressive sea level rise and salt water intrusion. Consequently, a major challenge for Guinea-Bissau is to mainstream climate change adaptation measures into integrated agricultural and water resource management across different institutional, social and spatial frameworks. Technical capacity of both government and local communities to manage the emerging threats imposed by climate change is required. The likely impacts of climate change are still poorly understood and the need for adaptation not sufficiently incorporated into relevant frameworks. The proposed project will build adaptive capacity and increase the agriculture and water sector's resilience to climate change. Financial resources from the Least Developed Countries Fund (LDCF) will be used to address systemic, institutional and individual capacity gaps to manage agricultural and water resources for human, agricultural and other uses in the face of a changing climate. This will include focused capacity-building measures that are additional to the existing baseline both at the national and regional level for agrarian and water planning and management systems, and development of policies, strategies, decision-making processes, relevant budgeting and monitoring systems. The project will also support the demonstration and implementation of climate-resilient water and land management techniques located in the semi-arid rural area of eastern Guinea-Bissau. Lessons-learning and relevant knowledge dissemination will equally be enhanced.

The Project Objective is to increase resilience and enhance key adaptive capacity to

address the additional risks posed by climate change to the agrarian and water sectors in Guinea-Bissau. Three outcomes will contribute to this objective:

- Climate change risks and adaptation measures integrated into key national policies, plans and programs for water, agriculture and livestock management.
- Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected region.
- Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes are disseminated.

2 - TERMS OF REFERENCE, RESPONSIBILITIES AND DESCRIPTION OF THIS TERMINAL EVALUATION

An assessment of the project's performance will be carried out on the basis of expected results in the Logical / Project Results Framework (see Annex A) that provides information on performance and impact indicators for implementation. of the project, thus the corresponding sources of verification for each indicator. The evaluation will include, at least, the criteria for:

- **Relevance**: Determine whether the objectives of the intervention match the expectations of beneficiaries, the needs of the country, and the overall priorities of the Strengthening adaptive capacity and resilience to Climate Change in the Agrarian and Water Resources Sectors in Guinea-Bissau project and other project partners.
- **Effectiveness**: Specify whether the objectives of the intervention have been achieved, or are potentially achieved, considering their relative importance.
- **Efficiency**: Specify whether the expected results and / or effects have been obtained at a lower cost (funds, expertise, time, administrative costs, etc.).
- **Impact**: Indicate whether positive and negative long-term effects, primary and secondary, are produced by the intervention, directly or indirectly, expected or unexpected.
- **Sustainability**: Specify whether the benefits of the intervention continue after the end of the external intervention, or the likelihood that these benefits will last in the long term by resisting the risks.

Annexes B and C provide lists of documents for review and evaluation questions. The Score must be awarded according to the following performance criteria, below. The final table must be included in the executive summary of the evaluation. Mandatory scores are included in Annex D.

EVALUATION RATINGS

1. Monitoring & Evaluation	***Score***	**2. IA& EA Execution**	***rating***
M&E early design		Quality of Implementation - UNDP / MADS	
M&E PlanImplementation		Quality of Execution - UNDP / MADS	
Overall M&E		Global Quality of Implementation/ Execution	
3. Product Evaluation	**Score**	**4. Sustainability**	**rating**
Relevance		Financial ressources:	
Effectiveness		Socio-political:	
Efficiency		Institutional Framework and Governance:	
Overall Product Score		Environmental:	

		Probabilité globale de la durabilité:	

3 - EVALUATIONS DELIVERABLES

The evaluation team will provide UNDP with a methodological note and timeline of how the evaluation exercise will be conducted and will benefit from UNDP support for desk research and interviewing. Precisely,

- UNDP will prepare all the necessary documentation for the consultation; and
- It will support the consultant in obtaining additional documents and arranging interviews.

The project evaluation will be overseen by the UNDP Program Officer / Sustainable development Cluster and the UNDP-Bissau M & E Expert.

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission.	Evaluator submits to UNDP CO
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to CO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to CO for uploading to UNDP ERC.

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

4 - TEAM COMPOSITION

The evaluation team will be composed of two independent consultants (one international consultant and one national). The consultants shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. The international consultant will be designated as the Team Leader and will be responsible for finalizing the report. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The Team members must present the following qualifications:

- Minimum *10* years of relevant professional experience;
- Knowledge of UNDP and GEF;
- Previous and recent experience with results-based monitoring and evaluation methodologies;
- Technical knowledge in the targeted focal area(s);
- Experience using SMART indicators and reconstructing or validating baseline scenarios;

- Experience working with the GEF or GEF-evaluations, may be an asset;
- Experience conducting similar evaluations in West Africa might be an advantage;
- Demonstrated understanding of issues related to gender and Climate Change Adaptation; experience in gender sensitive evaluation and analysis;
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experiences within United Nations system will be considered an asset;Fluency in both Portuguese and English/French.

Qualifications of Team Leader (International Consultant)

1. Have a master's degree in development studies, economics, environment or fields related to Climate Change Adaptation;
2. A minimum of 10 years of relevant experience is required;
3. Substantive experience in evaluating similar projects, preferably those involving UNDP/GEF or other United Nations development agencies or major donors;
4. Excellent Portuguese and English/French writing and communication skills;
5. Highly knowledgeable of participatory monitoring and evaluation processes, and experience in evaluation of technical assistance projects with major donor agencies;
6. Ability and experience to lead multi-disciplinary and national teams, and deliver quality reports within the given time;
7. Familiarity with Guinea-Bissau or other countries in West Africa is an asset; and
8. Excellent inhuman relations, coordination, planning and team work.

The team leader will take the overall responsibility for the quality and duly submission of the final evaluation report in French or English. Specifically, the international consultant (team leader) will perform the following tasks:

1. Lead and manage the evaluation mission;
2. Design the detailed evaluation scope and methodology (including the methods for data collection and analysis);
3. Decide the division of labor within the evaluation team;
4. Conduct an analysis of the results, outcomes and outputs;
5. Draft related parts of the evaluation report; and
6. Finalize the whole evaluation report in Portuguese and English and submit it to UNDP Guinea-Bissau.

Qualifications of a team expert (National Consultant)

1. Advanced university degree (License diploma) in social science, environment, and biodiversity or in fields related to Climate Change Adaptation;
2. A minimum of 7 years of working experience in the development and/or environment sectors in Guinea-Bissau is required;
3. Have an extensive knowledge of the country situation and development issues related to climate change adaptation;
4. Demonstrated skills and knowledge in participatory monitoring and evaluation processes;
5. Experience in monitoring and evaluation of conservation and development projects, supported by UN agencies (including UNDP/GEF) and/or major donor agencies is an asset;
6. Proficient in writing and communicating both in Portuguese. Working knowledge of English/French is an asset;

7. Ability to interpret to the international counterpart from Creole/Fula to Portuguese as needed (e.g., in the field) and also to translate necessary written documents from French or English to Portuguese;
8. Excellent inhuman relations, coordination, planning and team work.

The national consultant will perform the following tasks with a focus on a specific analysis:

1. Liaise with Bissau-Guinean project authorities; collect and translate, when necessary, project materials;
2. Introduce Bissau-Guinean background information to international consultant;
3. Review project documents and data gathering;
4. Participate in the design of the evaluation methodology;
5. Facilitate the interviews with stakeholders and fields mission to villages taking the appointment;
6. Conduct an analysis of the results, outcomes and outputs;
7. Participate in the drafting and finalization the terminal evaluation report

Annex B: Itinerary

Mission of Final Evaluation of the Project "Strengthening Resilience and Capacity to Adapt Agrarian and Water Sectors to Climate Change in Guinea-Bissau"

Nº	Day	Time	Function	Name	Instituição
1	29/01/2019	09:00	Ntional director of Project/General Inspector of Environment	Guilherme da Costa	Secretariat of State of Environment (SEA)
2	29/01/2019	11:00	General Director of Agriculture	Carlos amarante	General Directorate of Agriculture/Ministry of Agrculture and Rural Development
3	29/01/2019	12:00	Director of Service of Water Resources	Mário Alcino Ramos	General Directorate of WaterResources/Ministry of Energy, Natural Resources and Industry
4	29/01/2019	15:00	General Director of Livestock	Bernardo Cassamá	General Directorate of Livestock/Ministry of Agrculture and Rural Development
5	30/01/2019	9:00	President	João Lona Tchedna	National Institute of Meteorology
6	30/01/2019	9:00	Administrative and Finacial Director	Francisco Dias	National Institute of Meteorology
7		9:00	DGOMAI	Cherno Mendes	National Institute of Meteorology
8	30/01/2019	9:00	Meteorological Ingeenier	Maria de Fátima Nosoliny	National Institute of Meteorology
9	30/01/2019	9:00	Director of Service	Fernando Baial Sambu	National Institute of Meteorology
10	30/01/2019	11:00	Director of Cabinet of SEA	Vaz Lourenço	National Institute of Meteorology
11	30/01/2019	12:00	Former presidente	Marcos A. Lopes	National Institute of Agrarian Reshearch
12	30/01/2019	14:00	DG	Mário Biaguê	Environmental Impact Assessement
13	05/02/2019	9:00	Program Sp.	Dauda Sau	UNDP
14	05/02/2019	11:00	GEF Operational Focal Point	João Raimundo Lopes	Secretariat of State of Environment (SEA)
14	05/02/2019	11:00	Operational Focal Point/GEF	João Raimundo Lopes	Secretariat of State of Environment (SEA)
15	01/02/2019	10:30	Mamadu Mané	DRPlano	APESS NGO
16	01/02/2019	10:30	Francisco Pereira	Gov. Gabu	Gov. Gabu
17	01/02/2019	10:30	Bernardino dos santos	Executive Secretary	GDVR NGO
18	01/02/2019	10:30	Mário Cunte	Technical	DR Agricultura
19	01/02/2019	10:30	Francisco Ansumane mané	Executive Secretary	APESS
20	01/02/2019	10:30	José Adramane Djaló	Former Governor	Governo Regional de Gabu
21	01/02/2019	10:30	Nicolau dos Santos	Regional director of Livestock	Regional Directorate of Livestock

Focus Groups Discussion/meeting

Day	Time	Villages	Population Total	Total Direct beneficiaries (households)	FGD conducted	Female	Male
01/02/2019	12:00	Madina Benfica	741	123	36	23	**13**
01/02/2019	15:00	Camadjaba	605	101	89	59	**30**
02/02/2019	09:00	Sedjo mandinga	790	132	46	31	**15**
02/02/2019	12:00	Camalidja	628	105	66	32	**34**

Annex C: List of persons /Key informants interviewed

Missão de Avaliação Final do Projecto

"Reforço de Resiliência e da Capacidade de Adaptação dos Sectores Agrário e Hídrico às Mudanças Climáticas na Guiné-Bissau" (Mission of Final Evaluation of the Project, "Strengthening Resilience and Capacity to Adapt Agrarian and Water Sectors to Climate Change in Guinea-Bissau")

Data: 29-31/01/2019

Nº	Nome	Função	Instituição	E-mail
1	Guilherme da Costa	DNP/IGA	SEA	Dacostaguilherme020@gmail.com
2	Carlos amarante	DG Agricultura	DGA/MADR	Cmtamarante90@yahoo.fr
3	Mário Alcino Ramos	Director de Serviços	DGRH/MERNI	marioalcinogomes@yahoo.fr
4	Bernardo Cassamá	DG	MADR/DGP	Bernardo.cassama@gmail.com
5	João Lona Tchedna	Presidente	INM	J_lona@yahoo.fr
6	Francisco Dias	DAF	INM	diasarmandinho@gmail.com
7	Cherno Mendes	DGOMAI	INM	chernoluis@gmail.com
8	Maria de Fátima Nosoliny	Engª Meteorológica	INM	frovgi@yahoo.com.br
9	Fernando Baial Sambu	Director de Serviço	INM	Ferbas2000@gmail.com
10	Vaz Lourenço	Chefe do gabinete da SEA	SEA	Vaz_coni61@yahoo.com.br
11	Marcos A. Lopes	Ex. presidente	INPA	Lopes_marcosantonio@yahoo.com
12	Mário Biaguê	DG	AAAC	mbiague@hotmail.com
13	Dauda Sau	Program Sp.	UNDP	Dauda.sau@undp.org
14	João Raimundo Lopes	PFO/GEF	SEA	jraylopes@yahoo.fr
15.		Focal point	GEF	
16		Minister	Ministry of Agriculture	

Annex D: Summary of field visits/Lista de Presença

Missão de Avaliação Final do Projecto, Gabu

Data: 01/01/2019

Nº	Name	Funtion	Institution
1	Mamadu Mané	DRPlano	APESS
2	Francisco Pereira	Gov. Gabu	Gov. Gabu
3	Bernardino dos santos	Secretário Executivo	GDVR
3	Mário Cunte	Técnico Superior	DR Agricultura
4	Francisco Ansumane mané	Secretário Executivo	APESS
5	José Adramane Djaló	Ex. Governador	Governo Regional de Gabu
6	Nicolau dos Santos	DR da Pecuária	DRP

Lista de Presença

Missão de Avaliação Final do Projecto, Focal Groups

Data: 01-02/02/2019

Villages	Population Total	Total, Direct beneficiaries (households)	FGD conducted	Female	Male
Madina Benfica	741	123	36	23	**13**
Camadjaba	605	101	89	59	**30**
Sedjo mandinga	790	132	46	31	**15**
Camalidja	628	105	66	32	**34**

Annex E: References/list of documents reviewed

1. Chambers, R., & Conway, G. (1991). Sustainable Rural Livelihoods: Practical Concepts of the 21st Century. London: Ids.
2. Midgey, Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fith Assessment Report of the Ipcc. New York: Cambridge University Press.
3. Gef. (2008). Guidelines for Gef Agencies in Conducting Terminal Evaluations. Washington, Usa:
4. Guha-Sapir, D., Below, R., & Hoyois, P. (2 De January De 2016). Em-Dat: The Cred/Ofda International Disaster Database. Retrieved From Université Catholique De Louvain – Brussels – Belgium: Www.Emdat.Be
5. Ipcc. (2007). Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment. En Ipcc, Climate Change 2007. Cambridge: Cambridge University Press.
6. Undp. (2009). Handbook of Planning, Monitoring and Evaluating for Development Results. New York: Undp.
7. Undp. (2011). Assessment of Development Results: Evaluation of Undp Contribution, Bangladesh. New York: Undp.
8. Undp. (2012). Guidance for Conducting Terminal Evaluations of Undp-Supported, Gef-Financed Projects. New York: Undp.
9. Undp. (2012). Project Level Evaluation Guidance for Conducting Terminal Evaluations of Undp-Supported, Gef-Financed Projects. Evaluation Office. New York: Undp.
10. World Bank. (2013). Project Information Document, Appraisal Stage, Coastal Embankment Project Phase 1 (Ceip 1). Washington: World Bank.
11. World Bank. (2016, February 07). Faqs: Global Poverty Line Update. Retrieved from Http://Www.Worldbank.Org/En/Topic/Poverty/Brief/Global-Poverty-Line-Faq
12. UNDP EVALUATION GUIDANCE FOR GEF-FINANCED PROJECTS VERSION FOR EXTERNAL EVALUATORS, (FINAL DRAFT, MARCH 17TH, 2011)
13. Undp Project Briefthe Republic of Guinea-Bissau: "Strengthening Resilience And Adaptive Capacity to Climate Change in the Agrarian And Water Sector", January 2015.
14. Terminal Evaluation "Support to the Consolidation of a Protected Area System in Guinea-Bissau's Forest Belt", Undp 2018
15. Mid-Term Review, Partnership Framework Between Guinea-Bissau and the United Nations, Undp Guinea-Bissau, Jan 2018.
16. United Nations Development Programme, Country: Guinea-Bissau, Project Document, 2015
17. Project Title: Strengthening Adaptive Capacity And Resilience to Climate Change in the Agrarian and Water Resources Sectors in Guinea-Bissau, 2009.
18. Mtr of Strengthening Adaptive Capacity and Resilience to Climate Change in the Agrarian and Water Resources Sectors in Guinea-Bissau, Undp, 2015.
19. Rapport D'évaluation À Mi-Parcours
20. Projet Pnud Fem: Appui À La Consolidation Du Système D'aires Protégées Dans La Ceinture Forestière De Guinée Bissau (Pims #3650) , Rapport Préparé Par Damien Kuhn Et Moises Lopes Février 2015.

2

Annex F: Summarized Evaluation Questions, indicators, ratingmatrix

a.**Rating Scales for Project Dimensions** (UNDP, 2012).

Project dimension	**Rating scale**
Performance of the implementing and executing agency	6 points. Highly Satisfactory (HS): no shortcomings 5 points. Satisfactory (S): minor shortcomings 4 points. Moderately Satisfactory (MS): moderate shortcomings 3 points. Moderately Unsatisfactory (MU): significant shortcomings 2 points. Unsatisfactory (U): major shortcomings 1 point. Highly Unsatisfactory (HU): severe shortcomings
M&E System	6 points. Highly Satisfactory (HS): no shortcomings 5 points. Satisfactory (S): minor shortcomings 4 points. Moderately Satisfactory (MS): moderate shortcomings 3 points. Moderately Unsatisfactory (MU): significant shortcomings 2 points. Unsatisfactory (U): major shortcomings 1 point. Highly Unsatisfactory (HU): severe shortcomings
Effectiveness of project outcomes	6 points. Highly Satisfactory (HS): no shortcomings 5 points. Satisfactory (S): minor shortcomings 4 points. Moderately Satisfactory (MS): moderate shortcomings 3 points. Moderately Unsatisfactory (MU): significant shortcomings 2 points. Unsatisfactory (U): major shortcomings 1 point. Highly Unsatisfactory (HU): severe shortcomings
Efficiency of project outcomes	6 points. Highly Satisfactory (HS): no shortcomings 5 points. Satisfactory (S): minor shortcomings 4 points. Moderately Satisfactory (MS): moderate shortcomings 3 points. Moderately Unsatisfactory (MU): significant shortcomings 2 points. Unsatisfactory (U): major shortcomings 1 point. Highly Unsatisfactory (HU): severe shortcomings
Relevance of project outcomes	1 point. Relevant (R) 0 point. Non-relevant (NR)
Impact	3 points scale:Negligible (N); Minimal (M); Significant (S)
Sustainability	4 points scale: 4Likely (L): negligible risks to sustainability; Moderately Likely (ML): moderate risks; Moderately Unlikely (MU): significant risks; Unlikely (U): severe risks

Rating Scales: Rating scale of the Terminal Evaluation

Ratings for Progress Towards Results: (one rating for each outcome and for the objective)		
6	Highly Satisfactory (HS)	The objective/outcome has achieved or exceeded all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome has achieved most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome has achieved most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome has achieved its end-of-project targets with major shortcomings.

2	Unsatisfactory (U)	The objective/outcome has not achieved most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its end-of-project targets.
Ratings for Project Implementation &Adaptive Management: (one overall rating)		
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.
Ratings for Sustainability: (one overall rating)		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

Annex G: Questionnaire used and summary of results

Summarized Evaluation Matrix

Project dimension	Question	Indicator(s)
Project design	How effective was the project design?	• Quality of project design in terms coherence, formulation and relevance to the local context
Project implementation	To which extent was the project country-driven?	• Inclusion of key stakeholders in government structures • Quality of M&E system • Implementing agency performance • Executing agency performance • Quality of financial administration
Project results	To which extent have the targets of the project been achieved	• Indicators of the logical framework • Ratio of costs/ achievements
Sustainability	How likely are project benefits to be sustainable?	• Likelihood of financial, socio-economic, institutional and environmental risks
Catalytic role	To which extent has the project introduced/ promoted public goods	• Production/ demonstration/ replication/ scale up of innovative technology or approaches
Impact	Has the project caused long-term changes inhuman/ecological communities?	• Verifiable improvements of reduction of stresses on ecological/ human communities

Evaluation Matrix. Evaluation questions ordered by sections of the terminal evaluation report.

Section	Evaluation questions	Indicators	Sources
Project formulation	¿Are the project results clearly formulated?	Project results are of SMART quality	Project document
	Is the project strategy based on valid assumptions?	Assumptions are outside project control, are valid, specific and verifiable, are very liley to certain to be present and are necessary conditions for the project strategy	Project document, Peer reviewed paper, grey literature, Stakeholders
	Have significant risks been identified and mitigation strategies outlined?	Risks have been identified that are outside project control but will have a significan impact if realized, valid, specific and verifiable, are moderately likely to occur but a mitigation strategy is feasible and within project control	Project document, Peer reviewed paper, grey literature, Stakeholders
	Have lessons learned from other projects been included in the project design?	Extent to which relevant lessons from other projects have been implicitly or explicitly integrated into the project design	Project documents, Peer reviewed paper, grey literature, Stakeholders
	Are the project results logically connected and internally coherent?	Degree to which the casual mechanisms between outputs, outcomes, objective and impact are valid and coherent (not contradictory)	Project document, Peer reviewed paper, grey literature, Stakeholders
	Is the project concept in line with national development priorities and plans of the country?	Project goals and outcomes contained within the national/ local policy framework or are likely to be included in said policy framework	Policy documents, Peer reviewed paper, grey literature, Stakeholders

Annex H: Description of Gabu Field Sites

The Gabu region, located in eastern Guinea-Bissau and particularly the Pirada and Pitche sectors, are threatened by the effects of climate change, since in these contexts the capacity to adapt to these changes is limited.

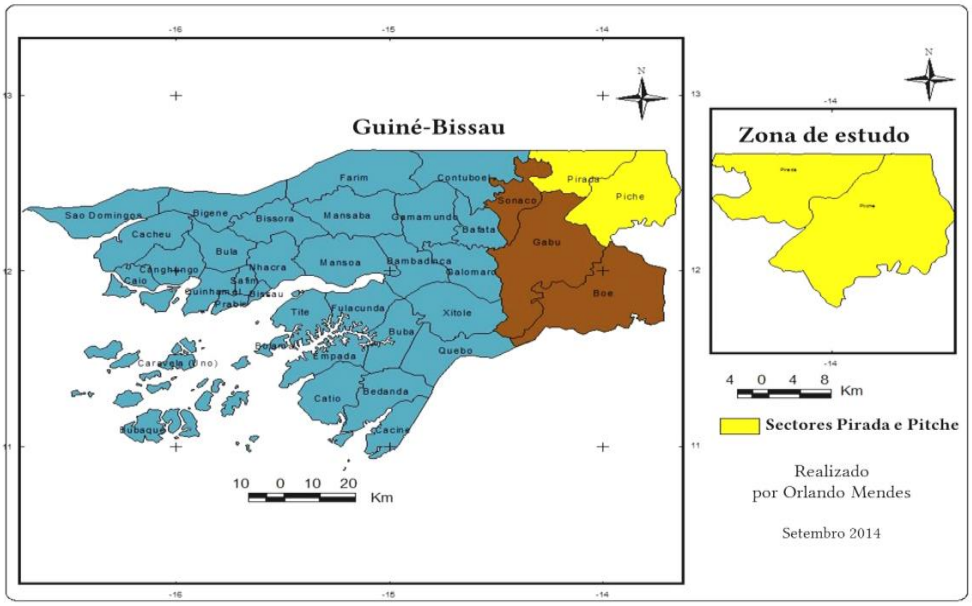
This work identified the main indicators of climate change and peasant adaptation strategies. Surveys of peasants' perceptions of climate change were carried out and climate data from Pirada, Gabú and Bafatá were analyzed under the supervision of the National Meteorological Institute.

According to the peasants' perception, temperatures tend to increase and precipitation tends to decrease, resulting in soil degradation, reduced vegetation and water resources, frequent droughts in the rainy season and impacts on cashew plantations.

The analysis of the data of the meteorological observations coincides with the interpretations of the peasants, since both reveal the increase of the temperature and the decrease of the precipitation.

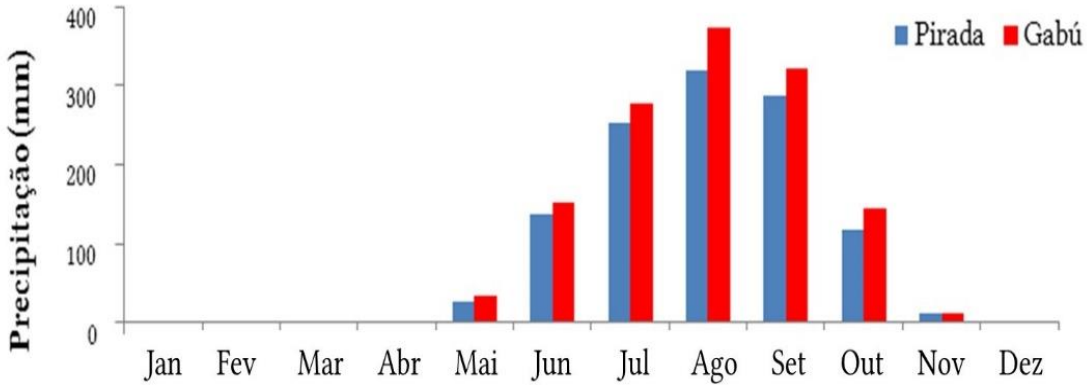
Area of Project Activities Implementation

Gabu Region's capital is Gabú. The region borders Senegal to the north, Guinea to the east and south and the Guinea-Bissau regions of Tombali and Bafatá to the west. It covers an area of 9,150 km^2, making it the largest of Guinea-Bissau's administrative regions[49].In Gabu, the total population is only 205 608 inhabitants[50]. Gabu region is divided into five sectors: Boé, Sonaco, Gabú, Pirada and Pitche.



Source: Wikipedia, 2019 https://en.wikipedia.org/wiki/Guinea-Bissau

[49]https://en.wikipedia.org/wiki/Guinea-Bissau
[50]INE, 2009



Source: Department of Meteriology, Bissau, 2019

(Figure 1). Average monthly rainfall of Pirada and Gabú for the period 1951-2012.

Guinea-Bissau is warm all the year around and there is little temperature fluctuation; it's averages temparature is 26.3 °C (79.3 °F) and the average rainfall for Bissau is 2,024 millimetres (79.7 in) although this is almost entirely accounted for during the rainy season which falls between June and September/October. From December through April, the country experiences drought.[51]*Previously, even a decade ago, the rainy seoson used to start from the month of May and continued till end of September/October in Guinea-Bissau, but now it has been sharfly shifted to June/July to September which severy effects rice plantation and dependence on 'rainfed' agriculture*[52] . Even in Gabu region, rain fall and temperatura fluctuate and differs not only from region to region but also from one area to other área in the same región

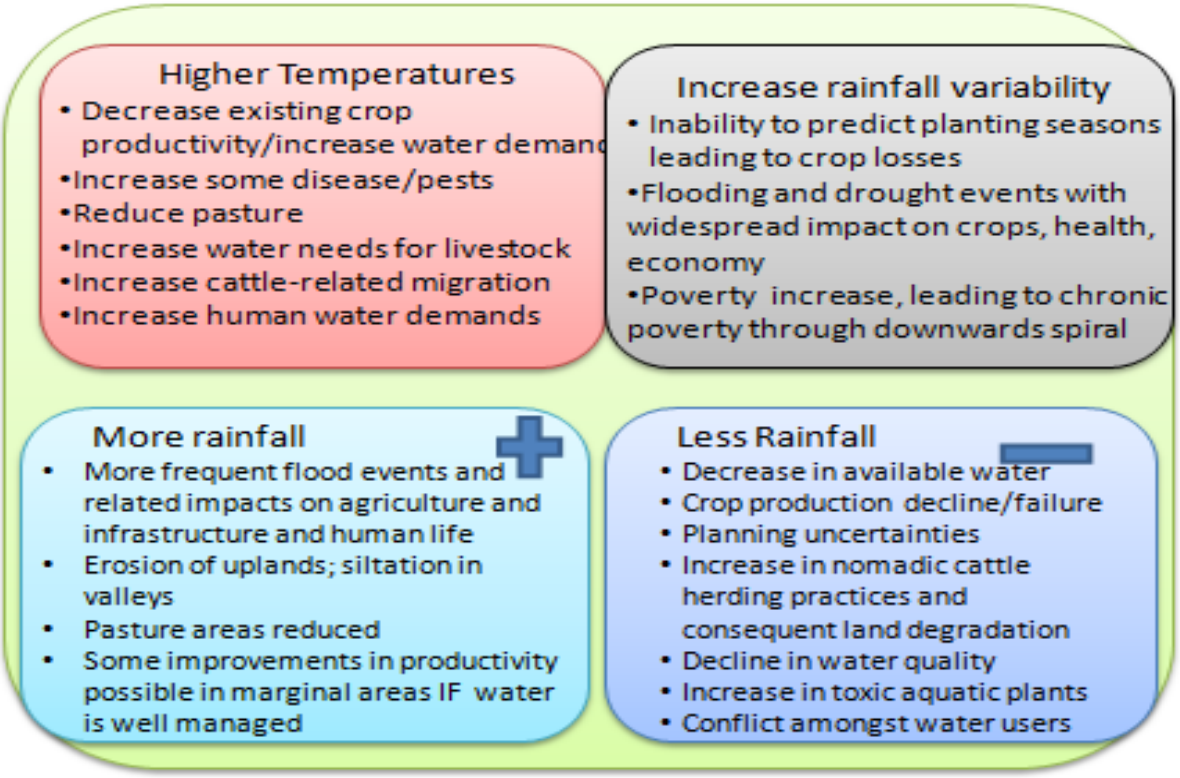
Findings: Based on the changed climatic conditions-i.e. rainfall, temperatura, humidity análysis mainly, the Gabu farmers should choose different rice varieties which will fit in changed rainfall pattern, temparature conditions and adapt to changed climatic conditions of Gabu so as to continue their livelihoods.

It has been stated in the Project document that *"This is a major challenge for Guinea-Bissau to mainstream climate change adaptation measures into integrated agricultural and water resource management across different institutional, social and spatial frameworks. Technical capacity of both government and local communities to manage the emerging threats imposed by climate change is required."*[53]

[51] Source: https://en.wikipedia.org/wiki/Guinea-Bissau
[52] DG, Meteriological Department of Ginea-Bissau during the interview with evaluators, 31/2/19.
[53] Prodoc page 1

Climatic Data/Information of Gabu[54]

Potential impacts of climate change in Guinea-Bissau upto 2050



Summary of initiatives areas of Climate Change, Agriculture, Water and Environmental Sectors in Guinea-Bissau

Sector	Programme	Activities include
Climate Change	Adaptation to Climate change – responding to shoreline change and its human dimensions in West Africa	Integrated coastal area management, involving Cape Verde, Gambia, Guinea-Bissau, Mauritania, Senegal (USD 3.3m; GEF/UNDP project commenced 2008)
	UNFCCC	Support for production of the National Communications on Climate Change and National Adaptation Plan of Action (UNDP/GEF)
Agriculture	Integrated Rural Development Programmes for each Agrarian Zone	Agroforestry systems, dyke construction, fire control, new cultivars and livestock breeds, management improvements, horticulture
	Other programmes	• Pasture and fodder improvements, cattle conflict resolution, • Institutional capacity building • Food security through diversification of production (tree planting, fruit and rice growing) • sustainable fishing; • improve vulnerable groups' incomes • ECOWAS common agricultural policy alignment

[54] All these climate related information, data and graphs Source: meteriological Department, Bissau, 2019

Annex I: Target and Avheivements of the Project

#	Implementing agency	Working area		Target in numbers planned for project period	Achieved at the end of the project	If nor achieved, what were the reasons
		Geogra-phical	intervention			
1	Department of Environment and sustainable Development	At National Level	Environment and Sustainable Development	Implementing Agency	Project implemented successful; M&E;	
2	Gabu Regional Government	Gabu Region	Political and administrative management	Facilitate the Project implementation; Facilitate the elaboration and implementation of the Contingency Plans in 14 villages; Facilitate the mainstreaming into the Development Plans of Gabu; Facilitated the elaboration of the Agro-ecological Charter and Vulnerability of the Region of Gabu	M&E; Lending of land for the construction of infrastructures; Facilitate the Regional Technical Department on Project implementation; 14 villages were equipped with Contingency Plans and actively managed and therefore provided rapid responses to some flood events; Development Plans of Gabu mainstreamed; Agro-ecological Charter and Vulnerability of the Region of Gabu elaborated	
3	General Directorate of Agriculture	At national level	Agricultural sector	Facilitate the mainstreaming into the Agricultural Development Policy Charter and National Agrarian Investment Program; increased the major dry cereal crops yields; Increase the security alimentary at lest two more months; Distributed the short cycle duration seeds	Agricultural Development Policy Charter and National Agrarian Investment Program mainstreamed; M&E; Average yields of major dry cereal crops increased: bacillus maize: 962 kg / ha (48%), sorgum: 919 kg / ha (30%); black maize: 886 kg / ha (32%), peanut: 1030 kg / ha (32%) and rice: 1615 kg / ha (50.46%); Availability of guaranteed food for two more months through storage of cereals in cereals banks; A total of 146 replicating farmers (100 men and 46 women) were enrolled in the 14 zones covered by the project. 46.5 ha	

					of field trials were applied using crop rotation techniques, 24.45 ha of field of application using the transverse tillage technique, 8.26 ha of test field with technique and 7 ha of crop rotation; A report was prepared on the state of use of the rice felds; 30 tonnes of SABE12 and SAHEL 317 rice and 600 kg of beans were distributed, 600 kg of peanuts; 7 cultivators available to support farmers in cultivating their fields);	
4	General Directorate of Livestock	At national level	Livestock sector	Facilitate the mainstreaming into the Livestock Development Policy Charter; Increase the provision of medicines and feed for cattle; formed more less 100 livestok farmers/year; introduction of 4 improved breed cattle; Introduction of the new feed supplement	Livestock Development Policy Charter mainstreamed; M&E; improved animal health - provision of medicines; introduction of improved breeds of animals and cultivation of forage plants. Formed 440 livestock farmers from the 14 pilot project zones and invited breeders from Gabu sector in production techniques and animal health; Introduced 4 improved breed cattle - F1 Montebeliard, F2 Holsteine and F1 Gouzeras; A small ruminant production unit was built in Padjama; Introduced new food supplement.	

5	Nation Institute of Agrarian Research	At national level	Agrarian sector	Installation of 2 ha of test / multiplication / village fields of cassava cuttings, sweet potatoes, yam and mammals, with 0.5ha / village / variety; Installation of 1.5 hectares of rice, sorghum and corn / village multiplication fields; Introduction of 3 peeling machines, 3 mills and 14 mancarra crushers; Training of 60 operators of animal traction in the 14 plots; Installation of an animal traction kit / village; Follow-up of the production system in the fourteen villages framed.	M&E; Sixty (60) yams cuttings are distributed to farmers in Camalidja; Distributed 1 rice stripper in Camadjaba; Approximately 500m2 of camps of yams were cultivated in the bananas framed by the project; Cultivated more than 53,020 m2 of rice seeds; 10,000 square meters of maize; 34,190 m2 of beans by 19 seed producers, including 15 women); Approximately 1050 leguminous plants were introduced as an alternative source of feed for livestock. About 904 plants survived; Distributed 40 kilograms of yam variety of 200-210 days, in each of the 14 bananas framed by the project;	
6	Ministry of Energy and Natural Resources/ General Directorate of Water Resources	At national level	Water resources sector	Facilitate the mainstreaming into the Water and Sanitation Scheme Directorate; Improved the water disponibility (more less 25 l/pers/day); M&E; Monitoring the infrastructures constructions	Water and Sanitation Scheme Directorate mainstreamed; M&E; The average water consumption per inhabitant increased by 39.05 liters/pers/day in the zones covered by the project Mobilized more than 113000 m3 additional water per year.	
9	Ministry of Economy	At national level	Planning sector	Facilitate the mainstreaming into the National Poverty Reduction Strategy Paper (DENARP II) and Development Plans of Gabu	The National Poverty Reduction Strategy Paper (DENARP II) and Development Plans of Gabu mainstreamed	
7	State Secretariat for Transportation and Communicati	At national level	Service sector	Strengthen the capacity institutional of the NIM; Seasonal climate	M&E; Approved the PIF of the project "Assembly and Operationalization of an Early Warning Systems;	

	ons/ National Institute of Meteorology			forecast system put in place; Built the capacity of national technical staff on forecasting system; Elaborated and disseminated annually the Agro-meteorological Bulletins	Constructed and equipped the Gabu and Bafata meteorological stations Strengthened the capabilities of the more 40 technicians of National Institute of Meteorology in climate prediction; Agro-meteorological Bulletins of the follow-up of the agricultural campaign through the Multidisciplinary Working Group prepared and disseminated annually; Installed 14 farmers pluviometers in 14 villages	
8	NGOs APESS	At regional level (ECOWAS)	Rural communities animation	Sensitized more less 13.000 inhabitants; Provided the feed for cattle	M&E; The target population in the More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project; • 951 cattle breeders (272 women and 679 men) trained in hay treatment and conditioning techniques; Formed 550 breeders (270 were women) in techniques of cultivation and treatment of forage plants; Formed 250 breeders (99 female) on the construction of hangars to better conserve hay, selection of physical space for the cultivation of brachiaria; Built 45 hangars, with a capacity of 5 tons each, in different villages; Collected and stored in different hangars about 80,875 tons of dry hay that can feed 1320 cows for 5 months (February to May). Whit support of the	

					others partner was elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English , 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	
9	NGOs GDVR	At national level	Rural communities animation	Sensitized more less 13.000 inhabitants; Provided the alternative energy for the communities; 15 (fifteen) families of the five beneficiaries in the project area (3 families / village) use improved fires fed briquettes as a source of domestic energy; Two (2) installed and functional biodigesters will serve 500 members of both communities (Benfica and Padjama) as green fertilizer and as a source of energy (lighting and biogas for the kitchen); 500 (five hundred) community members sensitized	M&E; The target population in the More than 25,000 people were sensitized at the level of the pilot villages and 69 surrounding villages using the promotional materials of the Project; Constructed 2 bio-digestor in 2 villages and disseminated the technique of production of briquettes as alternative sources of domestic energy; Sensitized and trained 1020 peasants on composting, organic fertilizer production estimated at 15 tons; Launched a vast campaign of awareness and popularization of stoves Improved three stones as a source of household energy with high yield; Elaborated pedagogical supports on the operation and	

				and educated about composting, organic fertilizer production and briquettes production through bovine dejections as a domestic energy source; 1 (a) Guide to good practice on the maintenance and use of biodigesters, production of briquettes and the use of green fermilizers; 5 (five) new experimental experimental fields for horticultural production, forest essences, nurseries, etc. established, being 01 (one) in each village; Materials for the production and storage of compounds, green fertlizantes and reinforced organic briques; Strengthened the technical capacity of the NGO GDVR.	utilization of biodigestor for the production of biogas from bovine manure; Installed 60 stoves improved of three stones that benefited 60 families of the villages of Benfica, Camadjaba, Padjama, Bruntuma and Iancor; Constructed 5 (five) collective fields for horticultural production, nurseries, with 01 (one) in each village; Whit support of the others partner was elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English , 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	
10	NGOs Divutec	At national level	Rural communities animation	Help the project in campaign of rural animation	M&E; Whit support of the others partner was elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English	

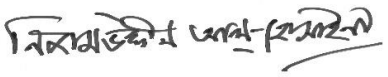
					, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	
11	NGOs Adic Na faia	At national level	Rural communities animation	Help the project in campaign of rural animation	Whit support of the others partner was elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English , 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	
12	NGOs Aprodel	At national level	Rural communities animation	Help the project in campaign of rural animation	Whit support of the others partner was elaborated and disseminated on average more than 6 Contributions to the Adaptation Teaching Mechanism: 400 functional literacy manuals for farmers, 100 guides for literacy teachers, 1000 project brochures, 1000 Bands, 100 video films in Portuguese and English	

					, 300 Bidigor Eco Bulletins, 200 posters on climate change issues, 350 promotional t-shirts and 350 Project caps, 500 calendars of the year 2015. Visits of more than 300 users / year to the Project website: (www. climate change-gb.org) and facebook (climate change).	

Annex J: Evaluation Consultants Code of Conduct Agreement Form International and National Evaluators

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

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



Signature:

Name of the International Consultant (Team leader):

1.Dr. Nizamuddin Al-Hussainy

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

Signed in Dhaka, Bangladesh on 20/01/2019

Annex K: Audit Trail

Comments	In reference to section/paragraph	Answer	Refefence	Action
TE report structure need to be revised/adjusted to the standard TE report for UNDP-GED format		done	Full TE report re structured	taken
The focus should be to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from the project and aid in the overall enhancement of UNDP programming (please refer to the table)	Please vide executive summary table 2	Done	TE report page … Please see revised table- 2 at page viii	taken
Pls avoid cut and paste of reference documents sections (e.g. project document, or TE report from anotherconsultant, (as you did)	In places some statements quoted to validate/support, then reference has always been given at footnote!	done	TE report	taken

Final TE report Sent to UNDP 02/5/19 Nizam