REQUEST FOR PROJECT

FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat

1818 H Street NW

MSN P4-400

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PROJECT PROPOSAL TO THE ADAPTATION FUND

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FULLY DEVELOPED PROPOSAL FOR REGIONAL PROJECT/PROGRAMME

PART I: PROJECT / PROGRAMME INFORMATION

Title of Project/Programme: **WEST AND CENTRAL AFRICA SMALL ISLAND DEVELOPING STATES ADAPT - BUILDING RESILIENCE OF AGRICULTURAL SYSTEMS TO CLIMATE CHANGE**

Countries: **Cape Verde; Guinea Bissau; Sao Tome & Principe**

Thematic Focal Area[1]: Food security

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: **INTERNATIONAL FUND FOR AGRICULTRUAL DEVELOPMENT (IFAD)**

Executing Entities: Ministério do Ambiente e Biodiversidade; Ministério das Infraestruturas e Recursos Naturais; Instituto Nacional de Meteorologia e Geofica

Amount of Financing Requested: 14,000,000 (in U.S Dollars Equivalent)

Letters of Endorsement (LOE) signed for all countries: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☒This proposal has been submitted before including at a different stage (pre-concept, concept, fully-developed proposal)

☐ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: 8/8/2022

Please note that fully-developed proposal documents should not exceed 100 pages for the main document, and 100 pages for the annexes.

[1] Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

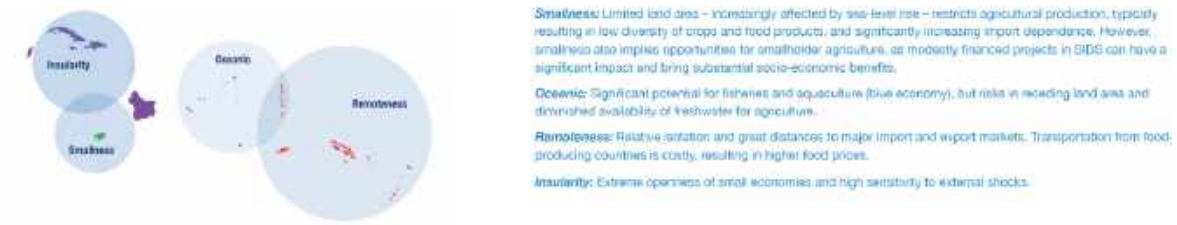
A. PROJECT/PROGRAMME BACKGROUND AND CONTEXT

Introduction: The Climate change context in African SIDS – Changing the rural development landscape and adaptive capacity

1. Small island developing states (SIDS) are a distinct group of developing countries that share common characteristics and challenges: smallness (limited land area), remoteness (relative isolation and connectivity problems), insularity (vulnerable to external economic shocks), and oceanic (high risk of loss of land area) and diminishing availability of freshwater for agriculture[2]. Due to these and other structural economic, development, and environmental constraints, SIDS are highly vulnerable to natural disasters, environmental degradation, extreme climate events, and thus, growing food and nutritional insecurity[3]. Globalization and climate change further contribute to their unique challenges.

2. Despite their similarities, the SIDS are a very diverse group of countries with marked differences in population size, level of national and per capita income, land area, remoteness, geography, debt burden, regional priorities, and development context. Women and youth in SIDS generally have fewer opportunities and reduced access to information and/or education and, consequently, fewer resources to prevent, cope with, and adapt to disaster risks. At the same time, cultural biases and sensitivities often exclude them from decision-making processes. However, disaster risk management can create opportunities by elevating women to the status of agents of change in their communities and increasing the understanding of gender dimension during disasters.

Figure 1: Description of SIDS



Source: IFAD, 2014[4]

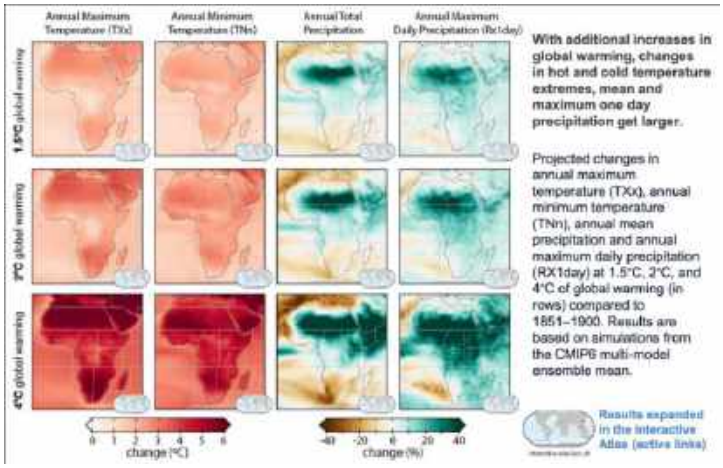
3. There are six SIDS in Africa, all highly vulnerable to climate change: Cabo Verde, Comoros, Guinea-Bissau, Mauritius, Sao Tome and Principe (STP), and Seychelles. While they share common characteristics such as insularity, geographical disparities within countries, and small populations, their level of vulnerability is not uniform along with their experience with climate change and capacity to address it. Comoros, Guinea-Bissau and Sao Tome and Principe are all LDCs, while Cabo Verde, Mauritius and Seychelles have higher levels of development and better policies and mechanisms to address climate change. In West and Central Africa, the GDP per capita of Cabo Verde and STP are relatively high (US$3,064.30 and US$ 2,157.80, respectively in 2020), giving the impression that they have considerable economic strength, whereas the GDP per capita of Guinea-Bissau is low (US$727.50, 2020)[5]. However, the economies of all these countries are fragile and highly vulnerable to external economic shocks, natural disasters and extreme weather events.

4. The climate change vulnerability analysis of the agricultural sector of West and Central African (WCA) SIDS (Cabo Verde, Guinea-Bissau, and STP) shows a set of challenges and issues that are common to them. There is a direct correlation between poverty and vulnerability to environmental risks in these countries, which have very limited capacity to address climate change. As GHG emissions warm the earth's surface around the world, the impacts of this human-influenced driver of climate change are already clearly visible in the African SIDS[6].

[2] SIDS were formally recognized as a distinct group and given significant attention in 1994 following the Rio Earth Summit.
[3] IFAD, 2014, IFAD's Approach in Small Island Developing States: A global response to island voices for food security. Available from https://bit.ly/3avtMHw_IFAD_SIDS_2014
[4] IFAD. 2014. IFAD's Approach in Small Island Developing States: A global response to island voices for food security. https://www.ifad.org/documents/38714170/39135645/IFAD%27s+approach+in+Small+Island+Developing+States+-+A+global+response+to+island+voices+for+food+security.pdf/9b62896e-10e3-420a-804a-5fffaa8821d2?t=1510322602000
[5] World Bank Database. GDP per capita (current US$), 2020. Available from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CV
[6] Niang, I. et al., 2014, "Africa", In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R. et al. (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1199-1265. Available from https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap22_FINAL.pdf

5. According to climate projections, average temperature increases and number of hot days (above 35˚C) in West Africa and SIDS are projected to be high, with an extremely marked north-south gradient, directly affecting soils and ecosystems due to a higher level of evapotranspiration. Under the SSP 2-4.5 in the near term (2021-2040) and medium-term (2040-2070) temperatures in West Africa are expected to rise between 0.6-0.8 ˚C and 1.1-1.5 ˚C above those of the reference period (1995-2014)[7]. At the end of the century (2018-2100), projections show temperatures rising by 1.7 -2.7 ˚C. As indicated by latest simulations from CIMP6, 4˚C world will be even more severe with expected rise of 2.6-3.6 ˚C when compared to reference period (1995-2014)[8]. Similarly, the number of hot days, under SSP 2-4.5, is projected to rise between 7.3-15.1 days in the near term, 15.0-27.3 in the medium term, and 27.9-47.7 days in the long term relative to reference period[9].

Figure 2: Projected changes in annual maximum temperature (TXx), annual minimum temperature (TNn), annual mean precipitation and annual maximum daily precipitation (RX1day) at 1.5°C, 2°C, and 4°C of global warming (in rows) compared to 1851–1900.



Source: Retrieved from IPCC WG1-The Physical Science: Regional Fact Sheet-Africa.

6. **Shift in precipitation patterns**: Between the 1970s and 1980s, the region experienced one of the most severe multi-year droughts in the last hundred years, which resulted in a 30 per cent decrease in rainfall[10]. Since the 1980s, rainfall has not returned to pre-1960s levels and droughts have become recurrent. The lengthening of the dry season and more frequent dry spells combined with less frequent and more intense rainfall over shorter wet seasons have affected the natural balance of the water cycle, leading to a rise in the frequency of extreme rainfall events and severe flooding events[11].

7. Future precipitation projections vary significantly across the region and are marked by change in the critical West African Monsoon season. In near term, under SSP 2-4.5, annual precipitation is projected to rise between 0.4-5.1 percent. In the medium- and long-term precipitation is projected to range between –1.6-5.3% and –1.9-6.3% respectively. Precipitation is vital for the region and continent, due to its outsized reliance on rain-fed agriculture, but also because it has helped region partially mitigate recent crop losses from climate change[12]. Yields are projected to decline further due to without adaptation measures in West Africa by a median of 6%[13].

8. **Extreme weather events**: Cabo Verde, Guinea-Bissau and STP face the risk of a range of natural hazards, particularly droughts, inland and coastal flooding, landslides, water scarcity, and extreme heat. The main climate-related natural hazards observed in the targeted countries between 1970 and 2015 were drought (> 50 per cent)[14] As shown in table 1 below, all countries have at least one administrative area in the basin characterized as “high risk” of flooding, and nearly all countries are considered high or medium risk for wildfires.

Table 1: Risks for climate hazards

[7] Iturbide, M., Fernández, J., Gutiérrez, J.M., Bedia, J., Cimadevilla, E., Díez-Sierra, J., Manzanas, R., Casanueva, A., Baño-Medina, J., Milovac, J., Herrera, S., Cofiño, A.S., San Martín, D., García-Díez, M., Hauser, M., Huard, D., Yelekci, Ö. 2021 Repository supporting the implementation of FAIR principles in the IPCC-WG1 Atlas. Zenodo, DOI: 10.5281/zenodo.3691645. https://github.com/IPCC-WG1/Atlas

[8] Iturbide et al. 2021. Repository supporting the implementation of FAIR principles in the IPCC-WG1 Atlas. Zenodo

9 Iturbide et al. 2021. Repository supporting the implementation of FAIR principles in the IPCC-WG1 Atlas. Zenodo

[10] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related GHG emission pathways [Masson-Delmotte et al. (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.

[11] IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V. et al. (eds.)]. Cambridge University Press. Available from https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report_smaller.pdf

[12] Sultan, B., Defrance, D. & Iizumi. 2019. T. Evidence of crop production losses in West Africa due to historical global warming in two crop models. *Sci Rep* 9, 12834. https://doi.org/10.1038/s41598-019-49167-0

[13] Carr, Tony & Mkuhlani, Siyabusa & Segnon, Alcade & Ali, Zakari & Zougmore, Robert & Dangour, Alan & Green, Rosemary & Scheelbeek, Pauline. 2022. Climate change impacts and adaptation strategies for crops in West Africa: A systematic review. Environmental Research Letters. 17. 10.1088/1748-9326/ac61c8.

[14] 2020. Africa Risk Capacity. Independent Evaluation Report.

Country	River flood	Land-slide	Extreme heat	Wildfire	Water scarcity	Cyclone	Tsunami	Urban Flood	Volcano	Coastal Flood
Guinea Bissau	High	Very Low	High	High	Medium	No Data	Low	High	No Data	High
STP	Very Low	Low	Medium	Very Low	No Data	No Data	Low	Very Low	Very Low	Medium
Cabo Verde	No Data	High	Low	Very Low	High	No Data	No Data	No Data	Low	Medium
Mauritius	No Data	High	Medium	Very Low	No Data	High	Medium	No Data	No Data	Medium
Seychelles	Very Low	Mediu m	Medium	Very Low	No Data	High	Medium	Very Low	No Data	High

Source: Thinkhazards.2021

SIDS' collective policy and institutional frameworks

9. Initiated in 2014, the SIDS Accelerated Modalities of Action (SAMOA Pathway) is the key UN framework for achieving sustainable development in SIDS. Five years into the implementation of the Pathway (2019), a midterm review was conducted to assess progress and identify emerging priorities, key challenges and lessons learnt, particularly in the agricultural sector. The review noted that while some progress has been achieved in the SIDS, significant gaps in the implementation still exist and the level of success varies from one country to the next.

10. Other frameworks and policies that are important to the development in SIDS include the following:

- Sustainable Development Goals (SDGs), a blueprint for peace and prosperity for people and the planet in the present and into the future.
- The Paris Agreement, adopted by countries in 2015 to address climate change and its negative impacts. The Agreement sets specific targets and commitments to reduce emissions and strengthen these commitments over time.
- Addis Ababa Action Agenda Financing, a UN framework designed to align development financing inflows with economic, social, and environmental priorities. It establishes a foundation for supporting the implementation of the SDG 2030 Agenda.
- Multidimensional Vulnerability Index (MVI) 10, a new framework consisting of a comprehensive index for tracking structural vulnerabilities of countries. These vulnerabilities include economic, developmental and environmental limitations that constrain the SIDS' efforts to achieve sustainable development. The index aims to (i) identify key sources of vulnerability for each category of SIDS; (ii) understand to which extent structural vulnerability may impede progress towards the achievement of the SDGs across the SIDS categories, and (iii) define appropriate specific financial mechanisms and development pathways for each category of SIDS.

Sub regional, country and agriculture sector perspectives

11. The proposed countries (Cabo Verde[15], Guinea Bissau[16] and Sao Tome and Principe[17]) are **among the world's least resilient countries to climate change and least ready** to leverage investments and convert them into adaptation actions (ND-GAIN vulnerability index ranking). High levels of vulnerability and low adaptive capacity to climate change are linked to factors such as high reliance on natural resources, limited ability to adapt financially and institutionally, low per capita GDP, high poverty rates and lack of safety nets. Furthermore, these countries are experiencing high demographic growth and unemployment, which fuels demand for food products. The COVID-19 pandemic only exacerbated these issues and thus, these countries' vulnerability to climate hazards.

Table 2. Vulnerability and adaptation scores for each country (from ND-GAIN index ranking)[18]

Countries	Readiness Score	Readiness Rank	Vulnerability Score	Vulnerability Rank
Cabo Verde	0.439	79/192	0.423	96/182
Guinea-Bissau	0.268	174/192	0.629	180/182
STP	0.362	115/192	0.514	140/182

12. In a post COVID-19 context, **climate change will intensify existing stress** on water availability and will interact with non-climate drivers and stressors (gender inequality, youth unemployment, illiteracy, conflict, and political instability) to exacerbate the vulnerability of agricultural systems on which most rural communities in West Africa depend. In 2020, conflict and insecurity, weather extremes, desert locusts, economic shocks and COVID-19 were the key drivers of acute food insecurity in the region. ECOWAS predicted that there could be an increase of food

[15] 2019. ND-GAIN Country Profile: Cape Verde, Notre Dame Global Adaptation Initiative. Available from https://gain-new.crc.nd.edu/country/cape-verde
[16] 2019. ND-GAIN Country Profile: Guinea-Bissau, Notre Dame Global Adaptation Initiative. Available from https://gain-new.crc.nd.edu/country/guinea-bissau
[17] 2019. ND-GAIN Country Profile: Sao Tome and Principe, Notre Dame Global Adaptation Initiativehttps://gain-new.crc.nd.edu/country/sao-tome-principe
[18] 2019. ND-GAIN Country Index Ranking, Notre Dame Global Adaptation Initiative. https://gain.nd.edu/our-work/country-index/

insecurity and malnutrition for 17 up to 50 million people in the region between June and August 2020 because of the impacts of COVID-19[19]. UNECA projects that 27 million African will be pushed into extreme poverty, resulting from the slowing of African economies growth to 1.8 per cent in the best case scenario, or a contraction of 2.6 per cent in the worst case because of COVID-19[20]. The high sensitivity of the agricultural sector to climate change and increasing climate variability combined with high poverty rates are the main sources of West African countries' vulnerability to food insecurity and malnutrition. These can affect farmers' ability to repay financial obligations and lead to loan defaults. The degraded environmental conditions have fostered the growing pattern of north-south and rural-urban migration taking place in the regions.

13. IFAD's strategic objectives in these West African SIDS are guided by the progress, emerging trends and lessons learned from past and ongoing IFAD operations over the last 30 years, as well as the demands voiced by these countries at the Third International Conference on SIDS organized by IFAD in 2014. In the three West African SIDS (Cabo Verde, Guinea-Bissau, and STP), key common development objectives are: i) promote sustainable small-scale fisheries, including aquaculture and mariculture of nutrition-rich fish, and strengthen fish value chains; ii) enhance opportunities for smallholder farmers to turn their operations into vibrant businesses by catering to new dynamic markets and providing employment opportunities and financial inclusion, especially for women and youth, and iii) strengthen resilience to environmental and climate change and enhance adaptation capacity, including by facilitating access to relevant data and information and mainstreaming environmental and climate change considerations into development planning.

14. IFAD's approach for engaging with the West African SIDS on climate resilience has the necessary flexibility to ensure that IFAD can tailor country-specific solutions. This is key, as based on IFAD's experience, SIDS often have very context-specific needs despite their commonalities. This flexible approach gives IFAD a comparative advantage and the capacity to offer countries a range of options. During the IFAD design missions in 2019-2020 for COMPRAN for Sao Tome and Principe, REDE for Guinea Bissau and the POSER Project in Cabo Verde, the countries expressed the need to leverage additional adaptation finance to close the adaptation gap both at the country level and as part of a coalition. Coordinating action is crucial given the very limited fiscal space of each country and their common development challenges. The strategic theme that brings the three countries together is the adaptation of smallholder agriculture, particularly fisheries and crop growers, to the context of a changing climate.

15. From a socioeconomic point of view, the three countries are characterized by high poverty, food and nutritional insecurity and significant social inequalities. Inequalities in access to basic social services such as health, education, sanitation and drinking water have been observed and tend to differ between urban areas and rural areas, with the latter generally being the most disadvantaged. Countries with small populations and developing economies that are often dependent on imports and climate-sensitive industries also have less financial and human resources to address these looming climate threats. The SIDS face a range of climate threats, from sea level rise (SLR),ocean acidification, degradation of fish stocks, coastal erosion, salinization, floods and drought. This situation is aggravated by rapid population growth, industrial development, and the development of the tourism sector, which put additional pressure on scarce water resources and increased demand for food imports in countries whose governments already grapple with limited fiscal space. Climate change impacts will result in reduced agricultural productivity, growing food insecurity, and other adverse impacts on livelihoods that could drive poverty and rural-urban and international migration. In the absence of adequate adaptation measures, climate change will exacerbate these trends. Finally, Portuguese speaking African countries still lag in monitoring and evaluation (M&E) due to the lack of initiatives aimed at establishing a shared culture of evaluating climate change adaptation practices in Africa. The cultural and linguistic similarities in the three island states included in this proposal will facilitate the sharing of lessons and good practices and mutual learning.

16. **Common environmental and climate challenges**. Cabo Verde, Guinea-Bissau and STP are SIDS located in the Atlantic Ocean in West Africa, one of the most vulnerable regions in the world. These SIDS have common and specific circumstances related to the limited amount of agricultural land, their geographical sea locked location, limited natural resources and particularly fragile ecosystems. Another specificity of island countries is their vulnerability to climate-related risks associated with the presence of the sea on all sides. Most of these countries' populations live in coastal areas and ecosystems. With a third of population of SIDS living on land that is less than five meters above sea level, the threat of sea level rise, storm surges, salt-water intrusion, and coastal destruction pose critical risks to these countries, making them particularly vulnerable to climate change. Guinea-Bissau, for example, ranked third on the 2019 Climate Change Vulnerability Index Report, behind Niger and Somalia.

17. **The growing risk of climatic hazards**: In summary, all three countries experienced a generalized increase in temperature. Climate projections in the three countries show a worsening of climatic hazards. Temperatures will

[19] 2020. Consultation Régionale des Ministres en charge de l'Agriculture et de l'Alimentation de la CEDEAO, de la Mauritanie et du Tchad, sur les impacts du COVID-19 et des nuisibles des cultures sur la Sécurité Alimentaire et Nutritionnelle en Afrique de l'Ouest, ECOWAS

[20] 2020. *COVID-19: Protecting African Lives and Economies. United Nations Economic Commission for Africa*

rise between 0.5°C and 3°C by 2090, with the greatest increase in Guinea-Bissau[21]. The number of hot nights has increased while the length of cool seasons has shortened. Analyses of rainfall patterns in the three countries show a shortening of the length of the rainy season and a lengthening of the dry season. This has already led to the late onset or early cessation of the rainy season and a decrease in rainfall per season. Rainfall variability, intensity, and the frequency of droughts and extreme rains and winds have increased. Flooding of low-lying coastal and inland areas increased in all three countries because of extreme rainfall and the resulting torrential runoff. SLR has been observed in all three West African SIDS. As for projections, the three countries will experience a decrease in rainfall in the scenario of increased fossil emissions and an increase in rainfall in the case of a more low-carbon development. However, this increase in rainfall will generally be accompanied by periods of intermittent drought.

18. **Overview of the common climate challenges of the three countries**. All three SIDS face climate change impacts from longer dry seasons, fall in annual rainfall, higher temperatures, and rising sea-level. All contribute to the growing problem of an inadequate water supply for the population and agriculture. The lack of adequate supply is compounded by groundwater salinization, which will only be worsened by rising sea-level and ongoing erosion through sand-farming and poor land management. Importantly, the issue of salinization is worse in Cabo Verde, but risks are present in STP and to a lesser extent in Guinea-Bissau. Rising temperatures lead to decreases in soil moisture and soil fertility and the proliferation of pests, which negatively affect agricultural yields. Agricultural is also affected by flooding and severe storms that have devastated coffee and cocoa plantations in the three SIDS, destroyed infrastructure, increased soil erosion, salinization, and sedimentation and pollution of rivers, and led to reduced aquifer recharge. All these impacts lead to lower agricultural yields, fish catch volumes, and incomes for communities and ultimately, greater food insecurity, poverty, and instability.

Cabo Verde

19. **Socioeconomic context:** Cabo Verde is a lower middle-income country, with a PPP of US$6,377 and a population of 555,987 in 2020[22]. Forty-four per cent of the population is under 20 years of age and 33 per cent lives in rural area. Cabo Verde's HDI for 2019 was 0.665, with a female HDI value of 0.655 in contrast with 0.672 for males[23]. In 2020, 13.1 per cent of the population was under the international poverty rate (US$1.90 per day); the rural poverty rate was 24.3 per cent, compared to 8.1 per cent in urban areas. Close to one-third (31.6 per cent) of the population is under the national poverty line, set at US$2.77 per day; the incidence of absolute poverty is higher in rural areas (44.9 per cent) than in urban (25.8 per cent) ones[24].

20. The tourism and travel industry in Cabo Verde accounts for 25 per cent of GDP and drives around 40 per cent of overall economic performance[25]. As a result, Cabo Verde was hit especially hard by the COVID-19 pandemic. A major constraint to Cabo Verde's sustainable development ambitions is the lack of arable land (only 12 per cent of its territory is arable) and freshwater, leaving the country highly dependent on imports to meet its food needs. Existing domestic production is threatened by declining soil fertility and water availability. In addition to climate change threats, Cabo Verde faces challenges due to its mountainous topography and geographic discontinuity as an archipelago. As of 2020, agriculture, forestry, and fisheries contributed 4.9 per cent of GDP[26]. In 2019, agriculture employed around 10 per cent of Cabo Verde's workforce[27]. Although gender inequalities are less pronounced in Cabo Verde than in STP, Cabo Verde's agricultural sector is male dominated: 14.7 per cent of the male workforce is involved in agriculture, compared to 5 per cent of the female workforce[28]. Farmers grow a variety of fruit and vegetables, but pulses and maize occupy 48 per cent and 42 per cent of total farmland, respectively[29]. Currently, food insecurity remains a problem: approximately 15.4 per cent of the population was undernourished in 2019[30]. Moreover, according to data from the 2019 IN-VANF, approximately a third of households could not afford safe, nutritious and sufficient food[31]. As a result, 42 per cent of all children under five years of age have anaemia.

21. **Environmental context:** Cabo Verde is a volcanic island nation spanning 4,033 km^2 across ten islands with varying topography. The most populous islands - Brava, Santiago, Fogo, Santa Antão, and São Nicolau – are very mountainous with relatively fertile volcanic soils. Soils in Cabo Verde are mainly medium to coarse textured, steep, low in organic matter and generally shallow. In addition, mountainous islands produce an orographic effect where precipitation is concentrated on the windward side, where vegetation and agriculture are more prolific[32]. In contrast, Maio, Boa Vista, and Sal are flat and eroded desert islands.

[21] The World Bank Group. 2021. Climate Change Knowledge Portal,
[22] The World Bank. 2020. Data Bank.
[23] 2020. Human Development Report 2020: Cabo Verde, United Nations Development Programme
[24] Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development – Cabo Verde. Available from https://sustainabledevelopment.un.org/content/documents/282392021_VNR_Report_Cabo_Verde.pdf
[25] The World Bank. 2020. The World Bank in Cabo Verde: Overview.
[26] The World Bank . 2020. DatacBank: Agriculture, forestry, and fishing, value added (% of GDP) - Cabo Verde
[27] ILO. 2019. ILOSTAT: Employment in agriculture-Cabo Verde, International Labour Oranization
[28] ILO. 2019. ILOSTAT: Employment in agriculture-Cabo Verde, International Labour Oranization
[29] FAO. Calculated using data from FAOSTAT; 2020. FAOSTAT. Food and Agriculture Organization
[30] FAO. Calculated using data from FAOSTAT; 2020. FAOSTAT. Food and Agriculture Organization
[31] Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development – Cabo Verde.
[32] CILSS. 2016. Landscapes of West Africa – A Window on a Changing World. U.S. Geological Survey EROS

22. The percentage distribution of land use systems in Cabo Verde is as follows: arable land (12.90 per cent), permanent crop (0.99 percent), permanent meadows and pastures (6.20 percent); forest area (22.07 percent) and other land uses (57.84 percent)[33]. Santiago, the largest of the ten islands, is the most important region for agriculture. The mean precipitation is around 225 mm/year and has been decreasing since the 1960s, with negative impacts on agriculture and water supplies. The vegetation of the Cabo Verde Islands is sparse and consists of various shrubs, aloes, and other drought-resistant species[34].

23. Agriculture in Cabo Verde is predominantly based on subsistence family production, which is mostly rainfed, although irrigated systems exist. Major crops produced in Cabo Verde include maize, pulses (e.g. beans, groundnut), vegetables (e.g. carrot, cabbage, lettuce, tomatoes etc.), coconut, sugar cane, coffee and fruit (e.g. banana, citrus, apple etc.). Sugar cane, pineapple, coffee and banana are the main cash crops. The main livestock produced are ruminants (cattle, goat sheep), pig and poultry (chicken, turkey and ducks). Fisheries represent a significant source of foreign exchange and of animal protein for the population.

24. Despite its relatively arid climate (in comparison to Guinea-Bissau and STP), Cabo Verde boasts raised forest cover to 20.8 per cent of the national territory.[35] The majority of this forest cover does not consist of native trees, but rather more commercial varieties. Even though biodiversity gains from non-native trees are more limited and competition from these species can endanger native flora, these trees still can provide essential services such as preventing further soil erosion on many islands[36]. Despite these efforts, Cabo Verde still faces serious erosion because of changes in climate and land use. Soil fertility has long been a pressing issue in Cabo Verde for several historical and contemporary reasons. Fertility has declined over time due to water and wind erosion and lack of vegetative cover. More recently, increasing saltwater intrusion into water tables and soil has hindered efforts to protect topsoil and improve fertility. The country's coastlines are very vulnerable to rising sea levels and erosion where appropriately 80 percent of the population reside[37].

Climate change in Cabo Verde: observed trends and projected impacts

25. **Observed trends**. Since 1990 temperatures have risen by 0.04% annually[38]. In contrast, there was a reduction in annual average precipitation of about 2%. Currently Cabo Verde is seeing sea-level by an average 3.3 mm/annually[39].

26. Under SSP 2-4.5, mean temperatures are expected to rise by 0.61˚C (2020-39), 1.02 ˚C (2040-59), 1.25 ˚C (2060-2079), and 1.49 ˚C (2080-2099). As Figure 3 below, showcases these rises will be more abrupt after 2040, under SSP 5.-8.5 scenario with mean temperature by the end of the century would be projected to rise by 2.96 ˚C**.**

Figure 3: Projected Mean-Temperature Cape Verde Source: World Bank Climate Change Knowledge Portal

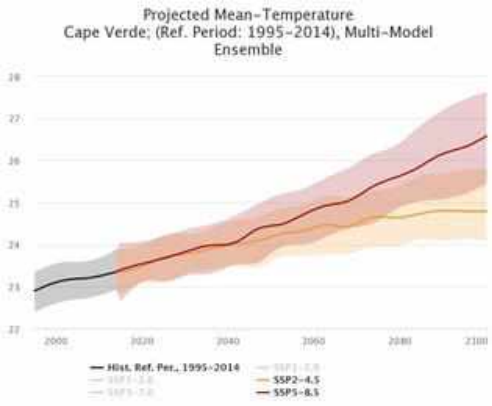
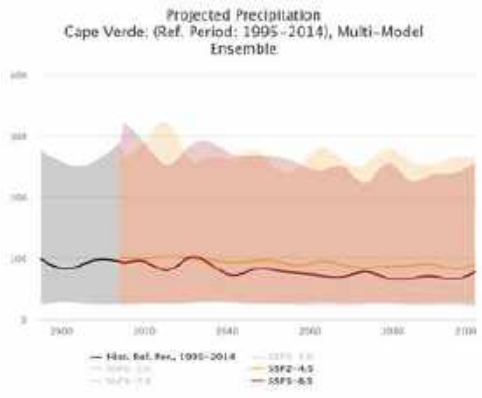


Figure 4 Projected Precipitation- Cape Verde Source: World Bank Climate Change Knowledge Portal



Source: World Bank Climate Change Knowledge Portal

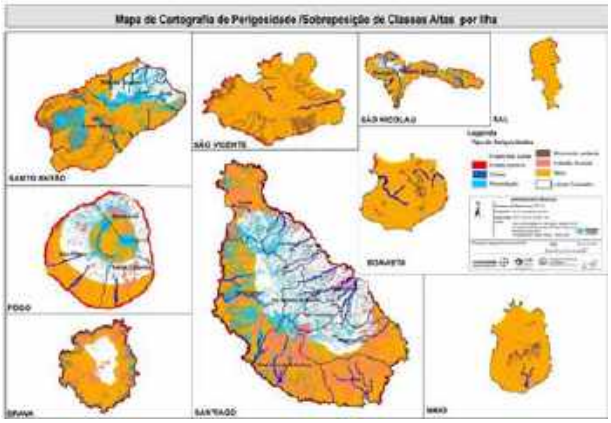
[33] FAO. 2020. FAOSTAT. Food and Agriculture Organization
[34] FAO. 2019. Climate Smart Agriculture in Cabo Verde. Available from https://cgspace.cgiar.org/bitstream/handle/10568/106069/CSA%20profile%20Cabo%20Verde.pdf
[35] 2020. Cabo Verde: 2020 Update to the first Nationally Determined Contribution (NDC). Republic of Cabo Verde
[36] Romeiras et al. 2016
[37] The World Bank Group. 2021. Climate Change Knowledge Portal: Cape Verde.
[38] The World Bank Group. 2021. Climate Change Knowledge Portal: Cape Verde.
[39] The World Bank Group. 2021. Climate Change Knowledge Portal: Cape Verde.

27. In terms of rainfall, under SSP 2-4.5 in the near term (2020-39) the country is expected to see a slight increase in average projected rainfall by 7.82 mm[40]. Afterwards, average projected gain will reduce in medium and long-run, by 2060-79 and 2080-99 average projected rainfall will decrease by 2.53 mm and 4.4 mm relative to the reference period. While rainfall is not projected to contract significantly on an annual basis, it is projected to be concentrated in heavy, localized rains in a shorter period of time, causing high water discharge and run-off and soil erosion[41].

28. Under SSP 2-4.5 scenario, sea level rise is expected to rise by 0.24 meters by 2050-59 relative to the baseline period (1995-2014)[42]. At the turn of the century, 2090-99, Cabo Verde is projected to witness sea level rise by 0.54 m. Under SSP 5-8.5, Cabo Verde is projected to experience sea level rise of 0.68 m by 2090-99.

29. **Climate shocks.** The main climate change impacts contributing to the country's vulnerability range from sea level rise and ocean acidification to the degradation of fish stocks, coastal erosion, salinization, floods and droughts. Cabo Verde is increasingly vulnerable to slow and fast-onset events resulting from natural, man-made and climate-related hazards such as coastal erosion from sea level rise, tourism activities and industrial development. Extreme events such as devastating floods, droughts, sudden temperature changes and epidemics have become more frequent and intense.

Figure 5: Map of the susceptibility to selected climate hazards in a high risk scenario, per island, 2014/2021



Source: Cabo Verde: 2020 Update to the First Nationally Determined Contribution (NDC).The documented climate hazards are: beach and coast erosion (yellow and red, resp.), floods (dark blue), heavy rains (light blue), landslides (brown), forest fires (pink), and droughts (orange). In black: the names of the islands and names and administrative limits of the 22 municipalities.

Climate change vulnerability and impacts

30. **Agriculture**: The sector employs approximately 18 per cent of the population, of which 25 per cent are women and 0.21 per cent are youth[43]. Soil fertility has been decreasing over time due to water and wind erosion, salt intrusion, weak vegetative cover and continuous use without proper replenishment of nutrients extracted by crops. Invasive species and diseases increase agricultural vulnerability. The most resilient sector to the pandemic was agriculture. Droughts and floods associated with climate change will lower household yields and negatively affect food security in Cabo Verde. It will also decrease agricultural production for irrigated and rain-fed crops and could lead to the abandonment of agricultural land.

31. Rising temperatures, sea level rise and increases in torrential rainfall and rain variability resulting in an overall decrease in the quantity of rainfall and water availability will have devastating impacts on poor farmers who depend on rain-fed agriculture and operate with limited resources in fragile environments. These climate change impacts are making species, varieties, and cultural techniques unsuitable for production in certain islands. Droughts and floods associated with climate change will lower household incomes, negatively affecting food security in Cabo Verde.

32. Irregular and deficient rainfall is correlated to a reduction in diversity of species and varieties, which can negatively affect the resilience of crop systems to changing climates. Torrential rainfall on steep slopes results in a high sheet erosion rate and a significant loss of agricultural soils. This results in low organic soil content and a loss of soil fertility. Rising sea levels have led to saline intrusion and salinization of water sources and agricultural systems in coastal areas. These ecological effects have led to reduced agricultural productivity and incomes. In this context,

[40] The World Bank Group. 2021. Climate Change Knowledge Portal: Cape Verde.
[41] Republic of Cabo Verde. 2020. Cabo Verde: 2020 Update to the first Nationally Determined Contribution (NDC).
[42] Garner, G. G., T. Hermans, R. E. Kopp, A. B. A. Slangen, T. L. Edwards, A. Levermann, S. Nowikci, M. D. Palmer, C. Smith, B. Fox-Kemper, H. T. Hewitt, C. Xiao, G. Aðalgeirsdóttir, S. S. Drijfhout, T. L. Edwards, N. R. Golledge, M. Hemer, R. E. Kopp, G. Krinner, A. Mix, D. Notz, S. Nowicki, I. S. Nurhati, L. Ruiz, J-B. Sallée, Y. Yu, L. Hua, T. Palmer, B. Pearson. 2021. IPCC AR6 Sea-Level Rise Projections. Version 20210809. PO.DAAC, CA, USA. https://podaac.jpl.nasa.gov/announcements/2021-08-09-Sea-level-projections-from-the-IPCC-6th-Assessment-Report
[43] FAO. 2019. CSA in Cabo Verde. Food and Agriculture Organization

Cabo Verde is already implementing innovative ways to adapt to climate change in agriculture. This includes water desalination for agriculture, reclaimed water for irrigation, drip irrigation, and greenhouses, among others, to increase productivity and the incomes of smallholder farmers. Nevertheless, more financing is needed to scale up successful adaptation measures, such as water efficiency and food security interventions, while promoting the adoption of modern practices and techniques, addressing information gaps and knowledge, and strengthening institutional capacity to set up mechanisms to leverage innovative climate and environmental finance.

33. **Food imports**: As Cabo Verde relies on imports for 80 percent of food consumed in the country, any disruptions in shipping and commodity supply, fluctuating international food commodity prices, and currency risks will have disproportionate consequences for Cabo Verde's food security and capacity to meet its basic needs[44].

34. **Energy**: Cabo Verde is also dependent on imports to satisfy virtually all its fossil fuel needs, from transport to desalination and generator use, whether for agriculture or the health system (hospitals, etc.). Disruptions to fuel supply and prices – which are likely to become more frequent in a world impacted by climate change and dwindling resources – are felt immediately across the country and by communities. Linking Cabo Verde's islands with one another and to other countries – a challenge at the best of times – is extremely vulnerable to disruptions from climate change, pandemics, and fossil fuel scarcity. Renewable generation is key, but these installations too have to be made climate resilient (larger ports for reception of ever larger wind generators; proper battery disposal; improvements to withstand extreme winds or to compensate for times when there is no wind; resistance to dust storms known as "bruma seca"; corrosion of photovoltaic panels, etc.).

35. **Water sector**: Cabo Verde increasingly suffers from water shortages. Water salinization and drought resulting from climate change have been identified as the greatest constraint on the prospects of socioeconomic development in the country. Irregular, high-intensity rainfall is poorly distributed in space and time. This, coupled with poor infiltration, make water one of the primary limiting factors for climate change resilience in the agricultural sector. Rising temperatures and variations in rainfall patterns will lead to a reduction in surface runoff and weak recharge of aquifers. Saltwater intrusion due to droughts and excessive pumping of groundwater is a serious problem. The projected sea level rise is expected to increase soil and water salinity, reducing the availability and quality of water for various uses. Climate induced changes have so far resulted in seasonal water shortages over the past decade, as well as more storms, floods and droughts, negatively affecting agricultural production. This then often translates into impacts on agricultural prices, incomes, food security and socioeconomic development in general. Recurrent droughts and worsening conditions in agriculture and fisheries have driven much of the rural population to cities and coastal areas in search of employment in the tourism and other service industries or abroad. Furthermore, urban sprawl – which is often unplanned – has diminished habitats and essential ecosystem services and created massive challenges for the country's essential infrastructure (transportation, energy, water and sewage facilities, communications infrastructures in particular), which are themselves exposed to climate hazards. The country is forced to operate ever more desalination plants to meet its growing water needs, yet these plants require high levels of energy use (10 per cent of all the electricity consumed in the country). Building more resilient land and energy footprints is thus a major challenge for Cabo Verde.

36. **Sea level rise**: Among Cabo Verde's variety of landscapes, lowlands in the coastal regions stand out. Coastal communities, economic activities, and infrastructure are particularly vulnerable to a possible rise in sea level, which will have particularly devastating effects when combined with extreme and adverse climate events such as storms with high winds, heavy rains and tidal waves. The country is already witnessing loss of coastal territory due to these phenomena, as well as soil fertility due to saltwater intrusion, as mentioned above.

37. **Public health**: COVID-19 has put Cabo Verde's public health system and finances under enormous stress. While the relationship between climate change, biodiversity and infectious disease is complex, the loss and degradation of natural habitats clearly undermine the web of life and increase the risk of disease spillover from wildlife to people. The country's record on combatting a range of infectious diseases such as cholera, Zika, dengue and yellow fever, and malaria is exceptional. Nevertheless, Cabo Verde is less prepared than other countries to withstand future outbreaks of epidemics and pandemics, not least for its high exposure to international visitors, on whom the current economy depends. Climate vulnerable groups – that is, groups and communities that have adversely been affected by climate hazards and limited ability and income to recover by themselves, including women, the elderly and the youth or persons with disabilities – are affected the most. Women are responsible for the day-to-day running of households and basic services, mainly in rural areas. They suffer from the lack of (or limited) access to water, land and energy in rural areas and increasing fragility in supply chains. Women and youth are underrepresented in decision-making bodies, overrepresented in unemployment and emigration, and have lesser patrimonial or financial resources.

[44] FOA. 2022. GIEWS Country Brief: Cabo Verde. Food and Agriculture Organization

38. **Financial resilience**: Cabo Verde is both considerably indebted and highly dependent on non-domestic financing and foreign direct investment. Increasing vulnerability to and costs of climate change increase financial exposure and affects the financial resilience of the country.

Guinea-Bissau

39. **Socioeconomic context:** Guinea-Bissau is a low-income country with a GDP per capita of US$1,948 (PPP)[45] and a population of 1.97 million as of 2020[46], which is expected to double by 2050. Much like other parts of the region, its population is very young: 42% of all Guinea Bissauans are under the age of 15[47]. Guinea-Bissau is a largely rural country, rural population compromises 64.3% of the total population[48]. Guinea-Bissau's HDI value for 2019 was 0.480, putting it in 175th place out of 189 countries and territories[49]. Gender inequality is present in all domains and significant data gaps exist, some of which are pertinent to agriculture such as women's access to land or unemployment. According to UNDP, in 2019, 64.4 per cent of the population experienced multidimensional poverty, which relates not only to income, but also health, education, and standard of living[50]. Key inhibitors to Guinea-Bissau's past and future development are political instability, irregular rainfall, and price shocks.

40. Agriculture is the mainstay of Guinea-Bissau's economy, particularly rice for domestic consumption and cashews for export. The sector accounts for approximately 49 per cent of national GDP[51]. Guinea-Bissau cannot currently fulfill its cereal needs: farmers in the country produce 80 per cent and 15 percent of domestic needs of rice and wheat, respectively[52]. Most poor households work or rely on agriculture and over three-quarters of the poor live in rural area[53]. More specifically, heads of households reliant on agriculture are almost twice as likely to live in poverty as households whose heads do not. According to ILO, in 2019, 64 per cent of the female workforce was employed in agriculture, in contrast to 57 per cent of the male workforce. This discrepancy can be attributed to the exodus of young men from rural communities and the role of women in cashew production to processing, which is the main export[54]. WFP found that 28 per cent of households in Guinea-Bissau are food insecure and when modeling for a nutritious diet, this number rises to 68 per cent[55].

41. **Environmental context:** Guinea-Bissau is a coastal country with a landmass of over 36,000 km^2, of which 22 per cent is water, including the territorial sea, major rivers, and wetlands[56]. The more than 80 islands of the Bijagos Archipelago constitute 10 per cent of its landmass. Its coastal areas are noteworthy for their large estuaries, wetlands, and mangroves forests. Moving inland, Guinea-Bissau's elevation rises gradually to the Guinean Forest-Savanna Mosaic, a transition zone made up of wooded savannah[57].

42. The Bijagos Archipelago is a critical region economically and biologically for Guinea-Bissau, as attested by its UNESCO Ecological Biosphere Reserve classification. Most of the archipelago is uninhabited; roughly 25,000 people live on only 10 per cent[58]. The compatibility of its protected status and the population is rooted in local practices. In addition to supporting agricultural production, the islands serve as a refuge for abundant marine flora and fauna, including sea turtles and sea hippopotamuses. In terms of vegetation, the archipelago is covered with savannas, swamps, and mangroves[59].

43. Guinea-Bissau's coastal region on the mainland is noted for its tidal flats, mangrove forests, and herbaceous savanna fringed with palm groves. Similar to Bijagos, the area is used to grow rice. Sadly, some of the increased cultivation has led to deforestation and the degradation of mangroves. Even so, mangrove forests continue to cover nine per cent of Guinea-Bissau's territory, the highest proportion of any country in the world[60]. These forests play an increasingly important role given that Guinea-Bissau has over 300 km of coastline[61]. However, mangrove degradation has left the agricultural lands that replaced them and the land further inland more vulnerable to climate shocks. Further inland, the forest-savanna region is prone to bush fires given its long dry season of 6-7 months, but its deciduous or semi-deciduous trees have generally been unaffected[62]. Similar to other regions in Guinea-Bissau, its forest cover has been degraded due to human activity largely for fuel-wood needs and demand for agricultural land. Between 1975 and 2013, the country lost 77 per cent of its forests due to rampant tree falling, logging and bush fires[63].

[45] WB. 2020. The World Bank Data: GDP per capita, PPP (current international $) - Guinea-Bissau. The World Bank
[46] WB. 2020. The World Bank Data: Population, total - Guinea-Bissau. The World Bank
[47] WB. 2020. The World Bank Data: Population ages 0-14 (% of total population) - Guinea-Bissau. The World Bank
[48] INE. 2020. Inquérito aos Indicadores Múltiplos 2018-2019. Instituto Nacional de Estatistica
[49] UNDP. 2020. Human Development Report 2020: Guinea-Bissau. United Nations Development Programme
[50] UNDP. 2020. Human Development Report 2020: Guinea-Bissau. United Nations Development Programme
[51] FAO. 2019. Climate-smart Agriculture in Guinea-Bissau. Food and Agriculture Organizaton Availabel from https://cgspace.cgiar.org/bitstream/handle/10568/106070/CSA%20in%20Guinea%20Bissau.pdf
[52] FAO. 2021. FAO Country Briefs: Guinea-Bissau. Food and Agriculture Organization
[53] WB. 2022. Poverty & Equity Brief: Guinea-Bissau. The World Bank
[54] Catarino, Luis & Menezes, Yusufo & Sardinha, Raul. 2015. Cashew cultivation in Guinea-Bissau. risks and challenges of the success of a cash crop. Scientia Agricola. 72. 459-467..
[55] WFP. 2021. Guinea-Bissau Country Brief (June). World Food Programme
[56]Republic of Guinea-Bissau. 2021. Third National Communication to UNFCCC. Republic of Guinea-Bissau.
[57] CILSS. 2016. Landscapes of West Africa – A Window on a Changing World. U.S. Geological Survey EROS
[58] Madeira, João Paulo. 2016. "BIJAGOS ARCHIPELAGO: impacts and challenges for environmental sustainability", InterEspaço: Revista de Geografia e Interdisciplinariedade. 291-305. Available from ttps://www.researchgate.net/publication/307002492_BIJAGOS_ARCHIPELAGO_impacts_and_challenges_for_environmental_sustainability
[59] Roberston, Peter, Important Bird Areas in Africa and associated islands – Guinea-Bissau. Bird Life
[60] Republic of Guinea Bissau. Strategy and National Action Plan for the Biodiversity 2015-2020
[61] Burke, Lauretta, Kura, Yumiko, Kassam, Ken, Revenga, Karen, Spalding, Mark, McAllister, Don. 2001. Pilot analysis of global ecosystems: Coastal ecosystems. WRI
[62] Burke et al. 2001.
[63] FAO. 2019. CSA in Guinea-Bissau. Food and Agriculture Organization

44. Compared to STP, Guinea-Bissau's blue economy plays a more limited economic activity, yet they both face the issue of overfishing by foreign fleets and ongoing issues of soil erosion. Unlike STP, though, Guinea-Bissau has catches of both freshwater and saltwater fish, which underscores the importance of freshwater fauna such as turtles or fishes[64].

Climate change in Guinea Bissau: observed trends and projected impacts

45. Since 1952, Guinea Bissau has seen its annual average temperature increase by 0.026˚C or 1.84 ˚C in total[65]. In addition, Guinea-Bissau has seen a decline in rainfall largely due to seasonal changes and rising sea-levels. Climate observations indicate that rainfall began to decline in the last 20 years, which has shortened the rainy season (now limited to 5 months). Sea level rise has risen by 0.06 m since the baseline period (1996-2014)[66].

46. **Projected trends**. The abovementioned trends are projected to worsen in the future. Under SSP 2-4.5, Guinea-Bissau is projected to see average annual temperatures rise by 0.66 ˚C in the near term (2020-39) and 1.27 ˚C medium-term (2040-59) relative to reference period (1995-2014). In the longer-term temperatures in Guinea-Bissau are projected continue to rise 1.75 ˚C by 2060-79 and 2.05 ˚C by 2080-2100. In contrast, under SSP 5.8.5, Guinea-Bissau is expected to see temperatures rise 4.01 ˚C above the reference period.

47. For precipitation, under SSP 2-4.5, average annual precipitation will increase throughout the century. Compared to reference period, average annual precipitation is projected to increase by 27.86 mm from 2020-39, 38.62 ˚C from 2040-59, 1.21 mm in 2060-79, and 34.98 from 2080-2100. As seen in Figure 7 below, under SSP 5-8.5, Guinea-Bissau would be projected to continue to experience declining annual rainfall.

48. Guinea-Bissau under SSP2-4.5 is projected to continue sea level rise. By 2050-59, Guinea-Bissau is expected to see sea level rise by 0.23 m and then 0.52 by 2090-99[67]. Under SSP 5-8.5, Guinea-Bissau would likely see sea level rise faster, by 2090-99 is expected to face sea level rise by 0.66 m.

Figure 6 : Projected Mean-Temperature Guinea-Bissau

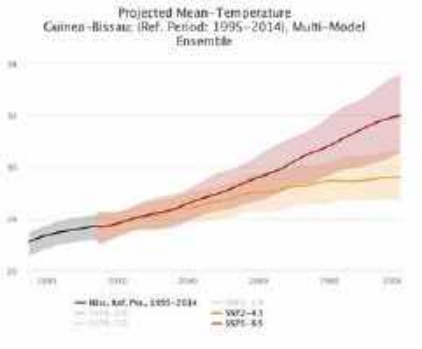
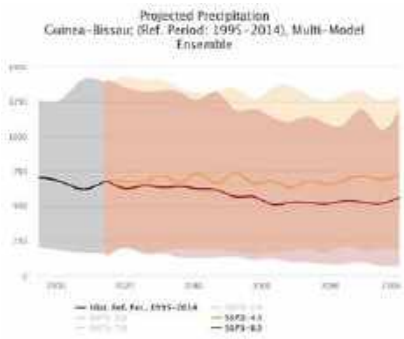


Figure 7: Projected Precipitation- Guinea Bissau



Source: World Bank Climate Change Knowledge Portal

49. **Agricultural vulnerability to climate change.** Guinea-Bissau is the third most vulnerable country to climate change [68]. The shortening of the rainy season and the decrease in the overall volume of rain has led 20 to 30 per cent decrease in agricultural production[69]. Decreased rainfall has reduced yields of rice, especially on smallholder farmers in upland areas and in the valleys, and of other cereals in different parts of Guinea-Bissau. Extreme rainfall events accompanied by strong winds often lead to floods that affect the productivity of rice paddies ("bolanhas") and cereals by causing root rot and/or kill plants at the germination stage. Waterlogging (flooded, swampy, saturated soils) negatively affects several biological and chemical processes in plants and soils which influence crop growth in the short and long term. The main result of waterlogging of crop plants is oxygen deprivation or anoxia because the excess water does not diffuse into plant tissues at a sufficient rate, leading to tissue decay and stunting.

50. Changes in rainfall patterns lead to longer and warmer dry seasons, particularly in the north-eastern interior of the country, resulting in seasonal water shortages that directly affect access to water for the population, agriculture and livestock. Flooding is frequent in inland and coastal areas, with serious implications for infrastructure and agriculture.

[64] Biai, Justino, Strategy and National Action Plan for the Biodiversity, Republic of Guinea Bissau
[65] WB. 2021. Climate Change Knowledge Portal: Guinea-Bissau. The World Bank Group
[66] WB. 2021. Climate Change Knowledge Portal: Guinea-Bissau. The World Bank Group
[67] Garner et al. 2021
[68] Notre Dame Global Adaptation Initiative. 2019. ND-GAIN Country Profile: Guinea-Bissau..
[69] Republic of Guinea-Bissau, 2006. National Programme of Action of Adaptation to Climate Changes.

51. A shortening of the cool season in the months of December-February has been registered. Trends also show an increase in the irregularity of precipitation, as well as a general downward trend in average and seasonal annual precipitation levels. Changes in rainfall patterns have led to longer and warmer dry seasons, resulting in seasonal water shortages that directly affect access to water for the population, agriculture and livestock. Flooding is frequent in inland and coastal areas, with serious implications for infrastructure and agriculture. For example, Guinea-Bissau suffered recently from a wind anomaly (the longest Harmattan period ever) during the flowering of cashew trees that because of dust had a negative impact on production. Due to the lack of national data, it is difficult to accurately estimate the level of production of raw cashew nuts, but it is estimated that production dropped by 10 to 20 percent in 2018 compared to 2017.

52. **Sea level rise** has also led to frequent coastal flooding, resulting in significant losses of rice production in lowlands and in swampy mangrove rice fields. Saltwater dikes built along the banks and parallel to estuaries with sluice gates prevent the intrusion of saltwater into the rice fields and retain the rainwater needed to grow rice. With the rise in the average sea level, tides are higher and stronger, resulting in significant saltwater intrusion into the mangrove rice fields and the destruction of anti-salt dikes, causing a substantial loss of productivity and soil salinization.

53. In the fishing sector, declining rainfall, the degradation of fisheries ecosystems by polluted run-off from extreme rainfall events, increased prolonged climate-induced drought episodes and SLR (which increases salinity) are the main climatic factors affecting the fisheries sector. They lead to the migration of wild species from local fishing grounds or submergence to depths unattainable using traditional fishing methods. This has led to a decrease in fish catches and therefore a reduction in a primary protein source for the country, effecting nutritional balances in the country.

Sao Tome and Príncipe (STP)

54. **Socioeconomic context:** STP is a lower middle-income country with a GDP per capita of US$4,741.10 (PPP). Furthermore, STP has an overall HDI value of 0.625 compared to the female HDI value of 0.590 and male HDI value of 0.651[70]. In addition, STP is a fairly young country, as around 42% of its population is under the age of 15[71]. According to the most recent household survey, from 2010, about one-third of the population is below the international poverty line and lives on less than US$1.90 per day. When the World Bank poverty line of US$3.20 per day is used, around two-thirds of the population is poor[72].

55. Agriculture, forestry, and fisheries account for 14 per cent of GDP, with fisheries representing a largest share. The agriculture sector employs 19 per cent of the workforce[73] and is notably dominated by smallholders, as STP privatized formerly state-owned plantations and distributed agricultural leases to the rural population[74]. The main export crop is cocoa, which accounts for 50 per cent of food exports[75]. Other key agriculture products exports are coconut oil and pepper, which roughly each account for one per cent of total food exports. Farmers grow a variety of staple food crops such as plantains, bananas, roots and tubers. Domestic production is not enough to satisfy the country's food needs and thus, STP must import food. The food import bill has gradually increased from US$11.49 million in 2000 to US$45.58 million in 2019[76]. In relation to food security, a recent household survey found that 52 per cent of urban households reported skipping a meal due to lack of resources compared to 43 per cent of rural households[77]. Female headed households and households with lower education levels had the highest share of respondents who skipped a meal.

56. STP has long faced gender equality issues, which are present in agriculture and fisheries too. For example, women in fisheries are largely relegated to the roles of fishmongers, whereas as the majority of artisanal fisherfolk are men[78]. Similar trends are found in the agricultural sector as well: in 2019, 24 per cent of the male workforce[79] worked in agriculture compared to 9 per cent of the female workforce[80]. The services industry has long been dominated by women, whose share in the sector increased from 72 per cent in 1991 to 88 per cent in 2019[81]. A key service industry sector is tourism, which roughly accounts for 10.4 per cent of GDP. However, this sector has been hit hard by COVID-19 due to lockdowns and travel restrictions. All in all, as a sub-Saharan African country and small developing island state, STP faces the challenges of poverty, hunger, social inequalities, youth unemployment, along with economic constraints related to its geography.

[70] UNDP. 2020. Human Development Report 2020: Sao Tome and Principe. United Nations Development Programme
[71] WB. 2020. The World Bank Data: Population ages 0-14 (% of total population) – Sao Tome and Principe. The World Bank
[72] WB. Country Overview: Sao Tome and Principe. The World Bank
[73] Flavio Soares Da Gama. 2018 African Economic Outlook. The African Development Bank
[74] Michael Mikulewicz. 2020. Local Resistance to Climate Change Adaptation: The Case of Ponta Baleia, São Tomé and Príncipe, Glasgow Caledonian University
[75] The Observatory of Economic Complexity. 2018. Yearly Trade.
[76] The Observatory of Economic Complexity. 2018. Yearly Trade.
[77] Sao Tome e Principe National Statistics Institute. 2020. COVID-19 Household Monitoring Survey.
[78] IFAD. 2021. Unlocking the potential of sustainable fisheries and aquaculture in Africa, the Caribbean and the Pacific, International Fund for Agricultural Development
[79] WB. 2019. Employment in agriculture, male (% of male employment) (modeled ILO estimate). The World Bank
[80] WB. 2019. Employment in agriculture, female (% of female employment) (modeled ILO estimate). The World Bank
[81] WB. 2019. Employment in services, female (% of female employment) (modeled ILO estimate) - Sao Tome and Principe. The World Bank

57. **Environmental context:** STP is an island country with a total landmass of 1,001 km^2; it has two main islands, Sao Tome and Principe, and four smaller islands of Rôlas, Caroço, Pedras, and Tinhosas. Both main islands are noted for their volcanic peaks and soil. STP's climate can be broken down into four seasons. The rainy season is the longest spanning nine months, from September through May. The rainy season is punctuated by an intermediate season, "Gravanito", from December to January in which there is a fall in rainfall and average temperature. After the end of the rainy season in May, the dry season begins, "Gravana," which lasts from June to August. The rainy season is known for higher temperatures and the dry season sees some of the lowest average temperatures. These trends hold throughout STP, but the island of Principe has lower average rainfall and higher average temperatures.

58. Despite STP's small size, it is rich in biodiversity, thanks to its mountainous geography, and is home to various types of ecosystems and endemic species, particularly birds, amphibians, and plants.[82] Infrastructure and human settlements are concentrated in low-lying areas, which is also where the country's forests are located. Its primary forests are limited to the southwest and center of the island, normally at higher altitudes and inaccessible areas,[83] whereas its secondary forests are largely found on abandoned plantations. The major threats to forest cover, especially secondary forests, are agricultural conversion and over-harvesting for charcoal and firewood.

59. In addition to its primary and secondary forests, mangrove forests are found on both main islands. On São Tomé, most mangrove habitats are inside the Parque Natural Obô. In the case of Príncipe Island, there are three main remnants of mangrove forests: Praia Salgada, Praia Caixão and Praia Grande, which are all outside the national park. Similar to the secondary forests, mangrove forests are threatened by agricultural conversion and over-harvesting. In the case of São Tomé, increased road construction nearby mangroves also play a negative role[84].

60. As an island nation, another vital environmental asset is its aquatic ecosystems. STP depends on fisheries as both a protein source for its population and economic growth for the country, but it is threatened by overfishing.

Climate change in STP: observed trends and projected impacts

61. **Current**: On the island of Sao Tome, the airport weather station has reported a temperature increase of 0.6 °C between 1960 and 2016[85]. The island of Principe has experienced a higher rate of temperature increase than the island of Sao Tome. Unlike observed temperature changes, precipitation trends have no linear pattern. Precipitation has varied over the years, but on average annual rainfall is 2100 mm, and the mean number of wet days is 163[86]. Despite precipitation variance, the seasons have changed with a longer dry and shorter wet season. STP has seen the already experienced sea level rise 0.06 m relative to reference period (1995-2014)[87]. In addition, STP has already lost 4% of its total landmass, largely on the island of Principe[88].

62. **Projections:** Despite longer dry season and shorter wet season, projected annual rainfall, under SSP 2-4.5, will actually slightly increase relative to reference period (1995-2014). Average annual rainfall is project to increase by 58.13 mm in 2020-39, 30.58 mm in 2040-59, 88.56 in 2060-79, and 61.35 mm at the end of the century. Similarly, under SSP 5-8.5, annual average rainfall would increase by 98.55 mm by 2080-2100.

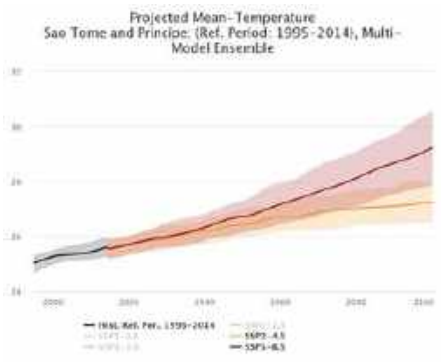
63. In terms of temperature, under SSP 2-4.5, temperatures are projected to increase incrementally through the century relative to reference period. Projected average annual temperatures will increase by 0.58 ° C in 2020-39, 1.09 ° C in 2040-59, 1.5 ° C in 2060-79, and 1.78 ° C in 2080-2100. Under SSP 5-8.5 temperatures will rise further and by the end of century be 3.33 ° C above the reference period.

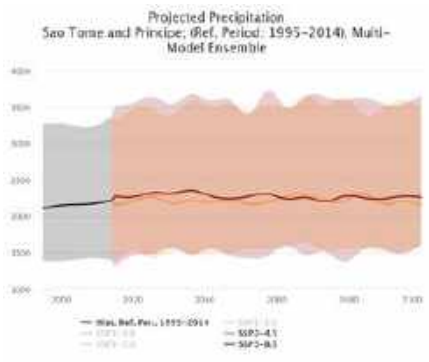
64. Sea level is also projected to rise as GHG intensity increases. Under RCP 4.5, STP will see sea level rise by 025 m in 2050-59 and by 0.56 m in 2090-99[89]. Under RCP 8.5, STP is expected to experience sea level rise by 0.75 m in 2090-2099.

Figure 8 : Projected Mean-Temperature Sao Tome and Principe

Figure 9 :Projected Precipitation- Sao Tome and Principe

[82] Ministry for Natural Resources and the Environment. 2007. National Report on the Status of Biodiversity in S.Tomé and Príncipe
[83] Haroun, Ricardo, Herrero-Barrencua, Aketza, Abreu, António Domingos. 2018. Mangrove Habitats in São Tomé and Príncipe (Gulf of Guinea, Africa): Conservation and Management Status. 10.1007/978-3-319-73016-5_27.
[84] Haroun et al. 2018
[85] The World Bank Group. 2021. Climate Change Knowledge Portal: Sao Tome and Principe.
[86] The World Bank Group.2021. Climate Change Knowledge Portal: Sao Tome and Principe.
[87] Garner et al. 2021
[88] Vila Nova, H.E Carlos. 2021, November 2. National Statement [Transcript] UNFCC
[89] Garner et al. 2021





Source: World Bank Climate Change Knowledge Portal

65. **Agricultural Vulnerabilities:** STP faces significant agricultural challenges under RCP 4.5 and 8.5. Climate change poses risks to all major cultivated crops, especially with current agricultural practices. Major risk factors are precipitation, the prevalence of diseases and pests, and higher temperature.

66. Cocoa in particular under RCP 4.5 will continue to experience moderate crop risk from 2040-70 relative to the 1971-2000 baseline as seen below in Figure 10. The high risk to cocoa is largely limited to the island of Sao Tome, with the island of Principe projected to continue to experience moderate risk. However, under RCP 8.5 cacao crop risk rises significantly on the island of Sao Tome. Importantly the island of Principe is not projected to see any additional crop risk. The major risks to cacao crops in Sao Tome are the projected reduction in precipitation and rise in drought risk.

67. Pepper production has risen as farmers have sought to diversify away from cocoa. Despite the diversification, pepper, under both scenarios, face higher risks in more parts of the country due to thermal and water stress[90]. Similar to cacao on the island of Principe, pepper crop risk does not change significantly under different scenarios. Pepper crop growth is affected by excessive heat and dryness. Under both scenarios number of consecutive dry days will increase, with an even more substantial increase under RCP 8.5[91]. Another risk, in central and southern Sao Tome and all of Principe, is heavier rainfall which will hinder pollination and flowering.

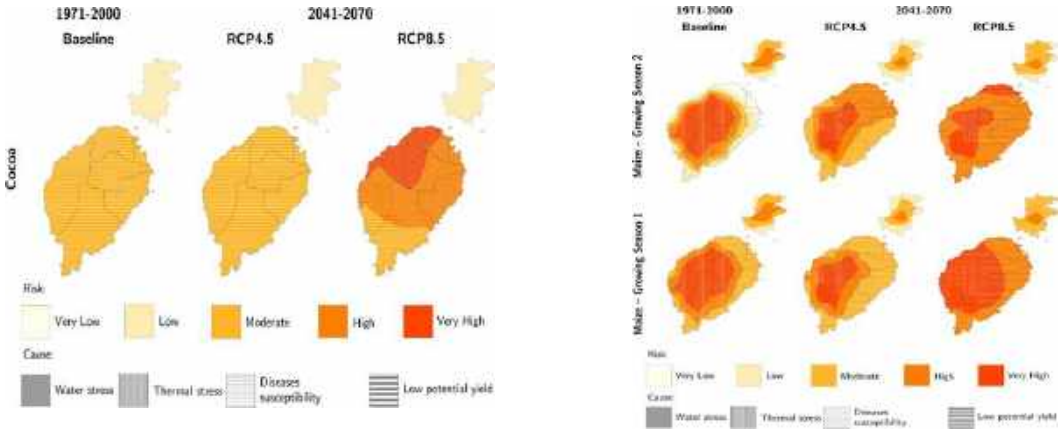
68. Currently, maize faces elevated risks in non-coastal areas on both islands as seen in Figure 11 below. Major risk factors are thermal stress in central regions and rust disease in more coastal areas. Under RCP 4.5 very high-risk areas are reduced due to a reduction in areas susceptible to rust disease. Even with the risk reduction, maize crops under RCP 4.5 face the risk of higher temperatures which will reduce soil moisture[92]. Under RCP 8.5, the major risk drivers are lower precipitation levels and higher temperatures. Importantly, the island of Principe is projected to face fewer high and very high risks under both scenarios.

69. Taro, in particular, currently faces very low risks on both islands. Current high risks areas are limited to coastal areas due to the higher prevalence of taro disease and higher altitude central areas of Sao Tome to a cooler temperature[93]. Under RCP 4.5 and 8.5 major risks are attributable to higher at-risk areas of diseases due to higher temperatures and low tolerance to drought[94]. However, under RCP 8.5 there are very few low-risk areas due to higher temperatures.

Figure 10: Cocoa crop risk index (CRI) and the main causes of crop production risks according to historical simulation (1971–2000, first column) and projections for the period 2041–2070, under RCP4.5 and RCP8.5 greenhouse gas scenarios

Figure 11: Maize crop risk index (CRI) and the main causes of crop production risks according to historical simulation (1971–2000, first column) and future projections (RCP4.5 and RCP8.5, 2041–2070)[95]

[90] Costa Resende Ferreira, N., Martins, M., da Silva Tavares, P. et al. Assessment of crop risk due to climate change in Sao Tome and Principe. Reg Environ Change 21, 22. 2021
[91] Costa et al. 2021.
[92] Costa et al. 2021.
[93] Costa et al. 2021.
[94] Costa et al. 2021.
[95] *The analysis was divided into growing season 1 (first line) and growing season 2 (second line)*



Source: Ferreira et al. 2021[96].

Barriers and opportunities for AF financing

Table 3: Summary of key barriers and opportunities

Key barriers	Alternative adaptation solutions compared to BAU in the 3 SIDS
- Irregular climatic conditions (including rainfall) - Low land tenure security - Limited access to irrigated land and water, particularly for women - Poor access to finance (credit) - Inequalities in access to factors of production, (land, finance, and technology), particularly for women - Reduced access to remunerative markets, particularly for women - Transport difficulties between the islands - Insufficient access to modern and efficient processing technologies - Low entrepreneurial capacity - Insufficient mastery of management/planning tools - Low level of farmers' organizations (FOs)	- Target smallholders, particularly women (%), living in poverty who depend on marginal and degraded land with inadequate possibilities to withstand climate change, flooding and saltwater encroachment - Promote the adoption of climate smart agricultural practices, including sustainable water management, to enhance food security - Introduce watershed rehabilitation arrangements - Involve FOs in planning, implementation and monitoring processes - Large-scale dissemination of climate-resilient agricultural practices and techniques that enable farmers to increase their crop yields and incomes - Strengthen coordination and sustainable management capacities of user associations on a basis of equitable distribution of workloads and income in agricultural farms and landscapes
- Limited knowledge of climate change impacts on smallholder agricultural value chains and landscapes and effective adaptation interventions, especially in hotspot and natural disasters prone areas (droughts, floods, locust, and wildfire.) - Slash and burn agriculture and mono-cropping - Clearing forests for agriculture and charcoal - Planting at times of the year when rain is no longer certain - Inadequate post-harvest storage techniques and equipment - Lack of scientific data and knowledge on climate change	- A databank containing information on innovative projects organized as an integrated platform offering easy access to information on best adaptation and mitigation practices to farmers, FOs, cooperatives and MSMEs to help reduce slash and burn agriculture, land clearing and inappropriately timed planting and post-harvest techniques currently employed by farmers - Capacity-building for smallholder farmers, FOs and MSMEs on adaptation and mitigation, financial literacy and opportunities for green jobs, as well as safe farming, processing, handling, and logistics to address COVID-19 This will help overcome knowledge barriers related to climate change and adaptation and health risks linked to COVID-19 - Support leadership programme for women and youth to increase their access to resources - Promote change in land management practices, particularly in the southern part where floods are observed - Promote marine biodiversity and blue economy - Expand irrigation techniques such as the System of Rice Intensification (SRI), which also reduces GHG emissions from rice fields and mitigates the impacts of climate change - Support sustainable fishery

[96] Ferreira et al. 2021. Assessment of crop risk due to climate change in Sao Tome and Principe. Reg Environ Change 21, 22 (2021). https://doi.org/10.1007/s10113-021-01746-6

- Informal participation in agricultural activities - Limited knowledge on sustainable agricultural and water use - Lack of access to land and limited poor land security, especially for irrigated land and for women in particular - Limited representation of women in decision-making bodies of grassroots organizations	- Prioritization of women in access to agricultural land and practices - Capacity-building for women on planning and sustainable management of agricultural activities, leadership, negotiation and knowledge of their rights - Create networking opportunities for women producers
- Difficulty in accessing land, seeds, inputs etc. - Prioritization of youth's access to agricultural land and sustainable agriculture practices - Lack of opportunity driving exodus and migration - Weak organizational capacity	- Improve youth's access to agricultural land and sustainable farming practices, which also improves the nutritional value of locals' diets - Professionalization of young people in agriculture (maintenance and installation of water infrastructures) - Capacity-building for youth on planning and sustainable management of agricultural activities - Create networking opportunities young farmers
Limited or non-existent special lines of credit to finance climate resilient agriculture, ecosystem-based adaptation (EBA) and sustainable energy for improved resilience Perception of smallholder farming as a risky business and thus, few actors are willing to risk providing concessional loans for climate resilient agriculture. Not enough liquidity in the market, and the regulatory and legal framework underpinning the energy sector is still at a nascent stage	- Establish concessional financing schemes to promote agricultural and rural finance - Increase investment in climate resilient agricultural practices and renewable energies for increasing resilience - Scale up green lending to overcome the belief that it is a risky business
Limited productive investments in climate resilient agriculture and renewable energy to power the agricultural value chains	Pilot highly concessional loans to reduce interest rates Build capacity to develop viable business plans that promote climate-resilient agriculture and fisheries and overcome current limitations with RET Unlock more investments in the sector to enhance adoption of climate resilient practices across the agricultural sector
Policy, regulatory and capacity constraints limiting the adoption of renewable energy in the agricultural sector and fisheries as a resilience measure	- Improve countries' institutional and regulatory framework on climate financing for adaptation - Provide capacity-building to empower smallholders to demand policy changes in favor of low-cost RETs (e.g. waiver of import duties on RETs). Generate market demand for RETs companies in rural areas. - Build knowledge and capacity of local policy and decision makers at national and subnational levels - Build private sector confidence in investing in RETs in rural areas, which will lead to significant cost reductions for RETs through the pursuit of economies of scale - Institute a people-centered approach to implement the most appropriate RETs (solar, wind) in communities where trust has been established. - Engage women who are usually responsible for daily activities such as collecting firewood and hauling water to reduce current levels of natural resource exploitation and free up their time for other productive activities - Promote the employment of youth in RET deployment and after-sales services and as the next generation of users to reduce youth migration from rural areas. - Provide incentives for design improvements leading to the development of socially and culturally acceptable RETs - Build capacity of actors in collaboration with universities/research institutes that provide RET courses to increase skill levels and number of RET experts in rural areas
- Limited capacity and coordination mechanisms in the government and local communities on implementing climate resilient agriculture - Siloed approach and lack of coordination of actions to promote climate resilient and low emission agriculture - Limited policy and regulatory interventions to accelerate key reforms and frameworks for green financing - Weak capacity and lack of training of government staff	- Strengthen technical and institutional capacity of the government to promote green financing, EbA and climate-resilient agriculture and enhance awareness of FOs, cooperatives, MSMEs and MFIs - Support cross-sector coordination mechanisms with all stakeholders (public, private, local communities and organization) on adaptation and mitigation - Develop tools, instruments and strategies to enable communities, businesses and the public sector to respond to climate change and variability - Support high level policy dialogue to close the financing gap for adaptation and mitigation

Addressing climate change in a post COVID-19 context

70. The three West African SIDS host Countries have ratified the UN Convention on Biological Diversity (CBD), the Convention to Combat Desertification (CCD), the Framework Convention on Climate Change (UNFCCC) and the Kyoto Agreement and the SDGs. They have also signed and ratified the Paris agreement on climate change to keep the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. In addition to the reports and commitments submitted to the UNFCCC, all three countries have prepared national climate change-related strategies, policies and actions. Under the Paris Agreement, all countries have developed and published their nationally determined contributions (NDCs) to reduce greenhouse gas (GHG) emissions and the vulnerabilities to the effects of climate change.

71. Tackling climate change and building more rural resilient economies and societies will strongly depend on how countries will be able to leverage concessional funds to close the financial adaptation gap, and on how they will make financial flows consistent with a pathway towards climate resilient and low emission agriculture contributing to their NDCs and the global climate action. According to the programme host countries National Adaptation Plan and climate strategies, without appropriate climate finance, affordable credit and proper investment, climate change will lead to increased vulnerability and livelihood impacts particularly in a post COVID-19 context. These impacts include reduced agricultural production, food insecurity, reduced fishery resources, water shortage and groundwater depletion, increased disease and or health problems, loss of forest areas, production, biodiversity and land, as well as land degradation and acceleration of the desertification process.

B. PROJECT / PROGRAMME OBJECTIVES

Programme Goal

72. The main objective of the proposed regional programme is to build climate-resilient agricultural systems in the three SIDS in West and Central Africa by securing water resources for agricultural and domestic usages and rehabilitating degraded lands to increase the climate resilience of agrarian ecosystems and enhance agricultural productivity. The project will target at least 45% of women and 40% of youth.

73. The programme goal is to reduce the negative impacts of climate change on 75,720 direct and 526,800 indirect beneficiaries, of which 45 percent will be women in the three targeted countries.

Countries	**Direct beneficiaries**	**Indirect beneficiaries**
Cape Verde	41,020	205,000
Guinea Bissau	26,000 (including 3000 for the Bijagos Islands)	287,000
Sao Tome and Principe	8,700	34,800
Total	**78,720**	**526,800**

Specific Objectives

74. The specific objectives consist of:

- Providing permanent access to water for hydro-agricultural works
- Increasing adoption of climate-resilient varieties tolerant to the major climatic risks
- Restoring agricultural soil fertility through climate-smart water and soil conservation and anti-salt control practices and infrastructures
- Fostering the sharing of good practices and developing learning and exchange platforms on climate-smart agriculture and climate-resilient fish farming among the three West and Central Africa SIDS sharing Portuguese as official language

75. The adoption of the regional approach is primarily driven by the similarity in circumstances and challenges in the three island states, which can facilitate sharing of lessons and good practices, and mutual learning. Second, these same challenges and the national languages of Portuguese (in Cabo Verde, Guinea Bissau and STP) are not shared with neighboring states of the Western Atlantic, hence providing a solid foundation for the establishment of a framework for partnerships and exchanges among these SIDS to overcome the challenges they share. While they share common characteristics of insularity and geographical disparity as well as small populations, their

vulnerability to climate change is not uniform and they have varied experience of occurrence of climate related events and capacity to address them. In addition, Guinea Bissau and Saõ Tome and Principe are both LDCs while Cape Verde has higher levels of development as well as policies and mechanisms in place to better address climate change. Strong knowledge management established across the programme will allow for enhanced experience sharing, enabling improved adaptive management beyond what would be observed in the case of single country projects.

76. In addition, the project directly contributes to shaping international agreements such as the Agenda 2030, the Sendai Framework for Disaster Risk Reduction and finally the Paris Agreement. By addressing the three elements above through a regional approach, it is believed that the project would provide benefits that each country taken alone would not be able to achieve through a national single approach.

77. The regional approach will have the effect of triggering or strengthening cooperation and synergies between the three countries on climate change adaptation. In the current scenario, the three countries have weak cooperation on climate action. In addition, by increasing the financial resources mobilized for climate action and by strengthening cooperation and synergies between the three countries, the regional approach will result in intensified implementation of climate solutions for the three countries with a particular focus on the most vulnerable groups, particularly youth and women.

78. The Programme contains monitoring-evaluation / knowledge-generating and capacity-building regional components that would create a regional platform for communication between the three SIDS based on shared goals, cultural values and norms and that not only would create more linkages and cooperation between different activities and actors but also would help to solve coordination problems and reduce transaction costs. The creation of a regional coordination unit based in Praia, which will coordinate with the national project management units present in each of the three countries, will allow for more overall supervision, which will have the advantage of harmonizing the pace of project implementation in the three countries. This cooperation and coordination would also benefit other countries of the IFAD West and Central Africa region as well.

79. Lastly, by introducing innovative adaptation measures at farm and landscape levels for the first time in the target countries, the regional project will help test and disseminate technologies, knowledge sharing, lessons learnt and good practices through the establishment of a regional platform for Portuguese-speaking SIDS in West and Central African countries. The regional approach will emphasize the need for Lusophone African countries to map their own needs, building on their own internal resources and on regional initiatives, to strengthen their own national evaluation systems and capacities. This platform will provide opportunities for exchange visits (farmers, private sector, and ministries), development and sharing of case studies, trainings and business opportunities among the three countries.

80. The programme will promote climate-resilient system that combines the absorptive, adaptive and transformative capacities of social-ecological systems of Cape Verde, Guinea-Bissau and STP. The programme will support agrarian systems to recover from climatic shocks and stresses, while positively withstanding against the effects of climate change. The following three mutually reinforcing components (i) implementation of climate-resilient agricultural practices; (ii) capacity building to sustain project interventions; (iii) monitoring-evaluation and learning.

Project Area and Target Groups

81. The project will limit its interventions to the targeted regions in each country that have been selected due to their vulnerability to climate change, historical and projected impact of climate (temperature and precipitation), historical change in temperature and precipitation; climatic events (droughts, floods, heats, sandstorms).

Countries	Areas of Intervention	Synergies with the IFAD baseline projects
Cape Verde	Brava, Fogo, Maio, Santo Antão, São Nicolau, Santiago and São Vicente	POSER
Guinea Bissau	Gabú, Cacheu, Bafatá and Oio	REDE
Guinea Bissau	Bijagos Islands: Bubaque, Uno and Bolama	
Sao Tome	Me-zochi, Lobata and Cantagalo, Caue, Lemba and Principe	COMPRAN

82. **Target group.** The intervention of this programme will give priority to rural communities that are the most vulnerable to climate change and engage in productive agricultural value chains. The project will target particularly

youth and women characterized by structural vulnerability, weak social integration and a lack of socioeconomic opportunities; all characterized by a pronounced weakness or absence of productive capital (agricultural land and livestock) and a lack of economic opportunities and jobs.

83. In ***Cape verde***, the target group will be the rural poor in the intervention zone who are members of the Community Development Associations (CDAs), which 83-85 will be 41,020 direct households and nearly 205,000 indirect beneficiaries. The selection of the beneficiaries takes place within the framework of the CDAs on the basis of the following criteria: (i) women heads of household; (ii) young people who, due to lack of training, are unable to take advantage of opportunities available on the job market or to create opportunities (through self-employment) and; (iii) individuals or households selected on the basis of poverty criteria identified by the communities themselves (no or difficult access to land are looking for alternative income-generating activities; they do not have the capacity to ask for micro-credits to develop their own activities; they are the head of a large family high number of children under 15 years old); they (or a member of their family) have a chronic illness or disability; they live in housing that does not meet decent standards of decency etc.). CDAs may also use area-specific poverty or exclusion criteria (such as living in a hard-to-reach area). The reason for the choice will be documented by the facilitators in the beneficiary form. For economic sub-projects, having experience in the field will be an additional selection criterion.

84. In ***Guinea-Bissau*****,** the intervention will target around 26,000 direct rural households, i.e. 287,000 expected individual beneficiaries (30 per cent of the population of the four targeted regions), which are located in the poorest, largest and most remote regions as well as the most populated regions of the country. Particular attention will be given to women, youth, people with disabilities and returning migrants. Beneficiaries will be selected through the following: (i) targeting farmers on agricultural perimeters; (ii) self-targeting of youth, women, people with disabilities and returned migrants for rural micro entrepreneurship support. Final selection will be based on poverty characteristics: (i) large number of children, (ii) high rate of female illiteracy, malnutrition, and food insecurity, (iii) no access to electricity, potable water, or sanitation, (iv) no access to water and sanitation, and (v) no access to sanitation. Illiterate women, malnutrition and food insecurity, (iii) no access to electricity, potable water, or sanitation, (iv) low school enrollment rates for children and poor housing conditions.

85. In ***Sao-Tome-and-Principe*****,** the programme will reach directly 8,700 rural households, corresponding to 34,800 people, 40 per cent of whom are women and 50 per cent youth. The target group is composed of 500 small farmers affiliated with producers' associations, unions or cooperatives, of which about 40% will be women (and 30% female heads of household) and 50% young people; 500 rural producers not affiliated with the associations or cooperatives supported by the IFAD baseline project, 60% of whom will be led by women, 700 young promoters of entrepreneurial initiatives as well as households and people affected by malnutrition and people with disabilities. The targeting strategy is intended to be inclusive and supportive of women's empowerment.

86. **Targeting strategy**. The programme will have a flexible, inclusive participatory targeting strategy, which will take into account the internal dynamics in each targeted production basin, the expected outcomes for each project component, the needs and specificities of all beneficiaries and the challenges of food and nutrition security plaguing the whole country. It will be based on the use of geographic targeting of production basins to identify intervention areas and on socio-economic targeting to direct the envisaged support towards priority target groups and thus promote their empowerment. To avoid potential conflicts due to the prioritization of women and youth, in addition to the sensitization workshop, it is recommended to adopt the Gender Actions Learning System (GALS). It is a holistic household methodology, which aims at empowering men, women and youth to make changes in their lives sustainably. The project should also elaborate a youth strategy and action plan to better assess their special needs and aspirations and hence curb the youth rural exodus, especially in a country such as Guinea Bissau.

87. In relation to gender and youth, specific targets will be adopted to promote (i) greater access of women and young people to skills and knowledge, (ii) the economic empowerment of women and young people by facilitating their access to assets, resources and factors of production, their participation in income-generating activities and strengthening their control over resources; (iii) activities to improve women's well-being and reduce their workloads (small-scale irrigation systems, provision of ploughing services, processing equipment, multipurpose solar dryers and bioenergy), and (iv) activities strengthening the participation of women and young people and their roles in decision-making in groups and cooperatives.

88. Communities in the target areas are priority regions for the government's climate programme, as they are exposed to a number of climate-related risks, including drought, bush fires, floods, water scarcity, low agricultural productivity, delays in the rainy season and COVID-19.

89. The target areas were selected after face-to-face consultations in 2022 with the stakeholders involved, but also during a general consultation with the focal points of the sectors involved and the main stakeholders during IFAD main baseline investment in 2019. Selection criteria included vulnerabilities affecting the regions, including climatic variabilities, existing agricultural activities for adaptation; and the possibility of integrating women into economic activities. It should be emphasized that in addition to undertaking stakeholder consultations at both the national

and local level, capacity-building in climate vulnerability, climate adaptation and climate finance was provided during the two missions. Details of the consultation process are provided in section H.

90. Beneficiaries depend heavily on natural resources and the farm which is sensitive to climate variability and the impacts of climate change. Agriculture is rain-fed and subject to variations in temperature and rainfall. In addition, fishery, livestock, forest resources, in a large part of the target areas, have been subjected to drought, rainfall pause or heavy rains. Climate variability, including unexpected droughts caused by unpredictable changes in precipitation and temperature, can have implications for the impacts, sustainability and return on investment of subprojects including infrastructure projects like rural roads and water supply. However, the project has the potential to integrate climate resilience measures without substantial additional costs through capacity building programs in climate-smart farming strategies and close collaboration with extension and monitoring agencies. Meteorological and climatic in order to regularly receive agro-climatic information and to use the right cultivars or varieties, adaptation techniques, including the Adaptation Fund. Climate change adaptation interventions will help vulnerable communities, especially young people and women, to moderate this risk and sustainably mitigate the effects of climate change in the area of intervention.

91. Against this backdrop, the project seeks to reduce vulnerability of rural communities in the Programme area to the impacts of climate change, such as climate variability at local and national levels, and halt the degradation of natural resources critical for sustaining agricultural production and increasing food security and nutrition of vulnerable poor communities. Reflecting key development challenges and adaptation needs, the programme will deliver on the stated objective through three components:

- **Component 1: Implementation of Innovative Climate Resilient Agricultural Practices**
- **Component 2: Capacity building to sustain Programme intervention**
- **Component 3: Monitoring, evaluation and learning**

C. PROJECT COMPONENTS AND FINANCING

Table 4: Project Components and Financing

Project Components	Expected outcome	Expected concrete outputs	Amount (USD)
Component 1: Implementation of Innovative Climate Resilient Agricultural Practices	1.1. Increase in sustainable production	Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	2,940,000
	1.2. Improved Landscapes and production	Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented	2,350,000
	1.3. Increased water availability	Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established	4,300,000
Component 2: Capacity building to sustain Programme intervention	2.1. Enhanced institutional and governance system through the integration of climate risks into agriculture, fishing and water sectors as well as into the budgeting and investments.	Output 2.1. Strengthened capacity of climate risk governance structures	921,000
	2.2. Enhanced communities' capacities to secure access to clean water supply, through irrigation infrastructure and resource conflict management	Output 2.2: Strengthened organizational capacities of communities including women in irrigation infrastructure and resource conflict management	350,000

Component 3: Monitoring, evaluation and learning	3.1 WCA SIDS Strategic partnership frameworks for Innovative Climate Resilient Agricultural Practices strengthened due to enhanced coordination and South-South collaboration	Output 3.1. Monitoring and evaluation and lessons learned disseminated	250,000
		Output 3.2: Partnerships and coordination strengthened on adaptation between the West Africa SIDS.	948,090
Project Activity cost	US$ 12,059,090		
Project Execution cost	US$ 844,136		
Total Project costs	US$ 12,903,226		
Project cycle management (8.5%)	US$ 1,096,774		
Amount of financing requesting	US$ 14,000,000		

Table 5: Project Cycle Management Fee charged by the Implementing Entity (8.5 per cent).

Project Cycle Management Fee over 5 years	**Percentage**	**Amount**
1. Development and Preparation	20%	US$ 219,355
2. Overall Coordination and Management	30%	US$ 329,032
3. Financial Management and Legal Support	20%	US$ 219,355
4. Evaluation and Knowledge Management Support including Reporting, Mid-term Evaluation and Terminal Evaluation costs	20%	US$ 219,355
5. Overall Administration and Support Costs, including audit	10%	US$ 109,677
Total	100%	US$ 1,096,774

D. PROJECTED CALENDAR

Milestones	**Expected Dates**
Start of Project Implementation	2023
Mid-term Review	2025
Project Closing	2027
Terminal Evaluation	2028

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience

1. The programme will promote climate-resilient system that combines the absorptive, adaptive and transformative capacities of social-ecological systems of Cape Verde, Guinea-Bissau and STP. The programme will support agrarian systems to recover from climatic shocks and stresses, while positively withstanding against the effects of climate change. The following three mutually reinforcing components (i) implementation of climate-resilient agricultural practices; (ii) capacity building to sustain project interventions; (iii) monitoring-evaluation and learning. Throughout the planning and implementation of each activity within the components, there will be regular sharing of information and experiences with the different stakeholders that are involved in climate resilience in agriculture in Cape Verde, Guinea-Bissau and STP. This will ensure that lessons are learned as the programme progresses and that each country builds on the experiences and knowledge of each other. Concrete adaptation measures include the adoption of integrated, climate resilient farming, production, water access and use, landscape rehabilitation, post-harvest and marketing systems. New technologies on water through desalinization, will be introduced, as well as best practices aimed at promoting the paradigm shift and behavioral change in the crop, and fishery value chains and increasing linkages to markets.

2. The project is structured around three components (Figure 12):

- **Component 1:** Implementation of Innovative Climate Resilient Agricultural Practices
- **Component 2** : Capacity building to sustain programme intervention
- **Component 3:** Monitoring, evaluation and learning

Component 1: Implementation of Innovative Climate Resilient Agricultural Practices

3. It consists mainly of agronomic practices and technologies at the household and farm level as well as sustainable water management practices at landscape level. Both sets of techniques are proposed to combat the effects of certain climatic effects on crops, plantations, soil and watersheds. These are water deficit due to rising temperatures, evaporation of water from the soil and reduced soil fertility, evapotranspiration from crops and plantations, reduced rainfall, and extended dry season. It also includes flooding, surface runoff, pest proliferation and changes in upwelling. These climatic hazards have led to a drop in agricultural yields as well as in the volume of catchments for small-scale fisheries. Most of the activities proposed are proven activities implemented by IFAD in the selected countries. IFAD economic and financial analysis of approved or ongoing project combined with economic profitability of these interventions. Building on the initial gender assessment, a gender-responsive approach to climate-smart agriculture will be promoted while implementing activities under this component. This approach help identify and addresses the various constraints faced by women and men, while recognizing their specific capabilities. Therefore, it aims to reduce the gender inequalities and ensure equal benefit from interventions and practices of climate-smart agriculture, achieving thus more sustainable and equitable results. Adopting such approach for this component will contribute to narrow the gender gap in agriculture by reducing women's work burden through improved technologies, financing services and infrastructure. For women participation to training, it emerges during the national consultations that took place in April 2022 that they should have the possibility to participate in all training offers on equal footing. In addition to joint training, women should inscribe to specific training courses adapted to their needs in horticulture for instance, small animal breeding and local economic activities for income generation. Women need to be trained in accessible technologies and practices that can significantly reduce their unpaid work, in the use of new adapted agricultural/rural technologies aimed at reducing time and energy investment and at women´s entrepreneurship; such as improved cook stoves and fish smoking facilities, multifunctional rural platforms, small renewable energy devices and other green business options. The reduction of firewood for the household/kitchen and alternative technologies through biogas, renewable energies are another field for gender responsive capacity building in the regional project.

Output 1.1.

4. This output is proposed to build a resilient agricultural system at both the farm and landscape scales. To this end, a technology package to increase the crops, plantations, soils and landscapes resilience to climate change is proposed. At the farm level, this involves the adoption of varieties that are more resilient to heat and water stress, fertilization techniques adapted to the water and heat stress of plants and soil, a climate information service, a sustainable supply financing mechanism and a National Fund for Recovery from Climate Disasters. Further, mulching practices, crop combinations, the use of organic matter/fertilizers produced by bio digesters, tillage perpendicular to the slope, and the adoption of biological control techniques to prevent the proliferation

of pests on plantations will be implemented. To cope with the negative effects of the change in the upwelling phenomenon, inland and marine fish habitats will be further managed and protected. Lastly, the project will help establish sustainable partnerships for climate information services in Guinea Bissau and STP. This activity will be organized through a participatory methodology to allow farmers to provide feedback to national climate experts and service providers in their respective countries. This will enable them to make climate informed decisions based on accurate, location specific, climate and weather information; and locally relevant crop and livelihood options to be adopted during the planning of their agricultural season and other livelihood activities.

5. During the national consultations organized in April 2022, stakeholders highlighted the relevancy of activities under output 1.1, while also pointing out the priority that should be given to some activities under this output. For instance, the stakeholders consulted in Cape Verde have stressed that establishing a sustainable mechanism for financing the supply of agricultural inputs to cooperative producers is priority. There is a community seed bank implemented in the islands of Fogo and Santiago, which could be expanded and assumed nationally in line with this activity. In Guinea Bissau, according to stakeholders consulted, even if all activities under output 1.1 are very relevant, the most urgent one on which we need to focus in priority are those related to the adoption of resistant varieties, the establishment of a climate smart irrigation system, the application of fertilization techniques and the improvement of the management and protection of inland habitats. On the activity related to climate-smart irrigation system, stakeholders present during consultations in Guinea Bissau highlighted the lack of equipment and infrastructure for proper maintenance as potential obstacles for sustainable use of irrigation. Moreover, the lack of knowledge about new irrigation techniques among local communities and lack of plumbing systems might be additional barriers for a good and continuous functioning of irrigation systems in rural Guinea-Bissau. For the Bijagos Islands, the main activities identified during the consultations are related to the adoption of resistant varieties, the use organic fertilization techniques, and mulch cropping, and the management and protection of Inland habitats. In addition, the project will promote the transformation of non-timber forest products in Bubaque and Uno and of seafood in Bolama by women. The issues related to maintenance costs but also training for ensuring a good functioning of the climate-smart irrigation systems were also mentioned during the stakeholders' consultations in Sao Tome & Principe. These constraints will be taken into account in order to ensure a successful implementation of the climate-smart irrigation systems that will have impact on the livelihood of beneficiaries.

Table 6: list of activities under output 1.1 with indication of which countries the activities will be implemented in Sao Tome and Principe (STP), Guinea Bissau (GB) and Cape Verde (CV)

Proposed climate smart agricultural activities under component 1	STP	GB	CV
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	x	x	x
Establish a climate-smart irrigation system	x	x	x
Promote Half-moon techniques and crop rotations techniques	x	x	
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	x	x	x
Improve the management and protection of inland habitats	x	x	x
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	x	x	x
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	x	x	x
Transformation of non-timber forests products and seafood by women in the Bijagos Islands		x	

Output 1.2

6. With regard to the landscape scale, this output is aimed at the restoration of watersheds in order to produce intelligent landscapes in the face of climate change. Thus, terraces and dikes will be built to mitigate the eroding effects of surface run-off, particularly in raised areas, and of saline intrusion and flooding. At the same time, the slopes and catchment areas where vegetal cover will fight against landslides associated with intense rainfall and torrential runoff, the reduction of the infiltration rate of runoff water, and the reduction and pollution of river water by eroded materials. Wooden barriers against the effects of violent storms on plantations and against soil erosion by torrents will also be installed. Agricultural systems generally include two main geographical scales, the farm scale and the landscape or watershed scale within which the farm is located. These two geographical levels are interdependent, which means that any change in one scale inexorably affects the other. Thus, to successfully develop climate-resilient agricultural systems, it is necessary to consider these two scales when intervening. In other words, resilient watershed and farm practices must be implemented. The implementation of the proposed activities under this output could be facilitated by the Farmers Field Schools that already exist in most of the IFAD funded projects aligned to this regional programme.

7. The discussions during the national consultations in the three SIDS in April 2022 confirmed the importance of activities under output 1.2. In STP, consulted stakeholders pointed out the need to build synergies, for the

implementation of activities under this output, with ongoing projects such as the AfDB-funded "Priasa II" project, the UNDP/GEF-funded "Energy" project, the FAO/GEF "TRI - Landscape Restoration" project and the World Bank-funded WACA project. In Cape Verde for instance, it emerged from consultations that the creation of nurseries to assist biological rehabilitation should take into account the community nurseries established and rehabilitated on the islands of Santiago, Fogo and Boa Vista. For the rehabilitation activities in STP, a key stakeholder recommendation is to focus specifically in the localities of Agostinho Neto, Rio Douro, Ribeira Afonso, and Guegue. As for Guinea Bissau, the outcomes of the stakeholders consultations revealed that three activities out of five under output 1.2 should be implemented there, namely the first one on the establishment of green infrastructure to fight against erosion, mechanical works for the recovery of degraded land and the establishment of nurseries to support the biological rehabilitation.

Table 7: list of activities under output 1.2 with indication of which countries the activities will be implemented in Sao Tome and Principe (STP), Guinea Bissau (GB) and Cape Verde (CV)

Proposed watershed rehabilitation activities	**STP**	**GB**	**CV**
Establishment of green infrastructure to fight against erosion	x	x	x
Build-up mechanical works for the recovery of degraded land	x	x	x
Creation of nurseries to assist biological rehabilitation	x	x	x
Terracing and contour bunding	x	x	x
Check damn and gabion construction in degraded rain-washed gullies	x	x	x

Output 1.3.

8. To sustain farms through the predicted extended dry seasons and increasing temperature, improved water harvesting and distribution infrastructure will be initiated. This will utilize the greater water availability that is generated by the watershed level land rehabilitation in Output 1.2. Emplacing water harvesting infrastructure in parallel to landscape rehabilitation is key to ensuring immediate benefit of increased water availability from rehabilitation. Moreover, the addition of water infrastructure will provide an immediate and tangible benefit for communities particularly women and will create to visualize, creating greater buy- in and adoption of the mechanisms proposed in output 1.2.

9. Compared to other SIDS, Cape Verde is the one where all activities of this output are proposed to be implemented. However, it is worth taking into account stakeholders' feedback on some activities. For instance on the one related to pilot wastewater reclamation and reuse systems for irrigation, it is in line with what is already being done and which is part of the government's strategy in terms of mobilizing water for the agricultural sector. In islands such as Boa Vista and Sal, there is potential for this type of activity without the associated risks of experiments already carried out in this area. It should be noted that expected results for such kind of activities with other initiatives have not been reached in the island of São Vicente and in the Municipality of Tarrafal, and it is necessary to learn lessons from these experiences. For Guinea Bissau, Out of the six activities that will be implemented, four will be implemented in the Bijagos Islands. These are: promotion of water harvest basins and retention dikes, the acces to storage cisterns and water reservoirs, construction of Boreholes pumped by photovoltaic to ensure water supply and irrigation and the activity related to solar-powered drip irrigation systems. STP is the SIDS where only three activities out of nine under output 1.3 are considered to be relevant according to stakeholders' consultations.

10. While targeted areas are known, the exact site location for each technology are yet to be confirmed even if some propositions have been made during the stakeholders consultations in April 2022. Further studies environmental Impact Studies/Reviews are planned to determine the level of salinity, orientation with main winds; groundwater, soil, volume of wastewater and sanitation networks and to decide on the most suitable technology according to that exact location bearing in mind the cost benefit analysis.

Table 8: list of activities under output 1.3 with indication of which countries the activities will be implemented in. Sao Tome and Principe (STP), Guinea Bissau (GB) and Cape Verde (CV)

Proposed water harvesting and disbursement infrastructure activities	**STP**	**GB**	**CV**
Salt-water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table		x	x
Anti-salt dikes, which are physical barriers put perpendicularly to the direction of the water flow used for protection against coastal erosion and salinization agricultural lands. It allows water storage and water supply used for irrigation;		x	x
Pilot seawater desalination plants powered by renewable energy, to supply farms with water for irrigation			x
Pilot brackish water RO or RED desalination based on further assessment and select the right site/ appropriate procurement processes			x

Pilot wastewater reclamation and reuse systems for irrigation, which conserves freshwater and ensure water supply; based on further assessment and select the right site/ appropriate procurement processes			x
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	x	x	x
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	x	x	x
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;		x	x
Solar-powered drip irrigation systems[97], which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	x	x	x

COMPONENT 2: CAPACITY BUILDING TO SUSTAIN PROGRAMME INTERVENTIONS

11. Component 2 is proposed to complement component 1 and ensure its successful implementation. It is aimed at capacity-building activities for Project Management Unit (PMU) staff and the support of supervisory institutions such as government and civil society structures. A gender specialist will be hired to support the implementation of the gender action plan (GAP). This component also targets producers, direct users of the infrastructure and beneficiaries of the practices and technologies that the project will implement**.**

Output 2.1

12. Strengthened capacity of climate risk governance structures: Under this output, the project will strengthen the technical capacities of government institution officials on climate risk management and coordination (trainings, events) including women, the development of tools and instrument adapted to local contexts, and integration into of climate risks into planning and programming in the agriculture, fishing and water sectors as well as into the budgeting and investments.

Output 2.2.

13. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management: The programme will support Women Users Associations (WUAs), and other relevant associations at the local level, to maintain the infrastructures and to adopt new climate resilient practices and technologies. Activities under this component will also include training on farm and landscape sustainable management and maintenance practices. It is worth mentioning that during the consultations in Guinea Bissau, the stakeholders highlighted the fact that at the community level, I addition to women associations, other organizational structures exist such as village associations, cooperatives, socio-professional organizations, village youth clubs, and platforms that work in agriculture, horticulture, small animal creation and the management of water resources.

14. Trainings sessions for farmers and fishermen at the community level will focus on sustainable management techniques of agricultural practices. In order to consider gender disparities, and the different needs of men and women, it is critical to promote gender-sensitive technologies and practices. Given that women are performing the majority of unpaid work, priority will be given to accessible and affordable technologies and practices that can contribute to reduce significantly the unpaid labor. Furthermore, given that women active in fish processing are large consumers of fuelwood, particularly the one from mangrove, a special attention should be given to women in playing a critical role to adopt sustainable management practices. A gender lens will be applied while developing and implementing training modules in order to raise women's awareness and build their capacities to adopt a more sustainable approach for the management of mangrove forest resources. It is demonstrated that significant engagement of women in local decision-making of natural resources lead to positive outcomes for the environment and household livelihoods. For contributing to women's empowerment, the training sessions at the community level will include leadership capacity-building modules to give women opportunity to share knowledge and develop their skills towards a more sustainable management of resources. It is important to facilitate women involved in agriculture and fisheries activities in documenting and sharing their local knowledge.

15. The project will support also women on financial education and access to land and opportunities. Agricultural and fish farming techniques upon which producers will be trained include; management of varieties resilient to water and thermal stress; irrigation systems; increasing soil fertility; coping mechanisms to unpredictable weather events on plantations; and mangrove restoration. Farmers will also be trained on landscapes restoration techniques, which will comprise establishment of green infrastructure to fight against erosion, build-

[97] http://www.fao.org/3/s8684e/s8684e07.htm

up mechanical works for the recovery of degraded land, creation of nurseries to assist biological rehabilitation, terracing and contour bunding and construction of check damn and gabions in degraded rain-washed gullies. Training will also cover building and management of infrastructure to fight against salt-water intrusion, including anti-salt dikes and water harvesting. To increase women's participation in the decision-making processes for infrastructure management and maintenance, as well as natural resources management to enable these activities, it is proposed to have a gender quote of 45% of women following the consultations, but it need to be adapted to the real situation on the ground depending on the local conditions and type of activity. Some participatory diagnostic in the project's inception phase will be necessary for the final selection.

Output 2.3.

16. Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in each country. The programme will set up or strengthen existing coordination mechanism between institutions involved in climate resilient agriculture initiatives in each country. These institutions include ministries such as the ministry of agriculture, water, environment, forestry, economy and finance as well as other stakeholders such as civil society, the private sector and local authorities. Key activities will include conducting assessments on institutional and regulatory frameworks, institutional and capacity needs, setting up or enhancing working mechanisms for enhanced climate resilience agriculture in each country. Women will be included in decision-making processes.

Table 9: list of activities under output 2.3 with indication of which countries the activities will be implemented in. Sao Tome and Principe (STP), Guinea Bissau (GB) and Cape Verde (CV)

Proposed capacity building in the 3 selected countries	STP	GB	CV
Trainings on climate resilient and low emission agriculture Awareness events and sensitization Development of tools and instrument adapted to local contexts, and integration into of climate risks into planning and programming in the agriculture, fishery and water sector as well as into the budgeting and investments	x	x	x
Women Users Associations, and other relevant associations, to maintain the infrastructures and to adopt new climate resilience practices and technologies; Support the environment fund in its readiness process to become an instrument for climate and environment resource mobilization; Trainings on farms and landscape sustainable management, maintenance practices	x	x	x
Conduct assessments on institutional and regulatory frameworks, institutional and capacity needs, setting up or enhancing working mechanisms for enhanced climate resilience agriculture in each country	x	x	x

COMPONENT 3: MONITORING-EVALUATION AND LEARNING

17. Component 3 aims at collecting, documenting and disseminating through the most appropriate channels the good practices and lessons learned generated from the implementation of the project in each of the participating countries.

Output 3.1

18. Monitoring and evaluation are essential to the smooth running of a programme, ensuring that targets are being met and that interventions are effective. The programme will be monitored and evaluated through the following monitoring and evaluation (M & E) activities. A first step consisting of the project's start up activities, which will comprise a project-launching workshop to be held in the first two months of project start-up with project staff, IFAD, and other partners. The inception workshop is essential to strengthen ownership of project results and plan the first year's annual work plan. An inception workshop report is a key reference document and should be prepared and shared with the participants to formalize the different agreements and plans decided at the meeting. After the kick-off, a periodic follow-up via site visits of the project sites by IFAD according to the agreed schedule in the project's annual start-up / work plan to assess project progress.

19. An independent mid-term review at mid-term of project implementation. Gender and youth disaggregated data will be collected to monitor the performance on gender equality and empowerment and inclusion of youth in this programme. The mid-term review, carried out by an independent evaluator, will identify progress towards the achievement of results and identify corrections where necessary. It will focus on the effectiveness, efficiency and timeliness of the project; highlight issues that require decisions and actions; and present the first lessons learned from project design, implementation and management.

20. An independent final evaluation will take place after closing of the programme activities in accordance with the guidelines of IFAD. The final evaluation will focus on the production of project deliverables as originally planned

(and corrected after the mid-term review, if such a correction has occurred). The final evaluation will examine the impact and sustainability of the results, including the contribution to the fund investment criteria.

21. **A regional coordination unit** will be established at the regional level and located in Praia. This regional coordination unit will be in charge of the administrative and financial procedures as well as of the M&E of the entire programme in coordination with country specific teams including collecting gender disaggregated data.

Output 3.2

22. Under this component, the programme supports the development of learning materials and knowledge products in Portuguese, exchange visits between the three countries for farmers and technical teams in ministries to share experiences, and the establishment of a knowledge platform specific to each country and a regional platform to scale up this initiative to other African SIDS. The stakeholders consulted in April 2022 further pointed out the need for the development of leaning materials and knowledge products in Portuguese, and not only in English. Beside the country specific knowledge management, the programme will support a knowledge hub on climate change adaptation in the three SIDS in partnership with other donors. Key activities will include: the establishment of a knowledge transfer platform on climate resilient and low emission agriculture, which will serve in connecting virtually various networks at country level. The Knowledge Platform will be a formal collaborative effort coordinated by an existing entity bringing selected countries to build and populate a set of innovative climate resilient agricultural practices at the intersections of food, energy, water and land. A web platform to disseminate these innovations will be established. This component will also document progress, good practices and lessons generated by the country component. A knowledge management system will be developed and implemented. It will then feed the knowledge hub, which will be common to the three SIDS countries.

23. The project contributes to the Adaptation Fund Result Framework. This SIDS programme supports the AF goal, impact, outcomes, outputs and indicators. The SIDS programme will help the three only West and Central African SIDS (Guinea Bissau, STP and Cape Verde) to meet the financial challenges they are facing in their climate action. Activities in component 1 will help reduce exposure to climate-related hazards and threat (outcome 1). The capacity building component, more specifically the output 2.3 activities will contribute strengthening countries institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses (outcome 2 of AF result framework). Activities of output 2.3 contribute to outcome 3 as they strengthen awareness and ownership of adaptation and climate risk reduction processes at local level through awareness and sensitization events. They also support achievement of the outcome4 of the result framework of the AF Increased adaptive capacity within relevant development sector services and infrastructure assets. Component 1, more specifically activities of outputs 1.1, 1.2, 1.3 and component 2 activities especially that on strengthening capacities of governance institutions and of communities are meant to directly strengthen livelihoods and sources of income for vulnerable people in targeted areas. In that sense, they are aligned with the Outcome 6 of the result framework of the AF. Activities in output 1.2 contribute to achieve the Outcome 5 of the AF result framework through watershed rehabilitation activities, which help increase the ecosystem resilience in response to climate change and variability induced stress. Component 3 activities are aligned with the outcome 8 as they focus on development and diffusion of innovative adaptation practices, tools and technologies.

A. Describe how the project /programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.

24. The innovative climate change adaptation practices of this Programme are related to its regional approach. It also deals with the technologies targeted and the financial mechanisms that will be put in place.

25. The regional approach is new for the three West Africa SIDS for addressing climate change in the agricultural and fisheries sectors in coordinated manner. Up to now, the three SIDS climate change initiatives have been undertaken at country level. They did not benefit from the mutual learning opportunity offered by the regional approach. This approach will create conditions for countries to develop partnerships and to exchange good practices and lessons in their fight against negative climate effects. The combination of the farm scale and the landscape scale approaches is an innovative aspect of the project, as usually projects in the three countries used to adopt only one of these two approaches. The innovations that the regional approach is bringing to the three SIDS countries in combating climate change can be apprehended at three levels. Firstly, in the absence of this regional project, recipient countries would only have access to their national allocation from the Adaptation Fund. Therefore, the regional approach increases access to climate finance for the three SIDS countries, as each country will mobilize more financial resources in addition to its national allocation. Secondly, the regional approach will have the effect of leveraging or strengthening cooperation and synergies between the three West African SIDS on climate adaptation. In the current scenario, the three countries have weak cooperation on climate action.

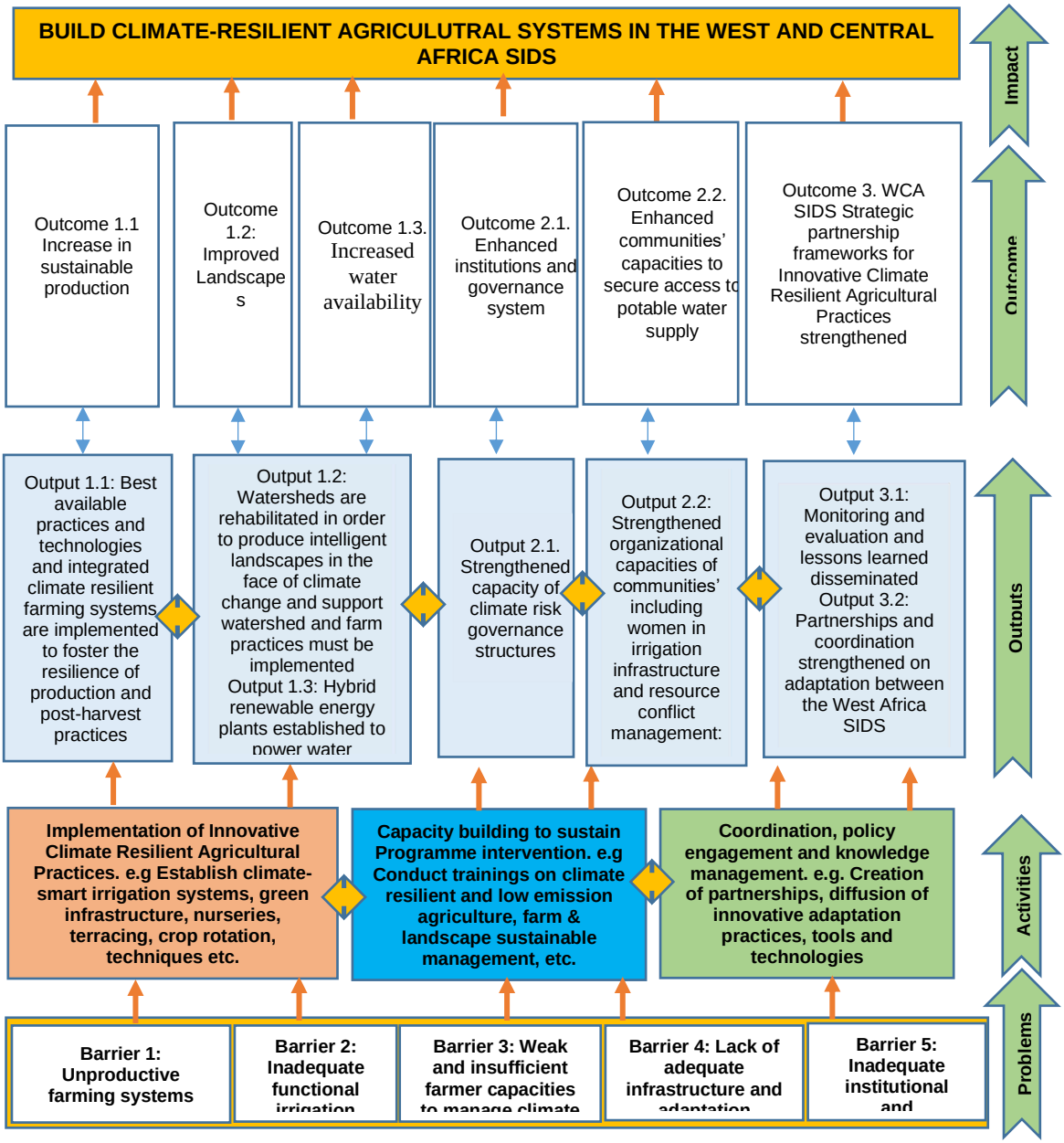
26. The third rationale that justifies the regional approach on innovative climate adaptation practices is by increasing the financial resources mobilized for climate action and by strengthening cooperation and synergies between the three countries, the regional approach will result in intensified implementation of climate solutions for the three countries. The regional approach of this project will enable the establishment of a regional platform

for SIDS in West and Central Africa and SIDS with different level of development (Cape Verde lower middle-income country while Guinea Bissau and STP are Least Developing Countries). This platform will then be linked to the global SIDS coalition and will promote an intensification of the exchange of experiences, knowledge and good practices. This knowledge sharing will necessarily lead to the strengthening of skills in the beneficiary countries and a better capacity to respond to climate change.

27. The use of some new climate resilient agricultural technologies, infrastructures and practices is another dimension of the innovativeness of the solutions brought by the project. Targeted innovative technologies at landscape scale include among others establishment of green infrastructure through assisted natural regeneration for example to fight against erosion, build-up mechanical works for the recovery of degraded land, creation of nurseries to assist biological rehabilitation, terracing and contour bunding, check damn and gabion construction in degraded rain-washed gullies, half-moon techniques, and crop rotations techniques. At farm scale, this regional project innovative technologies are related to adoption of more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields, implementation of i) boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation, ii) solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface, iii) salt water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table, iv) wastewater reclamation and reuse, which potentially saves fertilizer applications as the reclaimed wastewater contains plant nutrients and conserves freshwater (Annex 1); (v) anti-salt dikes, which are physical barriers positioned perpendicularly to the direction of the water flow that are used for protection against coastal erosion and salinization agricultural lands. This also allow water storage and water supply used for irrigation. The innovativeness of these technologies is related to the fact that i) most of these technologies are not being implemented in all of the three countries, thus they are new; ii) they are very effective in tackling climate change adverse effects; (iii) the use of renewable energy for water mobilization is innovative to promote low emission and climate resilient agriculture, which contribute to the country Nationally Determined Contributions and to achieving the Paris Climate Agreement and; (iv) the climate information system as well as the financial mechanisms to ensure sustainable supply of agricultural seeds and to recover from climate hazards, are innovative measures in the agricultural sector of the countries.
28. **Theory of Change:** The theory of change summarized in figure 12 below illustrates how the proposed interventions described above are expected to combine to yield maximum along the target communities more resilient to climate change. In rural communities, providing improved agricultural infrastructures for livestock and crop value chains without addressing the real causes of poverty and lack of capacity is not enough to ensure climate-resilient agricultural production. Change requires having adequate infrastructure and human and institutional capacity to collect, analyze and interpret climate information and ensure that local communities are abreast of the climate variabilities and are able to undertake adaptation measures. As they are already experiencing variations in rainfall patterns characterized by rainfall during the dry season and dry periods in the rainy season, awareness of and access to climate information is important to enable farmers to make suitable adjustments. They also need to adopt better, more effective and more sustainable agricultural and land use, land-use change and forestry (LULUCF) practices, as the current ones are threatening the sustainability of agricultural productivity and causing the rapid degradation of natural resources in the country.
29. The project aims to build strong synergies among the components to strengthen local and national administrations' capacities to mainstream climate change considerations into policies and actions for agricultural value chains. Interlinking intervention measures to improve infrastructure capacity (climate resilient agricultural practices and technologies, including post-harvest equipment), climate resilient infrastructures (roads, warehouses, storages systems), human capacity (capacity-building for farmers, government, cooperatives, etc., especially women and youth) and institutional capacity (climate risk management, M&E coordination, policy framework) is key to building a climate resilient agricultural sector and avoiding and/or minimizing climate-induced risks.
30. As the result, the project is expected to: (i) improve adaptation practices in smallholder agriculture, (ii) provide access to post-harvest technologies and climate resilient farming systems, (iii) diversify income-generating activities through the introduction of climate resilient fish farming and conservation, (v) strengthen the national climate information management system, and (vi) strengthen project coordination, monitoring and evaluation and policy-making. These outputs are expected to enable rural communities to increase their climate-smart agricultural investments, which will translate into higher yields, assets and incomes that improves food security and livelihoods throughout the year. It is important to note that the proposed components and activities are fully aligned with the STP, Cape Verde and Guinea Bissau's strategic goals and expected results and will contribute to its effort to achieve Sustainable Development Goals (SDGs) 1, 2, 3, 5, 8, 9, 10, 13 15[98].

[98] Available at https://www.un.org/sustainabledevelopment/sustainable-development-goals/

Figure 12: Theory of Change



B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund

31. The project seeks to promote and build climate resilience in rural communities in Cape Verde, STP, and Guinea-Bissau. As mentioned previously, it will build smallholder farmers' resilience to the multiple impacts of climate change on smallholder farmers in the three selected countries: changing rainfall patterns, decreased water availability, sea-level rise, and salinization, increases in temperatures, and extreme climate events (floods and drought). Importantly, the project activities will also further target vulnerable groups, particularly women and youth, within rural communities, to address their vulnerability to climate change and limited capacity to adapt.

32. The project will contribute to the achievement of the targeted countries' Nationally Determined Contributions (NDCs) and their international commitments under the Paris Climate Agreement and Sustainable Development Goals (SDGs), mainly SDG 1 (no poverty), SDG 2 (zero hunger) and SDG 13 (climate action). This project will also contribute to IFAD's objectives for the environment and climate described in its 2019-2025 Environment and Climate Strategy.

33. Preliminary target groups in each country are presented under the section on target group and beneficiaries. Special attention will be given to women, youth, and other marginalized groups through an inclusive approach. The most vulnerable populations as determined by the IFAD targeting strategy[99] will receive significant economic and social benefits from this project. They will receive capacity building on the implementation of the best climate-resilient agricultural practices, techniques, climatic goods, and services.

Economic benefit

34. The SIDS regional programme will deliver economic benefits to beneficiaries and rural communities by boosting yields of and value addition to staple crops that play a fundamental role in food security in Cabo Verde, STP, and Guinea-Bissau (rice, maize, cassava, and livestock) while reducing inputs and labour through the use of irrigation systems. The deployment of 100 ha of land irrigated from earth dams will improve productivity, which in turn will improve food security as well as generation and diversification of income and employment. Irrigation systems will not only help cope with climate change impacts such as eliminating planting seasons or reducing but subject to water availability of region allow for more planting seasons. The increase in production will indirectly generate activities and transactions that will have a beneficial effect on employment, particularly for young people and women involved in the production and trade of agricultural products. The programme will contribute to create directly 75,720 jobs[100], thus reducing the poverty of at least 45 per cent women and 40 per cent youth in the programme areas.

35. The project will help increase knowledge on crop and livestock resilience and best practices by defining an integrated climate-resilient crop and livestock business model. The promotion of integrated, sustainable, climate-resilient farming systems will enable farmers to improve their practices, yields, and thus, incomes, which will generate benefits for household food security. This programme is expected to restore about 14,000 ha of land through uprooting and rehabilitation/reconversion of overaged or affected by disease plantations of cocoa. The implementation or improvement of irrigation systems and the introduction of new productive activities, such as fish farming, will allow farmers (particularly youth and women) to diversify their income, thus helping them to develop a more solid income base. By doing so, it will further provide safety nets for rural people in times of economic distress, helping them offset losses in income caused by weather shocks.

36. The restoration of mangroves in coastal communities of Cape Verde and Guinea-Bissau will ensure critical ecosystem services are retained. Key indirect benefits would be better defenses to salinization and soil erosion in coastal areas as well as support fisheries. Furthermore, mangroves and wider ecosystems support the tourist industry, which will result in job security and economic gain in the communities. These gains will not only support youth employment but as well female employment, particularly in Cape Verde where the tourism sector is dominated by women (2018, Cabo Verde Country Gender Profile, UN Women). According to the OECD, oceans contribute $1.5 trillion annually in value-added to the overall economy and this number could reach $3 trillion by 2030[101]. A stable inflow of revenues from costal resources in countries involved is important in terms of exit strategies that contribute to the sustainability of the restoration projects over time.

37. The project will also strengthen climate weather information and services to support capacity-building in adaptation and the implementation of the best farming model. With improved access to weather information, beneficiaries will be better equipped to plan their farming activities – for example, avoid spraying on rainy days, which will save them the cost and time of carrying out such an operation twice. The promotion of soil and water conservation techniques and technologies will improve and maintain soil health and reduce erosion in the project's target areas. This will allow the soil to grow both at the surface and required depths, thus improving soil water retention, and ensuring that future generations benefit from fertile land for food and nutritional needs. This, together with greater access to climate-resilient seeds and animal breeds, will ultimately enhance crop production and productivity while enabling farmers to generate income through the sale of surpluses. The programme is expected to increase the adaptive capacity of 75,720[102] communities affected by climate change-driven hazards.

Social Benefit

38. The program will contribute to enhanced food security and nutrition of the targeted communities. Providing support (technical assistance, infrastructures, technologies, and equipment) to smallholder farmers (male, women, and youth), will improve agricultural production and productivity through the adoption of adapted practices against climate change and ensure better rural livelihoods. With improved and diversified production, the project also aims to reduce the risks concerning nutrients and food security by allowing the population to maintain a diversified diet. By supporting climate-smart agriculture and providing alternative methods to produce under a changing climate, this project will aim to reduce the percentage of households with poor food consumption.

39. The programme will focus more on women and youth as they are the most vulnerable to climate change. IFAD baseline investments in gender targeting are 40 percent women and 50 percent youth in Sao Tome and Principe, at least 50 percent women and 30 percent youth for Guinea Bissau, and 50 percent women in Cabo

[99] Available at https://www.ifad.org/en/document-detail/asset/41397731
[100] The number of jobs was based on the direct number of jobs created in the 03 SIDS for each of the direct beneficiaries.
[101] The Ocean Economy in 2030 | READ online (oecd-ilibrary.org)
[102] This number was based on the number of direct beneficiaries.

Verde. The findings of the Gender Assessment (Annex 1) reveal that women in Cabo Verde, STP, and Guinea-Bissau are increasingly and disproportionately affected by climate change in agriculture, increase in inequalities in rights to land resources and access to technology as well as increase inequalities to the work force. Some consultations with farmers' organizations during the project development phase as well as on the Gender Assessment have highlighted the need to target female and male youth (under thirty years old) who are engaged in primary production and (mainly) value-addition initiatives. They have also informed the need to include women and youth into decision-making processes and in all exchanges visits and experiences sharing (at least 45%) and finally to create employment and jobs, which include a social protection system. Therefore, the programme will improve the resilience of target groups through income and livelihood diversification and infrastructures, technologies, and equipment. The implementation of targeted activities can potentially offer an array of advantages to local communities, such as greater yields, improved soil fertility, fodder availability, as well as shorter wood and water collection time for women, freeing up their time so they may engage in other productive tasks. Through its focus on gender mainstreaming and women's economic empowerment, this programme will hamper women and youth's capacity within the target rural communities to manage current climate risks and adapt their livelihoods to long-term climate change trends.

40. As stated in the gender action plan, gender-disaggregated data will be assessed against the appropriate indicator to measure: (i) women's enhanced access to resources and control of productive assets including inputs and technologies; (ii) women's improved integration into more profitable/remunerative economic activities and income diversification; (iii) women's increased involvement in operational contexts; (iv) women's improved integration into nutrition education campaigns, and promotion of access to drinking water, hygiene, and sanitation and (v) women's strengthened leadership skills and active participation in decision-making bodies in agricultural and fisheries communities. The project intends to close the gender gap, as women represent 10 to 64 per cent of the work force in agriculture in the countries involved and do not have access to productive assets, finance and agricultural knowledge (see Annex 1 – Gender Assessment)

41. The programme will foster rural community empowerment through capacity-building in organizational development, addressing the impacts of climate change on farms and the landscape, managing irrigation infrastructure, and restoring degraded land. These skills will lead to better decisions and positive changes in the management of natural resources. Training on climate resilience for the staff of national institutions, NGOs, local councils and producer organizations will encourage the adoption of appropriate climate change adaptation practices at the household and individual levels. Improved household food and nutrition security through practices that enhance agricultural and fisheries productivity will lead to improved health. An approach ensuring that the interests of women, youth, and other vulnerable groups are adequately addressed will reduce social inequalities and strengthen the capacity of vulnerable groups to take action.

42. The knowledge sharing in Component 3. Social cohesion will also be enhanced under Component 3 because working together and sharing lessons learned will help communities build mutual trust and engage collectively in action that improves their adaptive capacity and resilience. Furthermore, knowledge-sharing activities may also build wider regional ties and connections. In addition, component 3 also promotes the social inclusion of women and youth.

43. The gender approach of ensuring that the interests of youth, women, and other vulnerable groups are adequately addressed will reduce social inequalities and strengthen the capacity of vulnerable groups to take action. These gains will be reflected in better school attendance by children from marginalized households whose difficulties in coping with poverty will have been reduced. Coastal communities in the programme will benefit from mangrove restoration, which will add aesthetic value and recreational values to the intervention sites, thus maintaining social well-being.

44. The programme will incorporate the use of participatory approaches that are culture- and context-sensitive throughout all project activities as well IFAD gender targeting approach. The proposed programme will also ensure that civil society is involved in all decision-making and align government and private actors so that the programme in each country integrates women's concerns. A detailed gender assessment along with a gender action plan (GAP) is prepared in Annex I including gender indicators, targets, timeline, and responsibility.

Environmental and social considerations

45. In line with the IFAD targeting strategy, the project will ensure that the most vulnerable groups will be appropriately taken into account in the activities and receive significant economic and social benefits from this project. For this reason, components and activities are designed to integrate women and youth to reduce the inequalities that these groups face. Concretely, they will receive capacity-building on the best climate resilience business models and sustainable farming practices in the key food value chains. The programme will ensure that at least 60% of farming household will increase in crop productivity as well as 85% in both rice and cocoa productivity. In addition, the project will ensure that 45 percent of the beneficiaries of the irrigated lands and technologies promoted by the project are women and young people. Support will be provided specifically to women farmers to encourage and enable them to adopt select crops (rice maize and cassava) and improve their access to climate goods and services (climate-resilient seeds, inputs, technologies, equipment, supplies, and infrastructure for fish farming, storage and increased access to climate information for improved climate risk management). Furthermore, the project will introduce technologies such as solar-powered water pumps and ovens to lighten women's workload. Data collected during the assessment phase allows for the

identification of families with high levels of vulnerability and who may resort to child labour as a coping strategy. Careful considerations will be given to gender roles, age, and disability. Climate-smart agriculture techniques and technologies promoted in Component 1 and fishery activities (diversification) will foster social cohesion and generate direct economic benefit for the beneficiaries of each target area.

46. Sustainable land and water management techniques, along with water quality monitoring are also expected to generate benefits for local health, while the diversification and sustainable management of other enterprises such as fish farming, will improve overall nutrition and household incomes. This programme will contribute to 60% of farming households adopting sustainable irrigation practices.

47. The Ministry of Environment's climate information network has very limited capacity and as such, projects and relevant government agencies lack the key climate data to support planning and decision-making. The local councils and the Ministry of Agriculture have limited human and technical capacity. The project will strengthen each country's technical capacity to collect, interpret and disseminate data on climate change and rainfall patterns in the targeted areas to inform the planning and management decision-making processes of all relevant stakeholders (government, FOs, cooperatives, individual farmers), thus filling a key technical gap in the country and providing the basis for improving climate risk management, community preparedness for response and recovery, which is consistent with SDG targets 13.1 and 13.3 on strengthening institutional capacity on climate change mitigation and adaptation. The programme will provide trainings to at least two technicians, two meteorologists and twenty-four staff in strategic partnership frameworks for Innovative Climate Resilient Agricultural Practices.

48. In various agricultural production and processing interventions, fossil fuels are the main source of electricity, which has important consequences in terms of emissions. Promoting access to renewable energy to power agricultural value chains and extend production will help achieve economic benefits for beneficiaries but also support resilience to oil price shocks that can make production costs prohibitive. This is consistent with SDG 7 on ensuring access to affordable, reliable, and modern energy services for all.

49. Climate resilient agriculture practices, water, and soil management, and reuse of certain agricultural residues are expected to not only increase yield but also control degradation and reduce erosion, runoff, and groundwater pollution. Biogas technology that reuses organic waste to produce fertilizer and energy will be promoted. The use of organic manure will decrease the use of chemical fertilizers, thus lower production costs to the producer, groundwater pollution, and the conversation of soil carbon. The use of solar-powered equipment will also foster access to renewable green energy and decrease GHG emissions through the reduction of the use of wood fire. The promotion of climate-resilient farming practices will contribute to the restoration of degraded land, buffer zones, and, in the long run, forests. Conserving the countries' forests and introducing efficient water use and management systems will be key for ensuring the availability of water for households and agriculture throughout the year – even with expected climate impacts on water availability. The programme will contribute to 75 per cent of farming households in the project area having access to a potable water supply.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme

50. The project design is cost effective as it builds on works done and on-going activities in Cape Verde, STP, Guinea Bissau. It intends to improve the efficiencies of donors' investments in these sectors over the last decade.

51. The total project investment which is US$14,000,000 project will directly benefit 78,720 direct beneficiaries. This represents about US$185 per head of household engaged in the tree main selected value chain (rice, cassava, maize) value chains. As a matter of comparison, an adaptation project at community level run by the NGO and other donors in the same area spent about $100 or less per direct beneficiary.

52. The project activities are based on experience from past interventions in the Climate resilient agriculture, Watershed and landscape management. The staff from field levels to administration have worked with and managed complex project.

53. Project communities will be clustered to be able to share resources, knowledge and lessons learned from the interventions and for project staff to be able to monitor and manage community activities without extensive stress and resource requirements. The activities of the project are designed to obtain optimum results that are of benefit to the communities and direct and indirect project beneficiaries in tangible ways.

Table 10: Comparative analyses of environmental risks and cost-effectiveness of intervention per Component and output.

Traditional	**Cost**	**Alternatives**	**Cost**
Component 1: Implementation of Innovative Climate Resilient Agricultural Practices			
Output 1.1. Best available practices and technologies and integrated climate resilient farming systems are implemented to foster the resilience of production and post-harvest practices			

Traditional Rice Production	1/3 of the Investment compared to SRI	Rice Intensification (SRI)	Rice production US$ 100,000 to establish the System of Rice Intensification (SRI) for rice production to increase the production of smallholder farmers and diversify and expand their revenue sources US$ 50,000 help support cooperatives with capacity building. This unit cost is estimated at US$ 35.2 as compared to other unit cost for training by INGO and UN agencies, around US$ 50
Traditional Maize production	Twice cheaper than the sustainable maize production	Sustainable maize production	Average Unit cost for 2 ha estimated to 1500 USD with the production twice than the traditional maize production
Output 1.2. Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented			
Traditional canal with high water losses	Unit price estimated to be <US$ 7,000 with limited impact	300 new earth dams	The construction of 300 earth dams less than 15 m high for fish farming activities for US$ 900,000. The unit cost is cheaper than the average in country and region which is more than US$ 13,000 but with higher economic and environmental benefit
Inexistent fish farms	No cost involved and no income	300 fish farms	For the establishment of fish farms, including the creation of value-chain services (fingerling, etc.), US$480,000 is budgeted to support 300 fish farms for US$ 1,600 each which is cheaper than the average
Traditional practices (Monocultured eforestation) impacting negatively on production and productive assets	Limited investment	14,000 ha the agro forestry, uprooting and rehabilitation/reconversion	The climate resilient activities to be promoted by the project, maize and rice sectors are deemed cost effective because they are low-cost no-regret measures. These different measures such as the agro forestry, uprooting and rehabilitation/reconversion of about 14,000 ha of overaged or affected by disease plantations of cocoa, with full compensation are all cost-effective labor-intensive investments that strengthen local capacities.
Traditionally, rain is harvested directly from rooftops, salt water is boiled to evaporate fresh water away from the salt	Limited investment	water harvesting and disbursement infrastructure installed in the 3 countries with emphasis on desalinization	The cost of developing water harvesting systems using photovoltaic cells and desalination technologies far outweigh the cost of traditional methods employed in these activities; however, these modern techniques provide sustainable sources of water both for consumption and food production
Component 2: Capacity building to sustain Programme intervention			
Output 2.1. Strengthened capacity of climate risk governance structures			
Capacity building	US$ 50,000 on average in the region	Training	The budget allocated for this component is US$ **250,000** for 5 years. This is equivalent to US$ 280,000 to cover the institutional capacity building of various national institutions and staff of the 3 countries. This budget covers a range of trainings and workshops per year of around US$ 20,000 to 50,000 each depending of the areas while at national level, the average is between US$ 50,000. This component is very cost effective compared to the average cost at country level
Output 2.2: Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management			
Capacity building	US$ 50,000 on average in the region	Training	Included in Output 2.1

Component 3: Monitoring, Evaluation and Learning			
Output 3.1. Monitoring and evaluation and lessons learned disseminated Output 3.2: Partnerships and coordination strengthened on adaptation between the west Africa SIDS			
Partnership, M&E and KM	US$ 50,000 on average in the region	Strategic partnerships, Activity specific KM and M&E	The budget allocated for this component is US$ **155,000** for 5 years. This is equivalent to US$ 100,000 to cover the institutional capacity building of various national institutions and staff of the 3 countries. This budget covers a range of trainings and workshops per year of around US$ 20,000 to 50,000 each depending of the areas while at national level, the average is between US$ 50,000. This component is very cost effective compared to the average cost at country level

54. The project is also cost effective in that through the **component 2** on capacity building and **component 3** on M&E and knowledge documenting and dissemination; there will be various additional effect and impacts for the three SIDS. Climate smart agricultural systems also rely on the social, institutional and political support of the beneficiaries of the programme to be cost-effective. Therefore, Component 2 and 3 of the programme proposes local, national and regional partnerships, capacity building and knowledge dissemination of stakeholders, especially farmers and their local expertise, as well as a strong government commitment to jointly develop and/or adapt climate-resilient agricultural policies and network. Additionally, national investments to reinforce environmental cost-effectiveness are proposed in the programme for building adaptive capacity, livelihood resilience and generating employment for vulnerable groups. Lastly, the regional approach is a major aspect of ensuring the cost-effectiveness of the programme, through the sharing of experience, knowledge and lessons learned, but also through economies of scale during the procurement of equipment and services.

55. The SIDS and coastal areas of several countries are facing freshwater scarcity due to their insular character but also to the effects of frequent severe droughts on their groundwater and surface water resources. The water tables are poorly supplied or are drained very quickly. As a result, water shortages can be chronic. Thus, locally adapted reclaimed water systems are an alternative to conserve the consumption of freshwater in the three SIDS under certain conditions and requirements to avoid potential risks. They require less investment in infrastructure than desalination plants, take less time to bring the supply on line as the source water is already available and technologies for water quality for irrigation exist. This alternative is cost effective because as the reclaimed water is used for toilet flushing, landscaping and crop irrigation, it will therefore reduce the need (thus the cost) of additional water resources. For irrigation, it will save fertilizers as the reclaimed wastewater already contains plant nutrients. Reclaimed water could also be combined with other water sources to increase crop typologies to irrigate. Besides, water reuse systems will reduce the amount of water discharged to the waterbodies, thus prevent the environmental pollution caused by sewage discharge and enhance the local environmental aesthetics of the receiving waterbodies. Therefore, benefits of treated discharge reduction may be quantified as the savings in sewage charge[103].

56. Desalination of seawater is another alternative with a double advantage related to the improvement of water supply of the populations and a better recharge of the aquifers. Indeed, the availability of water of suitable quality for agricultural purpose is the primary limiting factor to development in the three SIDS. The exacerbation of water scarcity due to climate change and the degradation of groundwater quality due to saltwater intrusion have a significant impact on each country's socio-economic development leading to major implications on all other sectors. The low quantities and poor quality of water constitute a barrier to the reconstitution of the underground water table, especially in the Sahelian zone of Cape Verde. In this context, desalination is essential and is the most effective and sustainable long-term technology. Also, the water sector in the three SIDS is also faced with many challenges related to the affordability of water supply, specifically to rural communities. Since water tariffs are directly linked to the cost of supply, the costly approach of pumping water over long distances is not economically viable for supplying rural communities with good quality water for agricultural purposes. Thus, the Programme proposes to establish how to effectively and efficiently improve the quality of local groundwater by means of desalination. It is following the long-established principle that using local water first is more cost-effective than importing water remains valid, even if the local water needs to be desalinated. However, a comparison of the capital cost of establishing infrastructure to import water to the Programme' s areas of interventions to the capital cost of establishing desalination plants at the same areas of interventions will be carried out. The installation of desalination plants will also lead to the creation of jobs and a new activity essential for the development of the area in the future. Jobs will be created in the industrial sector for the design, construction and operation of the sites for instance.

57. The long-term cost-effectiveness of water management infrastructures, such as saltwater intrusion dams, saltwater dams, retention basins and dykes, wastewater treatment and seawater desalination to improve water quality for agriculture will be ensured through a management mechanism. This mechanism will include the beneficiary populations and the state technical services pertaining to relevant ministries. A maintenance fund for these infrastructures will be set up and will be financed by the contribution of each beneficiary. The

[103] Yupeng Fan, Weiping Chen, Wentao Jiao & Andrew C. Chang , Desalination and Water Treatment. 2013. Cost-benefit analysis of reclaimed wastewater reuses in Beijing, Desalination and Water Treatment, DOI:10.1080/19443994.2013.859102

beneficiaries will be organized into user associations, if they do not exist. Training sessions in infrastructure management and maintenance will be organized for these user associations. State technical services personnel will be upgraded in the management and maintenance of the infrastructure. They will coach the beneficiaries in the management of the infrastructures set up.

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist

58. The proposed project is fully consistent with the national development policies, plans and strategies of Cabo Verde, Guinea-Bissau and STP as well as with relevant regional strategies and agreements. While Cabo Verde is a lower MIC, Guinea Bissau and STP are UN Least-Developed Countries (LDC) and have developed their National Development Plan. These describe each country's macroeconomic, policies in support of growth and poverty reduction, associated external financing needs and major sources of financing. In this context, the Growth and Poverty Reduction Strategy (GPRS) and the National Development Plans (NDP) integrate the agricultural sector's strategies to fight against poverty. Similarly, the Programme will contribute to poverty reduction and improve food security in the most vulnerable communities of the three SIDS through capacity building of local actors, climate information and practices to help producers and governments make climate smart decisions, reduce the vulnerability of agricultural systems and conflicts between producers as well as through the regional knowledge dissemination related to climate change adaptation in agriculture.

59. The programme will contribute to progress towards the Third National Communication on Climate Change to the United Nations Framework Convention on Climate Change (UNFCCC) of Cabo Verde, Guinea-Bissau and STP[104]. These National Communications predict that both high and low emissions scenarios from climate models at national levels will have significant increase in the average temperature. These reports emphasize the need to strengthen climate risk strategies and integrate development needs into policy and planning, which is one of the objectives of this project.

60. The project will also support the implementation of the National Adaptation Programme of Action (NAPA) in each country, with an emphasis on preparing for adaptation in line with the recommendations of the UNFCCC and the Kyoto Protocol[105]. The NAPA for each country aims at identifying priority adaptation needs in order to better reduce and/or mitigate climate change, implement early warnings and forecast measures to adverse impacts of climate change. The programme will support and respond to these through climate-smart agricultural practices proposed in Component 1, partnerships and capacity-buildings proposed in Component 2 of the programme as well as the knowledge sharing in Component 3.

61. The programme is also consistent with the Intended Nationally Determined Contributions (INDC) of each country, which are reference documents for actions in the field of climate resilience[106]. NDCs describe each country's adaptation and investment priorities, analyse knowledge on best practices for climate-smart agriculture and/or co-benefits adaptation and mitigation measures. The implementation of climate-resilient measures in the three SIDS proposed in the programme addresses the NDCs.

Consistency with Sao Tome and Principe, Cabo Verde, Guinea Bissau strategies

62. **With SDGs**. Implementation of SDG's is a huge challenge for many developing countries, especially for SIDS like STP, Guinea Bissau, Cape Verde, because of the number of objectives (17), the number of targets (169), the number of indicators (231) and their overall complexity. This leads these countries Sao Tome and Principe, Cap Verde, Guinea Bissau to prioritize the SDGs to be implemented. This project is aligned with SDG13, which is "*Take urgent action to combat climate change and its impacts*" and the SDG 14 "*Protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, halting and reversing degradation and to prevent loss of biodiversity,* but also SDG 1 *(no poverty)* and SDG 2 *(zero hunger) to reduce poverty and food insecurity"*. Through mastering water and adoption of resilient crops activities, this project will be contributing to STP, GB and CV efforts to meet targets related to the aforementioned SDGs and assist countries in meeting their nationally determined contributions (NDCs) and the Paris Climate agreement.

63. **With NDCs**. The participating countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC), have signed, and ratified the Kyoto Protocol. By ratifying the UNFCCC, these countries have committed to implementing measures to adapt to climate change and reporting on their NDCs. The regional programme will contribute to countries commitments for their NDCs, particularly for sectors such as Agriculture and Water. For instance, among the adaptation measures proposed in STP's NDCs are the (i)

[104] STP: https://unfccc.int/sites/default/files/resource/TCN_Vers%C3%A3o_Final_EN_v11.pdf
CapeVerde: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/0136895_Cabo%20Verde-NC3-1-Cabo%20Verde%20-%20Third%20National%20Communication%20on%20Climate%20Change.pdf
Guinea-Bissau: https://unfccc.int/sites/default/files/resource/TCN_Guinea_Bissau.pdf
[105] https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/napa-background
[106]Guinea-Bissau: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Guinea%20Bissau%20First/GUINEA-BISSAU_INDC_Version%20to%20the%20UNFCCC%20(eng).pdf
STP: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Sao%20Tome%20and%20Principe%20First/STP_INDC%20_Ingles_30.09.pdf

Construction and rehabilitation of the water distribution grid, dams, and reservoirs; (ii) Implementation of low-cost technologies, adapted and of easy community management, to ensure potable water access for isolated communities; and (iii) Elaboration and implementation of the integrated watershed management plan and water security. These three adaptation measures proposed in STP's NDC are well in line with activities under outputs 1.1, 1.2 and 1.3. Such illustration could also be done considering adaptation measures proposed in Cabo Verde NDC, which include reverse and prevent land degradation through soil and water conservation techniques, improve agricultural water use through efficient irrigation systems, and promote integrated pest and disease management.

64. **With Agenda 2063**. The proposed regional programme is in line with the Agenda 2063, which is the Africa's blueprint and master plan for transforming Africa into the global powerhouse of the future. It is the continent's strategic framework that aims to deliver on its goal for inclusive and sustainable development, while also taking actions to reduce the effects of climate change in rural areas. The Regional programme is particularly aligned with two goals of the Agenda 2063, namely goal 5 on modern agriculture for increased productivity and production, and goal 7 on environmentally sustainable climate resilient economies and communities.

65. **With the National Development Plan**. This Program is in line with the priorities of the National Development Plans of Sao Tome and Principe, Cape Verde, and Guinea Bissau. In the selected countries, the diversification of the economy and broadening its productive base is at the center of the national policies to cope with climate shocks. It is planned to increase the productivity of traditional sectors such as agriculture and fisheries with a view to improving food security and reducing imports. In the same framework, two programmes are planned which will be reinforced by the SIDS programme. These are, (i) the "Integrated Rural Development" Programme, which targets capacity building for rural communities most exposed to the effects of climate change, and (ii) the "Sustainable Management of Natural Resources" Programme, which provides for a set of measures to promote the preservation of a healthy environment and the rational use of forest resources, including non-timber resources, the improvement of water management and the fight against soil erosion and deforestation. This presented SIDS Programme will contribute to the objectives of the following programmes: "Promotion of Climate Resilient Agriculture", "Improvement of the Meteorological Monitoring, Prediction and Vigilance Network" and the "Project for Adaptation to the Effects of Climate Change in at the local level

66. The programme will contribute to the implementation of objectives of the three Rio conventions ratified by all countries, including the UNFCCC, as well as the Paris Climate Agreement, the SDGs and the Sendai Framework for Disaster Risk Reduction.

67. This programme is fully aligned with the countries' national development plans and their national commitments on climate mitigation and adaptation included in their NAPAs, National Climate Change Policies and Strategies, NDCs, National Communications (NCs), Agricultural sector policies, agricultural investment plans, SDGs and National Strategies for Disaster Risk Reduction in the selected countries.

68. Furthermore, the project is in line with" UN Delivering as One" as expressed in the agreed 2017-2020 Development Assistance Framework that is focused on (i) governance, (ii) human development, and (iii) sustainable development. It will explore avenues of partnering with other UN agencies like UNICEF, WFP and FAO jointly to support the targeted SIDS government.

69. Strategic partnerships. Key partners for policy dialogue include Farmers' Organizations, NGOs, private-sector actors, and bilateral and multilateral development partners, key sector ministries such as the Ministry of Agricultural and Rural Development, The Ministry of Environment, AFDB, UNICEF, UNDP, FAO, the WFP Regional Centre on nutrition to name few.

Table 11: Alignment with national strategies

Cross-Country Strategy	
Priority	**Alignment**
Sustainable Development Goals (SDGs)	The proposed project is aligned with and will contribute towards achieving a number of the SDGs: i) SDG 1 – No poverty. Poverty reduction will be supported under Component 1 and 2 adaptation practices, transportation and water management which will lead to agricultural productivity for the population that mainly depend on crop and livestock farming (Output 1.1) and by developing diversified livelihood opportunities to increase household income with sustainable fishery (Output 1.2.) SDG 2 – Zero Hunger. The project will contribute to SDG 2 by improving food security and nutrition of households with improved productivity under Output 1.1 (best adaptation in value chains) and Output 213. (livelihood diversification) SDG 5 – Gender equality. The project has been designed in a gender sensitive manner and will include a minimum of 40% female representation in all activities. Women-headed households will be prioritised to receive support for strengthening their houses thanks to easier access to potable water (Output 1.2) as well as Output 1.1 and output 1.3 on livelihood diversification support SDG 7 – Affordable and clean energy. Access to clean energy will be facilitated for beneficiary communities through the construction of community-based solar nano-grids (Output 1.1) for irrigation. SDG 13 – Climate action. As a climate change adaptation project, the AF project will inherently contribute to achieving SDG 13. Institutional capacity to consider and account for climate change will be increased (output 2.1 and 2.2) while partnerships will be created in (Output 3.2). Furthermore, The provision of water services (output 1.2 and 1.3) strengthens the social contract between a government

	and its citizens by re-establishing the government's credibility and accountability and also between communities, provided that users have equitable access to and control over the resources. By building climate resilience into water-reliant sectors like agriculture, the Adaptation Fund is supporting the largest source of rural employment. Investments in water infrastructure, governance, and management will promote more sustainable poverty eradication, support broader economic recovery, and enhance livelihoods.
Sao Tome and Principe	
National Adaptation Programme of Action (NAPA)	Activities under Output 1.1 and Output 1.2. define adaptation options and livelihood diversification which are aligned with the following objectives/sub-strategies: • Strategy 1: Sustainable Management of Forest Resources • Strategy 6: Water Resource Management • Strategy 7: Diversification of Agricultural Production • Strategy 9: Coastal Erosion and Marine Invasion Additionally with capacity building (output 2.1 and 2.2) and Output 3.1 on monitoring and knowledge management, the project will contribute to improving Strategy 5 Climate Observation Network. The AF project financing itself contribute to the NAP result 3 which is financing mechanism to address climate change are strengthened including private sector engagement , innovation and indentation of flagship projects
Nationally Determined Contribution (NDC) 2021	Through its activities, the project will align with the NDC's which commits to reducing its greenhouse gas emissions by 28 per cent by 2030 while improving food security, forest cover, water security, and health and livelihood protection. Furthermore, the project through output 3.3 and 2.2 will support capacity building activities for both smallholders, but also national institutions to better manage, expand and consolidate climate resilient agricultural production on the selected value chains which reduce the CO2 emissions contributing to the NDCs.
National Development Plan 2017-2021	Output 1 contributes to water infrastructure goals particularly for rural areas as well as support agricultural productivity and diversification goals. Furthermore by supporting agricultural productivity and diversification goals, support food security and import substitution goals of the NDP.
Guinea-Bissau	
National Programme of Action of Adaptation to Climate Changes 2006 Third National Communication (2018)	The project will support food security goals of adaption plan as well as improving water resources for use in agriculture. Furthermore, the project will support diversified production to help diversify farmer income as well as diversify local diets.
Strategic and Operational Plan 2015-2020 "Terra Ranka"	Output 1 supports agricultural, female engagement, food security aspects of Terra Ranka, through diversification of crops, promotion of sustainable land management practices, and female empowerment in agriculture. In addition, output 3 supports wider capacity building goals of the plan.
Hora Tchiga" / National Development Plan 2020-2023	Project' outputs under components 1 and 2 contribute to the strategic objective 6 of this national development plan, which is to preserve biodiversity, combat climate change and enhance natural capital; Harmonize public and private investment; public financial management including effective fiduciary management of funds; strengthen disasters risks reduction including climate resilient agriculture With threats from climate change and environmental degradation looming, the Guinea-Bissau Government needs to design policy responses that strengthen the long-term resilience of the economy and its society to future shocks. Given the rich natural capital endowment of Guinea-Bissau with its diverse blue economy resources, it is imperative to leverage the sustainable management of natural resources
Updated National Determined Contribution in The Framework of The Paris Climate (Oct 2021)	Project output 1 and 2 support water security by bolstering salt-water defences, use of agricultural waste, promoting food security, introduction of climate-adapted seeds, and promotion of agorforestry. These activities will also support iNDCs topline GHG reduction goal of 30% by 2030.
Cabo Verde	
2020 Update to the first Nationally Determined Contribution (NDC)	Output 2 will support goals of better conservation of wetlands and other water bodies as well as promoting wider access to water for agriculture through renewably powered desalination. Furthermore, output 1 will also support goals of improving soil fertility and groundwater recharge, agricultural waste reuse, and female engagement in agriculture. In turn these activities will support GHG mitigation goals of 180,000 tCO2eq to 242,000 tCO2eq annually by 2030. In general, the outputs of the two first components of the regional programme are aligned with the country's contribution in the water sector for 2030, namely the adaptation contribution #1 on improving water security and natural replenishment while reducing the water carbon intensity. This is also the case for the adaptation contribution #3 on increasing and sustaining land-based food security through regenerative agriculture, and adaptation contribution #8 on mitigating climate related disaster risks and vulnerabilities and promote adaptation to climate change.
National Action Programme for the Adaptation on Climate Change.	Project activities support adaption goals of agricultural resilience through sustainable groundwater extraction and land management practices. In addition, output 2 supports bolstering erosion defences and preventing further salinization.
Third National Communication on Climate Change	Outputs under components 1 and 2 are aligned with objective 2 which consists of developing adaptation capacity of agriculture/forestry/grazing livestock production systems as to improve agriculture production and promote food security of populations.
National Adaptation Plan (NAP)	The outputs of the programme under component 1 and 2 are aligned with objective 2 to implement adaptation actions for greater resilience of the most vulnerable.

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund

70. The project will ensure potential adverse environmental impacts are identified and avoided, and where impacts cannot be avoided, a suitable plan is prepared for those impacts to be mitigated and managed. Applicable and relevant national technical standards including best environmental practice will be used to deliver the planned activities.

Table 12: National legislations relevant to the Programme implementation in each of the three SIDS countries.

São Tomé and Príncipe		
Name	**Key Objectives**	**Potential Synergies with the Programme**
Framework Law on the Environment (Law no. 10/99)	The Basic Law on Environment defines the basis for national environment policy, adopting in the internal legal system the principles established in most international instruments such as sustainable development.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Law on the Preservation of Fauna, Flora and Protected Areas (Law no.11/99)	This Law provides basic legislation for flora and fauna conservation and protected areas with the aim of protecting biological diversity and promoting, at the same time, its social and economic sustainable use. In particular, the Law allocates areas of national territory to the preservation of habitats and biodiversity (NBSAP). This law disregarded the marine environment in what is concerning the establishment of marine protected areas (MPAs).	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Legal regime of environmental impact assessment (Decree Law no. 37/99)	This Law defines the rules and principles establishing the requirements to be satisfied in order to authorize activities which could damage the environment (to be authorized by an EIA licence)	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Regulation of the distribution of State agricultural lands (Decree-Law No. 51/91)	This Decree-Law establishes land concession requirements in order to develop and to improve the agricultural sector	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Land Management Act - Law on the Management of State Land Property (Law no. 3/91)	This Law defines the framework regime for government owned law ownership, identifying public and private property of the state. Besides, it defines basis for private use lands under public regime, especially for distribution for investment purposes.	**Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Requirements for coastal sand extraction (Decree No. 35/99)	This Decree establishes the conditions in order to perform the aforementioned activity within coastal and inland river areas. It concerns licensing, beach selection, environmental impact assessment, sanctions to be paid for illegal activity, etc.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use

		Output 2.2. Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Water Resources Legal Framework (Law No. 07/2018)	This Law aims at managing and protecting inland water resources of public domain, whether superficial, transitional, coastal, or groundwater waters	**Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Forestry Law (Law No. 5/2001)	This Law provides a classification of forest according to protection requirements, production and forest uses. Moreover, it institutes a national Forestry plan and a special fund. Finally, it regulates control measures and defines applicable penalties	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Legal System for Individual Employment Terms (Law no. 6/92)	This law defines the legal regime of individual working conditions, which is adapted to the new economic and social order of the country	**Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Guinea-Bissau		
Name	**Key Objectives**	**Potential Synergies with the Programme**
Framework Law on the Environment (Law no. 1/2011)	This law defines the basic concepts and specifies the norms, and the basic principles related to policies and activities of protection, preservation and conservation of the environment of the country. It also promotes the improvement of the quality of life through a correct management of the National environment and a rational use of natural resources, in order to optimize and to guarantee the sustainability and continuity of the use of such resources. In addition, it creates the Environmental Fund	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Legal framework of protected areas (Decree-Law No. 5-A/2011)	This law establishes in particular classification and declassification of protected areas and lays down competencies and composition of the responsible authorities in order to protect the natural ecosystems, fauna and flora, and promote its sustainable development	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Legal framework and region on Environmental Impact Assessment (Law No. 10/2010)	It specifies the legal framework and regime to be satisfied by research, environmental and social impact assessment, as well as the requirements to be satisfied for obtaining natural resources use licensing through controls to be carried out on projects, programmes, public or private policies, which may impact on the natural environment and human health	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Land Management Act (Act No. 5/98)	This law regulates land-use planning and rational exploitation of land. Agricultural land exploitation areas shall not exceed 300 ha, but the Council of Ministers may authorize land-use concessions to cooperatives and national or foreign companies for areas not exceeding 1500 ha. This Law lays down the requirements to be satisfied in order to obtain a land concession (including entities benefiting from a free concession and different types of authorization). The project of a new “Lei de Terrra” (Land Law) had been on the hold since 1998. The reviewed	**Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country

	law and further regulations have been promulgated only in 2018 (Land Law 2018 and its regulations). According to the new version of the land law, women have the same and equal property rights as men; they can possess land based on a state concession; community members also can now hold agricultural land as individual property under customary law. The new Land Law has introduced legal measures to help communities and all individuals - men and women - to gain the legal right to land ownership without a mandatory written proof of the actual use of the land.	
Statute of Overseas Services for Agriculture and Forests (Decree No. 48.198)	This Decree specifies the composition, duties, and competencies of the aforementioned services, entitled to manage and control natural resources. Their aim being forestry and agricultural exploitation	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
New Forestry Law (Decree-Law No. 5/2011)	It aims at: (i) the promotion of the sustainable exploitation of forestry resources; (ii) the optimization for the socio-economic and cultural development in line with the protection and preservation of the natural environment and; (iii) the improvement of the quality of life of the population, through the promotion and rational exploitation of forestry resources within the territory	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Water Code (Decree-Law No. 5-A/1992) currently under revision	This Law defines the legal regime of all activities relevant with water management and the institutional framework in order to: (i) implement the national policy on water rights; (ii) guarantee the control and management on water resources; (iii) regulate water uses for domestic, rural, agricultural, industrial, hydropower or other purposes (including navigation, aquaculture) and; (iv) guarantee the protection of the water quality in order to avoid freshwater pollution or its waste	**Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Worst Forms of Child Labour Convention, 1999 (No. 182) (Ratification: 2008)	Through this law, the country should take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour as a matter of urgency. The term child labour applies to all persons under the age of 18	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Cape Verde		
Name	**Key Objectives**	**Potential Synergies with the Programme**
Environmental Policy (Law No. 86/IV/93)	This Law establishes the Environmental Policy aiming at improving and guaranteeing the continuous use of natural resources for an autonomous development	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country

Legal regime for the management of protected areas (Decree-Law No. 3/2003)	This Decree-Law establishes the legal regime in order to manage and control protected areas, according to the importance of their biodiversity, natural resources, ecological function, socio-economic and touristic interest.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Regulation of the Environmental Impact Assessment (Decree-Law No. 29/2006)	This Law regulates the Environmental Impact Assessment (EIA) required for those public and private projects potentially harmful for the environment. The Decree-Law individuates all concerned institutions and characterizes their related competences; moreover, it defines EIA components and procedures; finally, it regulates monitoring and audit requirements, as well as applicable sanctions.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Law on land use (Legislative Decree No. 2/2007)	This Legislative Decree defines principles and rules related to land use of both public and private bodies. Particular attention is paid to regulate land sale, rent and concession. The Decree establishes sanctions to any activity undermining land sustainable. In addition, the Legislative Decree provides for a land registration.	**Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Law on land tenure (Law No. 05/VII/2007)	This Law authorizes the Government to rule on land legal order and to review the basic legislation on public expropriation provided by Law No. 2030 of 1948. To this end, the Law lists the fields of application of the above-mentioned authorization.	**Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Forestry Activity Law (Law No. 48/V/98)	This Law authorizes activities to be performed by public and private entities in order to protect national forests. It applies to trees and forests which are not cultivated for agricultural purposes, to the exercise of forestry activity and to land subject to the forestry regime or likely to be afforested within Cape Verde and provided that it is not intended for predominantly agricultural activities. It also establishes national administration competencies and actions to be carried out by the Government of Cape Verde for managing forestry resources.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country
Law on Water and Sanitation Code (CAS) (Legislative Decree No. 3/2015)	This CAS defines the fundamental principles for water resources, setting standards that guarantee their preservation, quality, sustainability and rational use. In addition, it establishes the definition of public systems of water supply and sanitation as well as the mechanisms of economic and financial sustainability and the establishment of enforcement mechanisms of water resources and is applicable to all existing water resources in the soil, subsurface and atmosphere of the Cape-Verdean territory	**Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management
Legal regime of license and concession for water resources use (Decree-Law No. 75/99)	This Decree-Law applies for all activities related to: potable and treated water production, including transport, processing, storage and desalination. Water supply, including distribution and selling re-used waters for public uses, in particular for industry and agriculture. Collecting services, effluent treatment and re-use, including rainwater. It specifies that Basic Water Sanitation Services must satisfy specific objectives and principles.	**Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management

Decree-Law No. 49/2021 approving the General Bases for the concession of the management, exploration and distribution of water resources for irrigation	This Decree-Law approves the general bases for the concession of the management, exploration and distribution of water resources for irrigation. The purpose of the concession is the service of management, exploration and distribution of water resources for irrigation dealt with the institution Água de Rega (AdR), Sociedade Unipessoal, SA.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use
Decree-Law No. 27/2020 approving the Legal Framework for Environmental Impact Assessment (EIA)	This Legal Framework regulates the Environmental Impact Assessment of public and private projects likely to have significant effects on the environment, meaning stakeholders and their related competences, the phases of the environmental impact assessment, the registration of consultants and the constitution of technical teams, as well as the fees.	**Output 1.1.** Establishment of a resilient agricultural system at both the farm and landscape scales **Output 1.2.** Restoration of watersheds in order to produce intelligent landscapes in the face of climate change **Output 1.3.** Improved water harvesting and distribution infrastructure for sustainable use **Output 2.1:** Strengthened capacity of climate risk governance structures **Output 2.2.** Strengthened organizational capacities of communities in irrigation infrastructure and resource conflict management **Output 2.3.** Functional mechanisms for coordination and information flow between institutions involved in climate resilient agriculture initiatives in the country

71. For each standard, requirements in the programme and how these standards will be met will be further developed at the development phase. As for child labour potential risk in Guinea Bissau, the table below summarizes policies established by the Government in Guinea Bissau, with regards to child labour and key mitigation measures will be implemented under the ESMP and in line with the fund safeguards.

72. The project will comply with Cape Verde, STP and Guinea Bissau's Nationally Determined Contribution (NDC) to the Paris Agreement that consist of plans for mitigating and adapting to climate change through the protection of water resources, cultivation of climate change-resistant crops, developing agroforestry, protecting soil fertility, and supporting sustainable fisheries practices.

Policy	Description
National Policy for the Protection of Children and Adolescents (2018–2030)	Guides the government's policies for combating violence towards children, including child labour. Research was unable to determine whether activities were undertaken to implement this policy during the reporting period.
National Action Plan on Human Trafficking (2015–2018)	Guided the government's efforts to prevent and combat trafficking in persons. In 2018, policy was not implemented due to a lack of funding.
Code of Conduct Against Sexual Exploitation in Tourism	Seeks to raise awareness on commercial sexual exploitation of children and child trafficking in Guinea-Bissau, particularly in the Bijagós Archipelago. In December 2018, IMC conducted an awareness session with hotel and night club owners on the Code. Awareness campaigns also took place in Bissau and in the Bijagós Archipelago, where girls are known to be engaged in commercial sexual exploitation.
UN Country Partnership Framework (2016–2020)	Aims to assist in promoting free and universal birth registration, and enforcing human trafficking and child labour provisions. Since 2016, helped IMC reintegrate 132 talibés with their families; and provided access to shelter, schools, and psychological and medical assistance. In 2018, conducted awareness raising activities on talibés to more than 1,500 people throughout Gabú and Bafatá. In addition, held capacity-building trainings on enhancing criminal justice response to trafficking in persons and strengthening the protection of victims to over 40 stakeholders, including Judicial police, National Guard and NGOs working with human trafficking victims.

F. Describe if there is duplication of project / programme with other funding sources, if any

There is no duplication with other funding sources but, rather, opportunities for building partnerships. Several donors and development organizations such as the World Bank, UNDP, and FAO are contributing to building resilience to climate change and improving agricultural productivity. The following table shows the synergies and complementarities with relevant projects and initiatives.

Table 14: Synergies between the regional Programme and other Projects

Guinea-Bissau				
Project and donor	**Implementation Status**	**Main interventions**	**Synergies**	**Non Duplication and complementarity**
Rural Community-Driven Development (RCDD)-World Bank	Closed	Increase access to priority basic social and economic infrastructures and services in participating communities in at least two regions of Guinea-Bissau.	Hydro-agricultural farming techniques in Cacheu and Biombo	SIDS programme will incorporate lessons learned and build on the gains. The project will work in three additional regions in addition to Cacheu.
Guinea Bissau - Rice Value Chain Development Project in the Bafata and Oio Regions-AfDB Value Chains in Agricultural and Rural Entrepreneurship Support Project (Pacvear) Bafata, Gabu and Oio Regions-AfDB	Implementation 2017-2022 2019-2024 Second project	Will help to improve productivity and production of rice as well as support market gardening. Will support both by facilitating water control, strengthening agricultural infrastructure, promoting sustainable production, packaging, and processing technologies Objective is to improve the rice and market gardening subsector production environment, and promote enterprises in all targeted subsector value chain links to create sustainable jobs and increase rural income.	Water control techniques, Promotion of production, rice, garden marketing, rural enterprises, road enhancement, market strategies	There will be no duplication given that the project will not work on rice in Guinea-Bissau. Furthermore, the project will build off AfDBs project by supporting further water control infrastructure through its activities.
Food Security Urgency Project (PUSA)-World Bank USD 15 million	Implementation, Proposed 2020	(i) to support increased food crop production, and (ii) increase access to food for consumption by food-insecure households in Guinea-Bissau	Will provide farmers and communities principles of agricultural productivity knowledge, support to Risk Mitigation	The project will avoid duplication by building on the agricultural productivity activities to ensure they are climate-smart and working in communities not covered. The SIDS programme can support beneficiaries through climate resiliency through components 1 and 2.
Strengthening climate information and early warning systems for climate resilient development and adaptation to climate change in Guinea Bissau-UNDP/GEF, INM-GB, MAB	Concept Approved, reapproved (2022)	To strengthen the climate monitoring capabilities, early warning systems and information for responding to climate shocks, related disasters (storms, flooding) and planning adaptation to climate change in Guinea Bissau	Will incorporate climate information and warning systems into the information dissemination to farmers	The system will complement AF project through better climate data dissemination.
Project to Support the Economic Development of the Southern Regions (**PADES**) IFAD ando OPEP – (Organização de Países Exportadores de Petróleo)	IMPLEMENTATION FINAL PHASE 2016-2021 IFAD 2018-2024 OPEP Ministry of Agriculture and Rural Development, PMU-PADES Project extended until 2026	Contribute to the reduction of poverty, to create the necessary conditions for sustainable development of the rural economy and to strengthen the socio-economic capacities of rural communities. Main objective: the promotion of the rice/horticulture /commercial/small livestock triad , targeting the most vulnerable families South: Tombali, Quinará e Bolama/Bijagós. Support the integration of young people and women in the enhancement of horticultural and animal production	Activities that will improve rural family economy, most vulnerable	Intervention of PADES in Bolama-Bijagos, experiences, infrastructures, targeted communities can be benefited from for this project

The Restoration Initiative (TRI): Managing Mangroves and Production Landscapes for Climate Change Mitigation- FAO/ IUCN/UNEP	Implementation	Support the restoration and rehabilitation of degraded mangroves ecosystems functionality and services for enhanced food security and climate change mitigation	Activities that will improve the adaptive capacity of the beneficiaries	Duplication is eliminated because the SIDS programme is not working on rice in Guinea-Bissau and GEF/IUCN project intervention areas are around rice fields and surrounding mangroves. Except for Cacheu the SIDs programme is working in three other regions.
Protecting and restoring mangroves and restoring degraded rice fields for food security and climate mitigation in Guinea-Bissau.	IUCN – GEF, USD 3,300,000 (GEF) USD 41,400,000 (co-funding) IMPLEMENTATION ONGOING 2019-2024 Implementation: IUCN and executing through IBAP	Supporting communities through increasing the productivity of existing agricultural fields and restoring abandoned fields in wetland areas, mangrove forests. Project is working with communities to rehabilitate the rice fields that the communities themselves consider most essential to their food security, by providing them with the means to reinforce dikes and improving hydraulic management of cultivated areas. In return, the villages commit to flatten the upper part of the dikes of abandoned rice fields to allow the sea to enter again and mangrove seedlings (called propagules) to grow again, and thus promote a natural restoration of the mangroves.	2700 ha Regions of Tombali, Quinera and Cacheu Community-led restoration of abandoned rice fields Strengthening capacity of national institutions for management and restauration of mangrove ecosystems	Duplication is eliminated because the SIDS programme is not working on rice in Guinea-Bissau and GEF/IUCN project intervention areas are around rice fields and surrounding mangroves. Except for Cacheu the SIDS programme is working in three other regions.
Strengthening the Resilience of Vulnerable Coastal Areas and Communities to Climate Change in Guinea Bissau-UNDP/GEF/LDCF	Implementation	Develop the strong institutions and policies needed to improve risk management in coastal zones, protect investments in coastal infrastructure, and diffuse new technologies to strengthen resilience within coastal communities	Activities that will improve the adaptive capacity of the beneficiaries	SIDs programme will build on current activities undertaken within the project, especially protection of essential fisheries and infrastructures against sea-level rise and coastal degradation.
Scaling up climate-smart agriculture in East Guinea Bissau-BOAD/AF/MAB USD 9,980,000	Implementation 2020-2024	Strengthen practices and capacities in climate-smart agriculture in the project region and at the institutional level Key vulnerabilities in agriculture and water resources management are addressed; project will contribute to immediate and longer-term development and resilience needs of vulnerable farmers, with a particular focus on extremely vulnerable groups: women, elderly and children. Through the project's activities food security and livelihoods are planned to be strengthened at household level while simultaneously increasing capacities in climate risk management and adaptation planning at all levels of governance. Fortification/expansion of the activities of the LDCF-UNDP project "Strengthening adaptive capacity and resilience to Climate Change in the Agrarian and Water Resources Sectors in Guinea-Bissau" (finished June 2016 in the 14 villages of Gabú 'region' and 26 additional villages in the 'regions' of both Gabú and Bafatá; total beneficiary target population of approximately 37,000 people.	Introduction of climate-resilient varieties and new water infrastructure as needed	Activities with complement SIDS programme. Furthermore, the SIDS programme will work in two additional regions.

Ianda Guinea! Arrus European Union, Delegation in Guinea-Bissau Implementation through LVIA (applicant) with national NGOs; AD , UNIVERS-SEL, RESSAN-GB	Implementation Areas: Bissau, Bafata, Tombali, Cacheu	The Ianda Guinea Action! Arrus contributes to ensuring increased incomes and reduced food insecurity for producers in the mangrove rice sector, by boosting the mangrove rice sector in the intervention areas, with a focus on sustainable production growth. Modernization of the saltwater bolanhas, to regulate water and channels to facilitate the evacuation of water (fresh and salt); train producers in water management techniques on the plot; recover and protect mangroves, by promoting reforestation, Ianda Guinea! Arrus also intends to increase the productivity of bolanhas, strengthening capacities to facilitate access to quality varieties and seeds; disseminate cultural techniques adapted to climate change; as well as promoting productive diversification activities. The Ianda Guinea! Arrus highlights: • 5,200 hectares of modernized bolanha surface; • Around 6,000 producers supported; • 1,000 hectares of mangrove surface protected; • Around 800 producers involved in productive diversification; • Approximately 6,000 producers supported. • Approximately 7 new businesses or services promoted.	Through the construction of dikes to prevent the intrusion of seawater; carry out works raising awareness and carrying out activities that contribute to the protection of the environment's ecosystem through community management. Improve rice processing and conservation; increase marketing and access to markets;	Complementing activities of Ianda Guiné Arrus, if the same sites are chosen, benefitting from the experiences for similar activities in the vicinity, as focos is on maize not on rice
Promoting better access to modern energy services through sustainable mini-grids and low-carbon bioenergy technologies among Guinea-Bissau's forest-dependent communities GEF /UNDP GEF Trust Fund USD 3,370,000 USD 14,500,000 (co-financing) GEF PI 9561	APPROVED National Implementation Modality, Ministry of Energy and Natural Resources, National Institute for Research and Applied Technology (INITA) /UNDP	Strengthen and further build up an enabling political, institutional and administrative environment for the management of the RE energy sector; particularly for off grid solutions in rural isolated areas; Contribute to enhance livelihood options for marginalized forest dependent rural communities through providing sustainable energy, emphasis to women as vulnerable group and key actor of change Direct Beneficiaries is estimated as 22,700 from mini-grid systems and 2,300 from cookstoves (2,000 from improved clean stoves and 300 from improved kilns) Communities, mostly Forest, in 7 pilot sites, Pitche (Com. 1) TcheTche (Com. 2) Duta Djara (Com. 3) Lamane/Cufada R. (Com. 4) Cantanhez /Cacine (Com. 5) Cantanhez/ Iemberem (Com. 6) Cacheu (Com. 7)	Sustainable energy solutions for faster socio-economic, women as vulnerable group and key actor of change	Project can build on these activities, project intervention mostly in the southern regions , also in Cacheu region, same sustainable energy off-grid can be used to implement SIDS programme activities

		Total off-grid energy 1.2 MwH (solar) Policy and financial instruments and incentive scheme for solar minigrids and low-carbon bioenergy technologies ; Financial incentives and market mechanisms to secure supply and stimulate demand for energy-efficient stoves and firewood/charcoal developed; gender-sensitive capacity development and modules for the production and utilization of improved kilns and cookstoves Capacity building for mini-grid and low-carbon bioenergy Mini-grid and low-carbon bioenergy technologies roll-out: 7 pilot sites totaling 1.2 MW for mini-grids identified and assessed, and business models defined; Productive use promoted to increase electricity demand in the targeted sites; 5,000 improved cookstoves commercialized and 50 improved kilns disseminated		
School Canteen Supply Program with Local Products Government of Japan, WFP, National implementation partners: NGOs Tiniguena, AD, Kafo, Ecas-D- 2018-2024	IMPLEMENTATION ONGOING	Objectives related to better nutrition of students, first cycle, especially to reduce girls drop out from school, more gender justice in school	National implementation Stimulate the local food production in different regions of Guinea-Bissau and direct marketing to the School Canteen Programe,	SIDS programme can build on activites and strategies to motivate increase in local food production, especially with women

Cabo Verde				
Project and donor	**Implementation Status**	**Main interventions**	**Synergies**	**Non Duplication and complementarity**
Sustainable energy access to manage water resources: Addressing the energy-water nexus- UNIDO/GEF	Implementation	To catalyse market-based integration of renewable energy and energy efficiency (sustainable energy) technologies in water resource management	Piloting solar-powered desalinization	This project will also collaborate with the UNIDO project funded by GEF to build on its achievements in the field of seawater desalination and renewable energy.
Rural Socioeconomic Opportunities Programme (POSER)-IFAD	Ongoing	Strengthening the capacity of rural organizations so that they can sustainably promote inclusive economic opportunities. The overall objective is to improve the livelihood of poor rural populations by creating inclusive and sustainable economic opportunities in rural areas. The aim is to promote long-term employment for the rural poor through the support of micro-projects in favor of sustainable income-generating activities and to contribute to food security by reducing their dependence on food imports	Micro agricultural projects contribute to food security and nutrition. Implementation of inter-community actions Provision of training and networking, coordination	This project will build on the experience of the POSER project.
Building Adaptive Capacity and Resilience to Climate Change in the Water Sector in Cabo Verde- UNDP/GEF	Completed	To increase resilience and enhance key adaptive capacity to address the additional risks posed by climate change to the water sector in Cape Verde. The project aimed at developing and building upon traditional water management practices and technologies, disseminating lessons learned sustainable networks, platforms and information systems.	Climate-resilient water harvesting and storage facilities Implementation of small and medium scale climate change adaptation practices for water resource management in selected hydrographical basins	SIDS programme will use lessons learned from pilot demonstrations and implement them at a greater scale.

Adaptation to Climate Change - Responding to Shoreline Change and its human dimensions in West Africa through integrated coastal area management- UNDP/GEF	Completed	Develop and pilot a range of coping mechanisms for reducing the vulnerability of coastal regions in the five West African countries-- Mauritania, Senegal, The Gambia, Guinea Bissau, and Cabo Verde	Pilot restorations of degraded coastal hotspots and sensitive areas to climate change impact through the design and testing of appropriate measures	SIDS programme will use lessons learned from pilot restoration to undertake its own restoration activities.
Strengthen the resilience of vulnerable agro pastoralists in Santiago Island- FAO	Completed	The overall goal of the project is to build capacities to anticipate and manage risks threatening food and nutrition security at the community level. It will increase in production and implementation of good agricultural practices for risk reduction through learning at Agro-Pastoral Field Schools, thus allowing beneficiaries strengthened their livelihoods by expanding their activities and increasing their income.	Improving awareness-raising in different municipalities and watersheds of Santiago (Tarrafal, Santa Cruz, Ribeira Grande, Calheta and Praia).	SIDS programme will learn lessons from the building capacity activities to undertake its own activities, particularly under component 2.
Climate-resilient and sustainable farming in Cabo Verde – Phase I- FAO	Completed	Introduce low-cost and low maintenance water provision systems, in a sustainable and resilient to climate change manner. These systems will benefit from available low-quality water sources to provide clean drinking water for both crops and livestock	Climate-smart farming systems, through exploring the quality of the land and water resources and the crops cultivated.	SIDS programme will learn lessons and build on products and best practices, while also examining the training material used
Building adaptive capacity and resilience of the forestry sector in Cabo Verde REFLOR -CV - FAO	Completed	Increase resilience and enhance key adaptive capacity to address climate change impacts on desertification and land degradation in Santiago (Rui Vaz,Tarrafal and Flamingos), Fogo and Boa vista Islands	Climate resilient practices	SIDS programme will use lessons learned from this project
Rehabilitation and Preparation of Three Water Basins in the islands of “Santiago”, “Santo Antao” and “Boa Vista”- BADEA	Ongoing	The objective is to enhance food security through mobilization of surface and ground irrigation water, expansion of irrigated agricultural areas, natural resources development and sustainable management by	Potential synergies for water resource development with interventions such as water resource mobilization facilities, including stone and concrete barriers for collecting surface water, pipeline wells and irrigation water reservoirs and	SIDS programme will draw lessons from this project

		protecting soil against erosion, and adaptation of agricultural activities to climatic change through awareness campaigns.	tanks and the supply and extension of irrigation pipes from reservoirs to agricultural holdings, surface wells, supply and extension of irrigation pipes from reservoirs to agricultural holdings, and barriers of groundwater, facilities for protection against floods and for soil protection (e.g. construction of reinforced benches, planting of trees of fruit and forest species, rehabilitation of hectares with anti-erosive infrastructure)	
Water Supply System Development Project in Santiago Island- JICA	Completed	The main objective of the project is to ensure stable freshwater supply to the population, while improving access to safe freshwater by connecting regional water systems in the Santiago Island through construction of seawater Desalination facilities and treated water transmission facilities.	Increasing the capacity of reservoirs through the construction of desalination plants. Construction of water supply facilities, as seawater desalination and water transmission pipelines, which support to the subsequent preservation and replacement of underground water resources through seawater desalination.	SIDS programme will draw lessons and build from the practices implemented in this project

Sao Tome and Principe				
Project and donor	**Implementation Status**	**Main interventions**	**Synergies**	**Non Duplication and complementarity**
West Africa Coastal Areas Resilience Investment Project-World Bank/GEF	Implementation	Strengthening: (1) Regional Integration, Strengthening Regional Integration; (2) Policy and Institutional Framework; (3) National Physical and Social Investments; and (4) National Coordination	Strengthening national physical and social investments (mangroves, sea-barriers, nature-based solutions)	The project will complement the SIDS programme by providing a larger network for countries to connect to. SIDS programme will also complement World Bank/GEF project by working with fishing communities on sustainable management practices to reduce mangrove fuelwood use.
Infrastructure Rehabilitation for Food Security Support Project – Project II – AfDB/GEF	Completed	Sustainably boosts production, productivity as well as agricultural and fishery sector incomes.	Irrigation networks, new techniques on quality improvement, and conservation	The project will not be duplicated as it will build on the AfDB/GEF project work and work in two other regions and the entire island of Principe
Enhancing Biodiversity Conservation, and Protected Area Management UNDP/GEF	Implementation	Strengthen systemic, institutional, and operational capacity at national and local levels for protected area management and sustainable land management, to safeguard globally significant terrestrial and marine flora and fauna and ensure environmentally sustainable livelihoods.	Support protected areas and address threats to buffer areas (assess and potentially address role farming play in threatening biodiversity)	There will not be any duplication as the UNDP project seeks to assess the role agricultural activities play in reducing biodiversity and assisting with land rights and other activities. The project will complement these if undertaken, particularly by supporting land rights.
Strengthening Climate Information and Early Warning Systems in Sao Tome and Principe for Climate Resilient Development and Adaptation to Climate Change-UNDP/GEF	Completed	To strengthen the climate monitoring capabilities, early warning systems, and available information for responding to climate shocks and planning adaptation to climate change in Sao Tome and Principe.	Will incorporate climate information and warning systems into the information dissemination to farmers	The system will complement the SIDS programme through better climate data dissemination.
The Restoration Initiative (TRI) in the Republic de São Tomé e Príncipe (STP)-FAO/ IUCN/UNEP	Implementation	Promoting the restoration and sustainable management of forest ecosystems of São Tomé and Príncipe to reduce carbon emissions from deforestation, and stop and reverse forest and soil degradation.	Landscape restoration and management of forest resources	There will be no duplication and the two projects will complement each other. More specifically the TRI focused on cash crops and agro-forestry. The AF project will incorporate additional crops in addition to those.

73. The project will build on the experience of completed and ongoing projects. More specifically, it will be implemented in synergy and complementarity with existing IFAD projects such as the REDE in Guinea Bissau and the COMPRAN in Sao Tome and Principe. It will also build on the experience from the POSER Climate project in Cape Verde. There is no duplication of the project compared with other funding sources. However, opportunities for mutual exchanges or synergies exist with respect to initiatives already existing or under implementation.

74. **Sao Tome and Principe** co-financed project by AFD and ILO will work in synergy with the AfDB/GEF project "Strengthening Resilience and Adaptive Capacity to Climate Change in São Tomé and Príncipe's Agricultural and Fisheries Sectors", especially in the areas of Rural infrastructure development, building capacities of fishermen. It will also learn from the FAO/GEF project "Landscape Restoration for Ecosystem Functionality and Climate Change Mitigation in the Republic of Sao Tome e Principe" on issues related to climate change adaptation and land degradation. Other experience from previous projects funded by the GEF/LDCF will be also collected. This SIDS programme will take into account lessons learnt and achievements from the World Bank WACA project whose objective is to strengthen the resilience of targeted communities and areas in the coastal regions of West Africa. Areas of synergy exist between this SIDS programme and the WACA component 3 focusing on implementation of medium-scale coastal adaptation infrastructures, maintenance of drainage and revegetation.

75. Collaboration will be established with the project of "Integrated ecosystem approach for the management and conservation of biodiversity in the buffer zones of the Obô Natural Parks of São Tomé and Príncipe" funded by a Global Environment Facility (GEF) grant of USD 2.418 million, the project was formulated among others to promote the development of traditional (coffee and cocoa) and non-traditional (livestock, food crops) value chains.

76. UNDP has developed a project on "Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change – São Tomé and Príncipe". In its component 2, it plans to implement "Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans". Achievements related to these specific plans will be used by the SIDS programme in Sao Tome as it is anticipated to convey climate information to farmers on due time.

77. In **Guinea Bissau**, the project will capitalize on the experiences of other technical and financial partners as well as the knowledge acquired from IFAD in similar projects (e.g., ProDAF and PASADEM in Niger as well as the experiences of the farmer organization MVIWATA in Tanzania with funding from AFD and the European Union). The project will seek to develop synergies with national and international partners present in the four regions of intervention which are Gabú, Cacheu, Bafatá and Oio to ensure the relevance and consistency of the targeting strategy and interventions with beneficiaries.

78. Because of the common interest in coastal areas, more specifically in mangrove ecosystem, the project will develop synergies with the current LDCF/UNDP project whose objective is "To strengthen the adaptive capacity and climate resilience of vulnerable coastal communities to climate risks in Guinea-Bissau". This SIDS programme will build on current activities undertaken within the LDCF/UNDP project especially on mangrove areas, especially climate-proofing, rehabilitation and/or protection of essential fisheries and infrastructures against sea-level rise and coastal degradation, cultivation of lowland rice is protected from climate risks.

79. Complementarity will be sought with the Restoration Initiative (TRI) – Fostering innovation and integration in support of the Bonn Challenge project whose objective is to "To contribute to the restoration and maintenance of critical landscapes to provide global environmental benefits and enhanced resilient economic development and livelihoods, in support of the Bonn Challenge". This GEF/IUCN project plans to implement integrated landscape management practices and restoration plans with a gender approach has similarities with the SIDS programme in Guinea Bissau.

80. Further synergy is identified with a GEF/UNDP project which is seeking 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 will be sought as duplication risks exists between the two project. This GEF/UNDP project seeks to implement among others water conservation, drought and flood management techniques at Pitche and Pirada in North and agriculture and livestock-related management techniques. The SIDS programme will build on the experience of this GEF/UNDP project to yield lessons and develop synergies.

81. Some consultations with farmers' organizations have already taken place and this close collaboration will continue during the project development phase. Coordination meetings were held with the World Bank, the Food and Agriculture Organization of the United Nations (FAO), WFP, UNICEF, the African Development Bank and BOAD (which is implementing the "Scaling up climate-smart agriculture in East Guinea Bissau" project funded by the Adaptation Fund and covering the Gabu region, among others, which itself is building from the UNDP/GEF

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

82. In **Cape Verde**, the project will build on the experience of the POSER-Climat project implemented by IFAD and completed POSER project in 2019. It will also learn from the lessons of the UNDP/GEF project "Building Adaptive Capacity and Resilience to Climate Change in the Water Sector in Cabo Verde". This project will also collaborate with the UNIDO project funded by GEF to build on its achievements in the field of seawater desalination and renewable energy. The UNIDO project includes solar-powered seawater desalination units. More specifically, it supports the financing of pilot projects using renewable energy and energy efficiency technologies to mobilize groundwater or seawater resources through desalination.

83. The stakeholders consultations held in April 2022 highlighted the need to find synergies and avoid duplication with a Project proposal submitted to the Adaptation Fund with the Ministry of Agriculture and Environment as Executing Entities, and FAO as an implementing entity. The first objective of this project is the increase of water availability through enhanced water storage and increased unconventional water to supply agriculture with increased amount of surface and groundwater resources. This is in line with output 1.3 activities, for instance the one related to storage cisterns and water reservoirs to provide storage capacity and avoid interruption of producers' activities in time of droughts. Furthermore, potential complementarities could be found with projects implemented by FAO in partnership with the Ministry of Agriculture and Environment (see table 14 above for Cape Verde) and in different sectors.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned

84. **M&E, Learning and knowledge management.** A strategy for capitalization, knowledge management and communication will be developed and implemented, based on a baseline survey carried out at the beginning of the project, in order to avoid duplication of activities with other stakeholders and to ensure a good visibility of the Project's activities from its inception. It will be linked to the M&E and will become an integral part of a coherent process. This strategy will be based on: (i) documentation of the Project's successes with case studies; (ii) production of posters, leaflets and brochures informing about the Project, its activities and achievements; (iii) written, audio and video reports on the programme innovations and successes, and their dissemination through different channels (print, radio, internet).

85. A flexible knowledge management system, integrating planning, M&E and communication will be developed. The project component 3 focuses on knowledge management in the project. This component will consist of i) designing a knowledge management plan (KMP), and ii) implementing the KMP. Concretely, this will consist of capturing, documenting and disseminating lessons learnt from the projects activities both at the local and institutional levels, to target and improve adaptive capacities for resilience in the farming systems in the project area. Monitoring and evaluation activities will also be implemented under Component 3 in order to inform long-term policies and strategies for climate adaptation practices for on-going resilience in the farming systems. The knowledge acquired in the project will be shared on the IFAD's website.

86. The project will carry out an assessment of what existing projects have done on the development of knowledge products in the field of adaptation of the agricultural sector to climate change but also more generally in the field of the environment. Thus, the work done by stakeholders, in particular development agencies and NGOs, which will be identified and analysed, will serve as a basis for the knowledge management activities that this project will implement. Targets for knowledge management, the most appropriate knowledge products for these targets and the most relevant events will be defined. On the events side, regular regional workshops will be organized to enable the three countries to exchange experiences and learn from each other. These events will be organized in the framework of the activities of the regional platform bringing together the three countries. Beyond this platform, the experiences and lessons learned from this project will also be shared in other wider networks. The project will also participate in international events such as the Conferences of the Parties, and other conferences and fora. The lessons generated by the project will be disseminated through the relevant websites of the different key parties as well as the website of the regional platform that will be created and those of other platforms in which the project will take part. The project will assess the relevance and feasibility of creating a WhatsApp group bringing together key stakeholders from the three countries for the circulation of information and lessons learned from the project activities.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund

87. Addressing adequately the climate change risks in Sao Tome, Cape Verde, and Guinea Bissau requires action both at local and national levels. Stakeholders have been consulted during field missions which were carried out during the IFAD new design phase in 2019 and gaps in IFAD investments have been identified and aligned with National Action Plans. Following the consultations held with all three National Focal Points, government authorities in 2019 during the designs of IFAD new investments, supervisions and the scoping mission for the Reimbursable Technical Assistance (RTA) for Cape Verde, and design mission in STP, the concept for this regional programme was endorsed by all Adaptation Fund focal points from participating countries.

88. More in-depth stakeholders' consultations were carried out during the project full proposal development. National consultations have been organized in each of the three countries in March-April 2022 involving stakeholders from local to national level, including government representatives, NGOs, Civil Society Organizations, Farmers Organizations, etc. In STP for instance, we had 45 participants that participated to the consultations, among which 40% women. In Cape Verde, women represented 44% of the stakeholders who participated to the consultations, while among 49 participants to the consultations in Guinea Bissau, we had 37% women. The consultations were organized through a dialogue involving the above-mentioned key relevant stakeholders. Key informant interviews were carried out, combined with group discussion during those consultations that allowed fruitful and comprehensive discussions. Firstly, a power point presentation provide detailed information on the objectives and project components, project management and M&E mechanisms; and secondly the Terms of reference of the consultations were shared, including questions on each topic, for the discussion in the breakout groups during the workshop. A carefully stakeholder analysis has been conducted and priority issues for this national consultation process have been identified, i.e. the opinion and input of the stakeholders on the proposed program activities in climate adaptation and resilient smart agriculture, as well as their view on the following topics: lessons learned from previous projects, possible synergies with other projects, the type and scope of needed capacity building of different stakeholders, from the ministries to the clients and population at village intervention sides, the gender strategy of the proposed project and the gathering and production of project related knowledge products and its dissemination and exchange between the three SIDS countries of this regional program on an internet platform. This participative approach facilitated stakeholders to enter into an in-depth dialogue and voice their concerns, ask questions and make suggestions to improve the program. The lists of stakeholders that have participated in these national consultations are included in the annexes.

89. **At National level**
    - The services of the Ministries of Agriculture with their relevant Directorates and Departments
    - The services of the Ministries of Environment, Forestry with their relevant Directorates and Departments
    - The services of the Ministries of Water with their relevant Directorates and Departments
    - The Regional Services for Agriculture and local authorities.
    - Extension, training and research institutions under the Ministries of Agriculture
    - Producers organized in formal groups including
    - Civil society through several NGOs.
    - Donors (UNDP, World Bank, FAO, AFD, AfDB, IsDB)
    - All expressed the importance to support these vulnerable SIDS to address the challenges related to climate change in the agricultural in line with the national climate change plans and policies.

90. **At local level**

Direct beneficiaries particularly smallholder farmers, youth and women living in the most vulnerable areas to climate change were met around focus groups and direct interactions, the total number of male farmers met was more than the number of females. Key issues were raised and related to their need to better understand climate change specific impacts and associated adaptation options, water access and management, soil degradation (loss of fertility, erosion and salinization), resilience building against floods and violent rainfall and winds among others.

91. The preliminary consultations have provided an opportunity to gather views of stakeholders at the central and local levels on major climate change challenges and responses. Most of the expressed needs in the three countries were around improving agricultural production through climate resilient agricultural practices, climate-smart landscapes with increased agricultural water supply from watershed restoration practices. Additionally, stakeholders expressed also needs to test and adopt most the suitable technologies/ infrastructures which will lead to increased sustainable use of available water; organizational, technical and coordination for climate risk governance; knowledge management and sharing experiences between countries. Based on information collected,

the components, outputs and activities of this Programme have been proposed.

92. In addition to the participatory analysis of the vulnerability of the agricultural sector to climate change, a certain number of lessons emerged from the preliminary stakeholder consultations. The preliminary consultations took place during IFAD projects designs and adaptation gaps were identified. For Sao Tome, consultations happened during the COMPRAN project design, Guinea Bissau during REDE project design and for Cape Verde during a technical assistance mission in 2019. Thanks to the previous interventions of IFAD and its partners, and new investments, producer associations and cooperatives are well constituted and their roles are well understood and needs well identified. These organizations function quite well, but need further technical and financial capacity building to make them more dynamic. While IFAD projects support development objectives, preliminary consultations show the lack of understanding of the climate challenges and the appropriate actions required on the part of the staff of national and sub-national government structures, NGOs and producers.

93. Stakeholders' consultations went beyond the content of National Communications and NSCs and NAPAs to gather information on farmers' perceptions of climate risks in their activities. Once climate risks were identified, adaptation measures were proposed. The concrete adaptation actions proposed in this project took into account the measures proposed by farmers during the consultations. Additional workshops will be organized in the three countries, including one regional workshop targeting participants from the three countries. This includes consultation of farmers, open dialogues with, smallholder farmers, fishermen, local and national governments, private sector and CSOs, youth and women on possibilities of adaptation to the effects of climate change, the fight against food insecurity, capacity building and knowledge exchanges

94. The bottom-up approach promoted during the consultations processes promoted ownership and led to initial expression of needs with regard to closing the gender gap in agriculture. These needs are women's access to resources access and control of productive asset including inputs and technologies; women's integration into more profitable / remunerative economic activities and income diversification, women's involvement in operational contexts; women integration into nutrition education campaigns, promotion of access to drinking water, hygiene and sanitation. In addition; expressed needs are targeting female and male youth (under thirty years old) engaged in primary production and (mainly) value-addition initiatives; social protection system; employment and jobs, women inclusion into decision making processes and in all exchanges visits and experiences sharing (at least 45%). These concerns have been used to define the project outcomes. More details on specific concerns related to gender issues have been captured in the gender assessment. To mention a few, these are: targeting strategy will focus on women and gender sensitivity, facilitating women's access to resources, control over resources, facilitate women's access to inputs (quality seeds, livestock feed, etc.) and to modern irrigation equipment to increase productivity and reduce the drudgery of tasks (dewatering system / modern irrigation), support for women's integration into more profitable, participation of women in all exchanges visits and experiences sharing, contribute to the consolidation of the jobs of women and young producers and related trades in the value chains into the links of processing and marketing by strengthening their capacity and staffing of small equipment.

Table 15: List of stakeholders met to date in the three countries.

Sao Tome and Principe

Institution	**Names and/or position of stakeholders met in 2019**
MOPIRNA (Ministry of Public Works, Infrastructures, Natural Resources and Environment)	Environmental technical unit
DGA (Directorate-General for Agriculture)	Technical unit
Ministry of Agriculture, Rural Development and Fisheries	Livestock technical unit
GEF (Global Environnent Facility)	Lourenco Monteiro de Jesus, Operational Focal Point
GCF (Green Climate Fund)	Fausto Policarpo Abreu das Neves, National Designated Authority
Adaptation Fund	Victor Manuel Bonfim, AF Focal Point
CEPIBA (Pepper and Vanilla Export Cooperative)	Focus group
CECAFEB (Organic Coffee Export Cooperative)	Focus group
CIAT (Agronomic and Technological Research Centre)	Focus group

CECAB (Organic Cacao Export Cooperative)	Antonio Dias, Director
CECAQ -11 (Quality Cacao Export Cooperative)	Adalberto Ferreira Luís, Executive Director
MARAPA NGO (Sea, Environment and Small-scale Fishing)	Manuel Jorge de Carvalho do Rio, President
NGO Oikos– Cooperação e Desenvolvimento (Cooperation and Development)	Bastien Loloum, Representative
BirdLife International NGO	Jean Baptiste Deffontaines, Head of Project Office
Alisei NGO	Focus group on gender
IFAD	IFAD project team

Institutions	**Names of Stakeholders met in 2022**	**Email**	**Contact**
Direcção da Agricultura	Armando Monteiro Celso Garrido	kizo85@hotmail.com celapontes.stp@gmail.com	9093344 9907646
Direcção das Florestas	Adilson da Mata Meyer Antonio Sabino Carvaho	adilmata77@hotmail.com meymadra@hotmail.com carvalhosab@yahoo.com	9928560 9085520 9055023
Direcção das Pescas	Aida Almeida Virgínia Godinho	aidalmeida@yahoo.com.br	9903396
Direção-Geral do Ambiente	Lourenço Monteiro Aline Castro	lmonteirodejesus@gmail.com alinecastro527@gmail.com	9904445 9925534
Guarda Costeira/Guarda Costeira	Diretor		
DGRNE	José Bastos Lígia Barros	jbastos81@hotmail.com ligia-barros@hotmail.com	9910812 9908040
RAP	Ana Alice Maria J.Prazeres Estrela Matilde	nacyprazeres@gmail.com cunyprazeres_rap@hotmail.com estrela.matilde@fundacaoprincipe.org	9965496 9853105 9869031
Bird Life	Conceição Neves	Maria.Conceição@birdlife.org	9997448
Oikos	Goia	goiagalduroz@oikos.pt	9048811
MARAPA	Jorge Rio	jorgecarvrio@hotmail.com	9906082
Flora e Fauna Internacional	Luisa Madruga	luisa.madruga@fauna-flora.org	9880065

Guinea-Bissau

Institution	**Names and/or position of stakeholders met in 2019**
GEF (Global Environnent Facility)	Joao Raimundo Lopes, Operational Focal Point
GCF (Green Climate Fund) and Adaptation Fund	Viriato Cassamá, National Designated Authority
ENAS (National Agency for Water and Sanitation)	Inacio Pereira, Executive Administrator
Intituto Nacional de Meteorologia da Guiné-Bissau	Cherno Luis Mendes, Director do Serviço da Rede de Observaçao Meteorologica e Apoio Técnico
Secretariat d'Etat à l'Environnement et à la Biodiversité	Quité Djata, Secrétaire
Network of farmers organizations in Biombo	Representatives and members
Network of farmers organizations in Bolama-Bijagos	Representatives and members
Network of farmers organizations in Cacheu	Representatives and members
Network of farmers organizations in Gabu	Representatives and members
Network of farmers organizations in Tombali	Representatives and members
IFAD	IFAD project team

Institutions	**Names of Stakeholders met in 2022**	**Email**	**Contact**
Ministério de Ambiente e Biodiversidade (MAB), técnica e em representação do Ponto Focal do Fundo de Adaptação	Akssana Paula dos Santos	motaakssana@hotmail.com	966 968 324

Instituto de Biodiversidade e Áreas Protegidas / IBAP, MAB, Diretor Geral	Dr. Justino Biai	Justinobiai.ibap@gmail.com	966 606 648 955 803 849
Ministério de Agricultura e Desenvolvimento Rural, Diretor Geral da Agricultura	J. Malam Injai	jumaingw@hotmail.com	955 427 229
Ministério de Energia e Recursos Naturais, Direção da Água e Saneamento, Diretor	Crisostomo Alvarenga	alvartchik@gmail.com	955 929 804
Banco Mundial, Especialista em Energia Renovavel	Julio Antonio Raul	antoniobolo1966@gmail.com	966 609 659 955 982 523
ONG TINIGUENA,/ Essa terra é nossa! Especialista de ambiente, Secretário Executivo	Miguel de Barros	debarros.m.miguel@gmail.com	966 917 716
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Cape-verde

Institution	**Names and/or position of stakeholders met in 2019**
Ministry of Agriculture and Environment	Gilberto Correia Carvalho Silva, Minister
CERMI (Center of Renewable Energies and Industrial Maintenance)	Gilson Correia, Administrator
INDP (National Institute for Fisheries Development)	Maria Ivonne Lopes, Representative
INIDA (National Agricultural Research Development Institute)	Nora Silva, Focal Point UCP POSER in INIDA
INMG (National Institute of Meteorology and Geophysics)	Maria da Cruz Soares, President
GCF (Green Climate Fund)	Gilson Gomes Pina, National Designated Authority
Adaptation Fund	Maria Da Cruz Gomez Suarez
World Bank	Fatou Fall, Liaison Officer/Resident Representative
Ministry of Finance	Representatives
Ministry of foreign affaires	Representatives
Cooperatives in Praia	Technical unit
UNDP (United Nations Development Programme)	Boubou Camara, Deputy Representative
Alisei NGO	Focus group on gender
Cooperatives	Members
IFAD	IFAD projects team POSER C
Praia IFAD supported POSER funded beneficiaries	Focus groups with 5 communities and farmers organizations in 6 valleys

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning

95. Without the programme, lasting periods of droughts and floods especially in arid and semi-arid agricultural regions in Cape Verde, Guinea-Bissau and STP are going to be more severe due to climate change. On top of that, saline water intrusion is going to amplify due to sea level rise resulting from climate change as well. This will significantly affect existing crops and cause loses or declines in production and productivity. Poor soil health can lead to abandonment of agriculture areas, displacement of producers and non-resilient farming techniques such as mangrove destruction to create new paddies. Thus, climate variability is one of the drivers for unsustainable land uses, which reduce the quantity and quality of water, degrade soils, pollute, and reduce forest cover and other

ecosystem services. This increases poverty and hunger, in particular in vulnerable communities whose livelihoods depend on crop, livestock, fish, trees and other natural resources. This also creates diseases and conflicts among different beneficiaries of such natural resources. The continue practice of unsustainable land uses is going to reinforce the adverse effects of climate change and emit more GHGs.

96. In this context, there is a need to find an approach that promotes a sustainable combination of techniques and technologies that better controls and manages water as well as rehabilitates and manages soil in order to enhance the beneficiaries' resilience, improve their productions and incomes, and contributes to the mitigation of GHGs. The programme proposes to build climate-resilient agricultural systems in the three SIDS by securing water resources for agricultural and domestic usages and rehabilitating degraded lands. This alternative offers opportunities to provide permanent access to water and climate-resilient plant material for farmers through implementation of hydro-agricultural works and massive adoption of varieties tolerant to the major climatic hazards observed in SIDS as well as to restore agricultural soil fertility through water and soil conservation and anti-salt control practices and infrastructures. The programme will help beneficiaries to better plan agricultural crops through the strengthening of agro-meteorological information, a community early warning system and local, national and regional learning through capacity building, partnerships, knowledge exchange and lessons learned. The programme will improve yields, production and reduce food insecurity, malnutrition and poverty.

97. The requested funding is based on a full cost of adaptation reasoning as all the Programme activities contribute to achieve its objective, which is "to build climate-resilient agricultural systems in the three SIDS in West and Central Africa by securing water resources for agricultural and domestic usages and rehabilitating degraded lands to increase the climate resilience of agrarian ecosystems and enhance agricultural productivity. For example, **Component 1** will provide water security, build agricultural and fishery resilient systems to increase productivity and reliability through innovative technologies for higher levels of efficiency, mainstreaming of renewable energy in agriculture and plant material tolerant to thermal and water stress. This component will also provide land management practices at landscape scale by the end of year two, with longer-term benefits from built resilience in ecosystem services, and improved adaptive capacities within the farming population in order to respond to climate change and climate variability.

98. This is expected to increase productivity in the local food supply chain, and to generate productive value chains in agro processing. **Component 2** is strongly focused on building adaptive capacities for climate change and climate variability based on established baselines in the project area. The Component will assess climate change adaptation and resilience capacities of major stakeholders at local and national institutions. It will then improve their adaptive capacities for resilience in farming and fishing systems in the programme areas. **Component 3** will implement a monitoring and evaluation (M&E) system as well as a knowledge management (KM) plan. The M&E and KM plans will benefit policies and strategies but also on farm and traditional fishing practices of other regions in the three SIDS. These benefits will lead to upscaling and sustainability of climate adaptation and resilience practices, of income generation and employment for the farming households including those most vulnerable.

99. Analysis of the ongoing scenario in the countries covered by this SIDS programme has revealed that there are several ongoing or recently completed projects addressing roughly the same challenges in all three countries. While this project will seek to establish strong synergies with these existing initiatives, it should be stressed that without these ongoing projects, this SIDS programme will achieve its objectives, as the implementation of any of its activities does not depend on existing projects.

J. How the sustainability of the project/programme outcomes has been taken into account when designing the project / programme

100. The sustainability of the Regional Programme's outcomes in the Western Atlantic Ocean SIDS has been addressed in the design of the programme through various activities. By enhancing crop production and productivity while generating income for farmers through the sale of surpluses, the project will ensure that beneficiaries in the target sites sustain their livelihoods. The restoration of mangrove in coastal communities of Cape Verde and Guinea-Bissau, which will also benefit the tourism industry, will also ensure job security and economic gain in the communities. The environmental smartness of some technologies such as the use of renewable energy equipment as well as the use of reclaimed water to mobilize water resources, the drip irrigation method and the anti-erosive works contributes to sustain the programme outcomes.

101. Training sessions for farmers on farm-level techniques for agricultural, fisheries productivity enhancement and landscape-level land restoration practices will contribute to ownership by farmers and fishermen. In fact, producers will be trained in the design and implementation of agricultural and fish farming productivity techniques. They will be also trained in the design, construction and maintenance of water, irrigation, energy and anti-erosive infrastructure, equipment and works. To this end, the project will build on existing producers' associations and cooperatives or create them where need be. The project will ensure involvement of women and youth in these

associations of users to make that opinions of all social groups are taken into account in the maintenance of infrastructures, installations and works. These will be users associations of water, irrigation, energy and anti-erosive infrastructures and equipment services. They will be trained in management, and maintenance of these infrastructures, equipment and works. For this maintenance to be sustainable, each farmer, through its association will contribute financially to constitute an amount dedicated for paying the operations and management costs. For bigger infrastructures like dams, solar power equipment and boreholes, associations of users and cooperatives will be supported in this maintenance by the government relevant technical services, especially those based at the subnational level.

102. Capacity in the responsible national and local government sectors will be raised during the implementation of the project, especially through the training component. This will ensure institutional capacity in supporting the sustainability of the Programme, particularly in the operation and maintenance (O&M) of key structures, equipment and facilities. The institutions that will be directly responsible the identification, selection, maintaining the infrastructures and their functionalities are the Ministries of Water and Rural Development in each of the three SIDS with their relevant Directorates and Departments. To facilitate continuous and problem-free operation of infrastructures, regular inspections and maintenance by local authorities on-site will be carried out. This arrangement will be important for the sustainability of the Programme, so that there will be a physical presence of responsible staff to respond to any problems that arise. The following national and local authorities that are expected to play important roles in the O&M of key structures, equipment and facilities, are outlined below.

Table 16: Relevant national/local authorities with identified roles in supporting the project infrastructures/ equipment maintenance and sustainability.

Types of key structures, equipment and facilities	Country	Relevant national and local government authorities	Roles to sustain project gain such as infrastructure and equipment
Water (including storage and reservoirs) and irrigation	STP	Ministry of Public Works, Infrastructure, Natural Resources and the Environment; Empresa da Agua e Electricidade (EMAE – Water and Electricity Company); Ministry of Agriculture, Fisheries and Rural Development	Definition and selection of infrastructures, oversight-inspection and maintenance; co-management of infrastructure
	Guinea-Bissau	Ministry of Environment and Biodiversity; Ministry of Energy and Natural Resources Ministry of Agriculture and Rural Development; Ministry of Fisheries	
	Cape Verde	Ministry of Environment, Agriculture and Fisheries; National Institute of Management and Water Resources; Ministry of Rural Development	
Renewable Energy (solar-wind)	STP	Ministry of Natural Resources, Energy, and Environment; EMAE	
	Guinea-Bissau	Ministry for Trade, Energy, Industry and Environment	
	Cape Verde	Ministry of Tourism, Industry and Energy; Ministry of Natural Resources and the Environment	
Anti-erosion	STP	Ministry of Agriculture, Fisheries and Rural Development	
	Guinea-Bissau	Ministry of Rural Development and Agriculture;	
	Cape Verde	Ministry of Rural Development	
	All countries	Community based associations such as Water Users Associations, Women and Youth Groups, Local NGOs and private entities	

103. The documentation and dissemination of the good practices and lessons generated by the programme will help sustaining the programme's outcomes. The fact that opinions and needs of stakeholders in the fishery and crops subsectors are fully taken into account during the design of activities will ensure appropriate ownership by actors, enhanced capacity, then sustainability.

104. Maintenance of infrastructure and equipment will be financed through an infrastructure and equipment maintenance fund, which will be housed in a financial institution. At the end of each agricultural year or at the end of a period to be agreed with the users, the users' associations will pay an amount representing the membership fees agreed with them. The amount of each member's contribution will be defined on the basis of two main criteria:
    a. The amount must be sufficient to cover all the membership fees to cover the cost of maintaining the membership.
    b. The amount must be bearable by the users, i.e. taking into account the profit margins that their activity allows. This profit margin can be obtained from a financial analysis.

Table 17: Preliminary Environmental impacts and management measures at concept stage

Impact	Management measure / commitment
General	
• Noise, traffic, etc. disturbance to residents	• Develop, communicate and implement a conflict management procedure
• Local capacity building	• Ensure that contractors hire local staff whenever possible (e.g., for unskilled positions).
• Health and safety at work	• Developing an HSE policy and health, safety and environmental rules for construction sites • Ensuring the use of PPE by construction workers
• Impacts on biodiversity	• Incorporate a reforestation program into the project, in consultation with the Ministry of the Environment. Species must include endangered species and species with habitat/nesting value/food for animals.
Use of agricultural inputs	
• Risk of water and soil pollution	• Provide training on the rational use of agrochemicals (dosage, etc.), the use of organic compost and manure, crop rotation/ crop combination techniques and other techniques to minimize the use of agricultural inputs. A quota for women will be considered
• Risks to the health and safety of the community	• Provide training in application methods and appropriate personal protective equipment (gloves, mask, etc.) including for women
Agricultural Activities	
• Loss of biodiversity through the introduction of cash crops	• Promote mixed / intercultural crops, including planting subsistence species / crops alongside species of ecological value
• Soil erosion and leaching due to rainfed agriculture developments	• Identify areas at risk of erosion and erect physical and / or biological structures to minimize the risk of soil erosion in the target area Identify and mapping of areas of risks and install physical infrastructures to reduce soil erosion
• Low productivity upstream of production chains due to climate change and variability	• Extension of climate-intelligent farming techniques. • Information, education and environmental communication. • Ecological monitoring and climate change adaptation measure.
Irrigated areas	
• Land deforestation for hydro-agricultural development and soil erosion risk.	• Restrict the development of irrigated perimeters to land that is already under food and seasonal crops. • Train beneficiaries on erosion control
• Lowering of the water table	• Train the beneficiaries in water use and saving management. • Develop water management plan
• Conflicting competition for access to developed areas and water	• Raise awareness of the programme's objectives and explain the selection criteria and procedures, which will be transparent. • Intervene only in areas where land status is clarified and use is consensual and in accordance with the principle of free, prior and informed consent of all stakeholders. • Train the beneficiaries on water distribution techniques and the efficient application of water to the plot as well as on conflict management techniques.
• Environmental Imbalance in downstream streambeds at water intake works	• Implement measures to ensure the maintenance of aquatic ecosystems downstream of water intake structures.
Preparation / Land clearing	
• Loss of trees	• Clearly demarcate work sites prior to work; ensure that disturbance occurs only within marked boundaries • Preserve trees as much as possible • Integrate tree planting into store design, prioritizing endangered species and/or trees with nutritional value
• Risk of soil erosion	• Planning work in the dry season • Install silt fences down from the bare soil to catch any runoff, if any
• Risk of physical/economic displacement	• Select uninhabited and unused sites

Impact	Management measure / commitment
• Disturbance of watercourses and borrow pits	• Collecting aggregate material from existing borrow sites • Rehabilitate borrowed areas
Heavy machinery and equipment used for construction purposes	
• Risk of soil contamination (hazardous material spill)	• All hazardous materials will be stored appropriately (covered, etc.) with secondary containment of sufficient capacity (> 110% of volume). • Use spill prevention equipment such as bundles, sorbent booms, etc.
• Dust generation	• Cover all loads during transport • Cover all stocks (of sand, etc.) during storage
Waste generation	
• Generation of construction waste, including hazardous waste	• Designate a suitable disposal site at least 200 m from drainage lines and residences, preferably in a previously disturbed area

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme

105. The programme geographic target areas in the three SIDS countries are located in the most vulnerable regions to climate change impacts. Those areas are among the most affected by poverty as households have weak incomes, high sensitivity and low adaptive capacities to climate shocks. Small farming and fishing systems in these areas are exposed to climate hazards and impacts from intense rainfall and extended drought conditions, upwelling modification, soil erosion, low fertility and salinization. The project is proposed to build resilience of farming systems through interventions for water security coupled with solar energy, soil fertility conservation, land restoration, capacity building on climate resilience and knowledge management activities. Further studies and environmental Impact Studies/Reviews are planned to determine the level of salinity, orientation with main winds; groundwater, soil, volume of wastewater and sanitation networks and to decide on the most suitable technology according to that exact location. A revised ESP risk screening conducted taking into account the identified activities, and an environmental and social management plan (ESMP), which includes management measures that are commensurate to risk findings as per the AF ESP Policy.

106. The social and environmental impacts and risks of the regional programme have been identified and analyzed according to the AF's Environmental and Social Policy (ESP), as well as the IFAD Social, Environmental and Climatic Assessment Principles (SECAP). The environmental and social assessment carried out classifies this program in Category B as its activities are not expected to result in significant negative environmental and social impacts. The irrigated areas will not exceed 100 contiguous hectares, in one block. The sustainable land management works at landscape scale as well as the productivity enhancement techniques at farm scale will not bring major modification on soil, water and forest resources as well as in biodiversity. The programme is environmentally sustainable positive, given the many positive effects in terms of strengthening the resilience of production systems, improving the economy of rural households, the strategy of inclusion of young people, women and people with reduced mobility and special needs. All the planned productive investments (hydro-agricultural developments; construction of anti-erosive works; solar pumping; dissemination of improved varieties) are based on simple and proven technologies that have already demonstrated positive impacts for households and the environment with minimal risk to the climate. The regional programme' s scaling up strategy is based on the ownership and empowerment of local actors and the strengthening of their capacities for effective ownership of project activities during and after its implementation. The results of the assessment against each of the AF Environmental and social principles are summarized in the table below.

Table 18: Environmental and social risk assessment

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance

Compliance with the Law		The regional programme activities will comply with the three SIDS national laws and with international agreements on environment when national standards are lacking. However, a comprehensive update of the existing ESIA as well as a complete analysis of compliance with relevant laws will be carried out to ensure relevant national permit requirements and international laws are respected
Access and Equity		Some of the regional project activities like renewable energy infrastructures and equipment, anti-land degradation works, irrigation system as well as capacity building activities may exacerbate social inequities. Conflict Management in Sao Tome: Although there are no major risks of conflict that may arise from this project, weak land tenure system and lack of legislation on grievance, require that particular attention is given to grievance mechanism. In Cabo Verde, access to land for farming is a challenge for women in the project area. The creation of a national cadaster is aiming at addressing this inequity. There is also a risk of conflict for water resources due to the increase in irrigated areas when the water resources are really scarce in some islands of the archipelago. Mitigation measures will be proposed. The outcome will guide the programme managements units to ensure a fair and equitable access to the project benefits. Particular attention will be given during the implementation of the project on the management of potential conflicts.
Marginalized and Vulnerable Groups		Sexual Exploitation and Abuse in Sao Tome: Particular attention will be paid to adolescent girls to prevent early pregnancies and the likely intergenerational cycle of malnutrition and poverty. It is to be noted that in Sao Tome e Principe, the Lifetime Physical and/or Sexual Intimate Partner Violence rate is 28 %. IFAD's applies no tolerance for Sexual Exploitation and Abuse (SEA) in its supported operations, requiring that precautionary and remedial measures to safeguard against SH/SEA risks affect. In Guinea Bissau, the project area concentrates, outside Bissau, the main regions where population living with disabilities (53%) are distributed. Guinea Bissau is one of the few countries where the presence of the two HIV viruses (1 and 2) is present with fairly large proportions, 4.4% for HIV-1, 1% for HIV-2 and 0.3% for double profile, with the highest proportion (72%) being women.
Human Rights		There is a potential risk of child labour in Guinea Bissau Children in Guinea-Bissau engage in the worst forms of child labour in agriculture, including in forced begging. According to a national child labour survey, more than 169,200 children aged 5 to 17 work and 85 per cent of this children work in agriculture[107]. The prevalence of child labour is more important in rural areas than urban areas, 61.5 per cent and 37.1 per cent respectively, with a high prevalence in the Cacheu region. Moreover, girls are more exposed than boys (52.5 per cent vs. 49.8 per cent respectively) and children aged 5 to 11 years old, which represent 55.5 per cent of those children at work. The project will not engage in any forms of child labour activities. At the CN stage, key mitigation measures include awareness raising about the issue of child labour through trainings conducted to build capacity of relevant stakeholders, including project beneficiaries and implementing partners, on child labour's issues and respect for labour legislation and ILO international conventions. To ensure ownership by all project beneficiaries and partners, efforts will be undertaken to customize such trainings by delivering them in local languages. Moreover, to have more impacts with the awareness raising, local leaders, women association, farmers groups and other key local organizations will be convened to participate to focus group discussions on the negative impacts of child labour. Among these stakeholders, it could be useful to design a team whose responsibility is to ensure that project beneficiaries are strictly following that no of their children are working in project activities, as well as enterprises to not employ any children. In line with the government efforts to eliminate the worst forms of child labour, other mitigation measures will be developed during the design stage.
Gender Equity and Women's Empowerment		The project activities may increase exclusion of some social groups like women, youth and other groups if any mitigation measure is implemented. Women and youth may not have equal participation level and receive proportional social and economic benefits than men and adults. A gender action plan, based on the AF's GP and IFAD's will be implemented to ensure the full participation of women and the most vulnerable groups.
Core Labour Rights		In Guinea Bissau, the prevalence of child labour is very high, with more than half of children aged 5 to 17 (51%) involved in working activities. This risk will be carefully monitored during project implementation. The project will ensure the respect of international labour standards throughout the implementation phase.
Indigenous Peoples	X	No indigenous peoples' presence in the project implementation areas in the three countries has been reported to us to date.
Involuntary Resettlement	X	No resettlement is foreseen in the undertaking of any of the project activities.
Protection of Natural Habitats		The regional programme is not planned to be implemented in legally protected or in areas proposed for protection. However, an in-depth ESIA will be conducted to identify and assess potential environmental and social impacts of the programme on natural habitat and biodiversity, especially the fragile ecosystems in the target areas. Mitigation measures of these environmental and social potential impacts will be proposed as well as the possible

[107] 2018. Child Labor and Forced Labor Reports: Guinea Bissau, United States Department of Labor. Available from https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2018/Guinea-Bissau.pdf

		contribution of the programme to local GHG offset.
Conservation of Biological Diversity		As an integrated agricultural project, the regional initiative may lead to reduction or loss of biological diversity. It may also foster introduction of known invasive species, although the programme will ensure all measures are taken to prevent this. However, before the implementation of activities, an in-depth ESIA will be conducted to identify and assess their potential environmental and social impacts on natural habitat and biodiversity in the target areas. Mitigation measures of these environmental and social potential impacts will be proposed.
Climate Change		The objective of the project is to build resilience of farming and fishing systems to climate change in Sao Tome e Principe, Guinea Bissau and Cape Verde. The practices will include i) integration of renewable energy water mobilization, thus contributing to reduce GHG emissions, ii) increase farms soil fertility and productivity, iii) restore degraded lands. Those activities, especially reforestation will capture CO2 and capture surplus of greenhouse gases.
Pollution Prevention and Resource Efficiency		Although, the programme will contribute to reduce pollution in soil and water, through practices that reduce sedimentation and soil erosion, and the expected shift from agrichemicals to biological inputs, especially with the use of reclaimed water and biodigesters, through the irrigation system that will minimize the use of water, the use of inorganic amendments may trigger pollution of soils and water resources. In Guinea Bissau, there is a potential risk for pollution linked to the development of rice and market gardening in the low-lying areas. In Cabo Verde, the risk for pollution is with regards to potential groundwater infiltration of fertilizers and pesticides used in irrigated lands, which could affect the quality of groundwater. Thus, a pesticide management plan will be developed to better manage pollution risks. Building local capacity to use organic manure and micro-dose of inorganic of products will limit the use of chemical products and reduce pollution risks.
Public Health		The regional programme will contribute to a healthier environment and safer food through organic practices for soil building and landscape restoration techniques. However, irrigation schemes serve as suitable habitats for mosquitoes/snails and may exacerbate the existing malaria/schistosomiasis situation. In this regard, if these schemes are not adequately managed, it may result in in negative public health impacts. Thus, an additional study will be performed to identify all potential health impacts of the programme activities, mainly during the construction phase.
Physical and Cultural Heritage		As no physical and cultural heritage areas has been reported, the regional programme activities are not expected to alter, damage or remove any of these categories of sites.
Lands and Soil Conservation		The SIDS regional programme is proposed to conserve land and soil through implementation of measures to combat lands degradation and soil fertility loss. However, some infrastructures and anti-land degradation works construction like boreholes, dikes, retention basins, and land management works may affect lands and soils. Thus, before their realization, further analysis of impacts on soils and lands will be carried out.

107. Risks associated with the regional programme activities in all phases and in all the three countries include:

- Work-related accidents (use of vehicles and trucks);
- Contamination of water and soil by waste from the construction site during the construction phase;
- Transmission of STIs, HIV-AIDS and other communicable diseases, due to the arrival of workers.

108. This project is fully aligned with the IFAD baseline projects in the 3 countries, hence there are currently no Unidentified Sub-Projects (USPs). The locations for the majority of proposed activities, infrastructures and equipment will be implemented have been identified in alignment with the baseline projects. These locations have been identified following stakeholder consultations and in-depth field studies on soils, water resources and vegetation. However, where relevant, activity specific ESIAs will be developed to identify and assess risks and impacts associated to these activities. Some potential studies would be: the environmental impact of infrastructure/equipment on soil, vegetation/ biodiversity and groundwater; impact of salinity on infrastructure and agricultural land, impact of technologies disposals and management.

109. Consequently, in the event of any USPs[108], they will be monitored and evaluated in accordance to the AF's updated guidance on the use of USPs[109]. For each USP, an ESIA that covers the risks will be prepared and will provide the following key information:

- A brief description of the fully formulated USP, with details on (i) the characteristics of the USP and (ii) the specific environmental and social setting in which the USP will be implemented in order to evaluate the effectiveness of the risks identification that was carried out;

[108] No fully unidentified activity is considered for this project. Some activities could be partially unidentified as the specific locations will be determined in accordance with the beneficiaries. The project need to take into account changing context, priorities, and needs of stakeholders in order to provide the most accurate response in terms of activities implemented.
[109] Updated Guidance for Implementing Entities on the use of unidentified sub-projects

- A description of the outcome of the ESP risks identification process, using the same structure of Part II. K and Part II. L for regional projects/programmes, identifying risks according to each of the 15 ESP principles, justifying the risk findings, and showing that this is the outcome of an evidence-based and comprehensive effort;
- For each of the identified risks, a description of the subsequent impact assessment that was undertaken and the findings thereof, showing that the assessment was commensurate with the risks identified;
- The findings of the ESIA, and the safeguard measures that have been formulated to avoid, mitigate or manage undesirable impacts;
- The updated detailed safeguard arrangements in the implementation component of the ESIA, identifying and allocating roles and responsibilities to implementation partners for the application of the ESIA. This will include an assessment or a confirmation of the required capacity and skills with the relevant implementation partners;
- Information on the consultations that were held on the risk identification and impact assessments outcome as well as on any proposed management measures, and how any feedback was responded to;
- Gender-disaggregation of the information used in the risk identification and subsequent safeguards actions;
- Information on disseminating information to stakeholders on the grievance mechanism.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation

110. **Approach.** The project's approaches, actions, modes of organization and implementation will apply a general principle of subsidiarity promoting decision-making processes as close as possible to the action at different levels: (i) geographical, the project targets primarily the most "local" geographical scales (village, commune, province) and their link with the regional and national scales; (ii) institutional; (iii) project management (delegate project implementation to direct users when possible, support of national government entities when needed and technical support of AFDB and other donor agencies like FAO and UNDP); (iv) knowledge management, by strengthening local capacities and knowledge sharing, and cross-sectoral coordination and transfers.

111. Using the approach of synergies, the project will also complement on-going initiatives and programs in the country having similar objectives while avoiding duplications (Table 14). Therefore, all interventions will be coordinated closely with other relevant on-going initiatives implemented in each country for more effective complementarity.

112. The institutions involved in the implementation of the project include on one hand administrative structures at the central level and decentralized structures and on the other hand steering, consultation, coordination, execution and monitoring bodies. The implementation of the Project will be ensured by the Ministry of Environment and Biodiversity in the case of Guinea Bissau (*Ministério do Ambiente e Biodiversidade*), the Ministry of Infrastructures and Natural Resources (*Ministério das Infrastruturas e Recursos Naturais*) in the case of STP, which will be added to existing implementing structure of each country's ongoing IFAD project: REDE for Guinea-Bissau, COMPRAN for STP, and POSER for Cabo Verde. This last country is the exception because Environment and Agriculture are under same Ministry (*Ministério de Agricultura e Ambiente*). In other words, in Cape Verde, INMG that is the executing entity, and the IFAD project POSER are under the same Ministry, i,e, Ministry of Agriculture and Environment. In turn this will ensure key lessons learnt are carried forward and duplication is further avoided with close collaboration with ministries and technical structures such as the Ministry of Agriculture, agency in-charge of water resources, regional committees made up of technical advisers from the project areas as well as representatives of local communities.

113. **General Organization** (**Error! Reference source not found.**13): Each country will receive funding from the Adaptation Fund (AF) through the International Fund for Agricultural Development (IFAD). The Ministries mentioned above (Ministério do Ambiente e Biodiversidade, Ministério das Infrastruturas e Recursos Naturais, Ministério de Agricultura e Ambiente) which are considered as Ministry of Environment in Figure 13, along with the Ministry of Agriculture (except in the case of Cape Verde where Agriculture and Ambiente are under the same Minstry) will be the executing entity, while IFAD will be the implementing entity accredited by AF Board to receive direct financial transfers from the Fund as well as the monitoring and supervision entity during the implementation of the project by the executing entity. The African Development bank and other donor agencies will be the Implementing Partners (IP). The above mentioned Ministries are the only executing entity in coordination with the Ministry of Agriculture. Collaborations will be set up with the other institutes and NGOs working in the same areas or with an expertise in the implemented activities.

114. **Regional Steering Committee (RSC)** will be set up and include the supervisory ministries of three countries, the ministries in charge of the agricultural sectors, the regional professional organizations, IFAD Country Directors in the three countries, representatives of IFAD reference projects in charge of implementation in the countries, technical and financial partners supporting the implementation of the programme. The Regional Coordination Unit

(RCU) will also participate in the meetings of the RSC, for which it will act as secretary (preparation of documents and logistics). The RSC will meet virtually on a bi-annual basis. During its sessions, it will also approve the work programs and budgets and the activity reports relating to the implementation of the programme. It will also monitor execution at the regional level and, if necessary, make recommendations to improve program execution. In addition by convening these meetings, it will support component three of project by facilitating dialogue among three countries and particularly on areas of monitoring and evaluation.

115. **The National Steering committee (NSC)** will define the orientations for the operational steering of the project, ensuring its alignment with sectoral strategies and priorities. NSC will integrate the project's action in synergy with development partners in the agricultural sector in order to optimize its interventions and maximize its impact on the beneficiaries. In addition to approving the project annual work plan and budgets (AWPB) and activity reports, the NSC will monitor implementation and make recommendations during its monitoring missions in the field. The NSC will mirror existing NSCs of POSER, REDE, and COMPRAN, with the inclusion of the Adaptation National Focal Point and Ministry of the Environment, Ministry of Agriculture, government agencies responsible for women, youth, water, commerce if not already included. Importantly, the NSC will co-lead by the Ministry of Environment and Agriculture.

    a. Cabo Verde (POSER): The existing NSC is compromised of the National Council for Poverty Reduction (CNRP), which consists of representatives from the Ministries of Youth, Finance, Rural Development, Infrastructure (and Maritime Resources) and the Environment; the General Directorates of Planning and Food Security Services; the National Institutes of Statistics and Employment, Vocational Training, and for Gender Equality and Equity (ICIEG); the Superior Council of Chambers of Commerce, Industry and Services; the Directorate of the NGO Platform

    b. Sao Tome and Principe (COMPRAN): The NSC for COMPRAN is led by the Ministry of Agriculture, Fisheries and Rural Development. Committee also includes focal points from Ministries of Communities; Entrepreneurship and Youth; Commerce and Industry; Infrastructure, Natural Resources and Environment; Health. Lastly the committee also has representatives from the Autonomous Region of Principe, National Federation of Small Producers of Sao Tome and Principe (FENAPA), the Chamber of Commerce, the Research Center and the Central Bank

    c. Guinea-Bissau (REDE): The NSC for REDE is chaired by the Minister of Agriculture and Forests or his representative or a representative. In addition, NSC compromises of representatives of the main ministerial departments concerned (Ministry of Environment and Ministry of Commerce) and representatives of professional agricultural organizations (at least one woman and one young person).

116. **Technical Committee:** The Directorate of the department in charge of climate change issues, the Directorate of all the line ministries and agencies, focal points from the research institutions and NGOs.

117. **Regional advisory committees:** At local level, the project will benefit from the support of the regional advisory committees made up of a technical referent from the project areas.

118. **Regional Coordination Unit** (RCU) will oversee the PMUs management of the SIDS programme and be located in Cabo Verde. More specifically it will carry out the following main functions: (i) instruction and coordination of operational activities and processes at the regional level in the three components of the program with the involvement of the partners planned for implementation; (ii) supervision of implementation in the countries through dedicated missions and CNCs; (iii) preparation of activity reports to be submitted for review and approval to the Regional Steering Committee and drafting of the minutes of the sessions of the said Committee; (iv) monitoring and evaluation of activities at the regional level; (v) the consolidation and periodic summary of the accounting situations communicated by the fiduciary management teams in the countries. To support these activities, the RCU will be led by a Regional Coordinator who in addition to ensuring delivery of the units' functions will also oversee component 3's goal of disseminating lessons learned from program activities among throughout region. To support the coordinator the regional team will also include a Gender Specialist and Financial Specialist.

119. **Project Management Unit** will be set up by the Ministry of Environment and Ministry Agriculture to be in charge of the daily management of the project. The PMU will be composed of a National Coordinator along with a Monitoring and Evaluation Assistant as well as Administrative and Financial Assistant. The National Coordinators in addition to their roles of overseeing the daily management of the project will also serve as the Climate Specialist. PMU staff will report to RCU, which will support joint reporting and oversight of the projects. Each PMU will be based within their respective baseline IFAD project's PMU office.

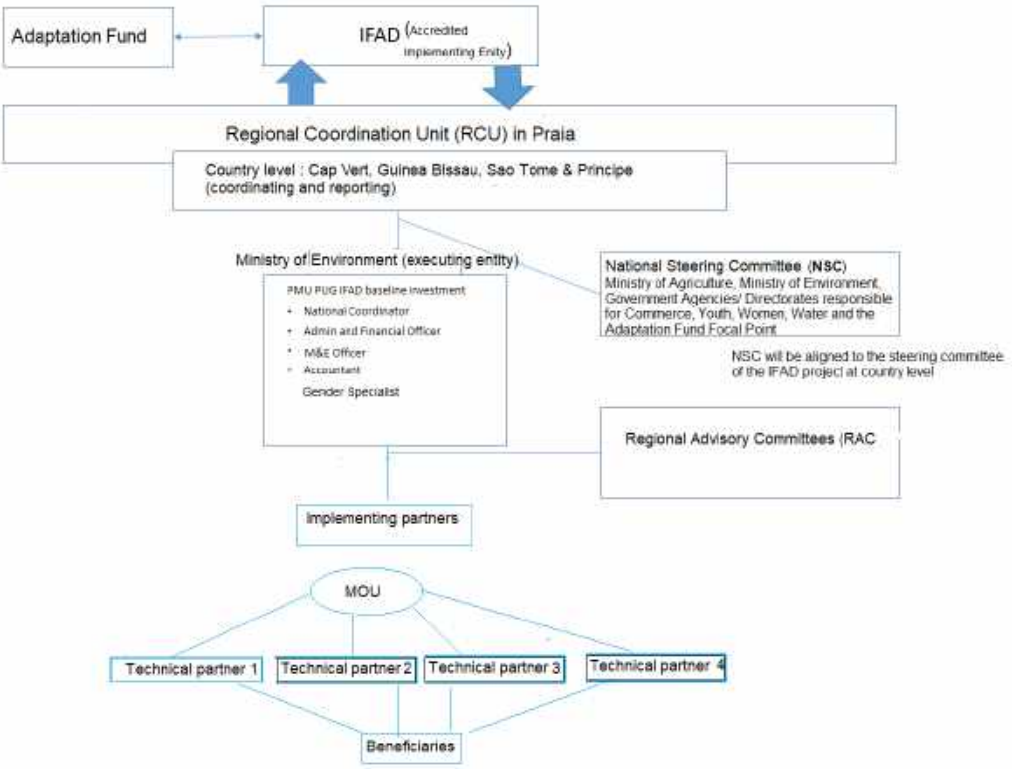
120. The PMU staff will be recruited competitively, in compliance with IFAD's procurement procedures, and in accordance with the AF Gender Policy. Women candidates will be encouraged. The establishment and operationalization of the PMU at the ministry of environment will be facilitated by the presence of the IFAD Country Office and by the synergies established between the AF project and IFAD funded projects, which will be able to

provide or call upon expertise in institutional development if necessary. IFAD will report to the AF on the overall management and performance of the Project.

121. The PMU will consistently ensure proper financial management practices. Costing prepared by the project will take into consideration all elements of the project activities including project management and local partners' activities and administrative costs. The PMU will release project funds on the basis of benchmarks throughout the life of the project A financial system will be established to monitor and control disbursement and expenditure of the project. The PMU will remain cautious of this and monitor the quantity and quality of procurements. The PMU will encourage the preparation of quarterly cash flows showing benchmarks for amount stipulated in the project.

122. The PMU will establish the project account in a reputable bank in each country or utilize same bank as ongoing project with three signatories necessary for payment, the National Coordinator of the PMU, Deputy Minister of Administration and the Project Controller. This Account will be operated and replenished following the imprest account mechanism. Disbursement may include direct payments and replenishments of the account, in line with the disbursement handbook for IFAD directly supervised projects. The Controller will develop a petty cash control and management system and set ceiling on petty cash.

Figure 13: Schematic diagram of the project implementation organizational chart



123. Where and when necessary for the interest of beneficiaries, PMU will seek approval for budget realignment within the percentage provided for in the project financial policy. PMU will submit quarterly project performance reports to IFAD and each will be complete with standard financial component according to the donor's standards. MOUs will be established with implementing partners such AFDB, WFP, UNICEF, other international organizations and NGOs, sector ministries and outline the activities that IPs will be directly responsible for. The PMU will consult implementing partners in drafting of technical specifications and ToRs while the final responsibility for the procurement process lies with the PMU. Each MoU will specify agreed disbursement arrangements with implementing partners and all the needed reporting and supporting documentation for the justification of expenditures incurred within its framework. Disbursement will always made in several tranches based on an annual activity budget and the release of tranche will be conditional to the justification of the previous one.

124. PMU will facilitate annual audits of the project financial statements. Annual audits will be performed on the basis of the terms of reference that will be submitted to IFAD for approval. The Audit report will be submitted to IFAD and AF within 6 months after the end of each fiscal year. IFAD will review the report, submit to the Executing agency

an action plan to address the eventual weaknesses highlighted in the report and monitor the implementation of this action plan.

125. The project, with the support of IFAD and specialized consultants will draft an operation manual together with an administrative and financial manual that will explicit all the accounting, internal control and operation procedures that the project will follow during its implementation period. These manuals will be submitted to IFAD for non-objection before the project will receive its first disbursement.

126. The project will also acquire and install an accounting software that will be able to automatically produce all the financial reporting required by IFAD and the Fund. The access to the accounting software will be defined in order to respect an acceptable level of segregation of duties. The purchase and set-up of the accounting software will also constitute a condition to first disbursement.

1.1. Pre-Implementation Phase

127. The project development will be informed by baseline data and social, economic and environmental analysis. The Project Implementation Management (PMU) within the Ministry of Environment and in coordination with the Ministry of Agriculture will hire a consultant to collect baseline data for monitoring and evaluation of the project performance throughout the implementation of the project.

128. The baseline data will be used as a yardstick for measuring the performance of the project and to inform project management decisions. The baseline data will also inform target setting and development of indicators and Log frame for the project.

129. The PMU will ensure that the project is social and gender sensitive. As such, a consultant will be hired to conduct social and gender analysis of the project communities and make recommendations for the inclusion of men, women and youth regardless of economic status, social background, and religion. This will make the project inclusive and help to maintain the fragile peace.

130. The PMU will hire a consultant to conduct an economic analysis of the project to ensure that economic issues of smallholders are identified and addressed.

131. In this AF project development process, the environmental, social and economic impact assessment mentioned above will identify various potential impacts and recommend risk management and mitigation process as well as the responsible executing agencies and expert personnel.

1.2. Coordination and stakeholders consultative meeting

132. The PMU of the ministry of environment will be the lead implementation agency in close collaboration with the ministry of agriculture, other line ministries. It will also explore partnerships with AFDB, WFP, UNICEF, other international organizations and NGOs. There will be monthly coordination meetings for information sharing on progress made and challenges that will emerge during the project implementation to provide forum for formulating joint solutions to problems.

133. The PMU will organize quarterly stakeholder consultative dialogue about the direction of the project relative to achievement of desired results and to share feedbacks from key stakeholders in the agriculture sector. Key stakeholders include both public and private sector actors.

1.3. Targeting communities and beneficiaries

134. Over the last decade, the government of the SIDS and development partners have continued to work with smallholder cocoa, rice, maize and other food producers. If this project will address smallholder real farming issues and take them to the next level of the social ladder, targeting has to be done selectively to make sure that those in real needs and potential to graduate from abject poverty are reached in a significant way.

135. The PMU will collaborate with local partners to identify the crop and livestock producers. Criteria for selecting project specific communities will be informed by results of the social and economic analysis and be used to target deserving beneficiaries.

136. Targeting will entail assessing random samples of farmers' farms conditions to determine the status of agronomic practices, clones and varieties of existing and specific technical assistance that they need to increase production.

1.4. Local partners mapping and capacity assessment and training

137. The key partners to the project include vulnerable communities and their leaderships to promote ownership and sustainability of the adaptation interventions, environmental agency, ministry of youths and women and local implementing partners (to be selected on competitive basis on their experience working in the crop and livestock sectors).

138. For this project, PMU will reassess the capacities to determine their level of knowledge and skill implementing climate smart agriculture activities. These partners have experience in conducting farmers' field school activities which will be core to the strategy for transferring climate smart skills and knowledge to farmers.

1.5. Private Sector Engagement

139. To ensure that the private sector is properly engaged, the project will explore opportunities to establish partnerships with these entities where they become off-takers in the crop and livestock value chains arrangements for the farmers.

140. To ensure that the farmers' interests are protected, the MOUs will be jointly developed by the private partners and the farmers with close supervision by the PMU. This action will ensure that the private partners do not impose predetermined prices on the farmers; issues about commodity rejection due to standard issues and commodity aggregation will also be addressed to ensure that the farmer's only burden will be to produce quality cocoa, maize and bean seedlings, disease resistant and hybrid livestock breeds; and rice paddy.

141. In addition, the major private sector players were part of the consultation meetings held. While they indicated their interests to work with the farmers in the capacity of off-takers, they expressed concern over the need to build the capacity of more farmers to maintain quality of the products.

B. Describe the measures for financial and project / programme risk management

Table 19: Project risk table

Risk	Initial risk assessment (H = high, M = moderate, L = low)	Proposed mitigation measure	Final risk assessment
Insufficient capacities to appropriately manage the day-to-day implementation of the project	M	- A National Country Programme Unit (NPCU) with administrative and financial management autonomy that assumes the fiduciary management functions of the project. - Recruitment of experts with specific experiences in development project management and financial management procedures of the lessors and mastery of an accounting software. - IFAD country office will participate as an observer in all stages of the recruitment process. - The staff of the NPCU will be linked to the project by renewable annual contracts based on a performance evaluation, - Start-up support takes into account training in financial management.	L
The project budgeting process doesn't respect procedures and doesn't allow for a good implementation of project activities	M	- The budget preparation process will be carried out by the NPCU staff and the AWPB will then be submitted to the steering committee for approval. The AWPB will provide details of activities, their unit and overall costs, expected results and monitoring indicators, and their implementation modalities including procurement procedures. - The budgeting process will be defined in the project procedures manual, and should be harmonized with the budgeting process of other IFAD projects. - The approved AWPB must be entered into the accounting and financial management software to monitor its implementation. - Quarterly financial reports including information on budget monitoring should be submitted to the ministries of guardianship, steering committee and IFAD.	L
Project financial flows and disbursement processes are not timely and jeopardize the implementation of activities on the ground	M	- Availability of funds will be made through the standard circuit planned and already tested by other IFAD projects including replenishment of the designated account, direct payment and reimbursement. - The use of Certified Statement of Expenditures in support of expenses incurred by the Project is also planned. - As regards the implementing partners and public services, the resources will be transferred in accordance with the signed agreements and service contracts, which will have to provide mechanisms for the provision of funds based on the work plan and budget of the convention/contract, and disbursements based on a quarterly / semi-annual report of the activities carried out by the beneficiary/provider/partner.	L

Project implementation and financial management procedures do not guarantee sufficient transparency and accountability	H	- Three (3) levels of security ensure transparency and control of operations and also mitigate the risk of distortion and dysfunction related to management: (i) The fact that only one person cannot conduct an operation in its entirety (from beginning to end, from execution to final control); (ii) the implementation of accounting self-audits; (iii) Implementation of the IFAD Representation's proximity monitoring in the SIDs and joint Government/IFAD support and supervision missions and an annual audit of the accounts.	L
The project accounting system and financial procedures are not sufficiently formalized	H	- The Project will be equipped with management software covering all financial aspects: accounting, commitment, financial statements, budget monitoring, contracts, etc. The staff will have to master the software in order to be able to correctly parameterize it to meet the needs of management. - The monitoring of financial commitments and financial achievements will be based on the use of accounting and financial management software as well as the production of financial dashboards for use by the NPCU, SC and IFAD. -The financial statements of the Project will be drafted according to the principles in force and by respecting the minimum information required by the lessor. -The annual financial statements of the Project for the year N will be established no later than the end of February of the year N + 1. The unaudited annual financial statements will be submitted to the SC and IFAD for review. -The Procedures Manual will provide a detailed phasing of all the stages leading to the closing of the accounts (monthly / quarterly / annual) and the preparation of the financial statements - The accounting system used in the framework of the Project should allow the registration of tax exemptions obtained from the government	L
The project financial procedures do not allow for proper and regular monitoring	M	Financial monitoring based on: a) regular preparation of withdrawal requests, based on rolling quarterly cash plans, and bank monitoring of the designated account and the account of operations; (b) budget monitoring; c) accounting monitoring; d) technical and economic monitoring provided by the administrative and financial officer b) The administrative and financial officer will prepare quarterly financial and accounting reports (interim financial reports) which he will submit to the Coordinator for signature and send for review to the Steering Committee and IFAD.	L
Current climate and seasonal variability and/or hazard events result in poor restoration results or agricultural yields.	H	Current climatic variability will be taken into account in the planning of activities along the value chains (aquaculture, rice, cocoa, and maize). Drought- and flood-resilient species will be used. Techniques to assist plant growth particularly in the seedling/sapling phases and to reduce risk of damage from climate change hazard impacts will be used. Species will be planted in appropriate seasons to reduce risk of hazard impact. Diversity in planted crops will reduce this risk, Diversification with farm fish and gardening	M to L
Loss of government support may result in lack of prioritization of AF project activities	L	Regular stakeholder consultation and involvement will be undertaken to ensure that government maintains its commitment and considers the AF project as a support to its forestry and agriculture programmes.	L
Communities may not adopt activities during or after the AF project	M	The interventions will be institutionalized within The ministry to ensure sustainable delivery post project implementation. Capacity building and training of the communities will be undertaken to improve their awareness and understanding of the benefits of the activities.	L
Priority interventions implemented are not found to be cost-effective.	L	Cost-effectiveness is a core principle in the implementation of adaptation measures. Detailed information will be recorded regarding cost-effectiveness. This will be widely disseminated and will be of use to future adaptation initiative	L

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund

142. IFAD is committed to enhancing environmental sustainability and resilience in small-scale agriculture in the full range of its projects and programmes. Promoting a sustainable natural resource and economic base for rural people that is more resilient to climate change, environmental degradation and market transformation is at the core of delivering IFAD's poverty reduction and sustainable agriculture mandate.

143. A preliminary environmental and social assessment was performed as part of the project design to ensure existing environment and social standards applicable to targeted community beneficiaries are taken into account in the context of the AF Principles. An assessment against the 15 AF principles is summarized below accompanied by the proposed mitigation measures:

Table 20: Detailed project screening overview with mitigation measures

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	No appreciable risk	The project is in full compliance with the countries policies, standards and laws as the Environmental Protection Agency of SIDs has endorsed it. With an environmental risk category of "B", the project adheres to ensuring that all safeguards are in place to ensure that the activities of the investment do not exacerbate environmental degradation. During the implementation a monitoring of the adaptation intervention will be provided to continue to track alignment with national law.
Access and Equity	The beneficiaries of the proposed project are poor people in vulnerable communities who are often not integrated into decision-making processes. There is, therefore, a risk that certain community members may benefit more than others. This may result in both intra- and intercommunity conflicts.	While every household/ individual under the project area will have equal opportunity/access to project interventions, there is a very low risk that priority setting which will be done by the village institutions and interventions using the local and regional developmental plans and wealth ranking of households might not be done in an adequate manner hence preventing some households/individuals from benefiting from the project. IFAD targeting tools will be applied. This risk will be mitigated through the beneficiary selection approach, and the incorporation of community consultation for all interventions that do not achieve complete coverage of the target populations. Furthermore, both beneficiary and non-beneficiary communities will be sensitised towards the approach of prioritising the support from the proposed project to the most vulnerable communities. A grievance mechanism has also been developed to support any community members who feel they are experiencing discrimination.
Marginalized and Vulnerable Groups	There is a risk that vulnerable and marginalized groups will be excluded during the implementation of project activities and have insufficient access to the associated benefits	The project target groups are poor smallholder farmers, fishermen women and rural youth (18 – 35 years) that are the most vulnerable to climate change living in the targeted regions and are considered a marginalized group. Through IFAD targeting approach and community consultation the most vulnerable groups, female and youth engaged in cocoa, rice, maize and aquaculture value chains will be included. Other mitigation measures for potential indirect beneficiaries are integrated through the value chain approach, capacity building and awareness raising
Human Rights	No activities are, or will be, included in the design of the proposed project that are not in line with established international human rights. Moreover, the proposed project will promote the fundamental	The SIDs recognise fundamental human rights and freedom in its constitution that exist without discrimination by reason of race, national origin, colour, religion, opinion, belief, or sex. The project activities will not engage in any activity that may result in the infringement on the human rights of any person during implementation.

	human rights of access to food, water and information.	
Gender Equity and Women's Empowerment	The proposed project is targeting communities where the gender gap is significant and men occupy the majority of the leadership positions. There is, therefore, a risk that women will not benefit equitably from the proposed project's climate change adaptation and capacity-building interventions	Although there are risks of social exclusion of women and youth due to limited access to land and low mobilization of women, the project has set some targets (40% women and 40% youth). The activities are designed and implemented in such a way that both men and women have equal opportunities to participate in consultation, training and awareness activities; receive comparable social and economic benefits.
Core Labour Rights	No appreciable risk.	The project does not have any activity that poses a threat to the rights of the farmers. However, it will ensure that national working standards are observed on production sites and that appropriate wages are paid per assigned task; no child labour will be employed.
Indigenous Peoples	No appreciable risk	No indigenous people in the project areas.
Involuntary Resettlement	No appreciable risk.	During the project consultations the project confirmed that there is no risk in areas that conflict with the water infrastructure and other concrete agricultural production and land rehabilitation.
Protection of Natural Habitats	There is low risk that the project affects region targeted /wetland with the removal of rice paddies and impact on natural habitat during the rehabilitation of degraded land.	The project will not involve unjustified conversion or degradation of critical natural habitats, including those that are (a) legally protected; (b) officially proposed for protection; (c) recognised by the national government for their high conservation value, including as critical habitat; or (d) recognised as protected by traditional leaders and communities. All necessary assessments will be conducted before the rehabilitation of degraded land and the promotion of sustainable rice intensification will result to restoration and improved management and protection of natural habitat as well as ecosystem functions and services.
Conservation of Biological Diversity	There is a risk of biodiversity loss caused by bush fires and slash and burn agriculture which lead to biological diversity losses.	Clearing of lands and rehabilitation that lead to loss of biodiversity and deforestation through physically removing species will be avoided by this project. Intervention will happen at early in the planning process by prioritizing rehabilitation and use of abandoned lands, which will lead to the biodiversity restoration
Climate Change	There is a low to moderate risk of GHG emissions from rice paddies.	The project will not generate significant and / or unjustified increase in greenhouse gas emissions or any other cause of climate change. SRI will be promoted in the rice sector and Climate resilient crop and livestock value chain will contribute in avoiding and sequestrating CO2. The climate and environment specialist engaged at inception and during the design and implementation of the programme, will monitor and manage clearing and burning (greenhouse gases) as an alternative and if required will be addressed early in the project.
Pollution Prevention and Resource Efficiency	No appreciable risk.	No mitigation measures necessary. However, the project will work to reduce waste generation and ensuring slash and burn, or release of pollutants into the environment is minimal. With the introduction of briquetting machines in the rice value chain, waste conversion will be demonstrated.

Public Health	There is risk under the COVID19 Context.	Promote social distancing and safe farming and sanitary measures in line with the national requirements to prevent the spread of COVID19.
Physical and Cultural Heritage	No appreciable risk.	No mitigation measures necessary.
Lands and Soil Conservation	Risk identified is related to land rehabilitation and use.	The project will ensure that all relevant environmental codes and standards will be followed during the implementation of the project. Deforestation and upland crop production might affect soil quality and conservation, as well as flooding, water logging, soil salinization and alkalization. Where land is to be modified for example farmlands that may cause soil erosion or deforestation, standards will be followed to maintain the land in its natural state or as close to its natural state as is possible; and, if land is to be converted, it must promote and protect its current function.

144. The environmental and social management plan (ESMP) developed as part of the design includes more detailed information on identified potential environmental and social impacts, their significance, mitigation measures and responsible parties for ensuring the risks are monitored and mitigated as and if they materialize.

Table 21: Environmental (incl. Climate Change) Management Plan and related Adaptation Fund's 15 Principles, including mitigation for environmental and social risks measures and responsible stakeholders

Environmental and social principles	Risks/Impacts identified	Possible measures to avoid, minimize, or mitigate environmental and social risks	Monitoring Indicators	Significance Rating (likelihood x consequence)	Period	Responsible for supervision
Compliance with the law	None	The project is in full compliance with the countries policies, standards and laws as the Environmental Protection Agency of the SIDs has endorsed it. With an environmental risk category of "B", the project adheres to ensuring that all safeguards are in place to ensure that the activities of the investment do not exacerbate environmental degradation. During the implementation a monitoring of the adaptation intervention will be provided to continue to track alignment with national law.	Number of sites for which Environmental and social impact assessment document has been prepared according to the 15 principles of the Adaptation Funds ESP	No appreciable risk.	Project life cycle	IFAD, Relevant government partners including UNICEF, AFDB and FAO.
Access and Equity	Elite capture and Biasness in allocating project benefits Lack of interest to participate in project activities	By design, the project has focused on the most vulnerable group of populations to climate change mainly youth, women. This in itself is a mitigation measure. Furthermore, beneficiaries have been disaggregated by gender during the design through IFAD targeting approach. The profile intends to produce socio, economic profile, which will assist in identifying the households towards which project activities support should be prioritized within the poor and vulnerable communities. Households and individuals will be sensitized towards the approach of prioritizing project support to most vulnerable households while ensuring benefits trickle down to all the village households through one of the project activities. This will mitigate any conflicts that might arise within the village due to focusing on the most vulnerable households particularly women and youth. The PMU will monitor closely the targeting mechanism.	Level of application of fair criteria for the selection of participants in training sessions organized Percentage of women, and young people, who received training	Low to medium	During the final selection of sites and beneficiaries	PMU, Relevant government partners, IFAD supervisions missions

Marginalized and Vulnerable Groups	Exclusion of marginalized groups from project benefits	Exclusion of marginalized groups. Thus, the project's design in itself is a mitigation measure. . To avoid social exclusion of marginalized communities, orientation /sensitization will be initiated in the project sites, at households and villages level to ensure equal participation and ensure no social impacts fall on the marginalized and vulnerable group.	Percentage of young people, women beneficiaries of the project	PMU Low	Semi annual	PMU, Relevant government partners, IFAD supervisions missions
Human Rights	No activities are, or will be, included in the design of the proposed project that are not in line with established international human rights. Moreover, the proposed project will promote the fundamental human rights of access to food, water and information.	The project will respect and promote all fundamental human rights as per the constitution of the SIDs, and in accordance to all conventions signed by the government of the SIDs. The project will work in line with the local and regional plans and PMU and Local Communities Organisations will ensure no human rights violation happens. The project anticipates no violation of human rights including child labour through the project activities, and on the other hand will strive to empower the local community to be aware of and exercise their human rights so as to use it systemically for their benefit and wellbeing.	Level of improvement of the capacity for an efficient and equitable treatment of the cases. Number of complaints cases	No appreciable risk.	During the life cycle of the project	Competent Environmental Assessment Authority

Gender Equity and Women Empowerment	Inequitable representation of women in decision making process; identification, planning and implementation of activities Lack of confidence of women to participate in project activities	Gender focus activities will also include creating awareness in the community at large to acknowledge women for their contribution as an income generating individual in the household to create their value in the community and promote equitable. Fair and equitable selection of beneficiaries will be done for capacity building along the selected value chains. A list of all the participants will be maintained and gender ratio will be monitored by the PMU on a quarterly basis	Percentage of women in decision making process Number of complaints	Low Low	During the life cycle of the project	PMU, Relevant government partners, IFAD supervisions missions	Taken into account in the project see budget lines and related Outputs
Core Labour Rights	Delay in wage payments;	Compliance to labour rights will be ensured in all the project activities. vocational training programs to provide opportunities to crop and livestock producers children (focusing on women and youth) to develop skills for migrating toward other agricultural or non-agricultural activities	Proportion of local labour used in installation work	Low	During labor intensive activities	PMU; Competent Environmental Assessment Authority	Taken into account in the project see budget lines and related Outputs

	Non-adherence to minimum wage; Child labour; Labour hours, especially on community work	The wages will be determined on task allotted and the wage rate will be calculated on the basis of prevailing minimum wage rate for the task. The record of work done for each labour engaged will have to be maintained and the wages paid accordingly. The hours of work and the timing of the working hours will be determined in consultation with the labour and the prevailing practices in the area. Compliance will be ensured by making advance payments for the physical work as per the village micro plan submitted by the local communities to the implementing partner. Positive discrimination in favour of women may be used to provide fair and equal opportunity to women who seek employment as labour and gain from the wages earned by her. All forms of negative discrimination in respect of employment and occupation would be eliminated. Project should not engage child labour in any of its activities and all forms of forced or compulsory labour may be eliminated. The project will maintain registers for labour payments and same would be verified with respect to payments as per the schedule of rates, work quantity by the EE.		Low Low Low			
Indigenous Peoples	There are no Indigenous people in SIDs affected	There are no indigenous people in SIDs affected	Not applicable	No appreciable risk	-	-	-
Protection of Natural Habitats	Beneficiaries may implement activities that cause negative impacts on the biophysical environment, including natural habitats, i.e., spread of diseases, overexploitation	The project will promote sustainable use of natural resources and the protection of natural habitats as part of the requirements for funding. This includes shifting from unsustainable practices including traditional slash-and-burn agriculture practices, and deforestation, and promotion of water-saving irrigation techniques to limit runoff and soil erosion in the project area. Through a risk screening system, the grant mechanism will ensure that selected activities with medium to high risks of deteriorating the integrity of semi- or all-natural habitats are avoided. For subprojects with identified low risk, proper advice and capacity building support will be provided on areas such as sustainable	Percentage of funded subprojects including activities with risks of altering natural habitats	Low	At subproject appraisal stage and during the AF project lifecycle	PMU, Grant Mechanism contractor Min. of Env.	Taken into account in the project see budget lines and related Outputs

		exploitation of forest and low land productions					
Conservation of Biological Diversity	Fire, in areas of the project which are not under including virgin forest	Capacity building activities and the early warning systems to be put in place under components 1 and 3 will help minimize those risks The project will not involve unjustified conversion or degradation of critical natural habitats, including those that are (a) legally protected; (b) officially proposed for protection; (c) recognised by the national government for their high conservation value, including as critical habitat; or (d) recognised as protected by traditional leaders and communities. All necessary assessments will be conducted before the rehabilitation of degraded land and the promotion of sustainable rice intensification will result to restoration and improved management and protection of natural habitat as well as ecosystem functions and services.	Occurrence of wildfire or induced fire Deforestation	Low	During the project lifecycle	National parks staff; Communities managing community forests; PMU Min. of Agric.	Taken into account in the project see budget lines and related Outputs
Climate Change	Emission of GHG emissions from rice paddies cultivation	The project will not generate significant and / or unjustified increase in greenhouse gas emissions or any other cause of climate change. SRI will be promoted in the rice sector and Climate resilient crop and livestock value chain will contribute in avoiding and sequestrating CO2. The climate and environment specialist engaged at inception and during the design and implementation of the programme, will monitor and manage clearing and burning (greenhouse gases) as an alternative and if required will be addressed early in the project.	Number of ha of on rice paddy production	Low to medium	During the project lifecycle	PMU, Grant Mechanism contractor National Environmental Agency	Taken into account in the project see budget lines and related Outputs
Public Health	COVID -19 impact	In line with the national COVID-19 measures, promote social distancing and safe farming and sanitary measures in line with the national requirements to prevent the spread of COVID19.	Number of communities safeguarded against COVID-19	Low to medium	During the project lifecycle	PMU, Relevant government partners, IFAD supervisions missions National Environmental AgencyCOVID-19 team	Taken into account in the project see budget lines and related Outputs
Lands and Soil Conservation	Risk identified is related to land rehabilitation and use.	The project will ensure that all relevant environmental codes and standards will be followed during the implementation of the project. Deforestation and upland crop production might affect soil quality and	Ha of land sustainably managed and conserved	Low	During the project lifecycle	PMU, Relevant government partners, IFAD supervisions missions	Taken into account in the project see budget lines and

		conservation, as well as flooding, water logging, soil salinization and alkalization. Where land is to be modified for example farmlands that may cause soil erosion or deforestation, standards will be followed to maintain the land in its natural state or as close to its natural state as is possible; and, if land is to be converted, it must promote and protect its current function				National Environmental Agency	related Outputs
Physical and Cultural Heritage	None	No mitigation measures necessary.	Not applicable	-	-	-	-
Pollution Prevention and Resource Efficiency	Polluting of the production of crop and livestock	Capacity building and Community will be sensitized for disposal of pesticides and any pollutant used in the two value chains	Number of communities trained on non-biodegradables and coordinated and sustainable pest and pesticide management techniques	PMU	During the project lifecycle	PMU, Relevant government partners, IFAD supervisions missions Min. of Env.	Taken into account in the project see budget lines and related Outputs

145. The ministry of environment's checklist will also be used to ensure that planning permissions and decisions comply with Government environmental and social approval processes. Updating of ESMP and a decision as to whether an ESIA is required will be the final step. The initial actions during pre-inception will involve coordination of the roles and responsibilities of those involved in managing these risks with the ESS specialist taking the lead role with supporting role from the Gender and M&E specialists.

Grievance Mechanism

146. In order to reduce conflicts, a robust grievance/complaints mechanism that meets at least the following 'effectiveness' criteria should be instituted[110]:

a. *Legitimate*: enabling trust from the stakeholder groups for whose use they are intended, and being accountable for the fair conduct of grievance processes;
b. *Accessible*: being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access;
c. *Predictable*: providing a clear and known procedure with an indicative time frame for each stage, and clarity on the types of process and outcome available and means of monitoring implementation;
d. *Equitable*: seeking to ensure that aggrieved parties have reasonable access to sources of information, advice and expertise necessary to engage in a grievance process on fair, informed and respectful terms;
e. *Transparent*: keeping parties to a grievance informed about its progress, and providing sufficient information about the mechanism's performance to build confidence in its effectiveness and meet any public interest at stake;
f. *Rights-compatible*: ensuring that outcomes and remedies accord with internationally recognized human rights;
g. A source of *continuous learning*: drawing on relevant measures to identify lessons for improving the mechanism and preventing future grievances and harms;
h. Based on *engagement and dialogue*: consulting the stakeholder groups for whose use they are intended on their design and performance, and focusing on

[110] Office of the High Commissioner on Human Rights (OHCHR). 2011. *UN Guiding Principles on Business and Human Rights* (OHCHR: Geneva), pp.33-34

dialogue as the means to address and resolve grievances.

147. IFAD has established a Complaints Procedure to receive and facilitate resolution of concerns and complaints with respect to alleged non-compliance of its environmental and social policies and the mandatory aspects of its Social, Environmental and Climate Assessment Procedures in the context of IFAD-supported projects. The procedure allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. Although IFAD normally addresses potential risks primarily throughout the design process and project, it remains committed to: (i) working proactively with countries and the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions[111].

148. To ensure that complaints and dissatisfactions from farmers are duly attended to and resolved, the groups of the farmer organizations will serve as the first level of grievance reporting mechanism. Issues that cannot be resolved at this stage will proceed to the community leadership. When the leadership is not able to resolve these issues, the matter will be escalated to the project implementation unit through the project liaison officer at the community level.

149. The AF Project will as much as possibly utilize every available grievance redress mechanism including: associations (including farmers' associations/organizations) traditional council (Paramount Chiefs and elders), village square engagement (consisting of representatives of men, women and social groups), village general assembly, the project unit, etc. The grievance redress mechanism is further elaborated in the ESMF.

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan

150. Project Monitoring and Evaluation (M&E) and Knowledge management will be under the oversight of the National Project Coordinating Unit, and led by the regional M&E officer who will work closely with three M&E assistant, one in each country. The M&E system should: (i) produce, organize and disseminate the information needed for the strategic management of the Project, (ii) document the results and lessons learned for internal use and for public dissemination on the achievements and (iii) respond to the information needs of Adaptation Fund, IFAD and the Government on the activities, immediate outcomes and impact of the Project. A monitoring and evaluation manual that will describe a simple and effective system for collecting, processing, analysing and disseminating data will be prepared in the first year of the Project.

151. A database will be developed to ensure tracking of progress towards targets and enable the generation of dashboards. The system will be regularly fed from data collected in the field by the implementing partners and the various studies carried out as part of the projects' implementation. The monitoring and evaluation system will be coupled with a geo-localized information system (GIS) that will allow mapping and spatial-temporal analyses. Trainings will be organized to strengthen the capacities of the various stakeholders involved in the monitoring and evaluation system. Where possible, the M&E system will be linked to national monitoring systems (within the respective ministries).

152. Monitoring will focus on collecting data on the status of planned activities in the Annual Work Plan & Budget (AWPB), and on creating a cumulative overview of the direct results (deliverables/outputs) from project start-up until completion. M&E will be carried out within a logical framework and a results framework that includes output indicators and measurable outcome indicators closely aligned to the achievement of agreed objectives. The indicators relating to beneficiaries will be disaggregated by gender, age and socio-economic status. On this basis the M&E system should: (i) Collect gender-disaggregated data in meeting the gender targets in compliance with the AF Gender Policy; collect data on the AF indicators; produce, organize and disseminate the information needed for the strategic management of the project, (ii) document the results and lessons learned for internal use and for public dissemination on the achievements and (iii) respond to the information needs of Adaptation Fund, IFAD and the Government on the activities, immediate outcomes and impact of the Project. The M&E system will be developed and adopted early in the project implementation phase. The project key M&E activities will include the following:

[111] 2016. Managing Risks to Create Opportunities. IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). International Fund for Agricultural Development

153. **Project Inception Workshop.** A Project Inception Workshop will be conducted within one month after the inception workshop has taken place with the full project team, relevant government counterparts and IFAD. The Inception Workshop, i.e. the start of the Project implementation, shall be held within 6 months from the date of the 1st disbursement from AF to IFAD.

154. The Inception Workshop is crucial to building ownership for the project results and to plan the first-year annual work plan. A fundamental objective of the Inception Workshop will be to present the modalities of project implementation and execution, and assist the project team to understand and take ownership of the project's goals and objectives. An Inception Workshop Report will be prepared and shared with participants. The Inception Report will include a detailed First Year/Annual Work Plan detailing the activities and progress indicators that will guide implementation during the first year of the project; (ii) the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan; (iii) a detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners; (iv) a section on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation.

155. **Baseline and Completion Reporting.** In the first and sixth year of the Project, a MPAT/SYGRI+ survey that also incorporates the information needs of the project logical framework will be conducted to serve as a baseline study and a completion survey. MPAT, a multidimensional poverty assessment tool, is an IFAD tool that assesses poverty in ten dimensions that are at the heart of rural livelihoods.

156. **Annual Reporting (Project Performance Reports).** The Annual Project Performance Reports will include an analysis of project performance over the reporting period. The PPR includes among others, information related to financial data, procurement, risk assessment, rating, project indicators, lessons learned. In addition, it includes the results tracker that needs to be filled. This will be done i) at inception where baseline-related information will be submitted, as well as planned targets at project/programme completion; ii) annually; and iii) project/programme completion when the final PPR will serve as a project completion report. The due date of the 1st annual Project Progress Report is 1 year after the Inception Workshop. The same timeline will apply for subsequent PPRs. Semi-annual and Annual Project Reports will be prepared by the NPCU and verified by the PSC to monitor progress made since project start and in particular for the previous reporting period.

157. These reports include, but are not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);
- Project outputs delivered per project outcome (annual);
- Lessons learned/good practices;
- Annual expenditure reports; and
- Reporting on project risk management.

158. In accordance with the Environmental and Social Policy, the PPR shall also address all environmental and social risks identified during project assessment, design, and implementation and report on sex-disaggregated targets presented in the results framework and AF indicators. The annual project performance reports shall include a section on the status of implementation of the environmental and social management plan, including those measures required to avoid, minimize, or mitigate environmental and social risks, and, if needed, the measures required for USPs. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.

159. Quarterly Progress Reports will also be prepared by project implementing partners in the field, and submitted to the NPCU to ensure continuous monitoring of project activities and identify challenges to adopt necessary corrective measures in due time.

160. Technical reports – such as a best practices and lessons learned report - will also be completed, as determined during the project inception report.

161. **Supervision** will be led by IFAD with a supervision mission mobilized at least once per year. Additional implementation support from IFAD on specific identified issues will be mobilized if considered necessary by the IFAD or recommended by the supervision mission. The supervision plan would highlight, in addition to the routine supervision tasks (fiduciary, compliance and programme implementation), the main thematic or performance areas that require strengthening and would imply deployment of additional inputs for capacity building, in-depth analytical studies or review of existing policies.

162. **Financial Reporting.** In terms of financial reporting (article 77 of the AF standard agreement), the project team will provide IFAD with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of funds according to the established procedures. Interim Financial Reports which are due 45 days after end of each quarter should be submitted and is a requirement for disbursement.

163. **Mid-term Review (MTR).** The baseline survey will be re-conducted during the mid-term and final year review of the Project with a view to assessing the effects and impacts at mid-term and before the end of the Project. The MTR will assess operational aspects such as programme management and timely and efficient implementation of activities as well as the extent to which the objectives are being achieved and identification of corrective actions that may be needed for the programme to achieve the desired impact. The mid-term and terminal evaluation reports shall also include an evaluation of the project performance with respect to environmental and social risks.

164. A **Terminal Evaluation** will be conducted three months before project closure which will include a programme completion survey. The Terminal Evaluation will follow the AF and IFAD guidelines.

165. **External Evaluations.** The project will undergo an independent external Mid-Term Evaluation at the mid-point of project implementation, which will determine progress being made toward the achievement of outcomes and identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project term.

166. **Field visits.** Government authorities, members of PSC and IFAD staff will conduct regular field visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress.

Table 22: Breakdown of how IE fees will be utilised for supervision and M&E functions

M&E Function	Responsibility	Budget (USD)	Timeframe
Inception Workshop	PMU	50,000	Year 1
Supervision visits	IFAD, NPCU, Government	350, 000	bi-annually
Training workshops on M&E	IFAD, NPCU	306, 774	First Year (2023)
Baseline survey & end line survey using MPAT/SYGRI+	NPCU	145,000	First Year (2023) Sixth Year (2028)
Mid-Term Evaluation	IFAD, External consultants	80,000	2025
Annual Performance Progress Reports (PPRs) and relevant studies	IFAD, External consultants	55,000	Annually
Final Evaluation	IFAD, External consultants	80,000	2028
Knowledge Management Activities and Publications	IFAD, NPCU	50,000	bi-annually
Total		**1,096,774**	**5 years**

E. Results Framework

Table 23: Project Results Framework

Project Objective(s)[112]	Project Objective Indicator(s)	Baseline	Target	Means of Verification	Risks and Assumptions
Overall objective: BUILD CLIMATE-RESILIENT AGRICULUTRAL SYSTEMS IN THE WEST AND CENTRAL AFRICA SIDS					
	AF Core indicator: Number of beneficiaries (direct and indirect)	**0**	**75,720 direct beneficiaries, including 45 per cent women and 40 per cent youth 526,800 indirect beneficiaries**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	Remote geography, small population size, remoteness from international markets, high transportation costs, vulnerability to exogenous economic shocks and fragile land and marine ecosystems make SIDS particularly vulnerable to biodiversity loss and climate change. Security situation steady Political stability Improvement of macro-economic conditions
	AF Core indicator: Number of smallholder farmers reporting improvements in their living conditions	**0**	**75,720**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
	Number of institutions and smallholder farmers with strengthened capacity to reduce risks associated with climate change	**0**	**4**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
	Number of communities with access to adapted complex climate data	**0**	**75,720**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
	Number of communities with increased adaptive capacity to climate change-driven hazards affecting their specific locations	**0**	**75,720**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
	CC priorities are integrated into national development strategy.	**0**	**3 National Development Strategies**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
	Number of farmers reporting better access to innovative adaptation practices, tools and technologies accelerated, and scaling -up and/or replicating	**0**	**75,720**	- Project M & E reports - Progress reports - Mid-term and final project evaluations	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Baseline**	**Target**	**Means of Verification**	**Risks and Assumptions**
<u>Component 1: Implementation of Innovative Climate Resilient Agricultural Practices</u>					
Established proven best practices in climate resilient value chains, drawing from local and international research	Number of farmers reporting an increase in crop productivity (45% women)	**<u>0</u>**	60 per cent of farming households (in project area)	Project M & E reports Progress reports Mid-term and final project evaluations	vulnerability to exogenous economic shocks and fragile land and marine ecosystems make SIDS particularly vulnerable to biodiversity loss and climate change
	Number of farmers reporting an increase in rice productivity (45% women)	**<u>0</u>**	85 per cent of farmers (in project area)		

[112] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

leading to a sustainable increase in production	Number of farmers reporting increase in cocoa productivity (45% women)	**0**	85 per cent of farmers (in project area)		
	No of target farmers adopting climate resilient farming practices	**0**	85 per cent of farming households (in project area)		
	Number of crop nurseries established	0			
	Number of improved seeds distributed	0			
	Number of improved breeds distributed	**0**			
	Number of farmers adopting climate resilient farming practices	**0**	60 per cent of farming households (in project area)		
Improved Landscape and improved production because of restored watersheds and water infrastructure	Number of watersheds rehabilitated	**0**		Project M & E reports Progress reports Mid-term and final project evaluations	
	Number of farmers trained on watershed and farm practices (disaggregated by gender)	**0**	60 per cent of farmers (in project area)		
Acquired knowledge of the design, construction and installation of water harvesting and disbursement infrastructure	Number of staff trained on water harvesting and disbursement techniques	**0**	50 per cent of staff	Project M & E reports Progress reports Mid-term and final project evaluations	
	Number of farmers trained on water harvesting techniques (disaggregated by gender)	**0**	60 per cent of farming households (in project area)		
Component 2: Capacity Building to Sustain Programme Intervention					
Enhanced community capacities to secure access to potable water supply, through irrigation infrastructure and resource conflict management	Percent of farming households having access to a potable water supply	**19% of the population in SIDs have access to safely managed drinking water in 2020[113]**	75 per cent of farming households in the project area	- Project M & E reports - Progress reports - Mid-term and final project evaluations	Good participation and involvement of communities
	Number of hectares of land irrigated from earth dams	**0**	100 ha		
	Number of water user groups adopting sustainable irrigation practices**.**	**0**	60% of farming households in project area		
Component 3: Monitoring, Evaluation and Learning					
WCA SIDS Strategic partnership frameworks for Innovative Climate	Number of organizations involved with in strategic partnership frameworks	0	Two technicians trained by PY1. Two meteorologists trained by PY3. 24 staff completed	- Project M & E reports - Progress reports - Mid-term and final project evaluations	Interest & willingness on behalf of decision makers. Political stability.

[113] Progress on household drinking water, sanitation and hygiene 2000-2020: five years into the SDGs. Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2021. Licence: CC BY-NC-SA 3.0 IGO.

Resilient Agricultural Practices strengthened due to enhanced coordination and SSC			the training (12 by PY 1, 12 by PY3)		
	Number of sectoral policies integrating climate change risks	0	At least one		
	Number of knowledge management products disseminated	0	1 newsletter quarterly		

F. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

The table below demonstrates how the project aligns with the Results Framework of the Adaptation Fund.

Table 24: Project alignment with the result framework of the Adaptation Fund

Project Objective(s)[114]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Amount (USD)
Overall objective: The main objective of the proposed region programme is to build climate-resilient agricultural systems in the three West and Central Africa SIDS				
	Number of smallholder farmers living below poverty line. Number of smallholder farmers reporting improvements in their living conditions.	Outcome 1: Reduced exposure to climate-related hazards and threats	1.1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis 1.2 No. of early warning systems (by scale) and no. of beneficiaries covered	**14,000,000**
	Number of institutions and smallholder farmers with strengthened capacity to reduce risks associated with climate change	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	
	Number of communities with access to adapted complex climate data	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.2. Percentage of targeted population applying appropriate adaptation responses	
		Outcome 4 Increased adaptive capacity within relevant development sector services and infrastructure assets	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	
	Number of communities with increased adaptive capacity to climate change-driven hazards affecting their specific locations	Outcome 5: Increased ecosystem resilience to CC and variability	5. Ecosystem services and natural assets maintained or improved under CC and variability	
		Outcome 6 Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1 Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population	

[114] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

			with sustained climate-resilient alternative livelihoods	
	CC priorities are integrated into national development strategy.	Outcome 7: Improved policies and regulations that promote and enforce resilience measures	7.Climate change priorities are integrated into national development strategy	
	Number of farmers reporting better access to innovative adaptation practices, tools and technologies accelerated, and scaling -up and/or replicating	Outcome 8 Support the development and diffusion of innovative adaptation practices, tools and technologies	8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Component 1: Implementation of Innovative Climate Resilient Agricultural Practices				
1.1 Established proven best practices on climate resilient value chains, drawing from local and international research leading to a sustainable increase in food production	Number of farmers reporting an increase in crop productivity (45% women) Number of farmers reporting an increase in rice productivity (45% women) Number of farmers reporting increase in cocoa productivity (45% women) Crop yield change in target areas No of target farmers adopting climate resilient farming practices Number of improved crop improved nurseries established Number of improved seeds distributed Number of improved breeds distributed Number of farmers adopting climate resilient farming practices	Output 6. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies Type of income sources for households generated under climate change scenario	**2,940,000**
1.1. Improved Landscape and improved production because of restored watersheds and water infrastructure	Number of watersheds rehabilitated Number of farmers trained on watershed and farm practices (disaggregated by gender)	Output 1.2: Targeted population groups covered by adequate risk reduction systems	Percentage of target population covered by adequate risk-reduction systems	**2,350,000**
1.2. Acquired knowledge of the design, construction and installation of water harvesting and disbursement infrastructure	Number of staff trained on water harvesting and disbursement techniques Number of farmers trained on water harvesting techniques (disaggregated by gender)	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	**4,300,000**
Component 2: Capacity Building to Sustain Programme Intervention				

2.2. Enhanced community capacities to secure access to potable water supply, through irrigation infrastructure and resource conflict management	Number of farming households having access to a potable water supply - Number of elevated reservoirs constructed - Number of hectares of land irrigated from earth dams - Number of water user groups adopting sustainable irrigation practices	Output 2. Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	**921,000**
Component 3: Monitoring, Evaluation and Learning				
3. WCA SIDS Strategic partnership frameworks for Innovative Climate Resilient Agricultural Practices strengthened due to enhanced coordination and SSTC	Number of organizations involved with in strategic partnership frameworks Number of sectoral policies integrating climate change risks Number of knowledge management products disseminated	Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated	No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated No. of key findings on effective, efficient adaptation practices, products and technologies generated	**1,198,090**

G. Detailed budget

Table 25 below includes a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs. This is presented per activity.

The table below presents the detailed budget of the project per activity.

Table 25: Detailed budget per project activity

Cape Verde	
Component 1: Implementation of Innovative Climate Resilient Agricultural Practices	
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	**150000**
Establish a climate-smart irrigation system	**200000**
Promote Half-moon techniques and crop rotations techniques	**100000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	**100000**
Improve the management and protection of inland habitats	**50000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	**50000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	**50000**
Sub-total 1.1	**700000**

Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented	
Establishment of green infrastructure to fight against erosion	**150000**
Build-up mechanical works for the recovery of degraded land	**120000**
Creation of nurseries to assist biological rehabilitation	**50000**
Terracing and contour bunding	**50000**
Check damn and gabion construction in degraded rain-washed gullies	**130000**
Sub-total 1.2	**500000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established	
Salt-water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water	**150000**
Anti-salt dikes, which are physical barriers positioned perpendicularly to the direction of the water flow that are used for protection against coastal erosion and salinization agricultural lands. This also allow water storage and water supply used for irrigation;	**150000**
Pilot seawater desalination plants powered by renewable energy, which improves the quality of local groundwater;	**400000**
Pilot brackish water RO or RED desalination based on further assessment and select the right site/ appropriate procurement processes	**150000**
Pilot wastewater reclamation and reuse systems for irrigation, which conserves freshwater and ensure water supply; based on further assessment and select the right site/ appropriate procurement processes	**150000**
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	**150000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	**150000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	**150000**
Sub-total 1.3	**1600000**
Component 2: Capacity Building to Sustain Programme Intervention	
Output 2.1 Strengthened capacity of climate risk governance structures	
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	**50000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	**50000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	**50000**
Subtotal 2.1	**150000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:	
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	**50000**
Subtotal 2.2	**50000**
Cost for Cape Verde	**3000000**
Guinea Bissau (Continental)	
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	**100000**
Establish a climate-smart irrigation system	**150000**
Promote Half-moon techniques and crop rotations techniques	**100000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	**100000**
Improve the management and protection of inland habitats	**30000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	**20000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	**40000**
Sub-total 1.1	**540000**

Output 1.2. Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented	
Establishment of green infrastructure to fight against erosion	**150000**
Build-up mechanical works for the recovery of degraded land	**120000**
Creation of nurseries to assist biological rehabilitation	**50000**
Terracing and contour bunding	**50000**
Check damn and gabion construction in degraded rain-washed gullies	**130000**
Sub-total 1.2	**500000**
Output 1.3. Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established	
Salt-water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table	**200000**
Anti-salt dikes, which are physical barriers positioned perpendicularly to the direction of the water flow that are used for protection against coastal erosion and salinization agricultural lands. This also allow water storage and water supply used for irrigation;	**200000**
Capacity building for water management and maintenance of infrastructure will complement the construction and rehabilitation	**100000**
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	**300000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	**250000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	**200000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	**200000**
Sub-total 1.3	**1450000**
Component 2: Capacity Building to Sustain Programme Intervention	
Output 2.1 Strengthened capacity of climate risk governance structures	
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	**60000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	**50000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	**50000**
Subtotal 2.1	**160000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:	
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	**100000**
Subtotal 2.2	**100000**
Cost for Guinea Bissau	**2750000**
Guinea Bissau (Bijagos)	
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	**250000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	**150000**
Improve the management and protection of inland habitats	**100000**
Transformation of non-timber forests products and seafood by women in the Bijagos Islands	**200000**
Subtotal 1.1	**700000**
Output 1.2. Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented	
Establishment of Green Infrastructure to fight against erosion	**200000**
Build-up mechanical works for the recovery of degraded land	**200000**
creation of nurseries to assist biological rehabilitation	**100000**
Sub-total 1.2	**500000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established	
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	**200000**

Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	**200000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	**200000**
Sub-total 1.3	**750000**
Component 2: Capacity Building to Sustain Programme Intervention	
Output 2.1 Strengthened capacity of climate risk governance structures	
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	**100000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	**111000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	**100000**
Subtotal 2.1	**311000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:	
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	**100000**
Subtotal 2.2	**100000**
Cost for Bijagos	**2361000**
Sao Tome and Principe	
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	**200000**
Establish a climate-smart irrigation system	**200000**
Promote Half-moon techniques and crop rotations techniques	**150000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	**150000**
Improve the management and protection of inland habitats	**100000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	**100000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	**100000**
Sub-total 1.1	**1000000**
Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented.	
Establishment of green infrastructure to fight against erosion	**150000**
Build-up mechanical works for the recovery of degraded land	**250000**
Creation of nurseries to assist biological rehabilitation	**100000**
Terracing and contour bunding	**100000**
Check damn and gabion construction in degraded rain-washed gullies	**250000**
Sub-total 1.2	**850000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established	
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	**200000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	**150000**
Sub-total 1.3	**500000**
Component 2: Capacity Building to Sustain Programme Intervention	
Output 2.1 Strengthened capacity of climate risk governance structures	
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	**100000**

Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	**100000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	**100000**
Subtotal 2.1	**300000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management	
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	**100000**
Subtotal 2.2	**100000**
Cost of Sao Tome and Principe	**2750000**
Component 3: Institutional capacity building, policy engagement and knowledge management	
Cape Verde, STP and Guinea Bissau	
Output 3.1: Monitoring and evaluation and lessons learned disseminated	
Support for the development of a measurement reporting and verification system for climate response programmes	**100000**
Inception workshop	**50000**
Support to improve monitoring & evaluation and knowledge management activities, which will include funds to cover additional baseline surveys (related to climate change adaptation) and terminal surveys (related to climate change adaptation).	**100000**
Sub-total 3.1	**250000**
Output 3.2: Partnerships and coordination strengthened on adaptation between the West Africa SIDS	
Establish strategic partnerships with research institutes and service delivery organizations like Africa rice and ICRAF	**50000**
Project management and coordination, including the recruitment of climate change adaptation specialists for the duration of the project and staff training on adaptation-related issues.	**600000**
As part of the activities to ensure that the project is efficiently monitored, the project will produce a knowledge management plan, knowledge transfer platform, knowledge management products such as newsletters, TV and radio interviews and materials on success stories. These products will be disseminated via online and offline channels	**298090**
Sub-total 3.2	**948090**
Cost of Component 3	**1198090**
Project Activity cost	**12059090**
Project Execution cost (7%)	**844136**
Direct project execution	**541918**
Country coordinators	**160000**
Finance and Procurement	**75000**
Communications	**50000**
Travel	**50000**
Total project cost	**12903226**
Project cycle management (8.5%)	**1096774**
Direct project management	**750000**
Inception workshop	**39367**
Travel	**130000**
Regional M&E	**120000**
Support to ESMP Monitoring	**50000**
Support to Gender Inclusion Monitoring	**50000**
Amount of Financing Requested	**14000000**

Table 26: Project disbursement matrix

Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cape Verde						

Component 1: Implementation of Innovative Climate Resilient Agricultural Practices						
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems						
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	10000	40000	40000	40000	20000	**150000**
Establish a climate-smart irrigation system	10000	60000	60000	60000	10000	**200000**
Promote Half-moon techniques and crop rotations techniques	10000	30000	20000	20000	20000	**100000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	20000	20000	20000	20000	20000	**100000**
Improve the management and protection of inland habitats	10000	10000	10000	10000	10000	**50000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	15000	20000	15000	0	0	**50000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	10000	20000	20000	0	0	**50000**
Sub-total 1.1						**700000**
Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented						
Establishment of green infrastructure to fight against erosion	30000	50000	50000	20000	0	**150000**
Build-up mechanical works for the recovery of degraded land	20000	40000	40000	20000	0	**120000**
Creation of nurseries to assist biological rehabilitation	10000	15000	15000	10000	0	**50000**
Terracing and contour bunding	10000	10000	10000	10000	10000	**50000**
Check damn and gabion construction in degraded rain-washed gullies	0	65000	65000	0	0	**130000**
Sub-total 1.2						**500000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established						
Salt-water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table	30000	50000	50000	20000	0	**150000**
Anti-salt dikes, which are physical barriers positioned perpendicularly to the direction of the water flow that are used for protection against coastal erosion and salinization agricultural lands. This also allow water storage and water supply used for irrigation;	30000	50000	50000	20000	0	**150000**
Pilot seawater desalination plants powered by renewable energy, which improves the quality of local groundwater;	100000	200000	100000	0	0	**400000**
Pilot brackish water RO or RED desalination based on further assessment and select the right site/ appropriate procurement processes	30000	60000	60000	0	0	**150000**
Pilot wastewater reclamation and reuse systems for irrigation, which conserves freshwater and ensure water supply; based on further assessment and select the right site/ appropriate procurement processes	30000	60000	60000	0	0	**150000**
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	30000	60000	60000	0	0	**150000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	0	75000	75000	0	0	**150000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	30000	30000	30000	30000	30000	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	30000	30000	30000	30000	30000	**150000**
Sub-total 1.3						**1600000**
Component 2: Capacity Building to Sustain Programme Intervention						
Output 2.1 Strengthened capacity of climate risk governance structures						
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	10000	10000	10000	10000	10000	**50000**

Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	10000	10000	10000	10000	10000	**50000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	10000	10000	10000	10000	10000	**50000**
Subtotal 2.1						**150000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:						
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	10000	10000	10000	10000	10000	**50000**
Subtotal 2.2						**50000**
Cost for Cape Verde	**505000**	**1035000**	**920000**	**350000**	**190000**	**3000000**
Guinea Bissau (Continental)						
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems						
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	50000	50000	50000	50000	50000	**250000**
Establish a climate-smart irrigation system	20000	40000	40000	30000	20000	**150000**
Promote Half-moon techniques and crop rotations techniques	20000	20000	20000	20000	20000	**100000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	20000	20000	20000	20000	20000	**100000**
Improve the management and protection of inland habitats	5000	7500	7500	5000	5000	**30000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	4000	4000	4000	4000	4000	**20000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	8000	8000	8000	8000	8000	**40000**
Sub-total 1.1						**690000**
Output 1.2. Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented						
Establishment of green infrastructure to fight against erosion	30000	30000	30000	30000	30000	**150000**
Build-up mechanical works for the recovery of degraded land	24000	24000	24000	24000	24000	**120000**
Creation of nurseries to assist biological rehabilitation	10000	10000	10000	10000	10000	**50000**
Terracing and contour bunding	10000	10000	10000	10000	10000	**50000**
Check damn and gabion construction in degraded rain-washed gullies	65000	65000	0	0	0	**130000**
Sub-total 1.2						**500000**
Output 1.3. Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established						
Salt-water intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table	40000	40000	40000	40000	40000	**200000**
Anti-salt dikes, which are physical barriers positioned perpendicularly to the direction of the water flow that are used for protection against coastal erosion and salinization agricultural lands. This also allow water storage and water supply used for irrigation;	40000	40000	40000	40000	40000	**200000**
Capacity building for water management and maintenance of infrastructure will complement the construction and rehabilitation	20000	30000	30000	10000	10000	**100000**
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	50000	100000	50000	50000	50000	**300000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	50000	50000	50000	50000	50000	**250000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	40000	40000	40000	40000	40000	**200000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	40000	40000	40000	40000	40000	**200000**
Sub-total 1.3						**1450000**

Component 2: Capacity Building to Sustain Programme Intervention						
Output 2.1 Strengthened capacity of climate risk governance structures						
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	15000	15000	10000	10000	10000	**60000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	10000	10000	10000	10000	10000	**50000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	10000	10000	10000	10000	10000	**50000**
Subtotal 2.1						**160000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:						
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	20000	20000	20000	20000	20000	**100000**
Subtotal 2.2						**100000**
Cost for Guinea Bissau Continental	**601000**	**683500**	**563500**	**531000**	**521000**	**2900000**
Guinea Bissau (Bijagos)						
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems						
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	30000	30000	30000	30000	30000	**150000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	20000	20000	20000	20000	20000	**100000**
Improve the management and protection of inland habitats	20000	20000	20000	20000	20000	**100000**
Transformation of non-timber forests products and seafood by women in the Bijagos Islands	40000	40000	40000	40000	40000	**200000**
Subtotal 1.1						**550000**
Output 1.2. Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented						
Establishment of Green Infrastructure to fight against erosion	40000	40000	40000	40000	40000	**200000**
Build-up mechanical works for the recovery of degraded land	40000	40000	40000	40000	40000	**200000**
creation of nurseries to assist biological rehabilitation	20000	20000	20000	20000	20000	**100000**
Sub-total 1.2						**500000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established						
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	40000	40000	40000	40000	40000	**200000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	40000	40000	40000	40000	40000	**200000**
Boreholes pumped by photovoltaic solar energy to ensure water supply and irrigation;	30000	30000	30000	30000	30000	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	40000	40000	40000	40000	40000	**200000**
Sub-total 1.3						**750000**
Component 2: Capacity Building to Sustain Programme Intervention						
Output 2.1 Strengthened capacity of climate risk governance structures						
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	20000	20000	20000	20000	20000	**100000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	25000	25000	25000	25000	11000	**111000**

Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	20000	20000	20000	20000	20000	**100000**
Subtotal 2.1						**311000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management:						
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	20000	20000	20000	20000	20000	**100000**
Subtotal 2.2						**100000**
Cost for Guinea Bissau Bijagos	**445000**	**445000**	**445000**	**445000**	**431000**	**2211000**
Sao Tome and Principe						
Output 1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems						
Adopt more resistant varieties to thermal and water stress and salinization with short growing cycles from seeds to yields	20000	50000	50000	50000	30000	**200000**
Establish a climate-smart irrigation system	20000	50000	50000	50000	30000	**200000**
Promote Half-moon techniques and crop rotations techniques	25000	35000	35000	30000	25000	**150000**
Apply fertilization techniques and mulch cropping, which are organic residues from composting, manure, cold ash or household waste, that covers degraded soil surfaces	25000	35000	35000	30000	25000	**150000**
Improve the management and protection of inland habitats	20000	20000	20000	20000	20000	**100000**
Establish partnerships for a climate information services service to protect plantations from the negative effects of unpredictable weather events on plantations	20000	20000	20000	20000	20000	**100000**
Establish a sustainable mechanism for financing the supply of agricultural inputs (plant material, phytosanitary products, fertilizers) to cooperatives' producers	20000	20000	20000	20000	20000	**100000**
Sub-total 1.1						**1000000**
Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented.						
Establishment of green infrastructure to fight against erosion	25000	35000	35000	30000	25000	**150000**
Build-up mechanical works for the recovery of degraded land	50000	50000	50000	50000	50000	**250000**
Creation of nurseries to assist biological rehabilitation	20000	20000	20000	20000	20000	**100000**
Terracing and contour bunding	20000	20000	20000	20000	20000	**100000**
Check damn and gabion construction in degraded rain-washed gullies	50000	50000	50000	50000	50000	**250000**
Sub-total 1.2						**850000**
Output 1.3: Functional water harvesting and disbursement infrastructure powered with functional hybrid renewable energy plants established						
Water harvest basins and retention dikes designed to collect runoff water and allow producers to adapt to the adverse effects of drought;	40000	40000	40000	40000	40000	**200000**
Storage cisterns and water reservoirs to provide storage capacity and avoid the disruption of activities of the producers in drought seasons;	30000	30000	30000	30000	30000	**150000**
Solar-powered drip irrigation systems, which are micro-irrigation systems that drips water at very low rates to the roots of plants instead of the whole soil surface.	30000	30000	30000	30000	30000	**150000**
Sub-total 1.3						**500000**
Component 2: Capacity Building to Sustain Programme Intervention						
Output 2.1 Strengthened capacity of climate risk governance structures						
Strengthening of capacities of staff Ministries of Environment and Ministries of Agriculture in the 3 countries on climate change adaptation (Capacity building through technological enhancement, Training to enhance institutional capacity)	20000	20000	20000	20000	20000	**100000**
Strengthening of Meteorological Departments and local representation in the 3 countries, including capacity building through technology enhancement and training to enhance institutional capacity.	20000	20000	20000	20000	20000	**100000**
Technical Assistance for improved policy frameworks to mainstream climate risks in into sectoral strategies and policies.	20000	20000	20000	20000	20000	**100000**

Subtotal 2.1						**300000**
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management						
Capacity building to strengthen capacities of women in water management and conflict resolution strategies	20000	20000	20000	20000	20000	**100000**
Subtotal 2.2						**100000**
Cost of Sao Tome and Principe	**495000**	**585000**	**585000**	**570000**	**515000**	**2750000**
Component 3: Institutional capacity building, policy engagement and knowledge management						
Cape Verde, STP and Guinea Bissau						
Output 3.1: Monitoring and evaluation and lessons learned disseminated						
Support for the development of a measurement reporting and verification system for climate response programmes	20000	20000	20000	20000	20000	**100000**
Inception workshop	50000	0	0	0	0	**50000**
Support to improve monitoring & evaluation and knowledge management activities, which will include funds to cover additional baseline surveys (related to climate change adaptation) and terminal surveys (related to climate change adaptation).	10000	25000	25000	20000	20000	**100000**
Sub-total 3.1						**250000**
Output 3.2: Partnerships and coordination strengthened on adaptation between the West Africa SIDS						
Establish strategic partnerships with research institutes and service delivery organizations like Africa rice and ICRAF	25000	25000	0	0	0	**50000**
Project management and coordination, including the recruitment of climate change adaptation specialists for the duration of the project and staff training on adaptation-related issues.	120000	120000	120000	120000	120000	**600000**
As part of the activities to ensure that the project is efficiently monitored, the project will produce a knowledge management plan, knowledge transfer platform, knowledge management products such as newsletters, TV and radio interviews and materials on success stories. These products will be disseminated via online and offline channels	50000	60000	60000	60000	68090	**298090**
Sub-total 3.2						**948090**
Cost of Component 3	**275000**	**250000**	**225000**	**220000**	**228090**	**1198090**
Project Activity cost						**12059090**
Project Execution cost (7%)						**844136**
Direct Project Execution						**541918**
Country Coordinators						**160000**
Finance and Procurement						**75000**
Communications						**50000**
Travels						**50000**
Total project cost						**12903226**
Project cycle management (8.5%)						**1096774**
Direct Project Management						**750000**
Inception Workshop						**39367**
Travels						**130000**
Regional M&E						**120000**
Support to ESMP Monitoring						**50000**
Support to Gender Inclusion Monitoring						**50000**
Amount of Financing Requested						**14000000**

H. Include a disbursement schedule with time-bound milestones

Table 27: Project disbursement schedule

	Upon Agreement signature	One Year after Project Start	Year 2	Year 3	Year 4	Year 5	Total
Scheduled Date	-	2024	2025	2026	2027	2028	**5 years**
Project Activity cost (US$)	1000000	2321000	2998500	2738500	2116000	885090	12059090
Project Execution costs	144136	140000	140000	140000	140000	140000	844136
Implementing Entity Fee (US$)	150000	240000	200000	200000	173364	133410	1096774
Total (US$)	**1403004**	**706474**	**4025000**	**3785000**	**2738364**	**1342158**	**14000000**

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

Record of endorsement on behalf of the government[115] *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project / programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template;*

Mr Victor Manuel do Sacramento Bonfim UNFCCC Focal Point of STP Ministry of Infrastructure and Natural Resources Sao Tome e Principe	Date: 08/08/2022
Mrs Ester Araújo de Brito Executive administrator National Institute for Meteorology and Geophysics (INMG) Cabo Verde	Date: 09/08/2022
Mr Viriato Luís Soares Cassamá National Program of Climate Change Secretariat of State for Environment and Sustainable Development Guinea Bissau	Date: 22/11/2022

República Democrática de S. Tomé e Príncipe

(Unidade – Disciplina – Trabalho)

Ministério das Infraestruturas e Recursos Naturais

Direção Geral do Ambiente

Letter of Endorsement by Government

Sao Tome, August 08, 2022

Ref.: Nº. 01/2022

To: The Adaptation Fund Board

c/o Adaption Fund Board Secretariat

Email: Secretariat @Adaptation- Fund.org

Fax: 202 522 3240/5

Subject: Endorsement for **"West and Central Africa Small Island Developing States ADAPT – Building Resilience of Agricultural Systems to Climate change"**

In my capacity as designated authority for the Adaptation Fund in São Tomé and Príncipe, I confirm that the above regional programme proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the region particularly in São Tomé and Príncipe.

Accordingly, I'm pleased to endorse the above programme proposal with support from the Adaptation Fund. If approved, the programme will be implemented by the International Fund for Agricultural (IFAD) and executed by Ministry of Agriculture, Fisheries and Rural Development (MAPDR). The amount requested for São Tomé and Príncipe is USD 3 500 000.

Sincerely,

Victor Manuel do Sacramento Bonfim

Director of Nature Conservation, Sanitation and the Quality of Environment and National Focal Point for the Adaptation Fund

Largo das Alfândegas –C.P-nº 1030 – São Tomé
Phone number: + 239 990 74 70
Email adress: victorbonfim2@hotmail.com

[6] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

GOVERNO DA GUINÉ-BISSAU

MINISTÉRIO DO AMBIENTE E BIODIVERSIDADE

O Ministro

To : **The Adaptation Fund Board**
c/o Adaptation Fund Board Secretariat
E-mail : Secretariat@Adaptation-Fund.org
Fax : 202 522 3240/5
G-Tower, 24-4 Songdo-dong, Yeonsu-gu
Incheon City, Republic of Korea

Bissau, November 22th, 2022

Subject: **Endorsement for the «West and Central Africa Small Island Developing States ADAPT- Building Resilience of Agricultural Systems to Climate Change»**

In my capacity as Designated Authority for the Adaptation Fund in Guinea-Bissau, I confirm that the above project **«West and Central Africa Small Island Developing States ADAPT- Building Resilience of Agricultural Systems to Climate Change»** is in accordance whit the government's national priorities in implementing adaptation activities to reduce adverse impacts of and risks, posed by climate change in the Guinea-Bissau.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by International Fund for Agricultural and Development (IFAD) and executed by the Ministry of Agriculture and Rural Development (MADR).

Kind regards.

Mr. Viriato Luís Soares Cassamá
GCF Focal Point

REPÚBLICA DA GUINÉ-BISSAU
O MINISTRO
MINISTÉRIO DO AMBIENTE E BIODIVERSIDADE

INMG
INSTITUTO NACIONAL DE METEOROLOGIA E GEOFÍSICA
Gabinete do Presidente do Conselho de Administração

To: The Adaptation Fund Board c/o
Adaptations Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

N.Refª 053/GP.INMG/2022

Sal Island, August 09th 2022

SUBJECT: West and Central Africa Small Island Developing States ADAPT- Building Resilience of Agricultural Systems to Climate Change

In my capacity as designated authority for the Adaptation Fund in Cabo Verde, I confirm that the above West Central Africa Small Island Developing States (SIDS) ADAPT proposal is in accordance with the government´s national priorities in implementing adaptation activities to reduce adverse impacts and risks, posed by climate Change in Cabo Verde.
Accordingly, I am pleasing to endorse the above program proposal with support from the Adaptation Fund. If approved, the program will be implemented by International Fund for Agricultural and Development (IFAD) and executed by the Ministry of Agriculture and Environment.

Yours sincerely,

Ester Araújo de B[illegible]
Executive Administrator

INSTITUTO NACIONAL DE METEOROLOGIA E GEOFÍSICA DIRECÇÃO

Espargos, ilha do Sal, C.P.76 Tel: (+238) 2411 658 / 276, República de Cabo Verde

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this Concept Note has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.
Implementing Entity Coordinator: **Mr Tom Mwangi ANYONGE** Director a.i Environment, Climate, Gender and Social Inclusion Division (ECG)
Date: 5 January 2023 email: ecgmailbox@ifad.org
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ANNEXES

Annex 1: Gender Assessment and Gender Action Plan

Introduction

1. In accordance with the AF's policy, a gender assessment has been conducted for the SIDS Regional Programme dedicated to building resilience of agricultural systems to climate change in the three countries, namely Cape Verde, Guinea Bissau and Sao Tome and Principe (STP). Women are targeted to be 45% of the direct beneficiaries of the programme. The Gender Assessment aims to provide an overview of the gender issues in these above-mentioned countries for informing the design of the regional programme titled "West and Central Africa Small Island Developing States ADAPT - Building resilience of agricultural systems to climate change".

2. The SIDS Regional Programme focuses on three countries that are threatened by accelerated sea-level rise, coastal erosion and diminished freshwater availability for agriculture as a consequence of both climate change and overexploitation of natural resources. According to the IPCC recent report[116] published in 2022, the Small Islands Developing States have reported economic losses and a wide range of damages and increases in sea level rise. This report also pointed out that water availability already has the potential to become a hard limit on adaptation and the impacts of climate-related extremes on food security, nutrition and livelihoods are particularly acute and severe for people living in these islands.

3. Cape Verde[117], Guinea Bissau[118] and Sao Tome and Principe[119] are among the world's least resilient countries to climate change and least ready to leverage investments and convert them into adaptation actions (ND-GAIN vulnerability index ranking). High levels of vulnerability and low adaptive capacity to climate change are linked to factors such as high reliance on natural resources, limited ability to adapt financially and institutionally, low per capita GDP, high poverty rates and lack of safety nets. Furthermore, these countries are experiencing high demographic growth and unemployment, which fuels demand for food products. The COVID-19 pandemic only exacerbated these issues and thus, these countries' vulnerability to climate hazards.

4. Indeed, climate change has greater chance of impacting women and men differently. We have seen that most women lack access to land, livestock, financial capital and mobility that are key in reducing vulnerabilities to climate change impacts. Women are more likely to be over-exposed to climate change risks because of several factors related to cultural norms impacting gender inequality. Women spent long hours cooking, cleaning, collecting fuelwood and water, and growing crops. In Cape Verde for instance, these factors include (1) Disparities in income and productivity; (2) Disparities in access to policy-making and decision-making processes; (3) Limited access to information and capacity-building including activities that may enable them to replace unsustainable practices (e.g sand collection, firewood collection); (4) Non-recognition or underestimation of women's traditional knowledge and practices of their surroundings and natural resources management; and (5) Lack of disaggregated data and related underestimation of women's role and contributions in mitigating and adapting to climate change hazards[120]. Gender inequality is a reality in various areas and significant data gaps exist, including in the agricultural sector in terms of women's access to land and productive resources.

5. Under this backdrop, the main objective of the SIDS Regional Programme is to build climate-resilient agricultural systems in the three SIDS in West and Central Africa by securing water resources for agricultural and domestic usages and rehabilitating degraded lands to increase the climate resilience of agrarian ecosystems and enhance agricultural productivity. The programme is implemented through three components: (i) Implementation of innovative climate resilient agricultural practices; (ii) Capacity building to sustain programme intervention; and (iii) Monitoring, evaluation and learning. The Gender Assessment that is conducted addresses gender inequalities and identifies opportunities that could be seized through the project activities to fill gender gaps in the financing of climate resilient agriculture.

[116] IPCC. 2022. Climate Change 2022: Impacts Adaptation and Vulnerability. Htttps://www.ipcc.ch/report/ar6/wg2/
[117] https://gain-new.crc.nd.edu/country/cape-verde
[118] https://gain-new.crc.nd.edu/country/guinea-bissau
[119] https://gain-new.crc.nd.edu/country/sao-tome-principe
[120] Technical Fiche (Summary), November 2020: Social and Gender Diagnosis in Communities for the project: Strengthening the Adaptation and Resilience of the Forestry Sector in Cape Verde

The Gender Assessment is informed by a literature review from national and international sources. In addition to the Gender Assessment, a Gender Action Plan has been proposed to set the tone on how gender issues resulting from the assessment can be addressed through the implementation of the proposed activities.

Key gender indicators for SIDS countries

6. According to UNDP Human Development Report 2020, Cabo Verde's HDI for 2019 was 0.665, with an increase from 0.569 since 2000. The female HDI value is 0.655 in contrast with 0.672 for males. Guinea-Bissau's HDI value for 2019 was 0.480, putting it in 175th place out of 189 countries and territories121. STP has an overall HDI value of 0.625 compared to the female HDI value of 0.590 and male HDI value of 0.651122.The **Error! Reference source not found.** below summarizes the above-mentioned rates.

7. Furthermore, a Gender Inequality Index (GII), is calculated to reflect gender-based inequalities in three dimensions related to reproductive health (measured by maternal mortality and adolescent birth rates), empowerment (measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender) and economic activity (measured by the labour market participation rate for women and men).The Gender inequality that measures the gender inequalities in three aspects of human development index confirms Cabo Verde's position. STP scored significantly lower, compared to Cabo Verde, while there is no data for Guinea Bissau.

8. In terms of Social Institutions and Gender Index (SIGI), Cape Verde, Guinea Bissau and STP are not ranked in the 2019 SIGI report of the OECD due to missing data for one or more indicators. This OECD Development Centre's Index is a cross-country measure of discrimination against women in social institutions (formal and informal laws, social norms, and practices) across 180 countries.

Table 1: Index on Gender and Human Development

Countries	Human Development Index (HDI)	Gender Inequality Index (GII)	Gender Development Index (GDI)
Cape Verde	0.665 in 2019, 126th out of 189 countries	0.397 in 2019, ranked 89th out of 189 countries	0.974 in 2019
STP	0.625 in 2019, 135th out of 189 countries	0.537 in 2019, ranked 133rd out of 189 countries	0.906 in 2019
Guinea Bissau	0.480 in 2019, 175th out of 189 countries	-	-
		✓ reproductive health ✓ empowerment ✓ economic activity	✓ health ✓ education ✓ command over economic resources

Cape Verde Gender Profile

9. Cape Verde is a lower middle-income country, with a PPP of US$6,377 and a population of 555,987 in 2020.[123] Forty-four per cent of the population is under 20 years of age and 33 per cent lives in rural area. Cape Verde's HDI for 2019 was 0.665, with a female HDI value of 0.655 in contrast with 0.672 for males.[124] In 2020, 13.1 per cent of the population was under the international poverty rate (US$1.90 per day); the rural poverty rate was 24.3 per cent, compared to 8.1 per cent in urban areas. Close to one-third (31.6 per cent) of the population is under the national poverty line, set at US$2.77 per day; the incidence of absolute poverty is higher in rural areas (44.9 per cent) than in

[121] UNDP. 2020. Human Development Report 2020: Guinea-Bissau. United Nations Development Programme
[122] UNDP. 2020. Human Development Report 2020: Sao Tome and Principe. United Nations Development Programme
[123] The World Bank DataBank
[124] Human Development Report 2020: Cabo Verde

urban (25.8 per cent) ones[125]. The live expectancy at birth rate is 73.0 and maternal mortality rate is 58 per 100,000 live births in 2020. The adolescent birth rate (births per 1,000 women ages 15-19) is 73.8 while proportion of births attended by skilled health personnel (%) rate is 92.4. Child marriage, women married by age 18 (% of women ages 20–24 years who are married or in union) rate is 31 while Contraceptive prevalence, any method (% of married or in-union women of reproductive age, 15–49 years) rate is 34.4. The prevalence of female genital mutilation/cutting among girls and women (% of girls and young women ages 15–49) rate is 1.4 and proportion of births attended by skilled health personnel (%) rate is 64.7. The Share of employment in non-agriculture, female (% of total employment in non-agriculture) rate is 41.8 and the share of seats in parliament (% held by women) rate is 29.3. Total unemployment rate (female to male ratio) is 1.34 and the unmet need for family planning (% of married or in-union women of reproductive age, 15–49 years) rate is 18.0. Furthermore, Violence against women ever experienced, intimate partner (% of female population ages 15 and older) rate is 51.1 while Violence against women ever experienced, nonintimate partner (% of female population ages 15 and older) rate is 5.0. Women with account at financial institution or with mobile money-service provider (% of female population ages 15 and older rate is 30.0 and the youth unemployment rate (female to male ratio) is 1.19.

10. The tourism and travel industry in Cape Verde accounts for 25 per cent of GDP and drives around 40 per cent of overall economic performance.[126] This means that Cape Verde was hit especially hard by the COVID-19 pandemic. A major constraint to Cape Verde's sustainable development ambitions is the lack of arable land (only 12 per cent of its territory is arable) and freshwater, leaving the country highly dependent on imports to meet its food needs. Existing domestic production is threatened by declining soil fertility and water availability. In addition to climate change threats, Cape Verde faces challenges due to its mountainous topography and geographic discontinuity as an archipelago. As of 2020, agriculture, forestry, and fisheries contributed 4.9 per cent of GDP.[127] In 2019, agriculture employed around 10 per cent of Cape Verde's workforce.[128] Although gender inequalities are less pronounced in Cape Verde than in STP, Cape Verde's agricultural sector is male dominated. There is a low presence of women in the agricultural sector, 24.1% of female employed in agriculture as compared to 78.9% of men[129]. Agriculture in Cape Verde is predominantly based on subsistence family production, which is mostly rainfed, although irrigated systems exist. Major crops produced in Cape Verde include maize, pulses (e.g. beans, groundnut), vegetables (e.g. carrot, cabbage, lettuce, tomatoes etc.), coconut, sugar cane, coffee and fruit (e.g. banana, citrus, apple etc.). Sugar cane, pineapple, coffee and banana are the main cash crops. The main livestock produced are ruminants (cattle, goat sheep), pig and poultry (chicken, turkey and ducks). Fisheries represent a significant source of foreign exchange and of animal protein for the population. Some 50,000-60,000 tonnes of fish are exported every year. Currently, food insecurity remains a problem: approximately 15.4 per cent of the population was undernourished in 2019.[130] Moreover, according to data from the 2019 IN-VANF, approximately a third of households could not afford safe, nutritious and sufficient food. As a result, 42 per cent of all children under five years of age have anaemia.

11. In Cape Verde, there is a strong political commitment to integrate the issues of gender equality in the country's strategic developments. For Cape Verde, the Government Plan for the 9th Legislative term (2016- 2021) and the Strategic Plan for Sustainable Development (PEDS 2017-2021) as well as the Government Plan explicitly states its political commitment with gender equality and, among the 11 commitments defined for the decade to commit to placing the care of dependents – children, elderly persons and persons with disabilities, traditionally considered as an exclusive social mandate of families, at the centre of social inclusion and family public policies, in order to promote gender equality and the conciliation of work and family life[131].

[125] Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development – Cabo Verde. Available from https://sustainabledevelopment.un.org/content/documents/282392021_VNR_Report_Cabo_Verde.pdf
[126] The World Bank Country Overview Cabo Verde
[127] The World Bank DataBank
[128] Ibid
[129] Cabo Verde – Recenseamento General Agricultura 2015 (RGA). Available at: http://www.fao.org/fileadmin/templates/ess/ess_test_folder/World_Census_Agriculture/Country_info_2010/Reports/Methodology_6/CPV_POR_MET_2015.pdf
[130] Ibid.
[131] https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/CSW/64/National-reviews/Cabo_Verde.pdf

12. According to UN Women, gender roles in Cape Verde continue to deny women full equality, limit their access to and benefit from resources, and restrict their ability to fully contribute to sustainable and equitable growth. For example, the burden of primary responsibilities for household and dependent care, and the lack of access to water, sanitation and transport are key factors limiting women's time for productive labour. Traditionally, women's life is mainly in the domestic sphere and they are not present much in the public sphere[132].

13. Gender sensitive employment policies: the new National Employment Plan (PNE 2018- 2023) focuses especially on youth's and women's employment and has a specific sub-product on youth employment (15-34 years) – the National Action Plan for Youth Employment (PNAEJ). The PNE identifies and documents gender professional segregation as a problem, as well as women's over representation in the informal sector and the PNAEJ has a specific gender section. The Program on Decent and Qualified Work, implemented within the PEDS, aims to reduce unemployment rates by one digit, with priority for the creation of qualified employment for youth (women and men) and women. Considering the importance of Tourism for women's integration in the labour market, ICIEG, in coordination with the General Directorate of Tourism, developed an Action Plan for Gender Mainstreaming in the Tourism Sector (2016-2018)[133].

14. Gender-responsive active employment policies: such as (i) the National Professional Internship Program, managed by the IEFP, targeting young graduates from higher education or professional training (18-35 years of age), looking for their 1st job, so that they have real labour force experience. The program has benefitted hundreds of young people (2/3 with higher education) to improve their personal, social and technical skills, and enter the labour force, especially young women, as 2/3 of the Program's beneficiaries are women (66.8% from 2015 to 2017). Indeed, the unemployment rate among women with higher education is higher than men's (24.7% for women and 16% for men).1 The (ii) promotion of entrepreneurship, also targets women in particular: from 2015 to 2017 the IEFP implemented 3 entrepreneurship programs, in partnership with NGOs and the Agency for Entrepreneurial Development and Innovation (now PRO-Empresa: Business Promotion and Support Institute), one of them specifically targeting young women graduates from professional training - Support to Women's Entrepreneurship, conducting training in entrepreneurship, financing business plans, providing technical assistance and incubation. The other programs benefit both women and men (Local and Regional Employment Initiatives & Business Viability Unit): women represent 64.4% of beneficiaries[134].

15. PRO-Empresa has responsibilities in brokering access to bank credit or microfinances (as access to financial credit is a major constraint for entrepreneurs, especially for women) and follow up and support to business development (after its establishment) and the focus is on youth employment (women and men), but without an age limit in the case of women. PRO-Empresa presently implements the Youth start up program: the program finances 18-35 years old youth that completed higher education or professional training, and at least 40% of financing is destined to women's businesses. Within this program, PRO-Empresa and the Business Incubation Centre (BIC) have launched an innovation challenge for women, where 30 female entrepreneurs work in groups of 3 to convert ideas into business models. The winning project in offered a twelve-week acceleration program and incubation with BIC. This initiative has been conducted in Praia and São Vicente. PROEmpresa also implements the program Development of Micro-entrepreneurship, benefitting men up to 40 years of age and women without an age limit. Lastly, for Long-Term Unemployed persons, in 2015 the IEFP piloted a program for the development of their personal and/or professional skills to enable socio-professional insertion (through the creation of own businesses and/or recruitment), with 83% of female beneficiaries. The pilot phase resulted in 73% beneficiaries inserted in the labour market[135].

16. According to the impact evaluation conducted by the IEFP in 2018 (employment and entrepreneurship programs implemented from 2015 to 2017), over 2/3 of beneficiaries are women (67.9%), however the rate of labour market insertion is higher for men beneficiaries (72.3% versus

[132] Country-gender-profile-Cabo-Verde-en.pdf (unwomen.org)
[133] Ibid
[134] Ibid
[135] Ibid

64.6% for women); in terms of income, there is a substantial increase for all beneficiaries (comparing salaries prior and after participation in one of the programs), nonetheless, on average, men have higher salaries than women at the outset (prior to program) and this gap is maintained after the program, except in the case of entrepreneurship programs, for which some balance is achieved between the income of men and women. In terms of (iii) professional training, in 2015 a total of 162 professional training courses were implemented by the IEFP Employment and Vocational Training Centres and other accredited entities, for a total of 3,178 beneficiaries, 1,778 women (56%) and 1,400 men (44%). Close to 63% of trainings (102 courses) focus on priority development areas for the country (Finance, Tourism, ICT, Agribusiness, creative industries). Additionally, 24 training of trainers' courses were conducted for 451 trainers, 273 women (60.5%) and 178 men (39.5%). The Fund for the Promotion of Employment and Training has financed, since 2014, professional training and micro and small business of young people, the majority women (65% of the 4,551 beneficiaries financed)[136].

17. Transition from informal to formal work: gender mainstreaming in this domain is crucial considering women are the majority of informal sector workers. The establishment in 2014 of the Special Regime for Micro and Small Enterprises - REMPE (Law nº70/VII/2014, published 26 August) provided informal businesses with a specific tax and contribution. Among other benefits: it exempts businesses from the publication of any corporate action, considerably reducing the costs of establishing an enterprise and other acts; as well as from compulsory organized accounts, reducing accountancy costs; provides a simplified model for tax payment which considerably reduces the amount of tax to be payed, though the Unified Special Tax (4% of business volume) which substitutes the Tax on corporate income, the VAT – value added tax (in the normal regime it corresponds to 15% of invoice), the Fire Tax and contributions to social security (corresponds to 16.5% of salary of each worker in the normal regime). As previously mentioned, women are the majority of operators in the informal sector. The beneficiaries of the REMPE regime that are registered at the INPS has increased: from 330 in 2015 to 3,745 in 2016, of which 2,085 are women and 1,660 men.

18. In 2017 ICIEG prepared a gender analysis of the results of the Informal Sector Survey (2015) to inform the National Transition Strategy from Informal to Formal Economy (2017–2020), giving visibility to their characteristics (low levels of education, work in least profitable informal sector activities - retail, are mainly self-employed and when they earn a salary, it is on average 71.5% of the salary of men). An Interinstitutional Group for the Strategic Management of the Transition from Informal to Formal Economy was established, of which ICIEG is a member. To be noted that the first trade union for informal sector workers was established end of 2017 and launched at the end of a seminar on the Transition from Informal to Formal Economy: the National Union of Trade, Services and Domestic Workers is a mechanism for informal sector workers to organize to better participate and defend their labour rights during the process of transition from informal to the formal economy. The President of this Union is a woman. In the case of domestic workers, under the impetus of CSOs, the following can be highlighted: the drafting of a Proposal for the Regulatory Framework of Domestic Work; an analysis of the Labour Situation of Domestic Employees and associated public policies; the establishment of a Domestic Workers' Association. In Cape Verde, domestic work is performed almost exclusively by women and is a professional occupation marked by informality[137].

19. The Agricultural sector employs approximately 18 per cent of the population, of which 25 per cent are women and 0.21 per cent are youth. Soil fertility has been decreasing over time due to water and wind erosion, salt intrusion, weak vegetative cover and continuous use without proper replenishment of nutrients extracted by crops. Invasive species and plagues increase agricultural vulnerability. The sector that resisted the best to the pandemic was agriculture. Droughts and floods associated with climate change will lower household yields and negatively affect food security in Cape Verde. It will also decrease agricultural production for irrigated and rain-fed crops and could lead to the abandonment of agricultural land. According to ILO, in 2019, 64 per cent of the female workforce was employed in agriculture, in contrast to 57 per cent of the male workforce.

[136] Ibid
[137] Ibid

This discrepancy can be attributed to the exodus of young men from rural communities and the role of women in cashew production to processing, which is a major export crop.

20. In political positions, women in Cape Verde are better represented at the national level of government – executive (25%), and legislative (24%)[138] - than at the local level where men dominate as presidents and members of city councils. Among the 22 municipalities (*concelhos*), there is just one woman president of a municipal assembly and one woman president of a municipal council.[139] However, in non-elected local leadership positions such as heads of community associations there are more women than men, indicating the presence of gender-based bias against women in elected positions. Women are also visible and influential in senior management positions of government ministries and agencies and in the media, but they are less represented in the private sector. The proposed Parity Law (*Lei de Paridade*), drafted with collaboration of government and civil society and technical assistance from UN Women, will strongly contribute to greater opportunity for voice and participation by women.

21. The Government of Cape Verde's policy priorities are outlined in the Government Program for the 9th Legislature (*Programa do Governo para a IX Legislativa*) of 2016. Gender issues represent two of eleven commitments for the next decade and the Government Program in addressing social inclusion focuses on the causes of gender inequality. The draft for the forthcoming new national plan called the PEDS (Plano Estratégico para o Desenvolvimento Sustentavél), continues the commitment of prior national plans to the priority of gender equality which is included as one of four goals under the Society pillar.[140]

22. Cape Verde has its third gender plan, the Plano Nacional de Igualdade de Género (PNIG) 2015-2018. The PNIG lists eight strategic areas: health; sexual and reproductive rights; gender-based violence; education and job training; economic autonomy; household labor; political participation and decision-making; and gender integration in public policy. There is also a second national plan against Gender-Based Violence, the Plano Nacional de Combate à Violência Baseada no Género 2015- 18, (PNVBG). The PNVBG focuses on education and social communication efforts to increase awareness on the part of both women and men, as well as support for victims, and it includes specific measures to implement and enforce the country's Law on Gender Based Violence (Lei de VBG).

23. Cape Verde was one of the first countries to ratify the Convention on the Elimination of all Forms of Discrimination against Women, which it signed in December 1980. Cape Verde is also a signatory to other international protocols on women's rights, including those on prevention, suppression and punishment of trafficking in persons, especially women and children, and its laws impose a 2-8 year prison sentence on anyone caught practicing, aiding or abetting prostitution. An Act of 1986 stipulated that, within defined circumstances, the voluntary interruption of pregnancy was no longer a punishable offence. Other gender-relevant laws are the Código da Família (1997), the Código do Trabalho, the Código Eleitoral (1999), and the Estatuto da Criança e do Adolescente (ECA) of 2013. The labor law, the Código do Trabalho, as of 2007 authorizes 60 days of maternity leave.

Guinea Bissau Gender Profile

24. Guinea-Bissau is a low-income country with a GDP per capita of US$1,948 (PPP) and a population of 1.97 million as of 2020[141], which is expected to double by 2050. Much like other parts of the region, its population is very young: 42% of all Guinea Bissauans are under the age of 15.[142] Guinea-Bissau's HDI value for 2019 was 0.480, putting it in 175th place out of 189 countries and territories.[143] Gender inequality is present in all domains and significant data gaps exist, some which are pertinent to agriculture such as women's access to land or unemployment. According to UNDP,

[138] 2016 statistics from INE, 2017
[139] Homens e Mulheres em Cabo Verde 2015, op.cit.
[140] Ministério das Finanças DNP/GMF, 2016, Metodologia de Formulação do Plano Estratégico de Desenvolvimento Sustentável (PEDS) de Cabo Verde – 2017/2021, Setembro.
[141] World Bank Databank
[142] Ibid.
[143] Human Development Report 2020: Guinea-Bissau.

in 2019, 64.4 per cent of the population experienced multidimensional poverty, which relates not only to income, but also health, education, and standard of living.[144] Key inhibitors to Guinea-Bissau's past and future development are political instability, irregular rainfall, and price shocks.

25. Agriculture is the mainstay of Guinea-Bissau's economy, particularly rice for domestic consumption and cashews for export. The sector accounts for approximately 49 per cent of national GDP[145]. Guinea-Bissau cannot currently fulfil its cereal needs: farmers in the country produce 80 per cent and 15 percent of domestic needs of rice and wheat, respectively.[146] Most poor households work or rely on agriculture and over three-quarters of the poor live in rural areas.[147] More specifically, head of households reliant on agriculture are almost twice as likely to live in poverty than households whose heads do not. According to ILO, in 2019, 64 per cent of the female workforce was employed in agriculture, in contrast to 57 per cent of the male workforce. This discrepancy can be attributed to the exodus of young men from rural communities and the role of women in cashew production to processing, which is a major export crop.[148] In 2019, cashew accounted for more than half of Guinea-Bissau's commodity exports, largely due to the rise in gold and frozen fish exports.[149] According to the USDA, in 2020, 25 per cent of people in the country were food insecure.[150] With the pandemic, estimates were revised upwards, with an estimated 26.1 per cent of the population experiencing food insecurity. WFP found that 28 per cent of households in Guinea-Bissau cannot afford a minimum energetic diet and when modelling for a nutritious diet, this number rises to 68 per cent.[151]

26. In Guinea-Bissau, the main government documents guiding the gender agenda are the national gender policy PNIEG (Política Nacional para a Promoção da Igualdade e Equidade de Género 2012–2015) and the poverty strategy DENARP II (Segundo Documento de Estratégia Nactional de Redução da Probreza) which have made clear commitments to gender equality[152]. Awareness about gender issues was systematically raised, for the first time, in DENARP II (2011), the Second Poverty Reduction Strategy, which linked structural gender inequalities to the country's economic development and, shortly afterwards, through the PNIEG (2012/2017), the "National Policy for Gender Equality and Equity" (Politica Nacional da Igualdade e Equidade do Género). The PNIEG, for the first time, takes into account the role of women in different sectors of society and in decision-making spheres. The PNIEG also emphasizes the priority of sustainable development and is the most important roadmap for gender equality and equity in Guinea-Bissau, providing comprehensive analyses and recommendations. The elaboration of the PNIEG supported a propitious environment and political leverage for a series of "gender protection laws", such as the Law against Domestic Violence (2014), the Law against FGM (2011), the Law against Trafficking in Human Beings (2011) as well as the Canchungo Declaration (2014) of Guinea-Bissau women activistsThe National Institute for Women and Children, IMC (Instituto da Mulher e Criança) is the lead agency for government actions to advance gender equality and women's empowerment[153], with oversight and guidance from the Ministry of Women, Family and Social Cohesion.

27. According to the Gender Profile for Guinea Bissau between the Government, the African Development Bank (AfDB) and the UN Women-Bissau, discrimination against women is reflected in social life, economic and political, in terms of access to reproductive and maternal care in particular, domestic violence, genital mutilation and forced marriages, and access to funding[154]. Women face more severe constraints than men in accessing productive resources. These disparities, exacerbated by the context of climate change, relate to access to productive resources, financial capacity to invest, participation in markets and value chains, and a strong presence in low-productivity and weakly remunerative. Young girls are also at greater risk of early/forced marriage to relieve family economic burdens. According to the PNIEG, "Throughout the country, women bear

[144] Ibid.
[145] FAO, 2019, Climate-smart Agriculture in Guinea-Bissau, 2, https://cgspace.cgiar.org/bitstream/handle/10568/106070/CSA%20in%20Guinea%20Bissau.pdf
[146] FAO Country Briefs: Guinea-Bissau
[147] Poverty & Equity Brief: Guinea-Bissau April 2021
[148] Catarino et al., 2015
[149] See: https://oec.world/en/profile/country/gnb
[150] USDA, International Food Security Assessment, 2020-30
[151] WFP, 2021, Guinea-Bissau Country Brief (June).
[152] Guinea-Bissau - Country gender profile.pdf (afdb.org)
[153] **DENARPII, 2011, p.105**
[154] Guinea-Bissau - Country gender profile.pdf (afdb.org)

the responsibility for the care of the household and the family and 89% of their households are in precarious condition, 80% rely on candles for light, 96% cook with wood or charcoal, 91% get their water from sources outside the house, and 65% use latrines in precarious condition. These conditions signify more hours of work for women and more sacrifices by wives and mothers"[155].

28. Although women predominate the agriculture sector in Guinea-Bissau, their activities do not provide them with great financial autonomy[156]. Notwithstanding differences across ethnic groups, they are responsible for the bulk of farming activities, with the exception of land clearance and soil preparation. Women are in general compelled to provide a great deal of labour on fields owned by their husbands. In addition, they manage their own plots and yards and keep small livestock for both home consumption and cash income through sale in *lumos* (local markets). In the current post-conflict situation of widespread poverty, the number of woman-headed households has increased dramatically, while their access to remunerative jobs is limited due to their poor educational status and lack of skills. Women's community-based associations (e.g., horticulture associations, rice production associations, fish trade and processing associations) are relatively common but weak. As such, they deserve strengthening to provide greater bargaining power to their members[157].

29. Gender sensitive employment policies: the second poverty strategy DENARP /PRSP II's fourth core area seeks to develop human capital, improve living standards, and address gender issues in view to reducing gender inequality across the board. In order to reduce inequalities between men and women in all areas, the DENARP II has committed to: (i) combating all forms of discrimination against women; (ii) equitable access to employment and income opportunities, and (iii) improving access to leadership and decision-making positions. Furthermore, the National Policy on Gender Equality and Equity (PNIEG) that is being finalized will be used as the framework for promoting, coordinating, and following up on all actions in this area.

30. Gender-responsive active employment policies: In the economic sphere, the Government of Guinea Bissau, AfDB and UN-Women provided recommendations to strengthen women's roles in the economy and increasing their productivity. These include the creation of a special fund for loans and microcredit for women engaged in agriculture and the management of small businesses; the provision of extension services to cooperatives, associations and small/medium enterprises owned by women; and, finally, the construction of essential infrastructure – rural roads, water supply and sanitation systems, and electrification – to increase the efficiency and productivity of women's labour in the marketplace and at home. On legal rights, the Government of Guinea Bissau, AfDB and UN-Women suggested to move towards the enactment of the new Land Law (Lei da Terra) guaranteeing land rights for women; their communication and dissemination to the public, as well as the enforcement of laws prohibiting domestic violence and female genital mutilation (FGM); and with all of this the eventual extension of legal services accessible to women at the local level. This final component must include the training of police forces and local judicial authorities on the equality of men and women, with the aim of strengthening the rule of civil law with respect to traditional or customary law. Finally, with regard to social/human capital, it was advocated to expand maternal mortality reduction programs; the institution of local adult literacy programs that are accessible and targeted to women, especially in rural areas; and improved access to quality primary and secondary school education in rural areas.

31. According to the AfDB, Guinea Bissau's principal economic activities are agriculture and fishing, in which women farmers are especially disadvantaged since men control decisions over land and resources and allocate these first to their own work. Indeed, cashew represents the main source of labor and income of Bissau-Guinean households, and the main share of national GDP. However, women's roles are concentrated at the low end of the value chain. Fishing is the second leading occupation after agriculture in Guinea-Bissau, especially for women who work cleaning, selling fish and fishing for shellfish. Women work long hours without infrastructure support to make the labor more productive and less onerous, such as roads and transport to take goods to other markets, or cooling machinery for storage, and they are at the bottom of the value chain.

[155] Page 25
[156] **PNIA II, 2017**
[157] IFAD Guinea-Bissau COSOP

32. Agriculture is the mainstay of Guinea-Bissau's economy, particularly rice for domestic consumption and cashews for export. The sector accounts for approximately 49 per cent of national GDP[158]. Guinea-Bissau cannot currently fulfill its cereal needs: farmers in the country produce 80 per cent and 15 percent of domestic needs of rice and wheat, respectively.[159] Most poor households work or rely on agriculture and over three-quarters of the poor live in rural areas.[160]

33. The country's National Adaptation Programme of Action (NAPA, 2006) identified the agricultural sector as the most vulnerable to climate change for a number of reasons. Projected climate change impacts on agriculture include difficulty in plant fecundation (pollen sterilization) and crop growth and low productivity and yields, mainly for cereals. As the staple for the vast majority of the population, this will increase food insecurity and episodes of hunger, which, in turn, contributes to rural exodus, malnutrition and diseases. As for lowland, freshwater and plateau ecosystems, the main projected climate change impact is the lack of water and its negative effects on productivity. In backyard ecosystems, when rainfall and temperatures decrease, water is the limiting factor, as it hinders normal crop growth, translating into loss of productivity and even crop failure. The NAPA also estimates that there has been a 20 to 30 per cent decrease in agricultural production, with one-third of the country's population Bissau being threatened by food insecurity. The shortfall in national cereal production, predominantly rice, is expected to rise to 75,000 tons per year, which would increase the need for imports.

34. In Guinea-Bissau, there are around 16 Ministers including five women who head the Ministries of Defense, Education, Justice, Public Health, and Women, Family and Social Cohesion. There are 15 Secretaries of State one of whom is a woman, the Secretary for Budget and Fiscal Affairs. Women activists in Guinea-Bissau expressed sharp dissatisfaction that the share of women ministers was not closer to 50%, especially after the significant role that women's groups played in ensuring the high voter turnout and in monitoring the polls. 14 women were elected to the new National Assembly, out of 102 seats. Recently, the Justice Minister announced the appointment of a woman as head of the Judicial Police, and two of the nine recently appointed regional governors are women. The President announced in October 2014, the creation of a new position of Assistant to the President for Human Rights and Gender, to which he appointed Indira Cabral, the daughter of Amílcar Cabral. Furthermore, women representation at the sub-national level is less significant than at national level. This is partly due to the fact that decentralization is limited in the country.

35. In Guinea-Bissau, the 4th World Conference on Women in Beijing (1995) Platform for Action called for all governments to create a "national machinery" as the central policy-coordinating unit for the advancement of women. The Institute for Women and Children, IMC (Instituto da Mulher e Criança) is the lead agency for government actions to advance gender equality and women's empowerment, with oversight and guidance from the Ministry of Women, Family and Social Cohesion.

36. The Women's Political Platform, PPM (Plataforma Política das Mulheres) was created in 2008 and has acted since then as the key mechanism for dissemination of information and of advocacy for women's political participation without restriction of political party. The PPM has 11 affiliated member organizations, is a focal point of attention by all political parties, and has been essential to the success of actions on women's rights. Other civil society organizations such as the BissauGuinean League for Human Rights, LGDH (Liga Guineense dos Direitos Humanos) and Tiniguena have strong gender components in their work. There are also business and professional organizations such as the Chamber of Commerce and the Association of Women Jurists, and religious organizations such as National Islamic Council. International organizations such as the UN agencies of the UNIOGBIS Gender Thematic Group and the European Union continued to provide critical support to civil society organizations working on women's issues after the 2012 coup caused the withdrawal of official donors.

[158] FAO, 2019, Climate-smart Agriculture in Guinea-Bissau, 2, https://cgspace.cgiar.org/bitstream/handle/10568/106070/CSA%20in%20Guinea%20Bissau.pdf
[159] FAO Country Briefs: Guinea-Bissau
[160] Poverty & Equity Brief: Guinea-Bissau April 2021

Sao Tome & Principe Gender Profile

37. STP is a lower middle-income country with a GDP per capita of US$4,741.10 (PPP). Furthermore, STP has an overall HDI value of 0.625 compared to the female HDI value of 0.590 and male HDI value of 0.651.[161] In addition, STP is a fairly young country, as around 42% of its population is under the age of 15.[162] According to the most recent household survey, from 2010, about one-third of the population is below the international poverty line and lives on less than US$1.90 per day. When the World Bank poverty line of US$3.20 per day is used, around two-thirds of the population is poor.[163]

38. Agriculture, forestry, and fisheries account for 14 per cent of GDP, with fisheries representing a largest share. The agriculture sector employs 19 per cent of the workforce[164] and is notably dominated by smallholders, as STP privatized formerly state-owned plantations and distributed agricultural leases to the rural population.[165] The main export crop is cocoa, which accounts for 50 per cent of food exports.[166] Other key agriculture products exports are coconut oil and pepper, which roughly each account for one per cent of total food exports. Farmers grow a variety of staple food crops such as plantains, bananas, roots and tubers. Domestic production is not enough to satisfy the country's food needs and thus, STP must import food. The food import bill has gradually increased from US$11.49 million in 2000 to US$45.58 million in 2019.[167] In relation to food security, a recent household survey found that 52 per cent of urban households reported skipping a meal due to lack of resources compared to 43 per cent of rural households.[168] Female headed households and households with lower education levels had the highest share of respondents who skipped a meal.

39. STP has long faced gender equality issues, which are present in agriculture and fisheries too. For example, women in fisheries are largely relegated to the roles of fishmongers, whereas as the majority of artisanal fisher folk are men.[169] Similar trends are found in the agricultural sector as well: in 2019, 24.3 per cent of the male workforce worked in agriculture compared to 8.6 per cent of the female workforce.[170] The services industry has long been dominated by women, whose share in the sector increased from 72.4 per cent in 1991 to 88.2 per cent in 2019.[171] A key service industry sector is tourism, which roughly accounts for 10.4 per cent of GDP. However, this sector has been hit hard by COVID-19 due to lockdowns and travel restrictions. All in all, as a sub-Saharan African country and small developing island state, STP faces the challenges of poverty, hunger, social inequalities, youth unemployment, along with economic constraints related to its geography.

40. In Sao Tome and Principe, gender equality is emphasized in the national Constitution and reiterated across the various laws and legislation. STP is a signatory of all international conventions that promote gender equality and combat discrimination (the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Millennium Development Goals (MDGs), etc.)[172].

41. According to the World Bank, while the difference in poverty levels between female and male headed households is small, the average income for female-headed households is lower than that of male-headed households. Women's participation in decision making at the local levels is marginal. Moreover, there is increasing evidence to indicate that domestic violence rates against women and children are high. Cultural attitudes seem to relegate women to more traditional roles, such as household and child care; while confining their access to economic opportunities primarily to (self) employment in the informal sector.

[161] Human Development Report 2020: Sao Tome and Principe
[162] The World Bank DataBank
[163] The World Bank Country Overview: Sao Tome and Principe
[164] Flavio Soares Da Gama, 2018 African Economic Outlook
[165] Michael Mikulewicz 2020
[166] The Observatory of Economic Complexity
[167] Ibid
[168] National Statistics Institute, COVID-19 Household Monitoring Survey 2020
[169] IFAD, Unlocking the potential of sustainable fisheries and aquaculture in Africa, the Caribbean and the Pacific.
[170] ILO
[171] Ibid
[172] Sao Tome and Principe - Country Gender Assessment (English). Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/122741468777890991/Sao-Tome-and-Principe-Country-Gender-Assessment

42. The major gender concern in STP stems from the social reality of ‘de facto’ unions. These unions leave women and children vulnerable to poverty, exclusion and disease, especially HIV/AIDS. The reality is that men and women have multiple partners. Children born under a ‘de facto’ union stay with the mother and hence, a father may have children born to several women and women may have children from several men. The burden of caring for the children falls disproportionately on women. Moreover, although the law recognizes these unions, the roles and responsibilities of partners are not well defined as in the case with married couples; unwed women are not protected with legal rights such as child support or inheritance rights, which a married woman enjoys. Hence, in the case of separation or death, a woman must start a legal process to claim child support or inheritance; it is a lengthy and costly process where women are not likely to gain much. Moreover, several women may be claiming support and/or inheritance from one man, which also limits their likelihood of receiving benefits. This leads to social disintegration of which children and women are severely disadvantaged. Therefore, it is critical that policies are developed to protect women and children in ‘de facto’ unions, with clearly defined rights and responsibilities.

43. Gender sensitive employment policies: Youth integration into the labour market suffers from the absence of a youth employment policy, especially young women and the lack of an information exchange mechanism between job seekers and employers. AfDB suggested a potential solution would be to increase job opportunities to capitalise on the gains in literacy rates[173]. Providing targeted skills training, improving the flow of information in labour markets and facilitating access to vocational training are also imperative. Policy should be focused on enhancing good governance, improving the business environment, and easing access to credit for microenterprises with a view to creating jobs, in particular for youth entering the market for the first time. The government should also maximise its potential in tourism by investing in infrastructure, which can be an important source of employment. Greater public-private co-operation aimed at linking national youth employment programmes to projected needs for skilled workers in sectors such as those of construction and oil, could ensure that labour demand will be matched with adequate supply.

44. Gender-responsive active employment policies: The government has also created a special programme focusing on gender issues in co-operation with the social protection services and development partners aimed at encouraging girls to remain in school. Training in business management and capacity building programmes were also offered to small farmers in collaboration with the CIAD.

45. In all of the three SIDS, women’s labour force participation rate is high and they contribute to household income. However, women’s work tends to be undervalued as it is perceived as supplementing income of the husband, regardless of actual content of the task or income. Women’s participation in community forests is not as important as men’s. Women are usually poorly represented in legal entities and in the management bodies, in which they rarely have positions of responsibility. Women are not often involved in the management of resources and income, in community micro-projects or other lucrative activities related to community forests. The marketing of firewood and rattan is generally an activity mainly carried out by women and children, even if men are involved to a lesser extent.

46. According to WB, women's access to the labor market is limited in STP. Women constitute the largest segment of the economically inactive population in STP. Among those who are economically active, women are twice less likely to be employed than men; specifically, a quarter of women in the labor force are unemployed compared to ten percent of men. While the economically active female population in STP is on the average younger than its male counterpart, on the whole, men tend to enter the labor force earlier and leave later than women. Lastly, employed women tend to be concentrated in the informal sector, mainly in commerce and services, while men are likely to be employed as public or private sector salaried workers.

47. STP faces significant agricultural challenges under RCP 4.5 and 8.5. Climate change poses risks to all major cultivated crops, especially with current agricultural practices. Major risk factors are precipitation, the prevalence of diseases and pests, and higher temperature. Cocoa in particular

[173] https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Sao%20Tom%c3%a9%20and%20Principe%20Full%20PDF%20Country%20Note_01.pdf

under RCP 4.5 will continue to experience moderate crop risk from 2040-70 relative to the 1971-2000 baseline. The high risk to cocoa is largely limited to the island of Sao Tome, with the island of Principe projected to continue to experience moderate risk. However, under RCP 8.5 cacao crop risk rises significantly on the island of Sao Tome. Importantly the island of Principe is not projected to see any additional crop risk. The major risks to cacao crops in Sao Tome are the projected reduction in precipitation and rise in drought risk.

48. With regard to power and decision making in STP, women have occupied high levels in government, including the posts of Minister of Finance, President of the Supreme Court, and Prime Minister. Despite Law 74/VIII/2009, which stipulates that at least 30% of women should participate in Parliament, the proportion of women in Parliament is only 5%. While there is clear commitment by the authorities towards gender equality, more effort is required to extend opportunities for women's participation in decision making at all levels (central and district). While women were Speaker of the National Parliament in 1991 and 1994, no woman has held this position in the past decade. Moreover, currently around five out of 55 parliamentarians are women, which is below the average for Sub-Saharan African countries. A major barrier for greater female participation in decision-making is the heavy burden of domestic chores borne by women, especially among the economically disadvantaged. This is further exacerbated by socio-cultural preconceptions regarding appropriate social roles for men and women. Hence, while there is a clear commitment towards gender equality at the higher levels of government, more effort is needed to expand opportunities for women's participation in decision-making at the district and local levels that would address the constraints to their participation and raise awareness among the population.

49. The Sao Tome and Principe Women's Organization (OMSTEP) was created to promote the integration of women in all areas of national life by means of awareness-raising campaigns. As a result, various initiatives, such as literacy campaigns, were undertaken with this aim in mind. Significant changes did take place, particularly in the area of legislation, with the adoption of a Political Constitution in which the principle of equality of all citizens without discrimination of any kind was established (successive revisions introduced no changes at this level), and with the passing of Laws 2/77 (Law of the Family) and 6/92 (Law of Individual Working Conditions).

50. Following the Beijing Conference, the Government of STP in partnership with civil society (the latter including men and women representing a range of different points of view) organized the National Women's Forum, where after much discussion and in the light of the Beijing objectives, the 'Sao Tomean Women's Platform of Action' was adopted. Once again, even though the Prime Minister approved this Platform in the form of an internal Resolution in November 1998, it was not implemented. Moreover, based on the decisions of the Beijing Conference regarding the role of NGOs, some national NGOs concerned primarily with women's issues decided to create a Federation called the Sao Tomean Women's Forum. Its purpose was to act as a consultative agency on institutional issues relating to women and, among other initiatives, to contribute to implementation of the National Platform of Action. Yet again, however, a lack of adequately trained staff and of financial resources has prevented this institution from fulfilling its role. In short, the absence of a coherent policy or systematic body of strategies designed to integrate the Gender and Development perspective means that activities intended to encourage the participation of both men and women in the development process continue to evolve haphazardly, and the actual impact of specific interventions remains unknown. The extent and nature of women's participation in decision-making processes has varied, but has not yet reached satisfactory levels. Political discourse on women's integration is very rarely translated into practice. In the process of preparing electoral lists, whether at national level for legislative elections or at local level for municipal elections, the political parties appoint women to few elective positions. Hence, their participation in the National, Regional and Local male office holders.

Project interventions

51. The intervention of this programme will give priority to rural communities that are the most vulnerable to climate change and engage on productive agricultural value chains. The project will target particularly youth hand women characterized by structural vulnerability, weak social

integration and a lack of socioeconomic opportunities; all characterized by a pronounced weakness or absence of productive capital (agricultural land and livestock) and a lack of economic opportunities and jobs.

52. Beneficiaries depend heavily on natural resources and the farm which is sensitive to climate variability and the impacts of climate change. Agriculture is rain-fed and subject to variations in temperature and rainfall. In addition, fishery, livestock, forest resources, in a large part of the target areas, have been subjected to drought, rainfall pause or heavy rains. Climate variability, including unexpected droughts caused by unpredictable changes in precipitation and temperature, can have implications for the impacts, sustainability and return on investment of subprojects including infrastructure projects like rural roads and water supply. However, the project has the potential to integrate climate resilience measures without substantial additional costs through capacity building programs in climate-smart farming strategies and close collaboration with extension and monitoring agencies. Meteorological and climatic in order to regularly receive Agro-climatic information and to use the right cultivars or varieties, adaptation techniques, including the Adaptation Fund. Climate change adaptation interventions will help vulnerable communities, especially young people and women, to moderate this risk and sustainably mitigate the effects of climate change in the area of intervention.

53. In relation to gender and youth, specific targets will be adopted to promote (i) greater access of women and young people to skills and knowledge, (ii) the economic empowerment of women and young people by facilitating their access to assets, resources and factors of production, their participation in income-generating activities and strengthening their control over resources; (iii) activities to improve women's well-being and reduce their workloads (small-scale irrigation systems, provision of ploughing services, processing equipment, multipurpose solar dryers and bioenergy), and (iv) activities strengthening the participation of women and young people and their roles in decision-making in groups and cooperatives

54. The AF project will build upon synergies with the active IFAD portfolio particularly the Rural Socio-Economic Opportunities (POSER) in Cape Verde, Family Farming Diversification, Integrated Markets, Nutrition and Climate Resilience Project (REDE) in Guinea-Bissau and Commercialization, agricultural productivity and nutrition project (COMPRAN) in STP to reinforce its goal of building climate-resilient agricultural systems by securing water resources for agricultural and domestic usages and rehabilitating degraded lands to increase the climate resilience of agrarian ecosystems and enhance agricultural productivity. The project will target at least 45% of Women and 40% of youth on 75,720 direct and 526,800 indirect beneficiaries.

55. The project will develop a partnership with IFAD supported projects POSER, REDE and COMPRAN which seek to: (i) support women and young people in providing permanent access to water for hydro-agricultural works; (ii) increase their adoption of climate-resilient varieties tolerant to the major climatic risks; (iii) restore agricultural soil fertility through climate-smart water and soil conservation and anti-salt control practices and infrastructures and (iv) foster the sharing of good practices and developing learning and exchange platforms on climate-smart agriculture and climate-resilient fish farming among the three SIDS. To facilitate women and young people's access to various services, the project will promote gender and youth-sensitive technologies and practices. Given that women are performing the majority of unpaid work, priority will be given to accessible and affordable sustainable management techniques of agricultural practices that can contribute to reduce significantly the unpaid labor. Furthermore, given that women active in fish processing are large consumers of fuelwood, particularly the one from mangrove, a special attention should be given to women in playing a critical role to adopt sustainable management practices. A gender lens will be applied while developing and implementing training modules in order to raise women's awareness and build their capacities to adopt a more sustainable approach for the management of mangrove forest resources. To better address the needs of targeted youth and women, project will support the implementation of the gender strategy and youth strategy development under POSER, REDE and COMPRAN.

56. The implementation of the gender strategy will consist of : (i) expanding women's economic empowerment through access to and control over household and productive assets, in particular

land; (ii) strengthening women's decision-making role in the community and their representation and leadership in local institutions; (iii) functional literacy, numeracy and business skills training; (iv) gender awareness and women empowerment measures, including GALS training; (v) capacity building of project staff and technical service providers on gender-sensitive enterprise development and social inclusion; and (vi) minimum quotas (at least 45 per cent) to ensure women's active participation in all decision-making bodies and producers organizations and cooperatives.

57. With regard to the youth approach, the focus will be on i) awareness raising and organization of youth groups and eco business; (ii) strengthening of leaders of youth groups; (iii) capacity building of project staff and technical service providers on youth-sensitive activities; and (v) minimum quotas (at least 40 per cent) to ensure the active participation of youth in all decision-making bodies, producers organizations and cooperatives.

58. A large part of the gender gap can be attributed to differential access to male family labour in Cape Verde, Guinea-Bissau and STP. Equalizing the access to male family labour would reduce the estimated gender gap. This could potentially be linked to a number of other factors including the segregation of tasks, rural women's limited voice and agency, their lack of access to finance to hire male labour and invest in machinery, and limited time-saving infrastructure. One key reason that women farm managers have less access to male family labour is that, a significant number of them are widowed, separated, or divorced. Women farmers are less likely to grow cash or export crops that men sell to the market for higher incomes

Proposed Gender Action Plan

Objective/Impact: build climate-resilient agricultural systems in the three SIDS in West and Central Africa by securing water resources for agricultural and domestic usages and rehabilitating degraded lands to increase the climate resilience of agrarian ecosystems and enhance agricultural productivity in Cape Verde, Guinea-Bissau and STP **Outcome:** reduce exposure to climate-related hazards and threat, reduce risks associated with climate-induced socioeconomic and environmental losses, strengthen awareness and ownership of adaptation and climate risk reduction processes at local level through awareness and sensitization events and increase the adaptive capacity within relevant development sector services and infrastructure assets of youth and women living in the most vulnerable areas to climate change in the three SIDS.				
Activity	**Indicator and target**	**Timeline**	**Responsibility**	**Cost (USD)**
Output 1.1: Best available practices and technologies and integrated climate resilient farming systems are implemented to foster the resilience of production and post-harvest practices				
1.1.1. Adoption of best available practices and technologies and integrated climate resilient farming systems	• Number of women implementing best agricultural adaptation practices and technologies	Y1- Y5		
Output 1.2: Watersheds are rehabilitated in order to produce intelligent landscapes in the face of climate change and support watershed and farm practices must be implemented				
1.2.1. Extension and infrastructure rehabilitation and construction of watersheds including drainage systems	• Number of Women benefiting from rehabilitated infrastructure and constructed watershed	Y1- Y5	PMU	
Output 1.3: Functional water harvesting, and disbursement infrastructure powered with functional hybrid renewable energy plants established				
1.3.2. Installation of hybrid renewable energy powered	45% of women and 40% of youth are beneficiaries	Y2- Y4	PMU	

water harvesting and disbursement infrastructure	of a hybrid water collection and distribution infrastructure powered by renewable energy.			
1.3.3. Capacity building for water management and maintenance of infrastructure will complement the construction and rehabilitation	At least 45% of women and 40% of youth participate to Capacity building for water management and maintenance of infrastructure	Y1- Y4	PMU	
Output 2.1: Strengthened capacity of climate risk governance structures				
2.1.1. Strengthen the technical capacities on climate risk management and coordination	• 45% of women and 40% of youth participate to Capacity building on the technical capacities on climate risk management and coordination • level of satisfaction with the training received on the Capacity building on the technical capacities on climate risk management	Y2- Y4	PMU	
2.1.2. Development of tools and instruments adapted to climate risks in planning and programming in the agriculture, fisheries and water sectors as well as in budgeting and investments.	• Number of tools and instruments adapted to climate risks that are developed in agriculture, fisheries and water sector planning and programming as well as in budgeting and investments • Level of knowledge and application of tools and instruments adapted to climate risks that are developed in agriculture, fisheries and water sector planning and programming as well as in budgeting and investments	Y2- Y4	PMU	
Output 2.2. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management				
2.2.1. Strengthened organizational capacities of communities' including women in irrigation infrastructure and resource conflict management	• Number of Women User Associations (WUAs) supported by the program to maintain infrastructure and adopt new climate-resilient practices and technologies. • At least 50% of beneficiaries are women for trainings on sustainable management	Y1- Y4	PMU	

	practices and farm and landscape maintenance.			
2.2.2. Trainings sessions for farmers and fishermen at the community level on sustainable management techniques of agricultural practices	• At least 50% of women beneficiaries are trained on a more sustainable approach to mangrove forest resource management • Number of women trained on women's leadership in the more sustainable management of natural resources • Number of women trained in financial literacy. • 50% of women participate in consultations to increase their participation in decision-making processes for the management and maintenance of infrastructure	Y1- Y4	PMU	
Output 3.2: Partnerships and coordination strengthened on adaptation between the West Africa SIDS.				
Project management and coordination, including the recruitment of climate change adaptation specialists for the duration of the project and staff training on adaptation-related issues.	• 50% of women participate to the adaptation related issues	Y1-Y5		
Output 4.2: Monitoring and Evaluation (M&E) system established and operational				
4.2.2: Collection of gender disaggregated data for reporting on project performance indicators	• Number of reports displaying gender disaggregated data	Y1-Y5	PMU/Consultants	
Production of knowledge management plan, knowledge transfer platform, knowledge management products such as newsletters, TV and radio interviews and materials on success stories.	• Number of communication materials and awareness raising campaigns reviewed by the program´s gender specialist			

Annex 2: ESMF

Chapter 1: Overview/Background on Intended Project/Programme

1.1 Title of the project/programme: West and Central Africa Small Island Developing States ADAPT-Building Resilience of Agricultural Systems to Climate

Countries/regions/territories where activities will occur: The project will work in Cabo Verde, Sao Tome e Principe, and Guinea-Bissau. More specifically, in Cabo Verde, activities will take place on the Island of Santiago, Brava, Fogo, Maio, Santo Antão, São Nicolau, and São Vicente. For STP, districts targeted are Me-Zochi, Lobata, Contragalo, Caue, Lemba, and Island of Principe. Lastly, In Guinea-Bissau, the intervention will be targeted in Gabú, Cacheu, Bafatá, and Oio.

1.2 Name of the executing entity (with the name, position title, and contact information of the main project personnel responsible for future assessment and implementation of proposed sub-projects)

In each country, the executing entity will be the Project Management Unit (PMU) of the Ministry of Environment (MoE) in close collaboration with the Ministry of Agriculture (MoA) and other line ministries. Each PMU will include a national coordinator, administrative/financial assistant, and monitoring and evaluation assistant. In addition, there will be four monitoring committees: The National Steering Committee (NSC), Technical Committee, Regional Steering Committee (RSC), and Regional Advisory Committee. The PMU staff will be recruited competitively at the national level, in compliance with IFAD's procurement procedures, and per the AF Gender Policy.

1.3 Summary of the project/programme. Summarize project components, including typology of the future activities, sub-projects, policies, and/or regulations to be supported by the project.

The programme will promote climate-resilient system that combines the absorptive, adaptive and transformative capacities of social-ecological systems of Cape Verde, Guinea-Bissau and STP. The programme will support agrarian systems to recover from climatic shocks and stresses, while positively withstanding against the effects of climate change. The following three mutually reinforcing components (i) implementation of climate-resilient agricultural practices; (ii) capacity building to sustain project interventions; (iii) monitoring-evaluation and learning. 62. Throughout the planning and implementation of each activity within the components, there will be regular sharing of information and experiences with the different stakeholders that are involved in climate resilience in agriculture in Cape Verde, Guinea-Bissau and STP. This will ensure that lessons are learned as the programme progresses and that each country builds of the experiences and knowledge of each other. Importantly certain sub-activities will only take place certain countries such as pilot desalination or half-moon (for country breakdown of activities revert to Part II Section A in Full Proposal)

Chapter 2: Environmental, Social, and Climate Risks and Impacts

Checklist of environmental and social principles	Risk	Potential impacts and risks – further assessment and management are required for compliance
Compliance with the Law	No Risk	All issues relating to compliance with the law have been checked. It is noted that the project activities are in line with national regulations and laws. All sub-projects that are unidentified at this stage will be screened to examine if they require additional EIAs or ESMFs to address risk along with any pertinent regulatory approval or license.

Access and Equity	Low Risk	Some of the regional project activities like renewable energy infrastructures and equipment, anti-land degradation works, irrigation systems as well as capacity building activities may exacerbate social inequities. To address some of these outcomes and in line with IFAD's targets, the following targets will be utilized when selecting beneficiaries. In addition, to these targets, wider selection criteria will be created to ensure a more fair and equitable distribution of project benefits. The selection criteria will consider practicality and feasibility, exclusion from other previous development initiatives, existing dormant projects with the potential to be revived, and potential synergies with other current development initiatives. The selection of project sites and communities will involve participatory consultations with local stakeholders in each target region of each county.
Marginalized and Vulnerable Groups	Low Risk	There is a risk that vulnerable and marginalized groups will be excluded during the implementation of project activities and have insufficient access to the associated benefits. The project's target groups are poor smallholder farmers that are the most vulnerable to climate change in each target region of STP, Guinea-Bissau, and Cabo Verde. Through IFAD's targeting and community consultation the most vulnerable groups, women and youth will be included. In STP, particular attention will be placed on adolescent girls given high child marriage and consequent early pregnancies. In Guinea-Bissau, women with HIV will be given special attention as 72% of those with HIV-1 and/or HIV-2 are women. In addition, to avoid potential conflict due to the prioritization of women and youth, particularly women, the project will also carry sensitization workshops as part of consultations with local communities.
Human Rights	Moderate Risk	There is a potential risk of child labour in Guinea Bissau. According to a national child labour survey, more than 169,200 children aged 5 to 17 work, and 85 percent of children work in agriculture[174]. The project will not engage in any forms of child labour activities. To ensure this the following mitigation measures will take awareness raising about the issue of child labour through training conducted to build the capacity of relevant stakeholders, including project beneficiaries and implementing partners, on child labour issues and respect for labour legislation and ILO international conventions. In addition, monitoring of incidence will be reported to ensure, targeted responses to avoid future use of child labour.
Gender Equity and Women's Empowerment	Moderate Risk	The project activities may increase the exclusion of some social groups like women, youth, and other groups if no mitigation measure is implemented. Women and youth do not have equal participation levels and receive proportional social and economic benefits to men and adults. Thus activities are designed and implemented in such a way that both men and women have equal opportunities to participate in consultation, training, and awareness activities; receive comparable social and economic benefits.

[174] 2018. Child Labor and Forced Labor Reports: Guinea-Bissau. United States of America Department of Labor

Core Labour Rights	Moderate Risk	The risk is limited to Guinea-Bissau due to the prevalence of child labour. As mentioned previously, they will be mitigated through awareness raising and monitoring.
Indigenous Peoples	No Risk	There are no indigenous peoples present in the project implementation areas in the three countries.
Involuntary Resettlement	No risk	No resettlement will take place as part of any of the project activities.
Protection of Natural Habitats	Low Risk	The regional programme is not planned to be implemented legally protected or in areas proposed for protection. However, in Guinea Bissau, project infrastructures like dikes, and the irrigation system may bring adverse changes to the mangrove ecosystems. All activities will be screened to ensure activities do not disturb natural habitats. More particularly proposed infrastructure in mangrove areas or near protected areas will require an ESIA to further identify and assess potential environmental and social impacts of the activities. In addition, activities such as precision fertilizer and manure application will help reduce issues of runoff that may disturb natural habitats and worsen issues of erosion.
Conservation of Biological Diversity	Moderate Risk	The regional initiative may lead to a reduction or loss of biological diversity due to its agricultural-related activities. It may also foster the introduction of invasive species, although the programme will ensure all measures are taken to prevent this. Similarly, a more precise application will limit the negative impacts of agriculture on surrounding areas.
Climate Change	Low Risk	The objective of the project is to build the resilience of farming and fishing systems to climate change in STP, Guinea Bissau, and Cape Verde. The practices will include i) integration of renewable energy water mobilization, thus contributing to reducing GHG emissions, ii) increasing farms' soil fertility and productivity, and iii) restoring degraded lands. Those planned activities, especially restoration will capture CO2 and capture a surplus of greenhouse gases.
Pollution Prevention and Resource Efficiency	High Risk	The deployment of desalinisation technology for agriculture poses an issue of waste disposal of brine. All disposal processes have environmental and social impacts depending on the area disposed of and varying cost levels. The most likely disposable method of open-sea discharge, depending on volume, will disrupt aquatic life in that area and therefore livelihoods of fishers in that area[175]. To mitigate this risk a sub-project ESMF has been created to ensure that wherever the pilot plant is located the risk associated with brine can be managed to reduce negative environmental and social impact. The use of wastewater will help reduce the stress of wastewater treatment and as well as conserve groundwater and above-ground water supplies. However, without proper sanitary procedures wastewater can also cause people to get sick. The programme will contribute to reducing pollution in soil and water, through practices that reduce sedimentation and soil erosion, and the expected shift from agrichemicals to biological inputs, especially with the use of reclaimed water and

[175] Argyris Panagopoulos, Katherine-Joanne Haralambous, Maria Loizidou. 2019. Desalination brine disposal methods and treatment technologies - A review, Science of The Total Environment. Volume 693, 133545. ISSN 0048-9697.

		biodigesters, through the irrigation system that will minimize the use of water, the use of inorganic amendments may trigger pollution of soils and water resources.
Public Health	Moderate Risk	There are some limited risks associated with water storage activities and anti-salt dikes. Open water storage systems, pose public health risks if they overflow and provide habitat for mosquitos in the short term. During long periods of rain, dikes can also prevent runoff from leaving an area and if water stands for some time it may increase the prevalence of water and vector-borne diseases. The use of wastewater in agriculture could also lead to long-term health risks could if wastewater is not carefully monitored and handled properly. If managed use of wastewater properly can reduce those risks and more importantly reduce the freshwater withdrawals. To mitigate these risks, water storage activities should limit open-water storage and promote covered storage to prevent mosquitos from laying eggs. Anti-salt dikes and other salt-intrusion barriers should be built with local hydrology and nearby communities in mind.
Physical and Cultural Heritage	No risk	No physical or cultural heritage sites are located in the targeted project regions.
Lands and Soil Conservation	Low Risk	The SIDS regional programme is proposed to conserve land and soil through the implementation of measures to combat land degradation and soil fertility loss. However, some infrastructures and anti-land degradation work construction like boreholes, dikes, retention basins, and land management works may affect lands and soils. Thus, further analysis of the impacts of these activities on soils and lands will be carried out during the project implementation phase as sited are being determined.

Principle 1: Compliance with the law.

Screening result: **Low risk**

Explanation: All issues relating to compliance with the law have been checked. It is noted that the project activities are in line with national regulations and laws. A screening process will allow to identify potential social risks to be addressed if required through additional ESIAs or ESCMPs. Also, there are concerns with child labour in the case of Guinea-Bissau. The project will not utilize or allow any use of child labour as set forward by the law. Mitigation measures will be explained in Human Rights and Core Labour Rights sections.

Principle 2: Access and equity

Screening result: **Moderate risk**

Some of the regional project activities like renewable energy infrastructures and equipment, anti-land degradation works, irrigation systems as well as capacity building activities may exacerbate social inequities.

To address some of these outcomes and in line with IFAD's targets, the following targets will be utilized when selecting beneficiaries: . In addition, to these targets, wider selection criteria will be created to ensure a more fair and equitable distribution of project benefits. The selection criteria will consider practicality and feasibility, exclusion from other previous development initiatives, existing dormant projects with the potential to be revived, and potential synergies with other current development initiatives. The selection of project sites and communities will involve participatory consultations with local stakeholders in each target region of each county.

Moreover, communities and beneficiaries will be comprehensively sensitized to enhance the priorities of the most vulnerable groups while ensuring their participation in decision-making and equal access to the project benefits. IFAD in accordance with its practices, makes available to all direct and indirect beneficiaries of the project a grievance mechanism that will inform about conflict situations and will ensure access and equity.

Principle 3: Marginalized and vulnerable groups

Screening result: **Low Risk**

There is a risk that vulnerable and marginalized groups will be excluded during the implementation of project activities and have insufficient access to the associated benefits. Similar to risks with Principle 2, the project will also give particular attention to following marginalised and vulnerable groups.

In STP, particular attention will be give to adolescent girls, given high incidences of child marriage and consequent early pregnancies. In Guinea-Bissau, women with HIV will be given special attention as 72% of those with HIV-1 and/or HIV-2 are women. The project will ensure that women with HIV are included as part of the general targeting of women.

Project activities would probably exclude these marginalized/vulnerable groups, thus preventing them from accessing benefits – both in terms of resources and capacity building. The project will ensure that those with HIV and other disabilities are not excluded from activities, particularly women with AIDs given their disproportionate share of those with AIDs. The project will ensure that adolescent girls will be incorporated as part of both youth and female targets.

With these mitigation measures, the inclusion of these groups may likely lead to conflict in communities. Consequently, the project will carry out sensitisation workshops as part of consultations with local communities to mitigate the potential for conflict and support broader efforts of including marginalized groups in society and the economy.

Principle 4: Human rights

Screening result: **Moderate Risk**

The proposed project respects and adheres to all relevant conventions on human rights, and national and local laws, and both countries are also part of various human rights treaties. As mentioned earlier, there are concerns about child labour, namely in Guinea-Bissau. According to a national child labour survey, more than 169,200 children aged 5 to 17 work, and 85 percent of children work in agriculture[176]. The project will not engage in any form of child labour as defined by national laws and international standards.

To mitigate the chance of child labour, and promote adherence in project areas, child labour will be part of initial consultations and sensitization workshops. The project will support awareness raising activities either with partners in the project area or independently. Child labour concerns will be raised in capacity building actitivties with project beneficiaries and implementing partners. In addition, monitoring of child labour incidences will inform targeted responses.

[176] 2018. Child Labor and Forced Labor Reports: Guinea Bissau, United States Department of Labor. Available from https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2018/Guinea-Bissau.pdf

Principle 5: Gender equality and women's empowerment

Screening result: **Moderate Risk**

The project activities may increase the exclusion of some social groups like women, youth, and other groups if no mitigation measure are implemented. All three countries face gender inequities, albeit to varying levels and impacts. According to the CPIA gender equality index (1: low and 6: high), Guinea-Bissau is the least equal with a score of 2, followed by STP with a score of 3, and Cabo Verde with a score of 4[177]. Despite the variance in gender indicators, the women in all three countries face significant inequities that inhibit their participation in society.

From the pre-concept note, the project has ensured the inclusion of gender equality and women empowerment issues with activities sensitive to gender equality particularly equal rights, responsibilities, opportunities, and access of women and youth to resources allocated to improve their resilience to the current and future climate change effects. All consultative and participatory processes strived to include representation of women and analyze relevant gender-disaggregated data.

Thus activities are designed and implemented to ensure that both men and women have equal opportunities to participate in consultation, training, and awareness activities; receive comparable social and economic benefits. The project's gender targeting will help ensure women receive equitable social and economic benefits. Furthermore, through sensitization workshops, concerns of conflict can be mitigated and raise greater awareness of gender equality and women's empowerment.

Principle 6: Core labour rights

Screening result: **Moderate risk**

Labour rights risks are limited to the use of child labour in Guinea-Bissau. As outlined in Principle 4, mitigation measures will be undertaken to ensure core labour rights in accordance with national and international laws and conventions. Beyond the issue of child labour, the project activities will adhere to respective national laws as well as international conventions.

Principle 7: Indigenous people

Screening result: **No Risk**

There are no indigenous peoples present in the project implementation areas in the three countries.

Principle 8: Involuntary resettlement

Screening result: **No risk**

No resettlement is expected to take place as part of any of the project activities.

Principle 9: Protection of Natural Habitats

Screening result: **Low risk**

The regional programme is not planned to be implemented in protected or in areas proposed for protection. While specific project sites have been not been determined at this stage, there are general risks associated with project activities.

In all three countries, there are risks that project activities, particularly irrigation, water storage, and anti-salt infrastructure, may impact neighboring ecosystems by altering hydrology. For example, the diversion of water flows to support agriculture can impact the water availability of neighboring habitats. In Guinea-

[177] 2020. The World Bank Data: CPIA gender equality rating (1=low to 6=high) - Cabo Verde, Sao Tome and Principe, Guinea-Bissau

Bissau, there are concerns that those activities may also impact mangroves ecosystems that are critical from climate mitigation and adaptation point. Across the region, there are risks that overapplication of inputs can lead to an increase in agricultural runoff and harm aquatic ecosystems that support fisherfolk livelihoods.

Desalination waste management will pose significant risks as most methods have significant risks to the environment. Open-sea discharge is the most common and applicable for SIDS given their lack of space for other methods. Unfortunately, open-sea discharge has high environmental and social impacts. Due to brine being heavier than seawater, it sinks to the seafloor[178]. In turn, altering the seafloor ecosystem due to higher salts level reduces dissolved oxygen. Depending on the amount of waste and concentration in a single area, it can lead to a decline of certain fish stocks hurting fisheries and local communities dependent on them[179].

Some of these risks will be offset or mitigated by sub-activities such as those that provide training on the application of inputs, thereby reducing the chances of runoff. In addition, under component 1, the project will also work to rehabilitate watersheds.

Principle 10: Conservation of biological diversity

Screening result: **Moderate risk**

The main concern with biological diversity is the introduction of an invasive species which may disrupt local flora and fauna. Given the project's aquaculture and farming activities, the risks are both for aquatic and terrestrial biodiversity.

The promotion of aquaculture in all three countries will increase the risks of introducing either tilapia or catfish into nearby waterways. If introduced, it could have a detrimental impact on freshwater ecosystems and even more brackish ecosystems. The risks will be the highest in Guinea-Bissau given its geography. However, risks remain for STP and to a lesser extent Cabo Verde due to its limited above-ground freshwater resources. Therefore, all aquaculture training activities will emphasize the importance of preventing introduction into nearby waterways through secure transportation of fingerlings and intentional introduction.

The main terrestrial risks is the introduction of non-native varieties. While non-native species may help adapt to climate change and projected changes, but if uncontrolled it could significantly displace native vegetation and impact fauna. Therefore the project will refrain from using non-native species with a preference for indigenous species that are available in regional seed banks and nurseries. And if non-native varieties are to be introduced studies will be conducted to determine risks and if necessary corresponding ESCMP to mitigate those risks.

The implementation of boreholes, water harvesting, and storage infrastructure can result in the destabilization of vegetation and wildlife habitats in implantation sites. To mitigate the impact, areas with sensitive habitats and ecosystems will be screened for and require site-specific ESIA and potentially ESMCP.

To mitigate the risks mentioned above, follow-up and monitoring of the implementation of activities related to the protection and management of ecosystems will be undertaken. Promotion of awareness sessions, capacity building and exchange visits to strengthen the efficient management of natural resources, including aquatic species and animals will also be undertaken.

Principle 11: Climate change

Screening result: **No risk**

[178] Argyris Panagopoulos, Katherine-Joanne Haralambous, Maria Loizidou, 2019. Desalination brine disposal methods and treatment technologies - A review, Science of The Total Environment, Volume 693, 133545, ISSN 0048-9697,
[179] Argyris et al. 2019

The objective of the project is to build the resilience of farming and fishing systems to climate change in STP, Guinea Bissau, and Cape Verde. The practices will include i) integration of renewable energy water mobilization, thus contributing to reducing GHG emissions, ii) increasing farms' soil fertility and productivity, and iii) restoring degraded lands. Those planned activities, especially restoration will capture CO2 and capture a surplus of greenhouse gases.

Principle 12: Pollution prevention and resource efficiency

Screening result: **Low Risk**

The project is grounded in improving resource efficiency, especially water efficiency, and reducing synthetic inputs, such as fertilizers with manure and compost. The promotion of drip irrigation and training on the proper application of inputs (fertilizer, pesticides, manure, compost, and so forth) will mitigate the risks of agricultural runoff polluting nearby and downstream aquatic ecosystems. Furthermore, the promotion of composting, biodigesters, and wastewater will also help address waste management capacity issues in rural areas. Wastewater will also help reduce stress on groundwater and above-ground water resources. The project's main pollution risks stem from desalinisation and aquaculture waste.

Desalinisation waste in particular has the potential to negatively impact ecosystems. Disposal methods, largely due to cost and feasibility, will vary but all will require a waste management plan to reduce the impact of waste. That being said, desalinisation risks will be almost entirely mitigated with a proper management plan given the small size of the pilot plant.

On the other hand, aquaculture waste can harm the environment if it is untreated and dumped. Aquaculture waste, much like manure, has been shown to help enrich soils. Therefore projects will encourage the use of aquaculture waste as a fertilizer and thereby reduce the need for off-farm inputs.

Principle 13: Public Health.

Screening result: **Low risk**

There are some limited risks associated with water storage activities and anti-salt dikes. Open water storage systems, pose public health risks if they overflow and provide habitat for mosquitos in the short term. During long periods of rain, dikes can also prevent runoff from leaving an area and if water stands for some time it may increase the prevalence of water and vector-borne diseases. To mitigate these risks water storage facilities should be planned with consideration for project weather plans to prevent overflowing as well as covered to prevent the spread of water and vector-borne diseases. Anti-salt dikes and other salt-intrusion barriers will be built in consideration of local hydrology.

The use of wastewater in agriculture, while supporting resource efficiency and reducing strain on freshwater supplies, can lead to long-term health risks if wastewater is not carefully monitored and handled properly. Irrespective of the source all wastewater activities will require a site-specific ESCMP or utilize the ESCMP in Ch. 5.

Given the prevalence of HIV/AIDS in the project areas, it is planned to prevent and control the spread and occurrence of it among the project populous and local communities mainly the most vulnerable groups (women, youth, and people living with disabilities) by organizing sensitization sessions and limiting non-local labour for all project related construction.

Principle 14: Physical and cultural heritage

Screening result: **No Risk**

No physical or cultural heritage sites are located in the targeted project regions.

Principle 15: Land and soil conservation

Screening result: **Low risk**

Explanation: One of the main objectives is to promote the conservation of soil and land resources. This is evidenced by the adoption and promotion of agricultural resilient practices, especially through the improvement of soil management, cropping practices, use of a range of resilient crops and seeds. These activities are projected to reduce issues of erosion found in all three countries.

However, some infrastructures and anti-land degradation work construction like boreholes, dikes, retention basins, and land management works may affect lands and soils. Site-specific management plans will be developed to mitigate any risks.

Chapter 3: Project Administrative Structure, Management, and Implementation

3.1 *Legal and institutional framework for the project.*

3.1.1 STP

Framework Law on the Environment (Law no. 10/99): The Basic Law on Environment defines the basis for national environmental policy, adopting in the internal legal system the principles established in most international instruments such as sustainable development.
Water Resources Legal Framework (Law No. 07/2018): This Law aims at managing and protecting inland water resources of public domain, whether superficial, transitional, coastal or groundwater waters.
Forestry Law (Law No. 5/2001): The law provides a classification of forest according to protection requirements, production, and forest use. Moreover, it institutes a national Forestry plan and a special fund. Finally, it regulates control measures and defines applicable penalties
Legal System for Individual Employment Terms (Law no. 6/92): This law defines the legal regime of individual working conditions, which is adapted to the new economic and social order of the country.
Regulation of the distribution of State agricultural lands (Decree-Law No. 51/91): This Decree-Law establishes land concession requirements in order to develop and improve the agricultural sector.
Land Management Act - Law on the Management of State Land Property (Law no. 3/91): This Law defines the framework regime for government-owned law ownership, identifying public and private property of the state. Also, it defines the basis for private use lands under the public regime, especially for distribution for investment purposes.
Requirements for coastal sand extraction (Decree No. 35/99): This Decree establishes the conditions in order to perform the aforementioned activity within coastal and inland river areas. It concerns licensing, beach selection, environmental impact assessment, sanctions to be paid for illegal activity, etc.
Law on the Preservation of Fauna, Flora, and Protected Areas (Law no.11/99): This Law provides basic legislation for flora and fauna conservation and protected areas with the aim of protecting biological diversity and promoting, at the same time, its social and economic sustainable use. In particular, the Law allocates areas of the national territory to the preservation of habitats and biodiversity (NBSAP). This law disregarded the marine environment in what is concerning the establishment of marine protected areas (MPAs).
Legal regime of environmental impact assessment (Decree Law no. 37/99): This Law defines the rules and principles establishing the requirements to be satisfied in order to authorize activities that could damage the environment (to be authorized by an EIA license).
São Tomé e Príncipe Nationally Determined Contributions (NDC-STP) Updated (2021): This commitment builds on STP's 2015 NDC by reaffirming mitigation measures and increasing adaption measures. The NDC implementation plan's objective is to reduce climate-related risks and increase the resilience of communities and sectors by strengthening technical and institutional capacities, mainstreaming climate resilience into national and subnational planning and budgeting, and several investments. The covers the following sectors: agriculture, livestock, forestry, energy, transport, coastal zones, fisheries, water and the civil protection sectors.

3.1.2 Guinea-Bissau

Framework Law on the Environment (Law no. 1/2011): This law defines the basic concepts and specifies the norms and the basic principles related to policies and activities of protection, preservation, and conservation of the environment of the country. It also promotes the improvement of the quality of life through correct management of the National environment and rational use of natural resources, to

optimize and guarantee the sustainability and continuity of the use of such resources. In addition, it creates the Environmental Fund.
Legal framework of protected areas (Decree-Law No. 5-A/2011): This law establishes in particular classification and declassification of protected areas and lays down competencies and composition of the responsible authorities in order to protect the natural ecosystems, fauna and flora, and promote its sustainable development.
Legal framework and region on Environmental Impact Assessment (Law No. 10/2010): It specifies the legal framework and regime to be satisfied by research, environmental and social impact assessment, as well as the requirements to be satisfied for obtaining natural resources, use licensing through controls to be carried out on projects, programmes, public or private policies, which may impact on the natural environment and human health.
New Forestry Law (Decree-Law No. 5/2011): It aims at: (i) the promotion of the sustainable exploitation of forestry resources; (ii) the optimization for the socio-economic and cultural development in line with the protection and preservation of the natural environment and; (iii) the improvement of the quality of life of the population, through the promotion and rational exploitation of forestry resources within the territory.
Water Code (Decree-Law No. 5-A/1992): This Law defines the legal regime of all activities relevant with water management and the institutional framework in order to: (i) implement the national policy on water rights; (ii) guarantee the control and management on water resources; (iii) regulate water uses for domestic, rural, agricultural, industrial, hydropower or other purposes (including navigation, aquaculture) and; (iv) guarantee the protection of the water quality in order to avoid freshwater pollution or its waste.
Land Management Act (Act No. 5/98): This law regulates land-use planning and rational exploitation of the land. Agricultural land exploitation areas shall not exceed 300 ha, but the Council of Ministers may authorize land-use concessions to cooperatives and national or foreign companies for areas not exceeding 1500 ha. This Law lays down the requirements to be satisfied in order to obtain a land concession (including entities benefiting from a free concession and different types of authorization).
Statute of Overseas Services for Agriculture and Forests (Decree No. 48.198): This Decree specifies the composition, duties, and competencies of the aforementioned services, entitled to manage and control natural resources. Their aim is forestry and agricultural exploitation.
Worst Forms of Child Labour Convention, 1999 (No. 182) (Ratification: 2008): Through this law, the country should take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labor as a matter of urgency. The term child labor applies to all persons under the age of 18.
Updated National Determined Contribution in The Framework of The Paris Climate (Oct 2021): The most recent NDC builds on its previous iNDC but sets a quantified GHG mitigation target (30% reduction in GHG emissions by 2030). The target includes AFLOU, energy, and waste. In terms of adaption, the NDC reaffirms and commits to perusing adaption goals as it relates to water, coastal areas, gender, agriculture, and energy.

3.1.3 Cabo Verde

Environmental Policy (Law No. 86/IV/93): This Law establishes the Environmental Policy aiming at improving and guaranteeing the continuous use of natural resources for autonomous development.
Legal regime for the management of protected areas (Decree-Law No. 3/2003): This Decree-Law establishes the legal regime in order to manage and control protected areas, according to the importance of their biodiversity, natural resources, ecological function, socio-economic and touristic interest.
Regulation of the Environmental Impact Assessment (Decree-Law No. 29/2006): This Law regulates the Environmental Impact Assessment (EIA) required for those public and private projects potentially harmful to the environment. The Decree-Law individuates all concerned institutions and characterizes their related competencies; moreover, it defines EIA components and procedures; finally, it regulates monitoring and audit requirements, as well as applicable sanctions.
Law on land use (Legislative Decree No. 2/2007): This Legislative Decree defines principles and rules related to land use of both public and private bodies. Particular attention is paid to regulating land sales, rent and concession. The Decree establishes sanctions to any activity undermining the sustainable use of land. In addition, the Legislative Decree provides for land registration.
Law on land tenure (Law No. 05/VII/2007): This Law authorizes the Government to rule on land legal order and to review the basic legislation on public expropriation provided by Law No. 2030 of 1948. To this end, the Law lists the fields of application of the above-mentioned authorization.

Forestry Activity Law (Law No. 48/V/98): This Law authorizes activities to be performed by public and private entities in order to protect national forests. It applies to trees and forests which are not cultivated for agricultural purposes, to the exercise of forestry activity and to land subject to the forestry regime or likely to be afforested within Cape Verde and provided that it is not intended for predominantly agricultural activities. It also establishes national administration competencies and actions to be carried out by the Government of Cape Verde for managing forestry resources.
Law on Water and Sanitation Code (CAS) (Legislative Decree No. 3/2015): This CAS defines the fundamental principles for water resources, setting standards that guarantee their preservation, quality, sustainability and rational use. In addition, it establishes the definition of public systems of water supply and sanitation as well as the mechanisms of economic and financial sustainability and the establishment of enforcement mechanisms of water resources and applies to all existing water resources in the soil, subsurface and atmosphere of the Cape-Verdean territory.
Legal regime of license and concession for water resources use (Decree-Law No. 75/99): This Decree-Law applies for all activities related to potable and treated water production, including transport, processing, storage, and desalination. Water supply, including distribution and selling, re-used waters for public uses, in particular for industry and agriculture. Collecting services, effluent treatment, and re-use, including rainwater. It specifies that Basic Water Sanitation Services must satisfy specific objectives and principles.
Cabo Verde: 2020 Update to the first Nationally Determined Contribution (NDC): Cabo Verde's NDC update, includes 14 contributions and more than a hundred measures planned, in which Cabo Verde seeks to achieve a substantial mitigation benefit – in the order of 180,000 tCO2eq. to 242,000 tCO2eq annually by 2030 – as well as a lasting adaptation impact in terms of food, water and energy security for Cabo Verde and improved resilience across communities.

3.2 IFAD Guidelines and Policies

3.2.1 IFAD Social, Environmental and Climate Screening and Assessment Procedures (SECAP)

IFAD's SECAP allows the fund: (i) strengthen the social, environmental and climate dimensions of projects and programmes; (ii) maximize positive social and environmental impacts, climate change adaptation, and mitigation benefits; and (iii) strengthen social inclusion in decision-making and ownership of the environmental and social sustainability of projects. To support these goals SECAP will:

(i) Help IFAD to identify social, environmental, and climate risks and impacts, and their significance, and determine the level of risk management required to address the risks and impacts associated with IFAD-supported investments and global and regional grant-funded programmes;
(ii) Help to identify opportunities to mainstream climate resilience, environmental sustainability, nutrition, gender equality, and the empowerment of women, youth, and other vulnerable groups into IFAD strategies and programming;
(iii) Support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project/ programme outcomes through ongoing stakeholder engagement;
(iv) Assist borrowers/recipients/partners in fulfilling their own international and national social, environmental, and climate commitments;
(v) Ensure that IFAD's practices are aligned with its policies and the procedures of other multilateral financial institutions;
(vi) Enable IFAD to continue accessing environmental and climate financing.

This ESCMF is intended to provide options that would inform and thus improve the decision-making of the project design. The key environmental, climate change and social issues to be addressed include: (i) challenges faced to meet its rural development and food security goals; (ii) the major environmental, climate change, and social issues that have a bearing on IFAD operations in the country; (iii) the direct impact and multiplier effect the mentioned issues have on the resilience of ecosystems and productivity of land and crops, natural resource management and rural livelihoods; (iv) the scale of volatility and risks resulting from climate variability and change; and (v) regulatory frameworks which are related to rural development and environmental issues.
The results of the ESCMF are: (i) an assessment of the environmental (and social/economic/institutional) issues particularly in the agricultural and rural development sector; (ii) the identification of links with

relevant ongoing initiatives; (iii) the provision of specific measures, recommendations including opportunities to optimize adaptation, environmental management and resource use; in the project area. These results will shed light on the important opportunities available to build resilience and adaptive capacity in the program/project under development.

3.2.2 IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025

The main objective of this strategy is to enhance the resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts. This will ultimately provide the foundation for more prosperous livelihoods today and in the future. In particular, it aims to achieve:

- Poor people's access and rights to environmental assets and means of resilience are recognized, secured, and equitably distributed, and responsibilities for managing those assets are clearly defined.
- Poor rural people have the knowledge, skills, technical support, and access to finance needed to respond to the positive and negative impacts of climate and environmental change on their livelihood practices and productivity.
- Ecosystem health and functions, including genetic diversity, are protected and enhanced on smallholder lands through appropriate agricultural, fisheries, forestry and land-use practices, resulting in reduced degradation and ecosystem restoration.
- Value chains that profitably realize the diverse values of environmental assets without increasing environmental and climate risks are developed and sustained for the benefit of poor rural people.
- Value chains that promote environmental sustainability and enable access to markets for women are selected for their nutritional value and because they generate employment opportunities for youth.
- Energy, food, and rural infrastructure systems support these outcomes while reducing pressure on natural resources at local and national levels.
- National plans and strategies enable the outcomes listed above and encourage inclusive and sustainable rural transformation.

3.2.3 The IFAD Environment and Natural Resource Management (ENRM, 2012) Policy

Sustainable environment and natural resource management (ENRM) lie at the heart of delivering poverty reduction for rural people. Poor rural people face a series of interconnected natural resource management challenges. They are in the front line of climate change impacts; the ecosystems and biodiversity on which they rely are increasingly degraded; their access to suitable agricultural land is declining in both quantity and quality; their forest resources are increasingly restricted and degraded; they produce on typically marginal rain-fed land, with increased water scarcity; energy and agricultural input prices are on a rising long-term trend, and declining fish and marine resources threaten essential sources of income and nutrition.

3.2.4 Country Strategy Note 2019-2021 Republic of São Tomé and Príncipe

The overarching goal of IFAD's country strategy (2019-2021) is to sustainably increase the food and nutrition security and income of rural poor people, especially women and youth.

3.2.5 Country Strategy Note 2019-2021 Republic of Guinea-Bissau

The objective of the country's strategy is to sustainably increase the income and food diversity of rural households in Guinea-Bissau.

3.2.6 Republic of Cabo Verde Country Strategic Opportunities Programme (2019-2024)

The purpose of the COSOP 2019-2024 for Cabo Verde is to contribute to the sustainable improvement of the livelihoods and food and nutrition security of vulnerable rural populations, especially women and young adults.

3.3 Project review and approval process

Before the project is submitted to Adaption Fund for review and approval, the proposal will undergo internal review at IFAD. During this process, if any concerns will be flagged and need to be addressed before moving forward. After receiving approval for these projects, the project financing agreement must be finalized between IFAD and each borrower in each country.

3.4 Safeguard provisions built in to the project cycle

The ESCMF sets out a mechanism for the assessment of the environmental, climatic, and social impacts of all program sub-projects, and identifies, in general, the adaptation, mitigation, and monitoring measures to be taken during implementation and operation of the program to avoid, minimize or offset adverse environmental and social impacts.
The ESCMF identifies the responsibilities of project stakeholders, procedures for environmental and social safeguards screening, review and approval, and monitoring and reporting requirements. It also serves as an environmental and social safeguards instrument to provide the framework to both the relevant government agencies and private partners for preparing and implementing projects.

3.5 How consultations will be undertaken

Once locations are proposed, at the sub-regional level, consultations can begin. Consultation process will be supported by current IFAD baseline PMU and SIDS PMU. These consultations will invite all relevant local and regional stakeholders to collect their interests, reservations, and suggestions. All consultations need to be announced at least 2 weeks before consultations begin to ensure accessibility for all stakeholders. Similarly, the location of consultations will be selected with accessibility in mind, in coordination with local leaders and IFAD baseline project staff. After initial consultations, follow-up consultations will be held after comments are incorporated and final activities can be presented. Similarly, follow-up consultations will also need to be announced at least 2 weeks in advance of the start date. Throughout the process, all material should be available to public in both digital and print formats.

Chapter 4: Procedures for Screening, Assessment and Management:

4.1 Screening

Activities to be implemented are determined according to stakeholders expressed needs and are fully aligned with IFAD's baseline projects in the three countries. The screening process will allow to identify environmental and social risks associated to these activities before their implementation. The screening tool can be found in Annex 1.

The screening process will include:

- Compliance with the above-described ESMP and ESMF as well as IFAD's SECAP guidance statements;
- Potential for the project to cause adverse environmental impacts;
- Potential for the project to cause adverse climate impacts;
- Potential for the project to cause adverse social impacts;
- Adequacy and feasibility of the proposed safeguard mitigation measures and monitoring plans, including any local communities plan or process framework for restrictions of inclusion.

In the event of sub-projects with high environmental and social impacts, an ESIA will be undertaken. If the sub-project scores medium, then the project will refer to the current ESMCP in Ch.5. Lastly, if the project scores low, there will be no additional measures.

4.2 Assessment

The ESIA will examine the sub-project's potential negative and positive environmental, climate, and social impacts as well as define any measures needed to prevent, minimize or mitigate adverse impacts and improve environmental and social performance. After the ESIA is finished and relevant stakeholders in

local area are consulted, the ESCMP should be developed. Consultations should follow same principle as outlined in Ch.3.

4.3 Management

After activities begin, projects will monitored frequently based on the indicators outlined in the respective ESCMP and supervision missions to ensure compliance with ESCMP. At the national level, this will largely done through the monitoring and evaluation assistant located in each country office along with the National Coordinator who will also serve as a climate specialist. On the regional level, RCU will review and compile reporting from each country PMU. In addition, IFAD supervision mission teams will also determine compliance with ESMCPs.

Chapter 5: Abbreviated Environmental, Social and Climate Management Plan (ESCMP)

5.1 Introduction

The environmental, climate, and social management plan (ESCMP) as presented below in table 5.1. For each of the potential negative impact described in chapter 2, the plans indicate a significance rating and (geographical) extent/prevalence of each impact, recommend mitigation measures, how implementation can be verified, who is responsible for it, and how frequently.

A copy of the environmental and management plans should be made available to all program staff, participating institutions, and other key stakeholder representatives as well as used in community sensitization (i.e. awareness-raising and training) activities.

The project will have a steering committee headed by the respective line Ministry. The committee will serve as advisory committee and provide management guidance; review and approve Annual Work Plan and Budget reviews reports, monitor sites periodically and provide feedback to the project management.

AF Principle	Impact	Significance	Prevalence	Recommended Mitigation	Means of Verification	Frequency	Resposinibility	Budget
Resource Efficiency and Pollution	Over-extraction of Groundwater	High	Cabo Verde (High) STP (Medium)	Screen irrigation and borehole pump sites to assess water tables capacity to meet water needs Consider desalinization plants or wastewater diversion in areas with low water tables Train all beneficiaries on water conservation strategies and the impact of over-extraction Promote less-water intensive crops	Number of beneficiaries screened for sufficient renewable groundwater Number of beneficiaries trained in water conservation Number of beneficiaries utilizing drip irrigation or precision methods Number of less-water intensive crops or drought-resistant crops promoted	Annually Annually Baseline, Mid-term, and End-term Baseline, Mid-term, and End-term	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project
Resource Efficiency and Pollution; Protection of Natural Habitats; Conservation of Biological Diversity	Desalination Waste	Medium	Cabo Verde and STP	Conduct stakeholder outreach with communities most impact by conventional waste management practices Create a waste management plan that minimizes environmental and economic impact to surrounding communities	Number of desalination sites that have conducted stakeholder engagement and waste management plans before operations start Salinity levels of areas where waste is discharged	Annually Baseline and then Biannually	PMU, Relevant government partners, IFAD supervisions missions, Enviromental Assessor	It is incorporated in the investment cost of the project
Lands and Soil Conservation	Erosion	Low	All	Ensure adequate training on building and maintaining terraces and other techniques	Percentage of beneficiaries targeted for terracing and contour bunding proficient to build and maintain Percentage of terraces and contour bunding in good shape	After activity annually After 6 months of project start annually	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project

Public Health	Water-borne diseases	High	STP and Guinea-Bissau	Promote covering of long-term water storage cisterns factoring mosquito-borne disease prevalence in area and cost	Number of open-water storage systems covered or utilizing mosquito prevention strategies	Annually	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project
Public Health; Resource Efficiency and Pollution	Diarrhea and Parasitic Diseases and Skin Disorders from Wastewater for Irrigation	Medium	All	Ensure water testing capacity particularly as wastewater changes due to demographic shifts or movement of industrial users • Either treat or do not use untreated wastewater to reduce pathogens and contaminants harmful to plants and humans Promote the use of protective gear to limit exposure to wastewater	Number of tests of wastewater suitability for irrigation Percentage of regions using wastewater for irrigation with testing capacity Number of farmers using protective gear	Annually Baseline, Mid-term, and End-term Annually	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project
Public Health	HIV/AIDs	Medium	Guinea-Bissau	Include HIV/AIDs prevention as a part of sensitization workshops	Percentage of communities that have recieved sensitzation workshop with HIV/AIDs as a topic	Mid-term	PMU, Relevant government partners	It is incorporated in the investment cost of the project
Gender Equity and Women's Empowerment; Marginalized and Vulnerable Groups; Access and Equity	Social exclusion of marginalized groups, women and youth	High	All	Actively involve marginalzied groups, women and youth in all components and levels of decision-making within the project Strive to maintain Project beneficiaries ratio Engage women organizations and advocacy and right groups to mobilize women to participate Ensure that those with HIV are not excluded from activities and where possible through support groups or organizations to encourage participation in project	Attendance lists of meetings, workshops, List of project activities and beneficiaries Number of women advocacy organizations project works with List of women organizations and groups collaborated and reached out to	At every project activity Quarterly Annually	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project

Lands and Soil Conservation	Water-logging	Medium	STP and Guinea-Bissau	Consider hydrology before putting in place anti-salt dikes and barriers to reduce water-logging	Percentage of areas with anti-salt dikes and/or barriers that have mapped local drainage or hydrology	Baseline, Mid-term, and End-term	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project
Human Rights; Core Labour Rights	Child Labour	High	Guinea-Bissau	Sensitization of communities in high-risk areas on child rights and ensuring that there is no child labour on selected projects. Awareness activities supported or launched in project areas	Number of community meetings Number of reported incidence of child labor % of target communities with awareness activities	Within 6 months of project start and biannually afterward	PMU, Relevant government partners, IFAD supervisions missions	It is incorporated in the investment cost of the project
Resource Efficiency and Pollution	Water Pollution	Medium	All	Train beneficiaries on the application of inputs particularly, agrochemicals and manure, to reduce damaging and water pollution Promote riparian barriers and other natural barriers to reduce runoff or groundwater infiltration Ensure aquaculture ponds utilize waste for manure instead of disposing it	Percentage of beneficiaries received training on the application of inputs Testing nearby water bodies for excess nutrients and pollutants % of aquaculturalists utilizng aquaculture waste as manure	Baseline, Midterm, and End-term After baseline annually Baseline, Midterm, and End-term	PMU, Relevant government partners, IFAD supervisions mission, Enviromental Assessor	It is incorporated in the investment cost of the project
Marginalized and Vulnerable Groups; Gender Equity and Women's Empowerment; Access and Equity	Conflict	Medium	All	Sensitizing households and individuals on project approach of prioritizing project support to most vulnerable households, while ensuring benefits trickle down to all the village households through one of the project activities	Percentage of communities in which sensitization activities have been conducted Number of attendees of all sensitization activities throughout the project	Annually Annually	PMU, Relevant government partners, IFAD supervisions mission,	It is incorporated in the investment cost of the project

Conservation of Biological Diversity	Invasive Species	Low	All	Consider locally available and tested varities to non-native varities If utilizing non-native varities ensure studies arre undertaken to test impacts on local flora and fuana	Number of native varities promoted Number of studies undertaken or available for each non-native variety promoted	Start of activities, Midterm, and End-term	PMU, Relevant government partners, IFAD supervisions mission,	It is incorporated in the investment cost of the project

Chapter 6: Institutional Arrangements and Capacity Building

A successful mainstreaming of climate change and the ESMF into implementation of the project requires the strengthening of institutional capacities. Moreover, there is a strong need for context-specific in-situ training sessions for farmers and fisherfolk, to improve their resilience to deal more effectively with climate-related weather events.

6.1 Training Topics

Proposed training topics include, at the very least:

- Community sensitization;
- Requirements of IFAD's SECAP and ERNM, Gender, as well as Climate, Land and Disclosure policies;
- ESMF processes, procedures and institutional arrangements to develop and implement required management plans;
- Data gathering and use of tools for data analysis;
- Environmental, social and climate impact assessment, and requirements;
- Preparation, implementation and monitoring of ESMPs;
- Reporting and monitoring implementation of ESMPs;
- Farmers and Fisher training on climate smart agriculture, environmental and social best practices
- Conflict resolution and grievance management mechanisms;
- Environmental (EMS 14001) and social audit, and report writing

6.2 Target Audience and Approach

The target groups for training should include, at least:

- Project Steering and Technical Committees;
- Project Staff
- Service providers
- Beneficiaries

The training topics will be delivered based on the needs of each training target group. As much as possible, Training the Trainers (TOT) will be encouraged, where applicable, to manage resources and effectively reach the target audiences.

Table: Training Activity and Estimated Cost[180]

	Activity	Year						Budget (USD)	Remarks
		1	2	3	4	5	6		
1	General Stakeholders and community sensitization using the media and workshop	X						40,000	Local media+1 day workshop in each region
2	Community sensitization in the regions		X	X				70,000	2 Day workshop
3	ToT training for staff and other relevant stakeholders on: (a) Requirements of IFAD's SECAP and ERNM, Climate, Land and Disclosure Policies (b) ESMF processes, procedures and institutional arrangements to develop and implement required management plans; (c) Subproject Screening (d) Environmental, social and climate impact assessment and mitigation; (e) Preparation, implementation, monitoring and reporting of ESCMPs and ESIAs	X		X				72,000	5 Day workshop
5	Data gathering and analysis for Environmental and Climate M & E	X						20,000	3 Day workshop
6	Farmers and Fisher training	X	X	X	X	X	X	1,052,500	
7	Conflict resolution and grievance management	X						70,000	
8	Environmental (EMS 14001) and social audit and report writing	X						36,000	5day workshop

[180] The following activity and cost table was put together using the detailed budget per activity table in Part III of the Full Proposal

Chapter 7: Stakeholder Engagement, Information Disclosure and Grievance Redress

Experience with previous IFAD and other economic and social investment projects indicates that stakeholder engagement and sensitization are of critical importance to project success. In the absence of clear communication with relevant stakeholders and appropriate sensitization of local communities, rumors, misinformation, and speculation thrive, and accusations and tensions easily boil over into (violent) conflict w within and between communities. Therefore, for many of the potential environmental and social impacts, the management plans recommend the development of a stakeholder engagement plan with a clear communication strategy and the organization of community sensitization activities regularly.

a) Principles, objectives, and scope of engagement
b) Regulations and (institutional) requirements
c) Summary of previous stakeholder engagement activities
d) Stakeholder mapping and analysis
e) Strategies of engagement
f) Key messages and communication channels
g) Grievance mechanism (see also section below)
h) Resources and responsibilities
i) Monitoring and evaluation

Community sensitization (i.e. awareness-raising and training) activities need to be clear, timely, and culturally appropriate; this means that key messages need to be communicated in a format and language that is easy to understand, preferably by someone who speaks the local language and is familiar with local customs and sensitivities, and during a time that is convenient and sufficient for all key community groups, particularly women and youth. To ensure appropriate community entry and reach target groups most effectively and efficiently, it is advisable to also involve those civil society organizations that are already active in and trusted by the selected communities.

Grievance Management
In order to prevent and manage potential grievances that may arise during and after its implementation, the project will establish a grievance mechanism. This mechanism provides an access point for individuals, communities and other relevant stakeholders to submit complaints. It will also record and process all complaints relating to the project's activities, results or impacts. The proposed mechanism is intended to be rapid, effective, participatory and accessible to all stakeholders, to prevent or resolve conflicts through negotiation, dialogue, joint investigation, etc. It will handle complaints related to the compliance of the project activities and impacts with environmental and social safeguards as well as fiduciary and legal aspects (grant agreements, contracts, etc.) in line with 5 key principles seen in table below.

Table: Key principles of the Grievance Mechanism

Principle	Implementing Measure
Security and confidentiality	• Protect the anonymity of complainants in required; • Ensure confidentiality in the number of sensitive complaints; • Limit the number of people with access to sensitive information
Accessibility and context	

	• Widely disseminate the mechanism to target groups (taking into account restrictions, such as language, geographical, gender etc.); • Clearly explain procedures; • Diversify possibilities for filing complaints; • Assist people with special access challenges;
Predictability	• Respond promptly to all complainants • Present a clear process, with deadlines for each step;
Impartiality	• Ensure impartiality of those involved in investigations; • Ensure no person with a direct interest in the outcome of the investigations is involved in the handling of the complaints concerned;
Transparency	• Inform the parties concerned about the progress and the results of a compliant in the process;

Organization and Functioning of the Complaint Mechanism

The mechanism is being extended to all institutional stakeholders. The system will be closely linked to the OSS grievance mechanism, especially for the handling of major sensitive complaints. If necessary, complainants may also refer the matter to the Ad hoc Complaint Handing Mechanism (ACHM) of the Adaptation Fund. The complaint form by IFAD will be made publicly accessible, electronically and in written forms. (Attached below)

Organizational framework

Complaint management will be integrated into the project activities. The tasks and responsibility of the project team are well defined as seen in table below. The management of the mechanism will be supported by OSS environmental and social committee, national experts from the concerned countries and from committed civil society/local communities' representatives, who will be available and trained to implement the mechanism.

Table 29: Organizational Framework of the ADAPT SIDS Grievance Mechanism

Actors	Number/Composition	Role
Complaint Management Committee (CMC)	• IFAD Environmental and Social Committee • National Coordinator • M&E Assistant	• Complaint handling • Proposal of responses and compliant resolution measures • Follow-up and supervision of the complaints
Regional Cordination Unit (RCU)	• Regional Coordinator • M&E Officer • Representative from national programme • Other regional stakeholders as needed	• Receipt and registration of complaints • Transmission of complaints to CMC • Convening the CMC including provision of logistics
National PMUs STP, Guinea-Bissau, and Cabo Verde	• National Coordinator • M&E Assistant • Representative from baseline national programme • Other national stakeholders as needed	• Receipt and registration of complaints • Transmission of the complaints to the RCU • Receipt of complaints responses

		• Facilitation of contacts with local leaders as required
Local management units (LMUs)	• Local technical services • Local authorities	• Transmission of complaints to the PMU • Receipt of complaints • Handling of complaints at first instane

Functioning:
At Implementing Entity (IE) - level, project grievance mechanism will be coordinated by the ESC. IFAD will use its grievance mechanism to manage complaints that arises during the preparation, execution and after the project completion. Affected communities or other stakeholders who will be affected by the project may file complaints directly to IFAD or through the RCU or PMU. Grievances may also be sent to the Ad hoc Complaint Handing Mechanism (ACHM) of the Adaptation Fund.

At Regional level, the RCU is the focal point for all project- related complaints. If the complaint is minor or not related to the project, it will be dealt with at the regional level by the relevant competent services concerned, as stated in the table above.
At National level, the PMU is the focal point for all project- related complaints. If the complaint is minor or not related to the project, it will be dealt with at the local or national level by the relevant competent services concerned, as stated in the table above.
At the local level**,** complaints can be addressed in different ways to local authorities or customary authorities, as outlined in the table above. They will be received in different forms appropriate to the complainant's local context: local radio, WhatsApp messaging, telephone, word of mouth, exchanges at markets, or messages to PMUs or Fields Staff during workshops or missions.
The RCU, national PMUs and Project Field Staff are committed to respond quickly and appropriately to the complaint. When the complaint cannot be handled at the local level, the national PMUs will support the complainants to fill in a complaint form to be submitted to the ESC. The PMUs should advise complainants to provide comprehensive information to facilitate the assessment and handling of the complaint. A report is made and sent to the CMC, who registers the complaints and starts its processing.

Complaint Handing Process:
Filing a complaint: Anyone or communities affected by project activities can fill in their complaint or claim in several forms and in several ways. In accordance with the principle of accessibility and depending on the context, the method of filing complaints will be diversified. *i) At the national or regional level,* complaints will be addressed directly to IFAD or to the Adaptation Fund via the contacts presented above and via social networks. *ii) At the local level,* complaints can be addressed to local authorities or customary authorities which will refer them to PMUs. Complainants can also fill in their complaint directly with PMUs, RCUs, or AF. Contacts of PMUs, RCUs, Afs will be made public at the beginning of the project execution.

The mechanism will use all possible means and channels (traditional and modern) to receive complaints or claims (anonymous or not). These will include, among others: Telephone call, the phone is widely spread in the target area; Word of mouth, crier, and exchanges in local markets; Broadcasting through local and community radio stations; Self-referral to the CMC during supervision missions; Facts noted during meetings or a field visit; Facts observed in performance and financial reports and project evaluations; Social networks (WhatsApp, etc.), web page of the project, email address of the project, the IFAD website; Mail via complaint boxes in the localities concerned by the project.

Receipt and registration of complaints: this is ensured by the PMU which is responsible for receiving all complaints related to the project activities and impacts. Complaints received will be recorded upon receipt and the traceability procedure will be established. They are generally classified into 2 groups: (a) Non-sensitive complaints related to the implementation process, including choices, methods, results achieved; and (b) Sensitive complaints generally concern personal misconduct such as corruption, sexual abuse, discrimination.

The PMU will send a formal acknowledgment (by email or letter) within a maximum of one week. In this, the recipient will be informed of the next steps and if necessary, he/she will be asked to provide clarifications or additional information for a better understanding of the problem.

Complaint handling: involves verifying the eligibility of the complaint to the mechanism and ensuring that the complaint is related to the project's activities or commitments. The aim will be to establish the link between the facts denounced and the project's activities and impacts. The eligibility assessment will also determine whether the case should be dealt with under the Project-specific grievance mechanism or referred to other mechanisms (whistleblowing, etc.).

In the case of unfounded complaints***,*** it is essential to conduct the necessary investigations to preserve the project reputation. This task is the responsibility of the regional and the national PMUs. Unfounded complains include among others those that have a lack of necessary information or are the result of rumours or malicious persons, which may harm the proper conduct of the project. Public complaints or accusations broadcasted to a wider audience that are considered unfounded complaints, will be addressed at regional RCU and national PMU level, and may be followed by a formal statement.
In the *case of* well-founded complaints*,* two kind of responses can be applied: (i) direct response and action by the CMC to resolve the complaint; and (ii) broad and thorough audit is required, and joint investigations, dialogues, and negotiations could be conducted to reach a substantial resolution. This may involve extending the team to national and local services, as well as additional time. For sensitive cases, the CMC may use an investigation to reach an appropriate resolution based on expert advice.

Following the audit and investigations, a contextually appropriate and formal explanatory response is given to the complainant. It should include the procedures to be followed by the PMU to manage the complaint or propose the appropriate bodies to be contacted for cases that does not fall into the Project management unit's responsibilities. If agreed with the complainant, the proposed responses are implemented by the CMC, the latter will monitor the whole process of the complaint treatments in all cases.

- ***Implementation of measures****:* if the CMC and the complainant agree to implement the proposed response, a plan will be developed involving all stakeholders. The CMC should document all discussions and choices available.
- ***Monitoring of the complaints:*** It is necessary to track the number of complaints by the identity of the complainants, background, period, theme and final outcome.
- ***Closing the grievance:*** The procedure will be closed if the mediation is satisfactory to the parties and leads to an agreement. The satisfactory resolution and lessons learned should be documented.
- ***Publication of complaint result*****:** all well-founded complaints will be made publicly available by different communication means. The publication will include the type of complaint, its origin and impact, the treatment procedure and its results, including the complainant level of satisfaction.

Chapter 8: Environment, Social and Climate Management Plan Matrix

ESCMP Matrix						
Environmental/Social and climate Impacts	**Recommended Mitigation**	**Public Consultation Activities**	**Responsibility**	**Means of Verification**	**Frequency**	**Budget**
Over-extraction of Groundwater	Screen irrigation and borehole pump sites to assess water tables capacity to meet water needs • Consider desalinization plants or wastewater diversion in areas with low water tables Train all beneficiaries on water conservation strategies and the impact of over-extraction Promote less-water intensive crops	Engage with local communities regarding location of irrigation and borehole being cognizant of biases towards certain groups	PMU, Relevant government partners, IFAD supervisions missions	Number of beneficiaries screened for sufficient renewable groundwater Number of beneficiaries trained in water conservation Number of beneficiaries utilizing drip irrigation or precision methods Number of less-water intensive crops or drought-resistant crops promoted	Annually Annually Baseline, Mid-term, and End-term Baseline, Mid-term, and End-term	It is incorporated in the investment cost of the project
Desalination Waste	Conduct stakeholder outreach with communities most impact by conventional waste management practices Create a waste management plan that minimizes environmental and economic impact to surrounding communities	Stakeholder outreach with communities most impact by prescribed waste management practices	PMU, Relevant government partners, IFAD supervisions missions, Environmental Assessor	Number of desalination sites that have conducted stakeholder engagement and waste management plans before operations start	Annually Baseline and then Biannually	It is incorporated in the investment cost of the project

				Salinity levels of areas where waste is discharged		
Erosion	Ensure adequate training on building and maintaining terraces and other techniques	Prior to training ensure consultations and sensitisation of importance of techniques	PMU, Relevant government partners, IFAD supervisions missions	Percentage of beneficiaries targeted for terracing and contour bunding proficient to build and maintain Percentage of terraces and contour bunding in good shape	After activity annually After 6 months of project start annually	It is incorporated in the investment cost of the project
Water-borne diseases	Promote covering of long-term water storage cisterns factoring water and vector-borne disease prevalence in area and cost	Ensure incorporated into sensitisation and during training	PMU, Relevant government partners, IFAD supervisions missions	Number of open-water storage systems covered or utilizing mosquito prevention strategies	Annually	It is incorporated in the investment cost of the project
Diarrhea and Parasitic Diseases and Skin Disorders from Wastewater for Irrigation	Ensure water testing capacity particularly as wastewater changes due to demographic shifts or movement of industrial users • Either treat or do not use untreated wastewater to reduce pathogens and contaminants harmful to plants and humans Promote the use of protective gear to limit exposure to wastewater	Mention during initial consultations where it would be feasible	PMU, Relevant government partners, IFAD supervisions missions	Number of tests of wastewater suitability for irrigation Percentage of regions using wastewater for irrigation with testing capacity Number of farmers using protective gear	Annually Baseline, Mid-term, and End-term Annually	It is incorporated in the investment cost of the project

HIV/AIDs	Include HIV/AIDs prevention as a part of sensitisation workshops	Prior to training ensure consultations and sensitisation	PMU, Relevant government partners	Percentage of communities that have received sensitzation workshop with HIV/AIDs as a topic	Mid-term	It is incorporated in the investment cost of the project
Social exclusion of marginalized groups, women and youth	Actively involve marginalzied groups, women and youth in all components and levels of decision-making within the project Strive to maintain Project beneficiaries ratio Engage women organizations and advocacy and right groups to mobilize women to participate Ensure that those with HIV are not excluded from activities and where possible through support groups or organizations to encourage participation in project	Reach out to groups prior to consultations to ensure participation	PMU, Relevant government partners, IFAD supervisions missions	Attendance lists of meetings, workshops, List of project activities and beneficiaries Number of women advocacy organizations project works with List of women organizations and groups collaborated and reached out to	At every project activity Quarterly Annually	It is incorporated in the investment cost of the project
Water-logging	Consider hydrology before putting in place anti-salt dikes and barriers to reduce water-logging		PMU, Relevant government partners, IFAD supervisions missions	Percentage of areas with anti-salt dikes and/or barriers that have mapped local drainage or hydrology	Baseline, Mid-term, and End-term	It is incorporated in the investment cost of the project
Child Labour	Sensitization of communities in high-risk areas on child rights and ensuring that there is no child labour on selected projects.	Prior to training ensure sensitisation	PMU, Relevant government partners, IFAD supervisions missions	Number of community meetings Number of reported	Within 6 months of project start and biannually afterward	It is incorporated in the investment cost of the project

	Awareness activities supported or launched in project areas			incidence of child labor % of target communities with awareness activities		
Water Pollution	Train beneficiaries on the application of inputs particularly, agrochemicals and manure, to reduce damaging and water pollution Promote riparian barriers and other natural barriers to reduce runoff or groundwater infiltration Ensure aquaculture ponds utilize waste for manure instead of disposing it	Prior and during consultation ascertain how manure is currently used as to not displace current use	PMU, Relevant government partners, IFAD supervisions mission, Environmental Assessor	Percentage of beneficiaries received training on the application of inputs Testing nearby water bodies for excess nutrients and pollutants % of fish farmers utilizing aquaculture waste as manure	Baseline, Midterm, and End-term After baseline annually Baseline, Midterm, and End-term	It is incorporated in the investment cost of the project

Annex: Screening Form:

Question	Yes	No	Additional Explanation if "Yes"
1. Can the sub-project lead to over-extraction of ground-water supplies (extraction exceeds recharge rate)			
2. Will the project have significant social adverse impacts (affecting access to and/use rights to land, access to potable water and water for other uses) on local communities or other project-affected parties?			
3. Would the project potentially cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. habitat loss, erosion/ other form of land degradation, fragmentation, hydrological changes)?			
4. Does the proposed project target area include ecologically sensitive areas; areas of global significance for biodiversity conservation and/or biodiversity-rich area; habitats depended on by endangered species?			
5. Could the project pose a risk of introducing invasive alien species?			
6. Does the project involve the transfer, handling or use of genetically modified organisms/living modified organisms that may have an adverse effect on threatened biodiversity?			
7. Does the sub-project include conversion of significant areas (above 50 ha) of natural forests/other wild lands?			
8. Does the project involve land use changes (agricultural intensification and/or expansion of the cropping area) and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?			
9. Will the project result in increased use of agrochemicals which may affect the natural environment/human health			
10. Does the project involve artisanal fisheries where there is information on sustainable yield?			
11. Would the project have low probability to have physical resettlement or economic displacement?			
12. Will project activities increase prevalence of water and vector borne diseases?			
13. Will project utilize untreated wastewater for irrigation?			
14. Can the project lead to overapplication of inputs (ex. water, fertilizer, manure, pesticides, etc.)			

Guidance

"Yes" response to any Question 1-7	ESIA required
"Yes" response to more than 3 between Question 8-14	Sub-project to adopt ESMP in general ESMF
"No" response to almost all questions	No further analysis required

Annex 3: List of stakeholders to the national consultations

Guinea Bissau

Local: Bissau Dunia hotel (Ex-AZALAI)
Bissau, 21 de abril de 2022
LISTA DE PRESENÇA DE ATELIER DE CONSULTA NACIONAL PARA A FORMULAÇÃO DA PROPOSTA DO PROGRAMA DE FORTALECIMENTO DA RESILÊNCIA DOS SISTEMAS AGRICOLAS AS ALTERACÕES CLIMATICAS NOS PEQUENOS ESTADOS INSULARES EM DESENVOLVIMENTO (SIDS) DA ÁFRICA OCIDENTAL E CENTRAL (CABO VERDE, GUINÉ-BISSAU E SÃO TOMÉ E PRINCIPE)

N.	Nome	Instituição	Função	Contacto/e-mail	Assinatura
01	Quintino Ates	[illegible]	Investigador	95898595 [illegible]	
02	Toy Injai	ANAG	Resp. Adj. Financeiro	956130488 [illegible]	
03	[illegible] Baptista	FISCAP	Inspector [illegible]	95.559.59.59 [illegible]	
04	Ivo Sollé Baldé	UE	Gestor Program	955202386	
05	[illegible]	[illegible]	RAT	955288107	
06	Birgit Embaló	FIDA	Consultora	966825718 bembalo@gmx.net	B. Emb
07	Albino [illegible]	REDE	Coord. REDE	955909019 [illegible]	
08	Armando Nogueira [illegible]	REDE	[illegible]	95 6286422 - nogueira.[illegible]	
09	[illegible] Gomes	[illegible]	Resp. conf. 2	955594188/966120346	
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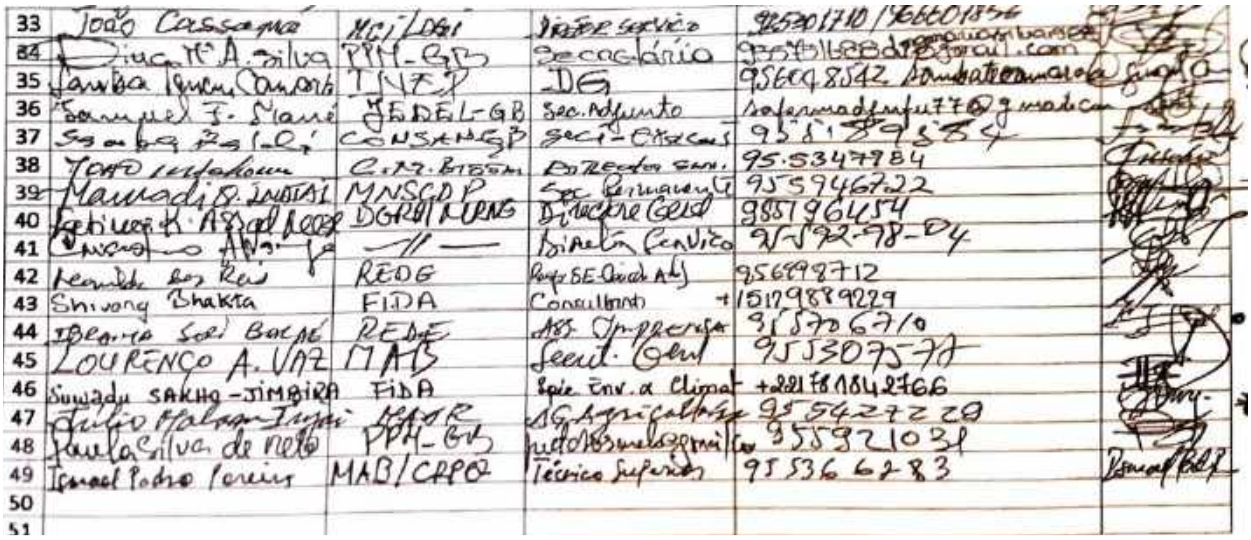

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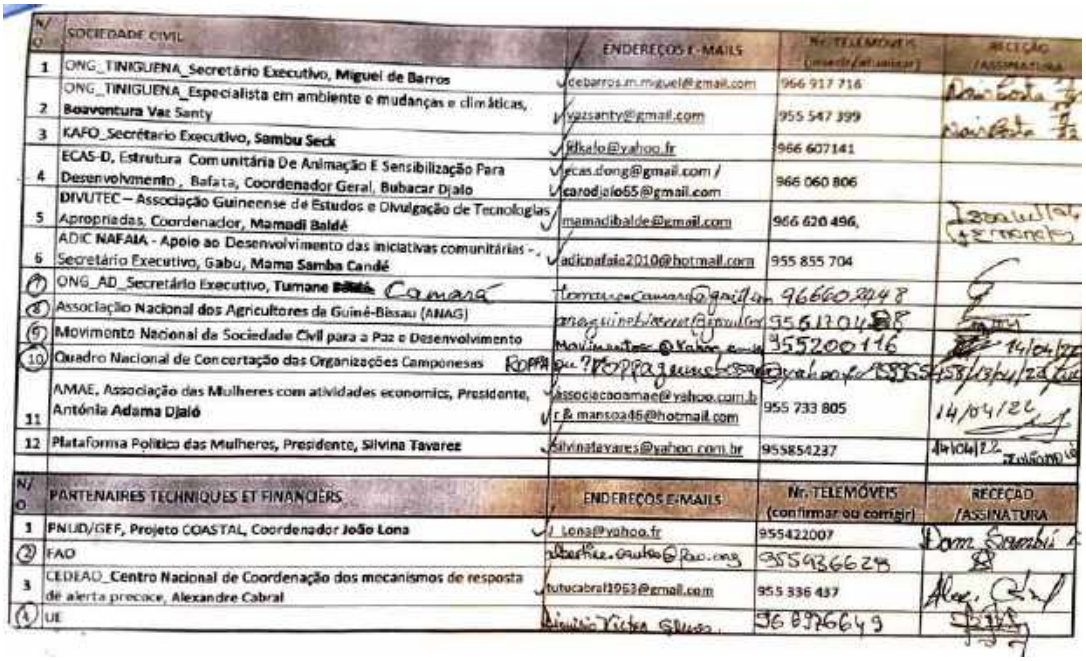

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ANNEX 1: Key Stakeholder List Interviews

Projeto: Fortalecimento da Resiliência dos Sistemas Agrícolas às Mudanças Climáticas em Pequenos Estados Insulares em Desenvolvimento – SIDS- da África Ocidental e Central –WCA SIDS ADAPT. Consultações Nacionais, Guiné-Bissau, 4.-26.4.2022

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Miguel de Barros	debarros.m.miguel@gmail.com	966 917 716	ONG TINIGUENA, / Essa terra é nossa! Especialista de ambiente, Secretário Executivo	Encontro pessoal no dia 13-04-2022
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João Lona Tcheda	J_Lona@yahoo.fr	955 422 007	PNUD – Coordenador Nacional do Projeto COASTAL / GEF/UNDP	08-04-2022, marcado encontro no PNUD, foi adiado, preenchimento online
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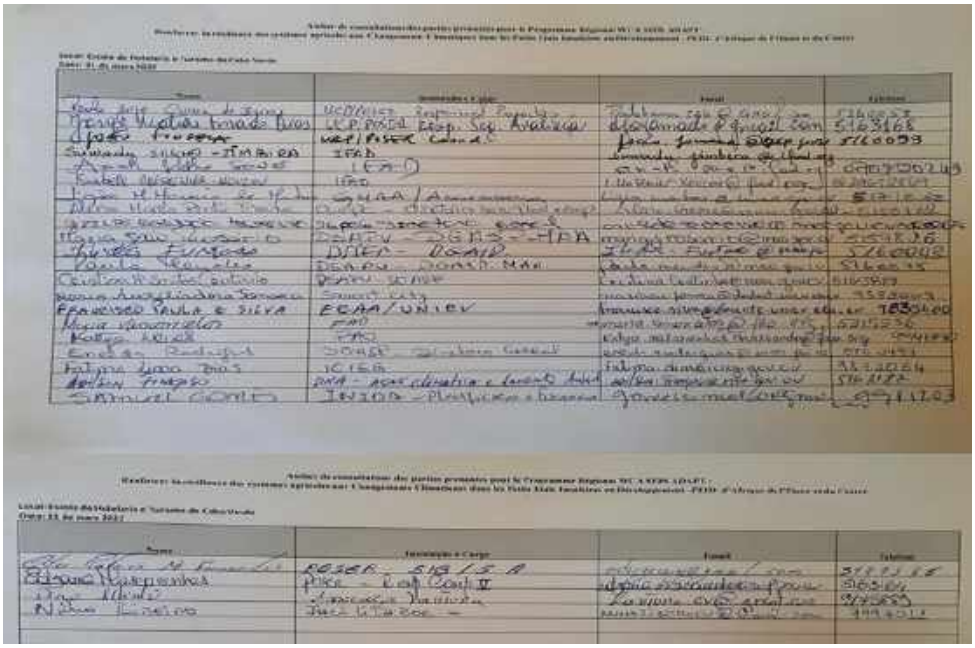
Cabo Verde



Sao Tome & Principe

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Table 1: Summary of the outcomes of the stakeholders' consultations in the three SIDS

Cape Verde	During the stakeholder workshop, participants break into groups to discuss the activities for each component, and the transversal themes such as gender, M&E, as summarized below. Component 1 For this component, the majority of activities identified were assessed as relevant to the national context and priorities. For the aactivities underoutput 1.1 : o Adopt varieties that are more resistant to heat and water stress and salinization with short growth cycles from seed to yields, in terms of rainfed, prioritizing wetlands and subsumed areas of agricultural islands. It should be noted that on the islands of Fogo and Santiago, there are ongoing interventions within the scope of a community seed bank project. Therefore, it is important to prioritize varieties with greater efficiency in the use of water and fertilizers, knowledge of the climate situation with timing of the growing season year by year and knowledge of crop requirements and growth cycles and inform farmers who can decide according to their priorities (e.g. financial situation) and opt for crops that generate several harvest seasons. o Establish an intelligent irrigation system for the climate that is relevant and the Intervention must be generalized, without specific islands, systems must be automated and salinization avoided, even the concept of intelligent can be excluded analyzing the translation from English to Portuguese o Promote half moon techniques and crop rotation techniques, In terms of Soil and Water Conservation (CSA) techniques, boilers are pertinent. In irrigated culture, crop rotation should be mandatory. Generalized Intervention o Apply fertilization techniques and mulch cultivation, which are organic waste from compost, manure, cold ash or domestic waste, which covers degraded soil surfaces that must have Generalized Interventions and is a current practice on the island of Fogo that could be stimulated in others Islands o Establishing a sustainable mechanism for financing the supply of agricultural inputs (vegetable materials, phytosanitary products, fertilizers) to cooperative producers is a priority, the community seed bank, implemented in the islands of Fogo and Santiago, could be expanded and assumed nationally and with the creation of a preventive

	fund and analyze how to feed the disaster funds and/or the environment fund in order to allocate the funds for agriculture and an adaptation aspect. <u>Activities output 1.2</u> o Establishment of green infrastructure to combat erosion, it is necessary to capitalize on the experiences of projects already implemented at the moment, such as, for example, REFLOR-CV and projects financed by the Environment Fund that have this valence (Santiago, Fogo and São Nicolau) with good results. However, it would be pertinent to make mass production with Congo beans. o Creation of nurseries to assist in biological rehabilitation, where there are community nurseries established and rehabilitated on the islands of Santiago, Fogo and Boa Vista. The ideal would be to leverage the various nursery experiences implemented by other projects. there is a need to ensure the sustainability of such nurseries through their rehabilitation. In addition, it should be noted that such activities contribute to the NDT and NDC goals. <u>Activities output 1.3</u> o Saltwater intrusion barriers, which are positive well barriers used to inject fresh water into the aquifer through recharge wells to raise the water table, this activity is very relevant, however when technically executing, it is necessary to specify which type of barrier to use; o Pilot seawater desalination plants powered by renewable energy, which improves the quality of local groundwater, which is very relevant and should take into account the strengthening of national capacity (component 2) in managing the system in a sustainable way; Maintenance and monitoring of the entire infrastructure so that it works effectively and permanently. It should be recalled that synergies will need to be established with the actions in this field that are foreseen in the framework of funding for Hungary. o Pilot systems for the recovery and reuse of wastewater for irrigation, which conserve fresh water and ensure water supply; based on a later assessment to be carried out at the design stage and select the appropriate procurement location/processes; It is in line with what is already being done and which is part of the government's strategy in terms of mobilizing water for the agricultural sector. On islands such as Boa Vista and Sal, there is potential for this type of activity without the associated risks of experiments already carried out in this area. It should be noted that the experiments on the island of São Vicente and in the

	Municipality of Tarrafal did not give the expected result, it is necessary to correct the anomalies of the pilot experiments carried out. o Storage cisterns and water reservoirs to provide storage capacity and avoid interruption of producers' activities in times of drought; this activity is part of the activities included in the Ministry's concept note submitted to the Adaptation Fund through FAO, care must be taken not to have duplication of actions between the two initiatives, it is a high priority if the focus is on the rehabilitation of reservoirs, especially if they are in a hydro-agricultural system or if the objective is to capture surface water o Holes pumped by photovoltaic solar energy to ensure water supply and irrigation; it is pertinent, however, it is necessary to take into account the regions to be intervened, because of the decrease in the flow as a result of the successive agricultural years. On the islands of Maio and Santiago, it is possible to carry out drilling experiments at a greater depth than has been done, as there is a greater probability of availability of groundwater, however, in the context of drought, with the decrease in flow, this is not a high priority option. However, in São Nicolau and Santo Antão, there are still conditions for implementing this type of activity. o Solar drip irrigation systems, which are micro irrigation systems that drip water at very low rates to the roots of the plants instead of the entire surface of the soil, are in line with what is already being done and which is part of the government strategy on water mobilization for the agricultural sector. <u>Component 2</u> For this component, all proposed activities were analyzed as priorities, pertinent and relevant in the national context, however, the concern to guarantee access to training sessions in capacity building and safeguarding gender balance and equity was highlighted. <u>Cross-cutting Issues</u> <u>Gender</u> In the national context, the gender issue is very well defined at the national level through policies already defined for both urban and rural areas, but there are still some factors that prevent women from having more access to information and opportunity because they have low education in rural areas and also lack of technical knowledge. n the case of Cabo Verde, attention is drawn to equity for men, who are losing out relative to women.

	Desalination, where it is being done, has revolutionized agricultural practice, especially for women with more availability of water for both agriculture and domestic use. <u>Monitoring and Evaluation (M&E)</u> The Ministry of Agriculture and Environment has a new M&E system created and developed in 2018, as part of IFAD's follow-up capacity building with its tools and manuals with clear guidelines on how to implement an M&E system for MAA programmes. MAA also has a platform for monitoring and evaluating projects and strategic documents integrated with the M&E system of the Ministry of Finance (Planning). These mechanisms are in testing but should be used by the program to ensure a good working M&E system. These systems must be adjusted and strengthened on the technical aspects of climate change and adaptation more specifically, and the smarts indicator framework must be very well defined, applied to the program's theory of change. There are also data collection platforms at the territorial level, using Geographic Information Systems (GIS), where it is necessary to integrate with data from the National Institute of Statistics according to the most recent population senses to better assess the socioeconomic data in the areas of program intervention
Guinea Bissau	○ The workshop participants welcomed the regional approach of the project and confirmed that overall the proposed activities are good and relevant for Guinea-Bissau. They recommended some additional project activities, related to the marketing chain and forest products, especially in the isolated insular zone. The islands should have their own activities according to the priorities established through the special break out group on the Bijagos-Bolama islands which was composed of experts from the IBAP, the relevant ministries and NGOs working in the islands. Nearly all proposed activities are of high importance for Guinea-Bissau. ○ The fact that different priorities were identified indicates that there was no straight forward consensus building but a differentiated opinion formation process, reflecting the range of institutional and individual perspectives of the participants. ○ The priority selection for the Bijagos islands is grosso modo very similar to the priorities identified for the continental part of Guinea-Bissau

	Therefore, the integration of the Bijagos islands in the intervention areas and project design is a smooth endeavor. o For the selection of project sites, in general terms, the workshop participants recommended to take the suggestions they made during the workshop as guidance. Further it will be necessary to have a closer look on the intervention sites of the REDE project to fully understand potential synergies and align them with the priority activities proposed in the workshop. The selection should be finalized by the Project Management Unit in the inception phase after a profound analysis of location options. o The following infrastructures were unanimously recommended for repair or new construction for all the regions under consideration: protection dikes, earth dams, water retention basins, physical protection works and coastal reforestation, construction of greenhouses, hydro-agricultural planning, establishment of transformation and conservation systems for the agricultural and fishery sectors, rural secondary roads to access markets and isolated communities, warehouses and community stores, improvement of transport and mobility for the islands. o The introduction of new irrigation technics is recommended by the workshop, combined with training for its maintenance and increase of repair skills at local level to better handle existing water distribution infrastructure, including availability of replacement parts. o The workshop recommends a gender participation of at least 50% for all activities and detailed diagnostic on the target groups and their needs by the PMU. Women should be trained in accessible technologies and practices that can significantly reduce their unpaid work, in the use of new adapted agricultural/rural technologies for time and energy effectiveness, and in entrepreneurship. Gender responsive capacity building would include improved cook stoves and fish smoking facilities, multifunctional rural platforms, small renewable energy devices, other green business/renewable energy options. o Climate risk management and coordination as well as monitoring and evaluation capabilities in Guinea-Bissau are classified as weak. The participants recommend a better institutional arrangements and integration into the planning, programing and budgeting of the relevant sectors. o The regional project should foresee an approach to guarantee the sustainability of the program´s interventions beyond the end of the

	project cycle. Specifically, participants highlighted the following approach: o It is urgent to strengthen the capacities of the families and local work force, foremost young people in the local communities, so that they are enabled to facing climate risks. For this end, they must be trained, including good professional training. This is seen as the only way to guarantee that the project results will last and be renewed over time by those stakeholders at the local level. The participants recommended to implement the HIMO approach which consists of the integration of the local workforce, specifically of young people, into the project activities from the very onset of planning and execution of activities and the respective training of these people. o On M&E, The regional program monitoring and evaluation system will be linked to existing government systems through online meetings and international missions with CSO participation to monitor the progress of project implementation. The workshop participants agreed that it is necessary to have a central M&E system where data from each country are aggregated. One group proposed that this central server should be placed in Cape Verde with the overall project coordination. o On the implementation arrangements, the workshop participants welcome them, and think that they are sufficiently detailed and flexible enough to allow for overall good performance and coordination of the institutions involved in the implementation. They also allow for adjustments, in case of necessity. Regarding the Project Management Unit, it was recommended that the staff of the project management unit should be hired through a public tender, similar to the procedures followed in other international projects in Guinea-Bissau.
Sao Tome & Principe	During the consultation process, the participants analyzed in detail all the proposed activities and made the following recommendations: o For component 1, under the activities of Output 1.1, the activity "Promote half-moon and crop rotation techniques" was not considered for STP. However, participants argued that since STP is a tropical country, where climatic conditions are conducive to the rapid development and spread of pests and diseases, crop rotation could be indicated as an intelligent pest and disease control mechanism, and that, despite the

	good fertility of STP's agricultural soils, crop rotation can be considered an effective means of pest and disease control. Thus, crop rotation with the use of leguminous species can help to enrich the soil, contributing to soil conservation and increase farmers' income, thus contributing to guarantee our food and nutritional security, hence the need to include this activity for Sao Tome and Principe. o Regarding the activity "Adopt varieties more resistant to heat and water stress and salinization with short growth cycles of seeds to yields, participants agree with the activity for STP, as it meets one of the objectives of the country which is to adopt tools that gives farmers resilience to the impacts of climate change, thus ensuring food and nutritional security of the country. On the other hand, this measure is also included in STP's NDCs, which recommend the creation of a local seed bank to strengthen the work already underway at CIAT. o On the other hand, they recommend that an additional activity for STP be included, which is "Agro-climatological zoning for risk measurement and strengthening of the activities of the phytotechnical laboratory to measure photosynthesis (CO2 emission) and that this activity be carried over to component 2 (institutional capacity building). o Regarding the activity "Adopt varieties more resistant to thermal and hydric stress and salinisation with short growth cycles from seed to yield", it is recommended to add the "Creation of a local seed bank" in order to strengthen the work already underway at the Centre for Agricultural and Technological Research (CIAT). o For activities under Output 1.3, nine activities are proposed, which are all also included in the programme for STP. However, the participants made their assessment and recommended that activities 1.3.1, 1.3.2, 1.3.3 and 1.3.4 are not relevant to the current reality of STP, but the Group recommends their possible future framing in some of the activities that FAO is currently developing under the Blue Economy Strategy in STP. o Activity 1.3.5 "Pilot systems for wastewater reclamation and reuse for irrigation, freshwater conservation and water supply security" could be recommended as a pilot system or previous work identified (impact studies, etc.); o As for activity 1.3.8 "Solar photovoltaic pumped boreholes for water supply and irrigation", the participants proposed that it should simply be removed from the list of activities for STP