CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project: Strengthening Ecosystem-based adaptation for Sustainable Livelihoods within Landscapes (SEASL)

Country: Eswatini

Thematic Focal Area: Ecosystem Based Adaptation

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: International Fund for Agricultural Development

Executing Entities: Food and Agriculture Organisation

Amount of Financing Requested: USD **10,000,000**

Project Formulation Grant Request: Yes ☒ No ☐

Amount of Requested financing for PFG: USD150 000

Letter of Endorsement (LOE) signed: 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 concept has been submitted before

☐ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 17/12/2024

Please note that concept note documents should not exceed 50 pages, including annexes.

PROJECT BACKGROUND AND CONTEXT:

Location and Climate

1. The Kingdom of Eswatini, is a landlocked country situated in the south-eastern part of the African Continent, sharing borders with South Africa to the south, west and north and Mozambique to the east. The country is approximately 17, 364 km^2 in size located between the latitudes of 25º 43' and 27º 19'S and longitudes of 30º 47' and 32º 08' E (SOER). The mountainous country has varying landscapes, with a subtropical climate composed of wet summers and cool winters. There are four physiographic regions (Figure 1) in the country that extend longitudinally from north to south in coarsely parallel belts and from the east to west are the Lubombo escarpment, Lowveld, Middleveld and the Highveld (TNC). Weather conditions are generally cool and rainy in the Highveld, the Middleveld is warmer with rain, the Lowveld is hot and dry, and the Lubombo Plateau is warm and dry.

2. The altitude varies with each physiographic where the highest point is 1 862 m above sea level (in Bulembu), and the lowest point is at 21 m (where the Great Usutu River enters Mozambique) (NBSAP 2). The general climatic pattern of the country is wet hot summers (October to March) where about 75% of the annual rainfall is experienced during that period. Again, cold dry winters are experienced in April to September (TNC)1.

3. Administratively, the country is divided into four regions namely, Hhohho, Manzini, Shiselweni and Lubombo. The Land tenure system in the country is classified into three categories as dictated by the country's history. The categories are Swazi Nation Land (SNL) which covers about 75% of the area, the Title Deed Land and Crown Land jointly cover the remaining 25% (NBSAP).

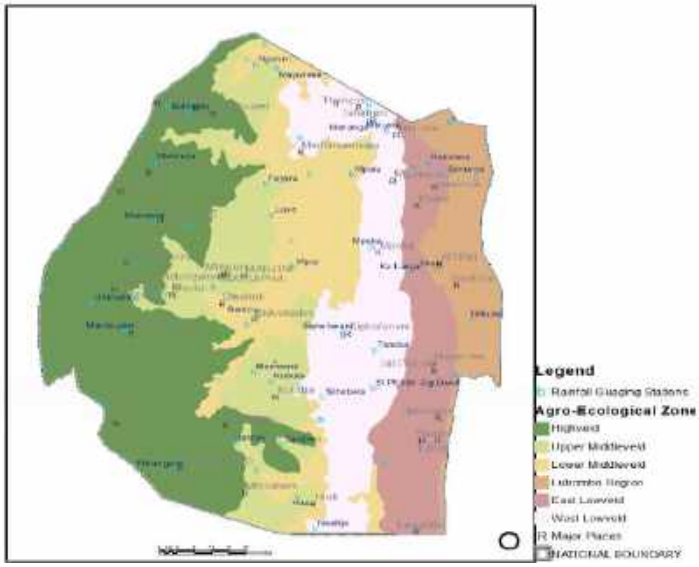

Figure 1: Eswatini Agroecological zones (TNC, 2016)

Biophysical Environment

4. The Kingdom of Eswatini is at the center of the major climatic zone transition, which is caused by different air masses exhibiting different patterns of origin. The country's location is the equatorial convergence zone causing summer rains, again the subtropical eastern continental moist maritime causes onshore flow leading to occasional cyclones and the dry continental tropical and marine west Mediterranean conditions cause winter rains, with rare snow. The multi-scale interactions of weather producing systems and the country's varying topography leads to highly variable weather patterns at intra-seasonal to inter-annual timescales. The multi-scale interactions in Eswatini lead to distinct and regular weather characteristics such as droughts, floods, extreme temperatures, veld and forest fires, lightning, and hailstorms. Notably, over a decade the intensity and frequency of extreme weather events such as droughts and heat waves have been observed to be on the rise. The Highveld for instance, has high incidences of thunderstorms characterized by ground lightning flash densities of more than 12 flashes/km^2/year that occur during the austral summer. These intense thunderstorms are associated with weather systems of both tropical origin which at times include passages of tropical cyclones from the southwest Indian Ocean and extra-tropical origin and their interactions (TNC).

Temperature

5. Generally, the Lowveld region is hot and dry while the Highveld region is cool (Figure 2) and wet (TNC). An analysis of the temperature daily maximum and minimum ranging from 1961 to 2010 has revealed that the temperature extremes show patterns consistent with warming over most of the country in the last decade. Minimum temperatures have been found to have increased more rapidly when compared to the maximum temperatures. In general, the highest temperatures are experienced in the Lowveld region, which is in the low-lying areas in the eastern part of the country. In this region the diurnal cycle can be large, with extremely high daytime maximum temperatures exceeding 35^{o}C. Over the last three decades from the 1990s, temperatures are higher when compared to the 1970s and 1980s. This is formed by data showing that in the 1970s, temperatures rarely exceeded 34^{o}C in the Lowveld which is the hottest region in the country. However, in the past three decades, the frequency of very hot days exceeding 34^{o}C has increased.

[1] Swaziland's Third National Communication (TNC) to the United Nations Framework Convention on Climate Change (UNFCCC), 2016. https://unfccc.int/sites/default/files/resource/swznc3.pdf.

6. The lowest temperatures are found in the high-altitude areas of the Highveld region, which is mostly the western parts of the country, where temperatures do go below 0ºC in winter. Worth noting is that the frequency of cold nights and frost has decreased, whilst the frequency of hot nights has increased. Places such as Mbabane in the Highveld have shown an increase in the number of hot nights where the frequency increased by 27% between 1960 and 2004 during the winter seasons.

7. Climate change indicators in the country have shown upward trends in the annual mean, maximum and minimum temperatures across the different regions in recent decades (TNC). Weather pattern projections for the Kingdom of Eswatini illustrate it will continue to get warmer and shall be characterised by increased mean temperatures.
    a. Increased frequency of hot days; and,
    b. Decrease in cold days and nights (TNC).

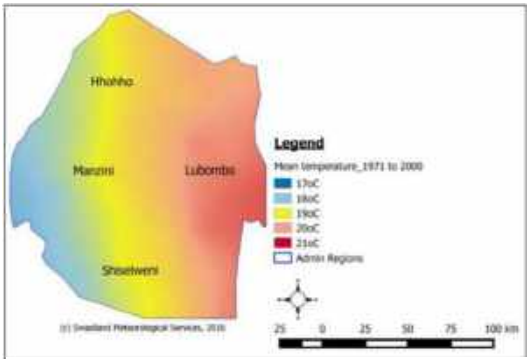

Figure 2: Eswatini Mean Temperatures

Precipitation

8. Most of the country's rainfall is received in the summer months, mainly between October and March. Evidently there is a large difference in the amount of rainfall experienced in the Lowveld (eastern) and Highveld (western) parts of the country. The mean annual rainfall of up to 1 500 mm is received in the northern Highveld and up to 500 mm in the southern Lowveld. This is directly influenced by the topography and the direction of the prevailing winds. It has been noted that precipitation varies considerably from year to year, which leads to an increased incidence of flash flooding or drought. The high recorded rainfall variation makes it difficult to identify trends with a high degree of certainty. Drought is an inherent feature of the current semi-arid climate and rainfall levels have consistently reduced over the last two decades (2000-2020) (TNC).

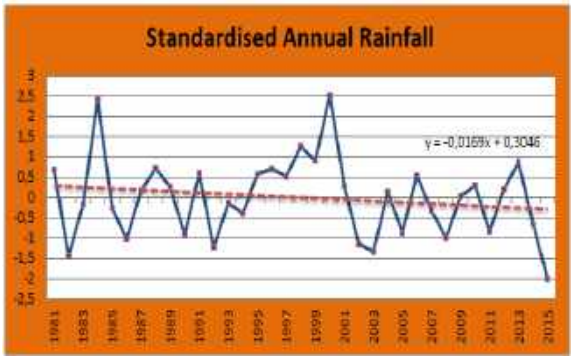

Figure 3: Standardised annual rainfall from 1981 to 2015

9. Rainfall trends in the country point towards a decrease in the number of rainy days, which has an implication on the intensity of rainfall events and dry spell duration. Apart from changes in total or mean summer rainfall, certain intra-seasonal characteristics of seasonal rainfall such as onset, duration, dry spell frequencies and rainfall intensity as well as delay of rainfall onset has changed over the country. The analysed available rainfall record for the country (1970 - 2010) indicates an increase in inter-annual rainfall variability in the post-1970 periods with an increase on average of dry spell length (TNC). Rainfall will continue to be uncertain and difficult to predict and projections show that it will exhibit characteristics of,
    1. An increased number and frequency of dry spells during the summer season especially between October and February (farming season).
    2. A decrease in the number of frost days in the Highveld region; and,
    3. An increase in the number of days with more than 20 mm of rainfall (TNC).

Ecosystems

10. Eswatini has four important ecosystems, these are the Montane grasslands, Savanna-woodland mosaic, Forests and Aquatic systems. The Montane grasslands are in the Highveld, the Savanna-woodland Mosaic is in the Middleveld and Lowveld while the Forests are mainly in the Highveld and the Lubombo mountains.

11. Climate change is projected to result in increased temperatures by 3 to 4 ºC and reductions in precipitation within the next few decades. This will exacerbate the effects of all other pressures by reducing both terrestrial and aquatic ecosystems. In addition to contractions of suitable bio climates, shifts are also projected, either way these vegetation changes will most likely result in the creation of novel plant communities. This will have adverse effects for species existing under current bioclimates and will render protected areas with static boundaries inefficient in protecting species maintained within their boundaries.

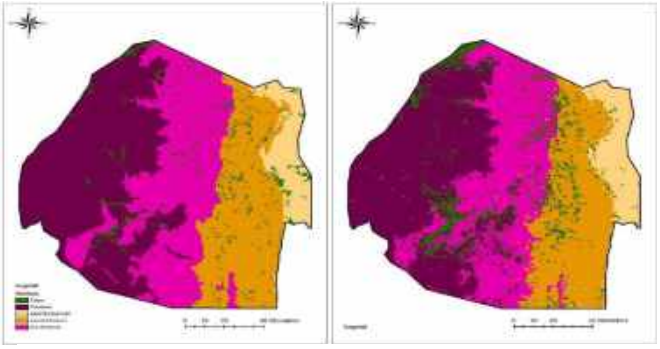

Figure 4: Baseline (left) and ecosystem assimilation.

12. Climate change is also expected to promote the proliferation of Alien and Invasive Species (AIPS) and increase the spread of bush encroachment adding to the pressures already facing the biodiversity of Eswatini (SOER)2. This will affect rural communities in Eswatini that directly depend on local ecosystems products for most of their basic needs such as food, energy, water, medicinal and livelihood requirements. Research predicts that these ecosystems will be highly vulnerable to biome change in the future (Matondo, 2012)3. Many of the important impacts of climate change on biodiversity will be indirect at community and ecosystem levels, exacerbating existing stressors. In Eswatini, land use and cover change are both the cause and a consequence of climate change and is the major driver of current ecosystems and biodiversity change and a key cause of changes in freshwater ecosystems.

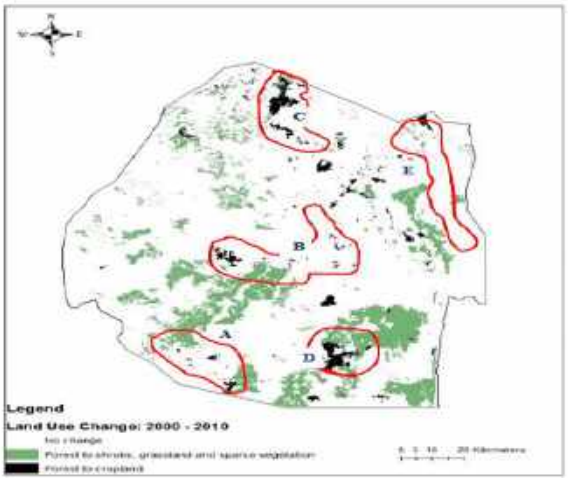

Figure 7: Five Land Degradation Hotspots for Eswatini

13. The projected increase in the intensity and frequency of extreme weather events that relate to climate change, and its interaction with the patches of forest in the Lowveld will likely be depleted by the 2050s. This will be because of the increased temperatures and decrease in precipitation, which is coupled with the increasing human pressures. The grassland biome appears to be one of the biomes most at risk of significant climatic and human-induced change. Areas with a climate envelope suitable for grassland are projected to be greatly reduced and to persist only in the patches of highest altitude areas such as the western mountain peaks. The area with a climate envelope presently suitable for sour bushveld increases replacing some of the grassland climate envelope upslope albeit with uncertainty. It is highly likely though that the present ecosystem structure of the sour bushveld will shift towards more Lowveld bushveld structural characteristics as woodiness increases.

14. In the case of wetlands, the major threats of climate change are not the direct impacts on vulnerable species but rather due to changing fire regimes, overgrazing, increase in invasive species, farming, and overutilization (TNC). A large portion of the country's economy is heavily dependent on ecosystems services that are evidently degraded (grassland, savannah, forest, and aquatic) to support livestock ranching, horticulture and agriculture, use of medicinal plants and ecotourism (NBSAP)4. While there is still much to be done, Eswatini has taken strides towards better understanding challenges and setting the country to maintain species existences outside of current protected areas. Biodiversity and ecosystems are an interconnected system, the area and heterogeneity of available ecosystems determines the biodiversity (richness, abundance) an area can potentially sustain (SOER).

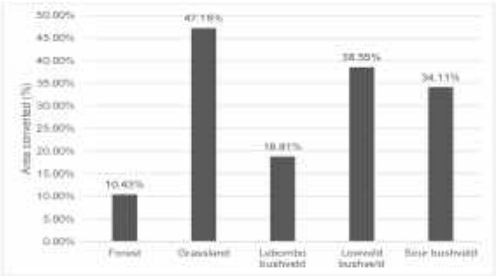

Figure 6: Ecosystems disturbance and conversion

15. The Aquatic ecosystem is made up of streams, rivers, and wetlands. Only a tiny fraction (just over 3%) of these ecosystems is legally protected highlighting the fact that these ecosystems and the biodiversity they harbour, are under threat.
16. The threat includes the observed high grazing pressures, which when coupled with the effects of fire frequency tend to promote bush encroachment (SOER). The evidence shows that a lot of degradation that took place between 2000 and 2018 occurred within indigenous forests and woodlands. Cropland areas, specifically rain fed cropland, are also experiencing decline in productivity. This, however, should be attributed to the persistent periods of low rainfall in addition to other factors such
as conversion of some cropland to settlements and other land uses.
17. To some extent, grasslands are also declining (SOER). Studies conducted in Eswatini have revealed that potential drivers

[2] Review and Update of the State of Environment Report (SOER), 2020. https://eea.org.sz/wp-content/uploads/2021/12/SOER-FINAL-DRAFT-08.01.2021-ISBN-WEB.pdf

[3] Assessing the Vulnerability of the Sector of Water Resources in Swaziland Due to Climate Change, Matondo (2012). https://www.researchgate.net/publication/268588775_Assessing_the_Vulnerability_of_the_Sector_of_Water_Resources_in_Swaziland_Due_to_Climate_Change.

[4] Swaziland's Second National Biodiversity Strategy and Action Plan (NBSAP), 2016. https://www.cbd.int/doc/world/sz/sz-nbsap-v2-en.pdf

for
land degradation mainly occurs in land that is prone to desertification processes such as climate, relief, soil, and vegetation types. Land degradation in the form of deforestation is determined by an interaction of proximate and underlying factors primarily fuelwood use, human population density, human settlements, associated level of protection and land ownership status. Indeed, human activities can cause land degradation, and these include cultivation of fragile soils which are exposed to erosion, overgrazing, over exploitation of woody resources, uncontrolled fires, poor agricultural practices, irrigation schemes and irrigation of soils prone to salinization (SOER).

Table 1: Aquatic ecosystems climatic change effects

MAJOR CHALLENGES WITHIN THE WATER SECTOR	ASSOCIATION TO CLIMATIC FACTORS
Decrease in ground water flows	Reduction in rainfall
Drying of small streams	Reduction in rainfall and extended drought
Decrease in ground water reserves therefore resulting in more dry boreholes	Intensity of rainfall in short space of time Lack of rainfall for the rest of the year
Decrease in water storage	Due to high intensity of rainfall in short space of time Inadequate management of springs , marshes , and wetlands as sources of water compromising their ability to filter and store water
Increase in water demand	Shortage of rainfall which has resulted in lower levels of water in dams and siltation Irrigation is the major user of water in the country and accounts for 96.6% of available supply. Irrigation is extensively used for growing sugarcane, citrus fruits, and vegetables. Due to climatic variables, most of the irrigation activities are located in the Lowveld region which also receives the lowest rainfall
Ground water recharge and quality	Decrease in rainfall and drought Groundwater recharge in the most critical areas of Swaziland is estimated at 2% in the Lowveld and 5% of annual rainfall in the Lubombo, however elsewhere going up to 20%. There is an increase in demand and use of the groundwater resources by communities in the rural and peri-urban areas.
Change in river morphology(fluvial geomorphology)	Flooding , Siltation ,drought Aquatic ecosystems are regulated by features and processes occurring at a range of spatial scales. At the largest scale, climate, geomorphology, and land use control channel morphology and stream hydrology, thermal regime and water chemistry, and biotic community structure. Climatic changes influence anthropogenic activities causing environmental disturbances which result in : changes in the stream flow regime through dams or diversions non-point source runoff from agriculture, urban or mining areas alteration of channel characteristics via sedimentation or siltation removal of riparian zone vegetation introduction of exotic or alien species
Decrease water quality	Flooding and Siltation
Decreases in runoff and stream flow	Drought
Interference of water run-off and use of high volumes of water	Expansion of alien invasive species and bush encroachment

18. Wetlands are recognized as important features in the landscapes of Eswatini that provide numerous beneficial services for people and for fish and wildlife. Despite this value and benefits they remain threatened by several socio-economic activities. Several threats have endangered the wellbeing of the wetlands, and these include livestock trampling, climate change, overharvesting of resources, ecosystems conversion, alteration of stream flow, pollution, soil erosion, bush encroachment, uncontrolled grazing, uncontrolled grass fires, mismanagement of the wetlands (perpetuated by the absence of fencing) and the presence of alien invasive species. Fauna has mostly been affected by degradation of the wetlands because tortoises, snakes, ducks, and fish that were inhabitants of the wetlands, are not anymore. Again, the country is currently threatened by the decrease in the perennial surface drainage, which will have major impacts on river flows and soil-water content, with potential serious socio-economic repercussions in rural areas. The 2020 draft wetlands policy, strategy and action plan guide all national stakeholders on how to take action to conserve and wisely-use the country's precious wetlands.

19. There is a necessity to advance actions towards protecting wetlands as soon as possible to restore the wetlands to their original state and functionality to harness and preserve all the wetlands' critical ecosystems services. There is also great interest from women groups who have expressed the desire to venture into handcraft projects that can be initiated by the availability of certain wetland plant species in large amounts.

20. As a pilot, an initiative to cultivate climate change resilient communities, wetland rehabilitation and protection have been carried out in about 20 different communities in the country. Wetlands ecosystems were fenced and within 24 months they would return to their near optimal state. This offered an opportunity to generate alternative income for women through harvesting raw materials for handcraft, gardening, and traditional medicine (SNPAS 2018).

21. The project called strengthening national protected areas systems (SNPAS)5 of Eswatini in 2020 established three integrated landscapes. Furthermore, the project developed the Lubombo Integrated Landscape Management Plan (LILMP), Ngwempisi Integrated Landscape Management Plan (NILMP) and Malolotja Integrated Landscape Management Plan (MILMP). To cement the implementation of the integrated landscapes they were registered as associations to manage affairs of ecosystems within the landscapes (SNPAS 2021).

[5] Final Terminal Evaluation GEF 5 – Strengthening National Protected Areas System (SNAPAS) Project, 2021. https://erc.undp.org/evaluation/evaluations/detail/13302.

Socio-economic context

22. According to the 2017 census report, the Eswatini population is estimated to be 1,106,451 and projections show that the population growth rate will be steady (1.2 per cent per annum) over the period from 2017 to 2038 (UNFPA, 2020)6. It is estimated that approximately 76% of the country's population lives in the rural areas (UNFPA, 2020). The situation is such that the country's development landscape is skewed, characterised by high inequality, unemployment, and poverty among the rural population. About 59% of the people live below the national poverty line and 20.1% live in extreme poverty (BTI, 2022). Approximately 70% of the population of which 60% of them are women, rely on subsistence farming in rural areas.

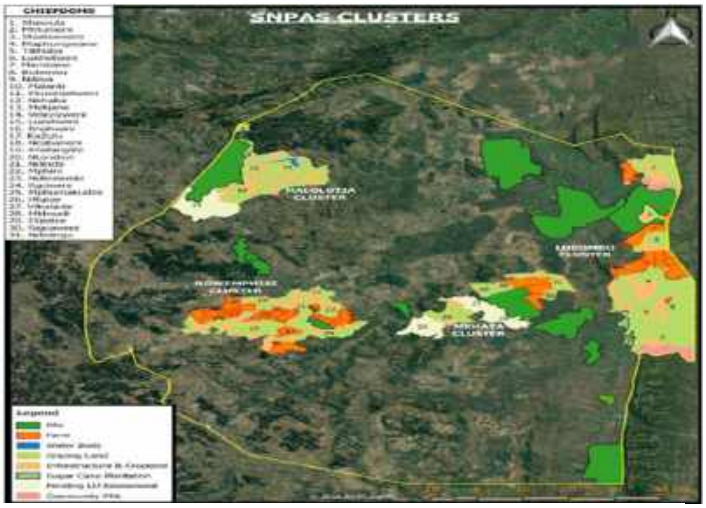

Figure 9: Landscape demarcations in Eswatini

23. Gender roles and responsibilities especially in third world countries make women more vulnerable to environmental hardships. Changes in the environment may affect everyone but affect women and men differently (UNDP 2011). Men and women interact with the environment differently, and the perfect example is Eswatini. Like lower to middle-income states, women tend to be more involved in food preparation, which in essence requires resources from their environment including firewood and water. Wherein about 61% of Swazi National Land (SNL) farm holdings are less than one hectare in size, meaning that most farms are thus very small. The population increase is, in turn, exerting pressure on land availability for cropping and grazing, forcing households to produce crops on increasingly fragile lands (SOER).

24. Rural communities typically depend on climate sensitive sectors particularly agriculture as the basis for their livelihoods. Apart from climate change, communities of this nature are exposed to various other challenges, notably the high prevalence of HIV/AIDS infections in the country. The unpredictability of climate change makes subsistence farming unreliable and about 58.9% of the population (in 2020) lives on less than the $1.90 poverty line, the majority of whom live in rural areas (BTI, 2022)7. In Eswatini, like many other developing countries, the percentage of women is higher than the percentage of men in the country (TNC). The overall socio-economic well-being of the people of Eswatini is dependent on the achievement of a balance between development and conservation, which involves sustainable use of biodiversity (NBSAP). Cattle are the main livestock in addition to other animal species such as goats, sheep, pigs, and poultry. The contribution of the livestock sub-sector to the agricultural sector GDP is about 4%. Beef and other livestock products contribute about 1% to total exports.

25. Eswatini has two broad livestock production systems, namely the commercial system and the traditional system. A majority (86%) of the cattle and 95% of small stock are found on SNL (SOER). Eswatini has close economic ties to South Africa, where she depends on about 85% of its imports and about 60% of exports. Eswatini is a member of the Common Monetary Area (CMA). The country's economy rebounded in 2021, despite the continued COVID-19 pandemic. Real GDP growth was estimated at 2.1 percent in 2021 rising from a 1.9 percent contraction in 2020. The third and fourth COVID-19 wave containment measures were not as restrictive as those of earlier waves, allowing firms to ramp up production in 2021. Economic growth was supported by a strong performance in the manufacturing sector due to improved demand from key export markets following the easing of lockdown measures in key destination markets in the region. The vaccination campaign, which reached about 29.2 percent of the population at end March 2022, helped to contain the spread of the virus and eased uncertainties on both demand and supply prospects (https://www.worldbank.org/en/country/eswatini/overview#1).

26. The agriculture sector's contribution to the country's GDP dropped from 12.3% in 2000 to 8.8% in 2019, partly due to recurring climate change induced droughts. Eswatini has a relatively diverse economy dominated by the agriculture and manufacturing sectors. Agriculture, forestry, and mining account for about 13% of Eswatini's GDP whereas manufacturing (textile and related processing) accounts for about 37% of GDP (SOER). It is estimated that over 75% of smallholder farmers in Eswatini rely on rain-fed agriculture for their livelihoods, thus making them more vulnerable to climate change.

[6] 2017 - 2038 POPULATION PROJECTION - Based on THE 2017 Eswatini Population and Housing Census, 2020. https://eswatini.unfpa.org/en/publications/eswatini-population-projections-report2017-2038.

[7] Bertelsmann Stiftung's Transformation Index (BTI) Country Report, 2022. https://bti-project.org/en/reports/country-dashboard/SWZ

27. The exposure to droughts has resulted in the loss of both crop and livestock productivity in the country, highlighting the relationship between climate change and food insecurity. This indicates that climate change impacts in the agriculture sector are already being observed in the country and such trends are likely to persist in the future. Livestock and crops production under rain-fed conditions have declined by over 30% on average over the last years. This has been evident especially since 2011/2012 till date. This is mainly because of increase in temperatures and below normal rainfall which has seen the country experiencing recurrent droughts and prolonged dry spells over the last decade. This has resulted in the area under cultivation for various crops especially maize consistently decreasing. The country experienced the worst drought in 2015/16 season and area under cultivation reduced significantly further, by 64%, compared to the previous years. Eswatini's exposure to droughts and extreme temperatures has therefore resulted in the loss of both crop and livestock productivity, highlighting the relationship between climate change and food insecurity.

28. Efforts to understand and respond to climate change impacts in the agricultural sector have been made through regional and international pilot interventions, policy development and farm level adaptation strategies and programmes (TNC). Again, the country's forests and woodlands contribute to the economy and provide a range of goods to the country's population. For instance, a significant proportion (75%) of the country's population depend on firewood for energy (cooking and warmth), which is provided by the country's forests. This dependence is widespread and only low in urban areas. This creates a lot of pressure on the forest resources, resulting in higher rates of consumption compared to the rate at which the forest can regenerate. Now Eswatini is experiencing a rural energy crisis where demand for household energy has outstripped supply. This combination of high demand aggravated by low end-use efficiency has contributed to forest degradation, rural poverty, and rural energy shortage. There are indications that fuelwood shortages exist in the Lowveld, Lubombo and parts of the Upper Middleveld as well as some parts of the Highveld, around dense settlements, and arable areas (SOER).

Human Development

29. According to the Human Development Report compiled by the United Nations Development Programme (2020), the Eswatini's Human Development Index value for 2019 was 0.611. This places the country in the medium human development category and positions it at 138 out of 189 countries and territories. The Kingdom of Eswatini has a gender inequality index (GII) value of 0.567, ranking it 143 out of 162 countries in the 2019 index. About 31.3% of adult women have reached at least a secondary level of education compared to 33.9% of their male counterparts, thus showing inequality in education (Table 2). Female participation in the labour market is 48.5% compared to 56.8% for men. About 19.2% of the population (218,000 people) are multi-dimensionally poor while an additional 20.9% are classified as vulnerable to multidimensional poverty (237,000 people). Notably, the country has made significant strides in human development concerning the review of environmental effects or developments brought about by anthropogenic activities. Humans need to interact with the environment to obtain food, water, fuel, medicines, building materials and many other

Table 2: Inequality adjusted Human Development Index

	IHDI value	Overall loss (%)	Human inequality coefficient (%)	Inequality in life expectancy at birth (%)	Inequality in education (%)	Inequality in income (%)
Eswatini (Kingdom of)	0.432	29.3	29.0	25.1	24.1	37.9
Congo	0.430	25.1	24.9	22.8	20.9	31.0
Sub-Saharan Africa	0.380	30.5	30.5	29.7	34.1	27.6
Medium HDI	0.465	26.3	25.9	20.8	37.1	19.7

things. Advances in science and technology have helped people to exploit the environment for their own benefit, but also introduced pollution and caused environmental damage. The impact of environmental problems on humans is significant, affecting all human activities, including health and socio-economic development (SOER). Notably, is that cattle and goats' population (the largest in rural area) have been on the decline (Figure 9) mainly due to the shrink in the country's grazing land because of allocation of more land to resettle rural households (TNC).

30. The country's vision for economic development is articulated in the National Development Strategy (NDS), which enunciates the country's vision 2022. The NDS is the country's overarching development framework, which promotes sustainable development and inclusive prosperity in the medium to long term. The nucleus of the vision is ensuring quality of life in the country whose critical dimensions are poverty eradication, employment creation, gender equity, social integration, and environmental protection. The vision fully supports community participation, inclusive participation, rural development, and empowerment. The attainment of this vision hinges on four thematic pillars namely, a) good governance, b) a vibrant and diverse climate resilient economy, c) environmental sustainability and d) highest human capital and social development. While environmental concerns have been mainstreamed (in the NDS) in the past few years, recently climate change has been considered a development priority. Increasing scientific evidence of climate change impacts on basic

livelihood and infrastructure has brought about a general recognition that climate change should be incorporated into socio-economic development planning (TNC).

31. The NDS seeks to balance the needs of the Swazi people with the environment's carrying capacity. Various national strategies to address climate change (within the context of national development) are outlined, including:
    1. Mainstreaming climate change into national development, sectoral planning, and budgeting.
    2. Promote the development and implementation of adaptation and mitigation actions that contribute to sustainable development, poverty eradication and adaptive capacity.
    3. Pursue capacity building to improve understanding of climate change.
    4. Develop a legislative framework for climate change.
    5. Promote and facilitate climate research and establish a national climate research centre.
    6. Modernisation of meteorological, hydrological, and agricultural observation networks.
    7. Establish a national framework for climate services to strengthen availability, production, and application of science-based climate prediction services.
    8. Mobilize resources for implementation of climate change policy and strategy.
    9. Develop strategies for collecting sectoral data for modelling and inventory preparations.

32. Subsequently, the Eswatini's National Development Plan was developed with the aim of accelerating inclusive economic growth and sustainable development in the country, as outlined in the National Development Strategy. The plan proposes various climate related actions to address this national priority. Actions to raise awareness regarding environmental and climate change issues, notably in the education system, are also included, as are actions related to the development of climate smart and cost-effective agriculture technologies. The country's cabinet approved the National Climate Change Policy (2016), which supports the priorities outlined in the National Development Plan. The aim of the policy is to provide the enabling framework that will guide Eswatini in addressing the challenges posed by climate change, as per the relevant sectors in the country. The policy options are specifically aligned with the commitments found in the country's Nationally Determined Contribution and the actions prescribed to meet them (TNC).

Project Objectives:

Overall Objective:

33. The project objective is to contribute towards reducing climate and human induced vulnerability of the agroecosystems of the Lubombo and Ngwempisi Landscape communities of Eswatini by increasing adaptive capacity of key local institutions and actors, through the deployment of good land, ecosystem management and climate resilient practices.

Specific Objectives:

34. The project will have specific objectives that will inform the concrete climate change adaptation activities that aim to address the climate change risks and vulnerabilities that prevail in the communities. An integrated risk management approach will be adopted to address the interface between climate change, agriculture, and food security to fulfill the following specific outcomes articulated in the table below.
35. The project is expected to directly reach 19,600 smallholder households (HHs), equivalent to some 117,600 people (household members).40% of persons receiving project support are women 2) 60% of persons receiving project support are men 3) 30 % of persons receiving project support are the youth (50% women).

Table 3: Project Components and Financing

Project Components	ExpectedOutcomes	Expected Concrete Outputs	US$
Participatory gender sensitive Capacity development and knowledge management	**Outcome 1.1:** Improved landscapes and rangelands baselines, awareness and monitoring for agroecosystems resilience.	**1.1.1** Inclusive integrated agroecosystem assessment adopted to update biodiversity assessments done by the SNPAS project to inform adoption of climate smart technologies.	240,000
		1.1.2 Adopted use of information services Digital based knowledge and information management integrated for information sharing.	150,000
		1.1.3 Technology support for climate, weather early warning systems and advisories strengthened.	331,450
	Outcome 1.2 Improved knowledge management and learning on adaptation practices	**1.2.1** Context-specific knowledge products generated	150,000
		1.2.2 Systems for monitoring natural resources use and degradation strengthened	250,000
		1.2.3 Project monitoring and evaluation, documentation, and dissemination.	89564
TOTAL FOR COMPONENT 1:			**1211014**
Strengthen multi-stakeholder institutional collaboration (public, private & communities) for strategic implementation of agroecosystem-based adaptation	**Outcome 2.1:** Improved coordination of landscapes by multi-stakeholders (Public, private and communities) for strategic frameworks of implementing the integrated agroecosystem approach.	**2.1.1** Training of trainer's modules developed to capacitate lead committees on ecosystem-based adaptation strategies.	150,000
		2.1.2 Institutional capacity building programs for committees to develop ecosystem-based management.	250,000
		2.1.3 Regional Consultative Observatory learning on landscapes coordination	150,000
TOTAL FOR COMPONENT 2:			**550,000**
Stimulate climate-adaptive investments in integrated ecosystems (forest, wetlands and rangeland rehabilitation).	**Outcome 3.1:** Climate smart actions developed for integrated ecosystems adaptation.	**3.1.1** Rangeland Management Plans developed and implemented to enhance rangeland carrying capacities currently reduced by overstocking.	250,000
		3.1.2 Wetlands management plans developed and implemented to restore disturbed ecosystems due to livestock trampling and human over harvesting.	287,000
		3.1.3 Communal woodlots management plans developed and implemented to manage conflicting interests of keeping wattle IAPs for sale and domestic use..	150,000
	Outcome 3.2: Improved and catalyzed ecosystem-based restoration infrastructure in community landscapes for sustainable increased ecosystem services to sustain livelihoods.	**3.2.1** Two community and two public nurseries strengthened to supply restored ecosystems.	705250
		3.2.2 Restored wetlands, water reservoirs and community ponds designed and established considering environmental safeguards.	1632750
		3.2.3 Technologies & practices adopted for Invasive Alien Species and soil erosion control in ecosystems.	500,000
		3.2.4 Agroforestry and clavipectoral technologies adopted as nature-based insurance for alternative livelihoods.	275,000
TOTAL FOR COMPONENT 3:			**3800000**
Upscale climate adaptive technologies for agroecosystems and sustainable alternative livelihoods.	**Outcome 4.1:** Disadvantaged group's transformative entrepreneurship promoted.	**4.1.1** Program on sustainable natural resources harvesting for handicraft and other products to create economic value for protecting ecosystems..	180,000
		4.1.2 Apiary sites (honey production) developed on forest and wetlands ecosystems restored .	230,000
	Outcome 4.2: Incentivized climate smart agriculture for improved productivity.	**4.2.1** Drought tolerant, protein rich and early maturing crops promoted in rain fed agroecosystems to address socio-economic adversaries..	700,000
		4.2.2 Catalytic program to switch from conventional to climate smart technologies .	1,300,000
	Outcome 4.3: Improved and sustainable commodity compliance to market requirements.	**4.3.1** Value chains platform strengthened to promote market driven production and minimize mal-adaptation.	90,000
		4.3.2 Capacity building program for strengthened value addition.	280,000
TOTAL FOR COMPONENT 4:			**2,780,000**
Direct Programme costs			**8341014**
5 . Project/ Execution cost			875576
6 . Total Project Cost			9216590
7. Project Cycle Management Fee charged by the Implementing Entity (if applicable)			783410
Amount of Financing Requested			**10000000**

Table 4: Project Milestones Calendar

Milestones	Expected Dates
Start of Project Implementation	2025
Mid-term Review (if planned)	2027
Project/ Closing	2029
Terminal Evaluation	2030

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project 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.

36. The proposed project of Strengthening Ecosystem-based adaptation for Sustainable Livelihoods within Landscapes (SEASL) intends to promote an integrated ecosystems-based adaptation programme and will be complement Financial Inclusion and Cluster Development Project (FINCLUDE) IFAD financed, which promotes on-farm and non-farm enterprises with limited concrete adaptation interventions. The Adaptation Fund will support the adaptive capacity to climate change risks and vulnerabilities that prevail in the communities and support integrated risk management to address the interface between climate change, agriculture value chains of the FINCLUDE investments. The project will accomplish this through an integrated suite of interventions coming from the four interlinked components that tackle climate change vulnerabilities and risks to food security by rural subsistence farmers found in the buffer zone communities that are nearby the core protected areas of the Ngwempisi and Lubombo Landscapes of Eswatini. The project is designed to target these communities as a strategy to correct fragmented, silo and ad hoc approaches to project interventions, which normally do not have long-term impacts. Therefore, this project is to address gaps of livelihood activities building on the SNPAS project to attain a holistic approach that integrates from past interventions to deliver sustainable results and builds government systems for replication of project outcomes.

37. Another approach adopted by the project for increasing the resilience of community ecosystems is to incrementally build capacities of the poor and vulnerable smallholder farmers, through enhanced knowledge and skills (Component 1). This will be based on two agroecological conditions assessments in the two Landscapes, covering 17 communities in Lubombo and 10 in Ngwempisi landscapes. The target communities are under rural development areas namely Tikhuba, Ka-Langa, Siphofaneni, Sithobela in Lubombo Landscapes and Ngwempisi, Ludzeludze and Mahlangatsha under the Ngwempisi Landscape, which will inform the appropriate technologies and sustainable practices for the utilisation of natural resources for improved livelihoods.

38. From the assessment, good practice action plans will be developed where concrete productive assets, climate-resilient and nutrition sensitive agricultural practices will be recommended for improved resilience, sustainable resource management and diversified livelihoods (Component 2).

39. The project will mainstream vulnerable or disadvantaged groups (women and youth) through an environmental and social safeguard assessment that will inform and concretise alternative entrepreneurial activities such as floral harvesting in wetlands for handicraft, establishment of apiaries in forest woodlots and wetlands to ensure diversification of livelihoods intending to reduce the risks of high utilisation pressure on one ecosystem over another, which will in turn enhance income streams for the rural poor (Component 4).

40. This will result in increased resilience to climate shock by the target groups and of the ecosystems on which they depend. The project will mainstream participatory and sustainable wetlands rehabilitation and protection, forests protection, utilisation and management and rangeland management for the stakeholders in the three landscapes (throughout the country) that were launched by the SNPAS project. The project is outlined such that an integrated risk management package is developed for catalytic funding, micro insurance, adoptive conventional switch to climate smart technologies, and structured markets for climate resilient products to enhance community's capacity to alleviate poverty (Component 3).

Component 1: Participatory Capacity development within landscapes for improved knowledge management (US$2, 780, 000)

41. Currently there are number of challenges which limit sustainable management of Landscapes for building climate resilience. These include fragmented data and information which in many cases is not up to date and not disaggregated by gender. This is compounded by a lack of interoperable and integrated information management system. This affects the monitoring of natural resource use and degradation. Additionally, limited knowledge is generated with respect to landscape management which leads to challenges in sharing of best practices. This component emphasises the approach of first mobilising communities to have a buy-in in the proposed interventions and they make their inputs. This is to stimulate ownership and full support in tackling any challenges that may arise during project implementation. All stakeholders' categories need to be consulted and these include Public, Communities, Private sector, and NGO's (development agencies) to form a landscape development association and have a platform to tackle adaptation and mitigation interventions.

Outcome 1.1: Improved landscapes and rangelands baselines, awareness and monitoring on agroecosystems resilience.

42. The expected outcome of this component links with the MoA strategic element of enhanced information sharing and awareness of evidence-based adaptation through the mainstreaming of integrated agroecosystem assessment to profile sources of mal-practice to update existing baselines. This will be done to improve the intervention design and monitoring systems of natural resources within landscapes. The focus under this component is to attain improved landscapes and rangelands baselines, awareness and monitoring on community agroecosystems resilience. This will generate information on prevailing practices and their degradation effects on specific ecosystems. The rationale of this component is that the data collection and processing will generate useful information to the public, private and community stakeholders and to inform national policy reforms. Furthermore, this component targets setting up a mechanism that will fill the knowledge gaps related to climate change and land degradation with relevance of promoting strategic developmental discussions including landscapes and rangelands planning.

Output 1.1.1: Integrated agroecosystem assessment adopted to update biodiversity assessments done by the SNPAS project to inform adoption of climate smart technologies.

43. The observation of limited project delivery success for some projects has been attributed to the lack of proper understanding of climate change impacts in different communities' contexts. This has resulted in the limited ability to make informed decisions on most appropriate adaptation options, and on how these adaptation options would influence food security and nutrition. To correct that the programme approach would be to first lay the foundation of the project by developing evidence-based and systematic resilience building and adaptation intervention, with locality context. Eswatini has conducted several vulnerability assessments (VA) which in their nature are too generic with limited evidence to address agroecological vulnerabilities to climate change. A localised climate change impact analysis for specific ecosystems, crops grown, and livestock species will be carried out in the project target areas. This is to understand, using the most up-to-date and suitable climate change projections, how these will be impacted soon. Lastly, coordination of information exchange across institutions is a bottleneck since the issue of natural resources lies with different Ministries and institutions. Furthermore, capacity strengthening will be provided for national climate change coordinating mechanism and at community level where traditional authorities will be targeted.

Activities

1.1.1.1. Assess the localised climate change impacts to identify local ecosystems vulnerabilities and mal-adaptation activities.

1.1.1.2. Document baselines of community-based climate vulnerability, which will update management plans.

1.1.1.3. Support the development of multi institutional coordination arrangements with natural resources, land, and environmental regulators for ease of compliance with policy frameworks or implementing policy reforms

1.1.1.4. Develop participatory safeguards (environmental and social) by conducting interviews, qualitative and quantitative agroecological assets assessment.
1.1.1.5. Map project areas and highlight biodiversity and natural resources degradation hot spots.

Output 1.1.2: *Adopted use of information services, digital based knowledge and information management* integrated *for information sharing*.

44. The use of technological base for advancing knowledge management is critical. This will require the upgrade of the existing GIS portal with limited information on food systems and further expand the capacity of the land degradation observatory system. These will introduce advanced data collection, storage, management, and communication using computers and software for remote sensing, GIS, modelling, and forecasting. In general, the tools will assist in consolidating hazard and risk maps and to analyse historical data.

Activities
1.1.2.1. Facilitate the integration of the existing GIS portal platform to include agroecological (food systems) assessments and upgrading of functions of the portal to accommodate new information and to conduct basic assessment.
1.1.2.2. Strengthen the land degradation observatory system for it to have a wider coverage of monitoring to gather more data that will also be published through the GIS portal.
1.1.2.3. Capacitate regulatory and mandated departments to monitor the land degradation processes induced by growing impacts of increased climate variability and change.
1.1.2.4. Facilitate the development and definition of user rights protocols, to define scope of system analysis and to determine equipment requirements, training needs, human resource development, and liaising with other government structures.

Output 1.1.3: Technology support for climate and weather information and early warning and advisories systems strengthened.

45. It has been observed that, the frequency and magnitude of drought, hailstorms, floods, and incidents of destructive insect pests i.e., fall army worm has increased. This emphasizes the importance of monitoring agroecological vulnerabilities in near real-time to provide early warning information to stakeholders. A paradigm shift to a more risk reduction approach is required to ensure cost-effective and timely response to risks and disasters affecting livelihoods especially food systems.

Activities
1.1.3.1. Facilitate the development of harmonized criteria and indicators, as well as appropriate procedures for analysis, warning, dissemination of information for decision-making.
1.1.3.2. Strengthen a multidisciplinary and inter-institutional platform for information sharing to affected stakeholders.
1.1.3.3. Promote the generation of new and more complete information which must be properly disseminated to allow access to downscaled climate information systems, with a special emphasis on reaching the most vulnerable farmers, as well as providing training to turn this information management into actions in the field.
1.1.3.4. Conduct training for technicians and farmers on the tools required to manage a monitoring and early warning network and further engage participation in information dissemination for decision-makers and users of the system.
1.1.3.5. Facilitate development of a communications strategy for the project to define messaging modalities that are target group specific, cognizant of literacy, language, and access to ICT.
1.1.3.6. Facilitate a coordinated structure that will be put in place to develop weekly bulletin and radio spots and quarterly reports to share information of short and medium-term weather forecasts and long-term climate projections.

Outcome 1.2 Improved Knowledge Management and learning on Adaptation practices

46. Outcome 1.2 aims to enhance knowledge management and learning regarding adaptation practices through a systematic approach. By fostering collaboration among stakeholders, the project seeks to consolidate and

disseminate best practices, thereby ensuring that valuable insights are effectively shared across diverse sectors. The implementation of targeted training sessions and workshops will further empower participants, equipping them with the necessary tools to integrate adaptive strategies into their respective contexts. Ultimately, this outcome endeavors to cultivate a robust learning environment that not only promotes innovation but also strengthens resilience against the impacts of climate change.

Output 1.2.1 *Context*-specific knowledge products generated

1.2.1.1 Conduct localized climate change impact assessments to identify ecosystem vulnerabilities

1.2.1.2 Document community-based climate vulnerability baselines and update natural resource management plans

1.2.1.3 Develop participatory environmental and social safeguards through interviews and assessments.

1.2.1.4 Mapping project areas to show for biodiversity and natural resource degradation hotspots

Output 1.2.2 *Systems* for monitoring natural resources use and degradation strengthened

1.2.2.1 Conduct an inventory of existing data repository related to natural resources and degradation.

1.2.2.2 Assess the capacity of the repositories (UNESWA/ENTC/NDMA) on hosting and management of natural resource use and degradation data.

1.2.2.3 Develop a centralized GIS database that integrates and migrates data from various sources, including governmental agencies, NGOs, and academic institutions.

1.2.2.4 Develop capacity on GIS and management for identified entity (UNESWA/ENTC/NDMA

Output 1.2.3 Project monitoring and evaluation, documentation, and dissemination

1.2.3.1 Design a robust Monitoring, Evaluation and Learning (MEL) framework to capture and reflect on project outcomes.

1.2.3.2 Regularly review and refine strategies based on feedback and results

1.2.3.3 Conduct impact assessments to measure long-term benefits and learn from challenges.

Component 2: Strengthen multi-stakeholder institutional collaboration (public, private & communities) for strategic implementation of agroecosystem-based adaptation (US$ 550,000.00).

47. There is limited multistakeholder (public, private, communities) coordination in management of landscapes. This leads to inefficiencies, lack of collaboration, overlapping of roles and lack accountability responsibilities which results in poor management of natural resources and reduced ecosystems resilience to climate change. Learning from the lessons of the Swaziland National Protected Areas Systems (SNAPAS) project, where working together with other partners including NGOs with experience working with communities in the various landscapes, and the University of Eswatini, was helpful. In some instances, the collaboration with other Government entities and departments has been less effective and more collaborative efforts are needed due to observed significant shortcomings as well as missed opportunities. Importantly, the newly established Landscape Associations (LAs) need further assistance to become truly operational and meaningful. Without such support, there is high risk that they will become forums without action.

Outcome 2.1: Improved coordination of landscapes by multi-stakeholders (Public, private and communities) for strategic frameworks of implementing the integrated agroecosystem approach.

48. The expected outcome of this component is to attain an improved coordination of landscapes by multi-stakeholders (Public, private and communities) for strategic frameworks of implementing the integrated agroecosystem approach. This will be done according to the provisions of the landscape forum, which has a management plan and according to the guidelines for community development plans as supported by the Tinkhundla Bill.

49. The landscape forum looks at underlying issues at a broader level and facilitates the mobilisation of resources to address agroecological vulnerabilities within the communities under the landscape. At the landscape level there is a committee comprising representatives of communities, public, private and NGO's that advocate for financial support to funding mechanisms for the communities. The multi-stakeholder forum works closely with chiefdom development committees (CDC) who oversee development aspects in their respective chiefdoms and its link with the landscape forum allows an opportunity for diverse skills use for resources mobilisation, to

ensure continuity beyond the project by getting Chiefdom Leadership. The CDC works with natural resource management committees (NRMC) from different communities as enshrined in the Tinkhundla Bill. These NRMC spearhead development issues in their respective communities and report to CDC on progress made.

Output 2.1.1: Training of trainer's modules developed to capacitate lead committees on ecosystem-based adaptation strategies.

50. The landscape secretariat composed of representatives from communities, NGOs, private and public sector will be trained on governance and on climate change and systematic adaptation planning. This is to enable the secretariat to facilitate the local climate change adaptation planning process and to train other stakeholders in this process. A cadre of trainer of trainers on local climate change adaptation-planning will be put in place which will be able to scale up the approach in other localities even beyond the lifespan of the AF project. The training for the secretariat will include capacity assessment and project development skills, so that they can assist local communities to formulate simple concept notes for funding. The project will not design new funding mechanism but will form synergies with existing funds such as the Rural Development Fund (RDF), Agricultural Development Fund (ADF), Eswatini Environmental Fund EEF) and Small Grants from Global Environmental Facility (GEF) to address priority adaptation needs.

Activities

2.1.1.1. Mapping of potential coordination stakeholders at the landscape, chiefdom, and community levels.
2.1.1.2. Analyse information gaps (conduct research on the lessons learned and best practices) on ecosystem-based adaptation.
2.1.1.3. Design training modules for lead community ambassadors to sustainably capacitate communities, chiefdoms, and landscapes.
2.1.1.4. Train the leadership of landscapes as lead ambassadors
2.1.1.5. Produce tailored awareness raising messages and materials on agroecosystems mainstreaming climate change, food security and nutrition nexus.
2.1.1.6. Lead ambassadors to capacitate their communities on concrete adaptive interventions that recommend site specific adaptive technologies and assets as informed by identified evidence-based gaps.

Output 2.1.2: Institutional capacity building programs for committees to develop ecosystem-based management.

51. There is a need to expand the development or review of chiefdom development plans to ensure that the CDC adequately addresses issues of agroecosystems. Again, the establishment and revival of NRMC in communities to be strengthened to break the poverty cycle and dependency syndrome brought about by climate change impacts. These committees need to take ownership of climate change adaptation developmental initiatives required by respective communities. Relevance of the CDC and NRMC are to upscale community based natural resources management (CBNRM) activities, which now are happening in a few communities.

Activities

2.1.2.1. Technical support for reviewing and strengthening functional capacities of existing Landscape Associations, Chiefdom development Committees (CDC's) and Natural Resources Management Committees (NRMC).
2.1.2.2. Chiefdoms without CDC's shall be capacitated to have the CDC and NRMC coordination functions in place.
2.1.2.3. Upscale knowledge sharing on concrete adaptation interventions within new geographical areas.
2.1.2.4. Develop simple M&E systems for chiefdoms and landscape development plans, to enable local authorities to properly monitor their implementation.
2.1.2.5. Provide institutional and capacity building to local authorities to implement natural resources conservation and adaptive frameworks.
2.1.2.6. Organize participatory planning sessions (Gender balanced) to review and update Chiefdom and landscape development plans in the areas of intervention to mainstream climate change adaptation

Output 2.1.3: Regional Consultative Observatory learning on landscapes coordination.

52. Look and learn educational tours will be undertaken in the country and within the region to observe and take-home lessons that can be instituted by the learning landscapes. This is a networking platform where experiences could be shared, collaborative actions through agreements, can be undertaken and mentorship or support opportunities could be availed. This is to address poor coordination or participation in the landscape forum due to limited exposure and experience on what is expected to be done. The participatory nature of the look and learn is expected to increase related interest and engagement by ensuring that each stakeholder will be able to draw specific benefits of their participation.

Activities

2.1.3.1. Identify existing landscape approaches within the Region and establish cooperative and information sharing collaborations.

2.1.3.2. Develop cooperation partnership agreements through MoU, with advanced landscapes for technical and joint collaborative efforts towards climate change adaptive interventions.

2.1.3.3. Plan an exchange or look and learn programme for mentorship and learning from advanced landscape initiatives.

Component 3: Stimulate climate-adaptive investments in integrated ecosystems (forest, wetlands, and rangeland) rehabilitation (US$ 3,800,000)

53. There is combination of factors which currently constrain integrated ecosystems (forests, wetlands, and rangelands) management and rehabilitation. These include missing rangeland management as well as community woodlots management plans, lack of implementation in cases where they exist- . There are also limited investment in community and public nurseries to facilitate reforestation and afforestation. There is lack of investment in water management infrastructure and limited incentives in the adoption of new technologies and good practices. The baseline scenario includes a combination of climate change driven trends which have coincided to reduce the ability of ecosystems to provide ecosystem services namely land Degradation at 25% over the past decade (SOER). Marshlands/wetlands are anticipated to be degradation by 40% by 2050 including drying up Alian Invasive species invade 80% of the country's area leading to dwindling community forests, degradation of rangelands 30% of the country's grasslands are irreversibly transformed with climate amongst other factors limiting potentials for water recharge. These underlying trends threaten the livelihoods and resilience of communities and their ecosystems to climate change epitomized through lack of water, loss of fertile soil for production, energy sources, lack of biodiversity, loss of grazing and rangelands. With this baseline scenario, a fundamental underlying principle in the proposal is the promotion of the adaptation to a changing climate by regenerating landscapes while meeting the social and economic needs of farmers and their communities.
54. The proposal intends to use Adaptation funds to catalyze and rally communities towards regenerating their own landscapes, with benefits in the short, medium to long term that are highly apparent. Regenerative systems maintain positive reinforcing cycles of wellbeing within and beyond themselves, especially between humans and wider nature, such that "life begets life." Compared to other forms of adaptation such as bringing piped water to communities facing water shortages from longer distances in further away communities, purchasing feed (imported from South Africa) to feed animals, relying on main grid electricity which are forms of adaptation which could be implemented resources permitting this proposal instead intends to implement landscape self-regenerating activities including rallying the communities towards it. The proposal intends to support natural rehabilitation of landscapes through design and implementation of ecosystem catalytic self-regenerative activities (see Activities 3.1.1 to 3.1.3 and 3.2.1 to 3.2. 4 as well as all activities under Outcome 4) that will directly lead to self-regeneration of key ecological assets such as wetlands, woodlots, rangelands leading to more and better ecosystem services in the long term and sustainable livelihoods. Current research suggests that through the application of socio-ecological (SES) principles, focusing on active regeneration, as opposed to reactive resilience, which has higher profitability and growth.

55. Taking the recommendations made from the SNAPAS project and advancing the great green wall national action plan, there is a need to assist each of the LAs to further refine their priority actions considering the

collaborative efforts required between the various landowners in the landscape. In Ngwempisi Landscape, the revised planned actions will take place in communities falling under the rural development areas (RDAs) of Ngwempisi, Mahlangatsha, and Ludzeludze and in the case of Lubombo in Tikhuba, Ka-Langa, Siphofaneni, Lubulini and Sithobela in a bid to Velezizweni, Ka-Zulu and Mphini communities, while in Lubumbo in the Tikhuba, Mhlumeni, should facilitate access to more climate finance facilities or funds because concreate adaptive interventions are expensive (requiring multiple sources of funding) and take time (require cost mitigation strategies). The component should attract mobilisation of national resources (such as the Agricultural Development Fund (ADF), Rural Development Fund (RDF), Eswatini Environmental Fund EEF) for synergies towards concrete adaptation actions.

Outcome 3.1: Climate smart actions developed for integrated ecosystems adaptation.

56. This outcome will focus on the development of ecosystems resilience adaptation action plans across landscapes and chiefdoms. This will include schedules that will promote the maximising of efficiency and leveraging on other similar plans/programmes for joint efforts.

Output 3.1.1: Rangeland Management Plans developed and implemented to enhance restoration of pasture carrying capacities currently reduced by overstocking.

57. The situational analysis of this ecosystem will be determined with remedial bankable actions required to restore rangeland grass to support profitable livestock production. This will be through multiple integrated climate smart efforts such as IAPs control, replanting adaptive palatable species, erosion controls, plan controlled burning, identify points of water sources aimed at increasing resilience to climate change of the natural resource, to support economic viable livestock productivity aiming at increasing income of community small scale farmers.

Activities

3.1.1.1. Community participation in identification of non-sustainable rangelands management practices such as overstocking, high **IAPs** densities, no planned control burning which leads to degraded ecosystems.

3.1.1.2. Technical support towards facilitating the generation of a SWOT analysis for the health of this ecosystem towards livestock productivity. Promote more heat and drought tolerant pasture crops and climate smart livestock management while providing better and nutritious pastures.

3.1.1.3. Conduct landowner's mobilization, especially engage community leadership and members on the development of the costed management plans for ownership and capacitation.

3.1.1.4. GIS mapping of rangelands degradation hotspots of chiefdoms and communities for adaptive interventions.

3.1.1.5. Provide technical support to the Department of Rangeland Management to lead awareness creation to stakeholders on how the rangelands natural assets could be better managed for improved resilience and ecosystem functioning. This includes the improvement of fodder management by establishing sowing areas of perennial plants such as Lucerne and sainfoin to create a sustainable base for fodder in winter and for soil nutrition.

3.1.1.6. Engagement of Tinkhundla, Ministry responsible for chiefdom governance, NGO's, private entities and relevant development partners operating in each community to also make inputs for sustained collaborative efforts.

3.1.1.7. Publication (as an awareness action) of management plans to attract more partnerships in advancing concrete adaptation efforts for improved livestock productivity.

Output 3.1.2: Wetlands management plans developed and implemented to restores disturbed ecosystems due to livestock trampling and human over harvesting.

58. The marshes ecosystem occurs within the rangelands (grassland) ecosystem and are normally degraded by cattle trembling since they are not protected to control access in both landscapes. Success stories have been recorded in several projects where marshes have been protected through fencing off and regeneration of wetlands flora and rise of water to surface flows. Again, marginalised groups such as women use wetland flora to develop handicraft products for income generation. In compliance with Environmental Assessment Regulations of Eswatini Category 1 interventions will be undertaken. Again, resurfaced water flows are used

for human domestic uses, thus improving community and livestock health (through reduced distances to water sources).

Activities

3.1.2.1. Community participation in site assessments to identify degraded wetlands (marshes) within rangelands due to non-sustainable management practices.

3.1.2.2. Technical support towards facilitating the generation of a SWOT analysis and preliminary designs for a healthy wetland's ecosystem towards livestock productivity, alternative income sources, domestic uses, and cultural benefits.

3.1.2.3. Conduct landowner's mobilization, especially engage community leadership and members on the development of the management plans and their management committees for ownership and capacitation.

3.1.2.4. Provide technical support to the landscape association to create awareness to stakeholders on how the wetlands natural assets could be better managed for improved resilience and ecosystem functioning.

3.1.2.5. Engagement of Ministry of Natural Resources and Energy and Environmental Authority (mandated public regulators) for ensured compliance towards managing and sustainable use of the natural resources.

3.1.2.6. Publication (as an awareness action) of management plans to attract more partnerships in advancing concrete adaptation efforts for improved livestock productivity and livelihoods.

Output 3.1.3: Communal woodlots management plans developed and implemented.

59. The objective of this output is to restore rangelands degraded by invasive alien tree species such as Wattle, Gum etc. as indicated in Forestry Act, which is prevalent in the Ngwempisi Landscape in the Ludzeludze, Ngwempisi and Mahlangatsha RDA's Expansive natural plants species such as *Dichrostachys cinerea* will be controlled in the Tikhuba, Siphofaneni, Sithobela, and Manyonyaneni RDA's that can be managed to sustainable woodlots. This will restore rangelands by limiting moisture and nutrients competition to natural grass species and thus promote shade tolerant non-nutritious species. Poor management of rangelands leads to changes in the natural ecosystem to another hence the need for integrated actions to restore them for improved grass biomass productivity to support higher stocking rates of livestock.

Activities

3.1.3.1. Community participation in site assessments to identify areas mostly threatened by encroachment and expansion of other ecosystems other than initial state such as tree dominances in rangelands.

3.1.3.2. Technical support (manual, biological) to communities towards managing invasive and expansive tree species in the agroecosystems and classify potentials for woodlots for energy and household needs.

3.1.3.3. Conduct community mobilization to agree on rangelands management plans.

3.1.3.4. Using GIS map, the extent of ecosystem change from grass to forest over time due to degradation will help to predict impact over years if restoration is not done. Then facilitate a participatory micro-zoning of woodlots in most environmentally sustainable sites for effective management .

3.1.3.5. Develop awareness materials and provide technical support to communities in partnership with the Forestry Department on how woodlots could be better managed for improved resilience and ecosystem functioning.

3.1.3.6. Engagement of environmental management mandated regulating public departments for ensured compliance towards managing and sustainable use of the natural resources.

3.1.3.7. Publication (as an awareness action) of management plans to attract more partnerships in advancing concrete adaptation efforts for improved livestock productivity and livelihoods.

Outcome 3.2: Improved ecosystem-based restoration infrastructure in community landscapes for sustainable increased ecosystem services to sustain livelihoods.

60. The outcomes' objective is to promote adoption of concrete climate change adaptation initiatives and assets to mitigate adverse effects of extreme weather patterns on natural resources sustainability with innovative synergies with the Eswatini Environment Fund, Eswatini Agriculture Development Fund and Youth Enterprise Revolving Fund for enhanced natural resources management (improved soil cover, IAs control, erosion

control, water harvesting and rehabilitations), improved water use and mechanization technologies, improved agricultural livelihood capacity by supporting legume, horticulture, maize, cattle, goats and sheep adaptive production).

Output 3.2.1: Two communities and two public nurseries strengthened to supply restored ecosystems.

61. This output will advance the great green wall initiative by promoting carbon sequestration to reduce greenhouse gases in the atmosphere to improve air quality and to reduce heat islands. This is through propagation of native grasses and forests replaced by IAPs and leguminous shrubs to enrich rangelands protein supply. Community nurseries are targeted at Mhlumeni Khelekhele eco-lodges under Tikhuba and Ngwempisi RDAs, while public nurseries at Ludzeludze and Luve areas are all under Ludzeludze RDA. Agroforestry activities will be supported by making it easier to procure quality tree saplings with the construction of four plant nurseries. These nurseries will provide for multiple benefits for ecosystem-based adaptation for erosion control, soil fertility improvement, and increased supply of tree-based foods for communities.

Activities

3.2.1.1. Rehabilitate and upgrade nursery facilities at Mhlumeni Khelekhele eco-lodges and at Ludzeludze.

3.2.1.2. Support development of manuals for managing nurseries and technical support towards training of beneficiaries on the maintenance of the nursery structures. The training will include site selection for nursery, planning of nursery's operational scheme, preparation of seeds / cuttings for planting, and norms and standards of seeds by species.

3.2.1.3. Profile prevailing propagation techniques for each species

3.2.1.4. Capacitate local community members to propagate plant species for sale to the project to complement supply and improve livelihoods at individual homestead level.

3.2.1.5. Capacitate and facilitate GAP certification for nurseries for improved health and traceability of plant products

3.2.1.6. Increase number of varieties of nursery products using native species for sustainable income generation.

3.2.1.7. Increase production of edible native species propagation with an economic viability for non-timber products (fruits, medicinal).

Output 3.2.2: Restored wetlands, water reservoirs and community ponds designed and established considering environmental safeguards.

62. This output intends to increase resilience on water supply in compliance with the Environmental Management Act 2002, while improving and livelihoods by adapting to detrimental effects of weather-related shocks (28.3%) (drought, irregular rains, and prolonged dry spells) constitute a higher percentage (VAC, 2019). 50 Marshes will be fenced (30 Lubombo and 20 Ngwempisi), 5 scoop dams (Ngwempisi) and small or medium earth dams (8 Lubombo and 5 Ngwempisi) rehabilitated or developed under Category 1 Environmental Assessment Regulations to prolong water availability. Again, this will increase livelihood resilience through promoting sustainable harvesting of natural resources.

Activities

3.2.2.1. Conduct participatory field surveys and water needs assessments based on availability and distance to nearest water sources for livestock in rangelands and for potential climate smart agricultural productivity such as fish and crops.

3.2.2.2. Water-stressed sites ranked according to their significance towards community resilience and mapped using GIS.

3.2.2.3. Conduct environmental impact analyses and safeguards for water reservoirs establishments.

3.2.2.4. Design rainwater harvesting and cost-effective water protection infrastructures using nature-based solutions. Involve multiple stakeholders with interest in water resources management and utilization.

3.2.2.5. Train community NRMC on how to effectively manage water sources and monitor their sustainable use.

3.2.2.6. Access regained water recharge outflows and determined potential initiatives to promote sustainable utilization of water resources and their biological products (fish, biomass) for alternative livelihoods. Promote

fishponds to reduce over harvesting of fish in natural riparian bodies.
3.2.2.7. Support reticulation of rangelands to provide water points in different locations.
3.2.2.8. Conduct water quality tests on water resources to establish water points for domestic use.

Output 3.2.3: Technologies & practices adopted for Invasive Alien Species and soil erosion control in ecosystems.

63. The objective of this output is to promote integrated and sustainable invasive alien species (IAs) control in multiple ecosystems (wetlands, grasslands, and forests) interlinked with rangelands such as wetlands and forests as suggested in the National IAs Strategy. Long-term nature-based solutions will be promoted such as using natural species to control invasive alien species expansion.

Activities
3.2.3.1. Conduct landscapes biodiversity assessments to determine IAs infestation to and determine and update ecosystem degradation caused.
3.2.3.2. Conduct bio-physical and ecological research in innovative means to eradicate IAs and identify alternative uses replacing niches with native species.
3.2.3.3. Revegetate soils with poor ground cover to limit establishment and expansion of nonnative species.
3.2.3.4. Develop a participatory and costed IAs control programme for different landscapes.
3.2.3.5. Capacitate communities on tools, technologies and how to control IAs integrating nature-based solutions.
3.2.3.6. Manage pressures including overstocking, deforestation, uncontrolled burning, and wildfires that make ecosystems susceptible to invasions.

Output 3.2.4: Agroforestry and silvo-pastoral technologies adopted as nature-based insurance for alternative livelihoods.

64. The objective of this output is to integrate tree production with livestock and crops management in the Lubombo and Ngwempisi Landscapes considering socio-economic outputs of environmental safeguards. This provides positive impacts on the environment, economy, and society. This will improve productivity in the short, medium, and long term based on a biologically diverse ecosystem that produces multiple products within the framework of sustainable land use. This will provide a diverse and healthy ecosystem that will enhance resilience in terms of climatic variations and related stress factors, including the reduction of local temperature leading to increased animal productivity.

Activities
3.2.4.1. Conduct site specific research on innovative agroforestry technologies.
3.2.4.2. Capacitate communities on how to improve agricultural micro-climate through the promotion, piloting and expansion of agroforestry systems even in degraded sloppy areas. This technology is applied to prevent soil erosion in slopes by the planting of water stress tolerant species.
3.2.4.3. Conduct forest restoration on degraded forest ecosystems within proximity of rangelands through planting about 25,000 trees from selected species that are adaptive to rising temperature, drought tolerant, and hailstorms to meet socio-economic resilience and livelihood needs of the local communities.
3.2.4.4. Promote commercial woodlots within wattle infested rangelands for diversified income generation to help cover costs of rangelands management and to control unwanted expansions and for improving management assets such as fences.
3.2.4.5. Improving nutrient source through leguminous shrubs palatable to livestock, especially in poor soils with less nutritious grass.

Component 4: Upscale climate adaptive technologies for agroecosystems and sustainable alternative livelihoods (US$ 2, 780, 000)

65. There communities are faced with high vulnerability to climate-induced shocks. There is currently low adoption of climate-smart in technologies in communities and limited alternative livelihood options compounded by

unsustainable harvesting of natural resources. There is rangeland degradation due to mismanagement, inversion by IAPS and increasing number agricultural and hydrological droughts events and change in precipitation. There is limited investment in climate smart technologies due to the costs associated with switching from conventional practices to more sustainable practices. Currently most scale producers in the project area are not organized and not linked to formal market and this compromises the sustainability of natural resource management as well as livelihoods. The are no incentives for sustainable management of natural resources The expected outcome of this component is to strengthen resilience to climate change in the crop, livestock, forestry production systems and natural habitats in the target landscapes, chiefdoms and communities as informed by Environmental Safeguards and community development plans. This component aims to improve livelihoods through the establishment of demonstration sites to promote climate smart and good agricultural practices that also target vulnerable groups and communities.

Outcome 4.1: Disadvantaged group's transformative entrepreneurship promoted.

66. This outcome will focus on empowering women and youth groups and individuals will be identified and trained to develop their entrepreneurship skills and competitiveness through market links as guided by environmental social safeguards.. Since women constitute 70% of the farmers populace, they are critical change agents in their communities for climate resilience. Therefore, targeting and collaborating with the National Women's and Youth Councils (will incentivize women and youth.

Output 4.1.1: Program on sustainable natural resources harvesting for handicraft and other products to creates economic value for protecting ecosystems.

67. The objective of this output is to ensure that rehabilitated natural assets such as wetlands, rangelands and forests should be utilized in a sustainable manner because should these resources be underutilized, they might pose other environmental hazards. Therefore, non-timber products utilisation will be promoted to improve livelihoods.

Activities

4.1.1.1. Participatory identification of disturbed wetlands, wetland management plans developed and then capacitate communities to implement their plans, operationalize structures agreed upon and promote alternative livelihood products derived from the natural resources.

4.1.1.2. Capacitate NRMC to lead training of community members on how wetlands can be protected and sustainably utilized.

4.1.1.3. In the case of wetlands, resurfaced water will be naturally diverted for supporting crop production as informed by water volumes and recommended crop variety.

4.1.1.4. Sustainable harvesting of flora for handicraft products will be promoted and market linkages established for the products developed from the natural resources.

4.1.1.5. Develop publication products to promote success stories of wetlands protection, resultant livelihoods, and ecosystem benefits to raise awareness to multiple stakeholders.

Output 4.1.2: Apiary sites (honey production) developed on forest and wetlands ecosystems restored ecosystems.

68. The objective of this output is to promote species biodiversity to promote ecosystems health through setting up apiaries to stimulate flora health while deriving non-timber benefits such as honey in both landscapes

Activities

4.1.2.1. Development of community capacity building materials on the importance of restoring native flora communities such as forests and wetlands to derive economic and livelihood benefits.

4.1.2.2. Participatory site assessments for suitable site location for apiary fields viability will be undertaken to determine the most suitable sites. Communities will be trained on key indicators for determining viability.

4.1.2.3. Capacitate beneficiaries with skill development for making basic hives and procure safety/protective gear for managing honey production.

4.1.2.4. Support market linkages with potential markets and product handling and packaging.
4.1.2.5. Promote Youth and women to participate in initiatives of alternative livelihood opportunities to address limitation of access to land and ownership of livestock.

Outcome 4.2: Incentivized climate smart agriculture for improved productivity.

69. The objective of this outcome is to promote climate change adaptation and natural resources management in compliance with the Climate Smart Agricultural Policy and Climate Change Policy. The community-based pasture management techniques have led to the degradation of pastures through overgrazing. Pasture degradation is compounded by a changing climate with increasing temperatures, reducing access to water, increasing number of agricultural and hydrological drought events, changing precipitation patterns, reducing soil moisture levels causing increased plant stress and reducing the capacity of pastures to support ever-increasing numbers of cattle. The project will make strategic synergies with the Agricultural Development Fund (ADF) and Eswatini Environmental Fund (EEF) for greater impact where permissible.

Output 4.2.1: Drought tolerant, protein rich and early maturing crops promoted in rain fed agroecosystems to address socio-economic adversaries..

70. The objective of this output is to provide capacity development and technical support for sustainable and climate-resilient agricultural practices especially in 15 communities of the Lubombo landscape which is dry. Production will be enhanced, in the Lowveld, Middleveld, and Highveld regions, each of which has distinct climatic conditions and agricultural practices. By targeting these diverse regions, the project aims to maximize the impact of short-maturing and open pollinated crop varieties on food security and diversification will be supported for climate-resilient, nutritious value chains, including supporting the reduction of post-harvest losses (PHL), to enhance processing, and to increase access to markets. Adaptation assets (such as shrubs for shade and mulching) to be considered are for reducing soil erosion and addressing related land degradation, which are increasingly required in the landscapes due to existing degradation problems, which are worsened by greater drying and more intensive rainfalls, which is linked to climate change.

Activities
4.2.1.1. Conduct an assessment to update baseline information on adaptive agricultural production and sustainable land management practices in 15 communities with suggested technical, economical, and socio-environmental feasibilities to avoid maladaptation to determine which legumes, fodder, shrubs, and agroforestry practices to be adopted.
4.2.1.2. Capacity building and technical support on erosion control techniques that can be adopted in each landscape for agroecosystems recovery for improved resilience.
4.2.1.3. Provide technical support for growing plant material that has climate resilience properties to improve rural livelihoods.
4.2.1.4. Promote growing of climate tolerant species (open pollinated varieties and fruit trees), especially to droughts, as well as diversification of cultivars and other products such as legume plants that contribute nitrogen to the soil.
4.2.1.5. Build climate-resilience of pastures by improving water reticulation and quality in 15 Lubombo communities and 10 Ngwempisi.
4.2.1.6. Improve fodder management through the establishment of sowing areas of perennial plants (lucerne) to create a sustainable base for fodder.
4.2.1.7. Promote sustainable grazing such as rotational grazing to provide defoliated pastures time to recover.

Output 4.2.2: Catalytic program to switch from conventional to climate smart and nature-based technologies

71. The objective of this output is to promote climate change adaptation and natural resources management in agroecosystems. The are approximately at least 40 farmers practicing irrigation farming in Lubombo and Ngwempisi landscapes. To increase water use efficiency and to address projected climate change induced reduction in water availability and make crop production systems less vulnerable to climate change impacts, this project will support conversion from inefficient irrigation systems such as furrow irrigation to more efficient water-saving irrigation systems namely drip irrigation. Additionally, each RDA has on average 14 tractors in

the Ngwempisi Landscape and 7 tractors per RDA in the Lubombo region available for use by farmers, while there no climate smart equipment such as no till planters to go with the equipment. This project will provide climate smart mechanization technology and knowledge for access by communities for 5 Rural Development Areas (RDAs) within the landscapes.

72. During the recent cyclone Eloise (2021), an estimated 773 subsistence farmers in the two landscapes were significantly affected by persistent rain and hail which led to losses of over E500,000.00. While 40 farmers have been affected by climate induced hazards such as hailstorms and heatwaves. This highlights their vulnerability to shocks and their lack of coping capacities. There is also limited use of technologies such as shade nets and greenhouse systems to assist farmers to adapt to such extreme weather conditions. In addition, such technologies are also not being harnessed to reap benefits associated with nature benefits such as black soldier fly. This project will provide access appropriate technologies and knowledge for harnessing nature-based solutions.

4.2.2.1. Support conversion from furrow irrigation to more efficient water-saving irrigation systems namely drip irrigation for 15 pre-selected farmer groups.

4.2.2.2. Provide climate smart mechanization technology (minimum tillage implements and light weight equipment) for 5 Rural Development Areas (RDAs) within the landscapes.

4.2.2.3. Promote protected farming such as greenhouses and shade nets, 10 in Lubombo and 7 in Ngwempisi especially on hail hotspot areas, which mitigate against extreme weather incidents such as excessive heat and hailstorms.

4.2.2.4. Support development of 5 greenhouses in each landscape for breeding black soldier flies to promote the harnessing of nature-based protein sources for livestock from black soldier flies .

4.2.2.5. Support research of fertilizer tea trials on commodities and then conduct capacity building on the management and operation of other climate smart technologies such as solar energy.

Outcome 4.3: Improved and sustainable commodity compliance to market requirements.

73. Currently most scale producers in the project area are not organized and not linked to formal market and this compromises the sustainability of natural resource management as well as livelihoods. The are no incentives for sustainable management of natural resources. The objective of this outcome is to strengthen the sustainability of nature based and alternative community livelihoods. Agricultural products will be linked with their potential markets to ensure sustainability in climate change adaptive interventions i.e., promotion of livestock off takes in rangelands to allow recovery from overgrazing. While the full list of viable Value Chains will be determined at full proposal formulation consultations considering the agroecological, economic and financial perspectives, the provisional list of value chains to be supported includes maize, legumes, vegetables, sweet potatoes, and horticulture and livestock produced through climate smart technologies. Other than agriculture products, in rehabilitated wetlands and indigenous forests within rangelands, there will be promotion of non-timber products (NTP) which have an economic viability and can improve community livelihoods. These will be linked with sustainable markets for continued productivity beyond project life. Linkages with commodity clusters made by the FINCLUDE project will be done to strengthen aggregation volumes for efficiency.

Output 4.3.1: Value chains platform strengthened to promote market driven productivity.

74. The objective of this output is to promote market linkages to stimulate market driven production. To achieve this output, the project will carry out awareness raising activities, strengthen existing market linkages on different commodities and provide business training for several selected youth and other marginalized community groups with agroecosystems entrepreneurship interest.

Activities

4.3.1.1. Identify the different agroecosystems business niches that need market linkages strengthening such as livestock and vegetable production, black soldier fly and vegetable nurseries and non-timber products (honey, reeds etc.) and facilitate offtake agreements.

4.3.1.2. Conduct an analysis and diagnosis of the existing commodity producers, their organizations, and cooperatives in the areas of intervention.

4.3.1.3. Create community awareness and mobilization on opportunities of agroecosystems, livestock, crops and

NTP to address women's and youth's needs and priorities.
4.3.1.4. Provide training in economic aspects, business plans, leadership and entrepreneurship for selected young people and marginalized groups (women) on alternative livelihood from agroecosystem management.
4.3.1.5. Support the development of training tools such as the development of training curricula for farmers and community entrepreneurs.
4.3.1.6. Create markets for enhanced and diversified production, through linkages to the ongoing Home-Grown School Feeding (HGSF) programme of the GoE, which is supported by FAO and WFP.
4.3.1.7. Coaching of agroecosystems entrepreneurs in implementing their funded projects.

Output 4.3.2: Capacity-building program for strengthened value addition.

75. The objective of this output is to provide value chain support based upon a targeted and localized value chain analysis and marketing study for selected climate-resilient and nutrition sensitive crops and alternative livelihood NTP relevant to agroecosystems management. Value addition will be promoted to improve income generation and diversification of livelihoods. Sectoral assessment of prevailing value addition practices and technologies will inform approaches for the project interventions to build sustainable climate change resilience of crops/products that are likely to be selected during the AF project. The value addition will reduce post-harvest losses and attract more participation by communities therefore giving them more returns.

Activities
4.3.2.1. Promote aggregation models for value addition on agroecosystem products to be derived from the landscapes, such as crops, livestock and NTP.
4.3.2.2. Provide opportunities suitable to attract participation of marginalized groups (youth and women) such as storage facilities, and technology-oriented marketing actions.
4.3.2.3. Support and develop co-operatives and aggregation centers for farmer organizations or groups to allow for a more complete value chain that will ensure that smallholder farmers have more consistency in the market through value added supplies.
4.3.2.4. Provide farmers with climate sensitive market information and capacitate communities on value addition processes of specific commodities to inform business planning and facilitate structured market linkages.
4.3.2.5. Support in the acquisition of technologies, equipment's, and infrastructure for promoting post-harvest value addition.
4.3.2.6. Promoting post-harvest and market support to early-maturing climate-resilient *cereal varieties, as mentioned above, as well as vegetables and small ruminants/poultry.

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

76. The project has been screened for environmental and social risks as per the Environmental and Social Policy of the Adaptation Fund and was found to have limited adverse environmental or social impacts. Any potential negative impacts because of this project are believed to be small in scale, limited to the project area, reversible and can be either avoided, minimized, or addressed using recognized good environmental and social management practices. To mitigate negative impacts, the project will adhere to environmental and social policies, including the Gender Policy of the Adaptation Fund. This involves conducting thorough environmental and social safeguard assessments to identify and address any potential adverse effects. The project will implement participatory safeguards and management plans, ensuring that interventions are designed and executed with minimal environmental disruption and social upheaval. By actively involving communities in planning and decision-making processes, the project ensures that interventions are culturally sensitive, socially acceptable, and environmentally sustainable. Additionally, the focus on capacity-building and awareness-raising helps communities understand the importance of environmental conservation and social equity, promoting sustainable practices that align with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

Economic Benefits

77. Under Component 1, updating the biodiversity assessment done by SNPAS

Table 6: Project benefits

Output	**Baseline**	**Cost**	**Benefit**
	The last baseline for SNPAS was done in 2020; it was not all inclusive and integrated	Poor targeting Inefficiencies in resource use	Evidence-based policy decisions Relevant interventions Accurate targeting
Outcome 2.1: Improved coordination of landscapes by multi-stakeholders (Public, private and communities) for strategic frameworks of implementing the integrated agroecosystem approach.	Currently working in a silo without coordination Out of the country's 365 number of chiefdoms, only 59 have CDPs (developed through SMLP and SNPAS project and Tinkundla system., They don't have capacity to execute to the adaptation planning and implementation at landscape, chiefdom, and community level	Inefficiencies and ineffective interventions, resource use inefficiencies, maladaptation, unsustainable management of resources, non-complementarity, conflicts, disharmony	Reduced silo approach and enhance coordination, ownership by communities, integration of adaption into communities' development plans resulting in sustainable, efficient, and effective management of natural resources, cohesion, complementarity
Component 3: Stimulate climate-adaptive investments in integrated ecosystems (forest, wetlands, and rangeland) rehabilitation – Output 3.1.1: Pasture Management Plans developed and implemented Output 3.1.2: Wetlands management plans developed and implemented Output 3.2.2: Restored wetlands, water reservoirs and community ponds designed and established Output 3.2.3: Technologies & practices adopted for Invasive Alien Species and soil erosion control in ecosystems. Output 3.2.4: Agroforestry and silvo-pastoral technologies adopted	Pasture Management Plans at national level 6 (Ngwempisi landscape), restored wetlands management plans 7, 80% of the country is infested with at least one of the 16 IAPs affecting the country, Government has 3 nurseries for agroforestry, there is currently no management plans for agroforestry. There is very limited planting material and species suitable for agroforestry in the different agroecological climates within the landscapes	If uncontrolled will lead to depletion of water resources, grazing land, leads to biodiversity loss and species extinction with dire consequences for resilience and adaption to climate change	Improved soil and water quality and retention (groundwater recharge), improved biodiversity and livestock productivity, agroforestry increase carbon sink, reducing land degradation
Component 4: Upscale climate adaptive technologies for agroecosystems and sustainable alternative livelihoods Output 4.1.1: Program on sustainable natural resources harvesting for handicraft and other products to creates economic value for protecting ecosystems. Output 4.2.1: Drought tolerant, protein rich and early maturing crops promoted in rain fed agroecosystems to address socio-economic adversaries. Output 4.2.2: Catalytic program to switch from conventional to climate smart technologies such as drip irrigation and solar pumping. Output 4.3.1: Value chains platform strengthened to promote market driven productivity. Output 4.3.2: Capacity-building program for strengthened value addition.	The current unemployment rate in Eswatini is 33 percent and the rural population has higher rates (63.3 per cent). In the year 2020, 36.08 percent of the Lubombo regions' population was recorded to be living below the poverty line at $1.90/day, because of persistent drought this has been further exacerbated and thereby perpetuating the regions' existing challenges of food insecurity and ability to attain development goals. The handcraft sector is predominantly female with women accounting for 86% and 14% man, 60% of the artisans are between 36 and 55 years (40% are youth). The Ngwempisi has 45% and Lubombo has 16%. 26% of them export and 74% do not; they sell locally According to the World Bank, between the years 2020 and 2039, it is projected that the Lubombo region will experience temperatures higher than 30℃ for an estimated 130 to 174 days/ year these statistics indicate that the dire economic situation is likely to worsen	With unsustainable and uncontrolled harvesting would lead to over-extraction thus maladaptation tendencies	The economic benefits of sustainable natural resource management and utilization will be sustained, The interventions also bring benefits associated with equitable access and utilization and minimizes tragedy of commons

78. Component 1 aims to improve landscape rangeland baselines through an inclusive integrated agroecological assessment, adopting information services and strengthening climate early warning systems and advisories. Although unquantified there can be high cost associated with using outdated disintegrated baselines and information in landscape and rangeland management arising from mistargeting of interventions and beneficiaries resulting in unsustainable, ineffective and inefficiencies in resource use. Updating baselines last undertaken by the SNPAS project in 2020 will translate to improved beneficiary targeting, strengthened early warning for optimal resources use and evidence-based policy decisions

79. Improved income generation activities at community level: Under component 1Through the improved pasture management plans, communities will be able to improve livestock productivity from the current 22,047 sales in the two landscapes by 20%,translating to an estimated additional income of E10,000 (approximately USD 650) per household annually that will be generated from livestock sales. Wetlands management's plans will enable the production of biodiversity material which communities will benefit from harvesting to create and sell hand craft equipment for local and international markets native medicinal plants.
    Communal woodlots under management generate income through selling of firewood Communities will also generate income from sales of native plant seedlings from the two public nurseries for ecosystem restoration.

Honey sales from local natural plants with medicinal properties will increase profits to communities. It is projected that each beekeeping household could produce 50 kilograms of honey per year, generating an income of E3,000 (approximately USD 200) annually from honey sales. With 300 households participating, this could amount to E900,000 (approximately USD 60,000) annually. The focus on developing alternative income-generating activities, diversifies income sources, reducing reliance on a single ecosystem and thereby mitigating economic risks. Additional income generating activities are designed with a particular focus on women and youth, empowering these vulnerable groups through entrepreneurship and skill development, thereby fostering economic independence and resilience. Enhancing production, reducing post-harvest losses, increasing market driven products, usage of drought tolerant, protein rich and early maturing varieties, which are climate resilient will encourage economic benefits.

Social Benefits

80. The project is expected to directly reach 19,600 smallholder households (HHs), equivalent to some 117,600 people (household members).40% of persons receiving project support are women 2) 60% of persons receiving project support are men 3) 30 % of persons receiving project support are the youth (50% of them are women. It is anticipated that the immediate indirect beneficiaries will be within the regions of the targeted landscapes estimated to be approximately 450,876 people (219,986 males (49%) and 230,839 females (51%).
81. Improved food security and nutrition: The food security and nutrition policies have the mandate to always increase food security in Eswatini and food available for all. In the past decades there has been a fluctuation in the significant number of populations, which is chronic food insecure, on average 20% of the population. This project aims to revive the native plants that are drought tolerant and climate resilient to improve the food security statues of the country.

82. The adaptation to short maturing varieties of crops for food production will enhance food security in the country. The income from hand craft materials, honey sales, firewood sales and medicinal plants will improve food security for communities. The establishment of management plans will result in the communities being able to manage the extraction of their natural resources in the ecosystem. Through the establishment of multi-stakeholder institutional collaboration, which is rooted in participation, communities will have ownership of their natural resources thus benefiting their communities.

83. The whole Lubombo region is faced with the issue of portable water, through this project from the restoration of wetlands there will be a possibility of portable water for human usage. Restoration of wetlands enhances natural filtration and purification, groundwater recharge, and water quality, making water more portable. In restored wetlands, vegetation and soil retain sediments and pollutants, while plants and microbes break them down, cleaning the water. Studies show that wetlands can reduce nitrogen levels by up to 70% and phosphorus by up to 50% through plant uptake, microbial activity, and sediment trapping. Research also indicates that wetlands can trap and retain heavy metals like lead, zinc, and mercury, reducing their concentrations in surface and groundwater. Furthermore, microbial activity in wetland soils can reduce pathogen loads, helping decrease harmful microorganisms like E. coli and fecal coliform bacteria in water bodies. For many communities in Eswatini, groundwater is a vital source of potable water, and wetlands help recharge it by gently percolating water through the soil. Wetlands improve water quality by lowering erosion and sedimentation. These regenerated habitats sustain various plant and animal species, improving water purification. This means more reliable clean water, decreasing the need for expensive water treatment equipment and ensuring safe drinking water, especially in remote areas of Eswatini. According to SNPAS Project monitoring reports, there is evidence from case studies that have been undertaken indicate that pH and turbidity have shown acceptable water quality standards fit for domestic use. For example, in Ekuvinjelweni community wetland, pH was within the required 6.5-8.5.

84. SEASL will comply with the Adaptation Fund guidelines, which priorities inclusivity, gender equality, and the involvement of marginalised groups, to guarantee that benefits are distributed equitably to vulnerable communities, households, and individuals. The initiative will implement comprehensive social assessments based on a participatory selection process to identify vulnerable populations, such as women, youth, and individuals residing in extreme poverty. A community profiled list shall be utilized and triangulated with other

existing vulnerability lists e.g., National Disaster Management Agency tool. These groups will be targeted in capacity-building programs, their representation in decision-making processes will be guaranteed, and they will receive customized support to address their distinctive requirements. Activities such as training, resource provision, and access to climate-resilient technologies will be designed to be inclusive and accessible. Furthermore, the initiative will implement monitoring and evaluation mechanisms to monitor the participation and distribution of benefits among vulnerable groups, thereby guaranteeing transparency and accountability. The initiative will promote equitable access to its benefits by fostering community engagement and implementing safeguards to prevent exclusion, thereby enhancing the adaptive capacity and resilience of the most vulnerable. There will be sensitization of traditional authorities using the chiefdom development planning approach and emphases will be made that the authorities are participating throughout the project life to reduce conflicts and undesirable competition.

85. An estimated 647,172 number which is approximately 52% of the population in Eswatini are women. Gender dynamics have a considerable impact on the roles of women in agriculture in Ngwempisi and Lubombo. There are gender stereotypes and attitudes which continue to subordinate women such as: angasitjelani umfati (what can a woman tell us), 'udvodzile lomfati' (the woman thinks like a man idea), 'livilendvodza ekugcine' (a final word is uttered by a man). 6 These idioms and practices do not only prevail in traditional settings but are observed in workplaces. These practices undermine women's capacity to contribute and fully participate in the development agenda. In addition, socio-cultural norms – exclusion of women and youth in flora livelihoods and access to resources. In the targeted Landscape, approximately 60% of women are involved in subsistence farming.8 Though they are primarily responsible for subsistence farming, they encounter significant challenges because of their limited access to resources, land, and decision-making power. While the are no available statistics on women's participation and access to productive resources such as land and water, 60 % of women participate in decision making committees. Although the Government of Eswatini has developed strategies and quotas to ensure women participate and are elected to hold decision making positions, the deeply entrenched patriarchal norms that often prioritize male leadership and decision-making roles. Traditional beliefs and practices influence voter's decisions and limit women's participation in the political space. The Government has provided voter education to communities and rolling out campaigns to promote the nomination of women into positions of leadership but the percentage of women in parliament is still below 30%.
86. The two landscapes have significantly different agro-ecological conditions which present different implications on women's livelihood and access to resources (water, land, etc). While the Lubombo is generally drier and the Ngwempisi wetter, the Lubombo community is proximity to sugar plantations which provides short-term seasonal employment leading to different outcomes in terms of livelihoods and incomes for some women and men. On the other hand, the Ngwempisi landscape is dominated by rainfed cropping and forestry related employment. These dynamics lead to different needs in terms of interventions.
87. The project will ensure equality by having both women and man represented in committees. They will be rigorous capacity building, awareness raising activities and campaigns on gender targeting various sector of the communities. The project will improve water supply through restoring wetland reducing distance travelled by women to fetch water. Improvement of woodlots will also provide nearby firewood sources reducing distance travelled by women to fetch firewood. The consultations with local communities revealed that women have limited access to credit and agricultural inputs, lower educational attainment, and minimal involvement in decision-making processes. Additionally, they have restricted land ownership rights.
88. In Eswatini, gender differences with respect to men and women are affected by entrenched patriarchal norms that significantly influence gender roles, participation, decision making and access to and control of resources. Men control approximately 90% of land, while women own only about 10%, a situation reinforced by customary and legal systems that favour male ownership and inheritance. Women, who are primarily responsible for collecting water and fuel wood, often bear a heavy labour burden, with around 70% of them spending considerable time fetching water, which limits their agricultural and income-generating activities. Additionally, 40% of rural women report insufficient access to clean water for agricultural and domestic needs, exacerbating their vulnerabilities, especially during droughts. Access to credit is also severely restricted for women; only 16% of women have access to formal financial institutions compared to 45% of men, significantly limiting their

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ability to invest in agricultural activities and entrepreneurial initiatives. Women are underrepresented in decision making bodies.

89. In the Ngwempisi and Lubombo landscapes, gender disparities are pronounced, with land ownership largely dominated by men and women occupying only 22% of leadership positions. Both women and men are vulnerable to climate change impacts, with women and marginalized groups being disproportionately affected. The collection of sex-disaggregated data will help understand the specific impacts of climate change and guide the implementation of gender-responsive measures. The project will measure the effectiveness of providing both men and women with equal access to opportunities and services, ensuring that activities and outcomes benefit both genders. All indicators will be disaggregated by sex and age, and a baseline will be established to provide a benchmark for future progress.
90. To ensure inclusivity, the project includes a 50% quota for participation of both men and women, guaranteeing representation. Gender-responsive indicators will be both qualitative and quantitative. Women will be represented in decision-making bodies as they are recognized as custodians of traditional knowledge.
91. The vulnerabilities of women and marginalized groups to climate change are further exacerbated by rural-urban migration, where men often leave, leaving women to manage the land with limited resources. Women have restricted opportunities to earn income, access land and migration results in shifting gender roles increasing their vulnerability to climate impacts. This necessitates the project to support women's empowerment activities. Women face challenges such as limited access to extension services, climate information, and finance. Besides being sidelined in decision-making bodies, they face discriminatory gender norms, which often subject them to unequal access to social, economic, and financial resources. Gender-based violence (GBV) further undermines their adaptive capacity, particularly for women and girls. Due to climate change, women and girls are forced to walk long distances to collect firewood and water and are at heightened risk of external GBV.
92. To address these gender-specific vulnerabilities, the project proposes several interventions, including improving water accessibility through ecological restoration to facilitate equitable access to resources. The project aims to ensure that at least 50% of its benefits reach women and will monitor progress on gender equality through metrics such as women's participation in project activities and their representation in leadership roles within Community Development Committees (CDCs).

Targeted capacity-building and awareness-raising activities will also be implemented, including training workshops on women's rights and financial literacy, gender equality and economic empowerment awareness campaigns, and mentorship programs to develop future women leaders, with support from local NGOs. These efforts will create an environment in which both men and women can actively participate in resource management and decision-making, ultimately leading to a more equitable society

93. Women emphasised the necessity of targeted capacity-building programs, support networks, health interventions, and equitable resource allocation. In response, the SEASL project will implement strategies to improve women's access to financial services and land, facilitate the establishment of women's cooperatives, provide gender-specific training, and incorporate health and well-being initiatives. The objective of these activities will enhance the food security and climate resilience of these regions by empowering women, improving their agricultural productivity, and ensuring the equitable distribution of project benefits.

Environmental Benefits

94. Enhanced natural resources, biodiversity, and ecosystem services in project target areas: The productive assets developed under Component 3 such as the resource management plans, agroforestry and silvo-pastoral technologies will improve the natural resource base upon which livelihoods depend. Erosion control measures will reduce soil loss from the project areas and promote sustainable land use practices, reducing degradation and promoting ecological balance. Sustainable natural resources harvesting provided through this project, such as agroforestry and silvo-pastoral, will increase soil fertility and soil structure, as well as prevent biodiversity loss from the use of inorganic chemicals. These efforts not only enhance biodiversity and ecosystem health but also provide crucial services such as water purification, soil stabilization, and carbon sequestration, which are vital in the context of climate change adaptation.

95. These initiatives to restoration and sustainable management of critical ecosystems such as forests, wetlands,

and rangelands are complemented by efforts to educate and engage communities in environmental stewardship, ensuring long-term commitment to ecosystem preservation.

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

96. The cost effectiveness of the project is evident compared to the current statues of the country. Proceeding ignoring the current climate issues in the country will have a negative impact on the rural livelihoods more especially in the Lubombo region. The effects of climate have ripple effects on food security, availability of portable water, availability of arable land for cultivation and loss of biodiversity in the communities. This is evident in the fluctuations on crop production not meeting national foods requirements, hikes in food prices and increase in food imports. In the absence of effective adaptation in the rural communities of the country, extremely high costs are being accrued to address the effects of droughts. For example, the 2015/16 drought cost the country 7.01% of the country's GDP or 18.58% of Government expenditure.

97. Eswatini State of Environment report 2021 shows that there is an increase in the less palatable grasses species because of land degradation, loss of productive land due to soil loss and erosion.
Crop lands adjacent to waterways and water bodies are used for production of maize and vegetables thus planting on the buffer zone of the water bodies. In providing sustainability of the aquatic bodies' protection is necessary which can be enabled through this project. Through protection of these aquatic bodies soil erosion which is due to livestock movement can be managed. The adoption of the traditional structures in the communities to manage the natural resources through management plans provides a sense of sustainability and ownership by the communities whereby extraction rates of the resources can be monitored.

98. The third national communication to UNFCCC indicates that livestock and crops production under rain-fed conditions have declined by over 30% on average. Cost effective interventions such as fencing wetlands to recharge water table are less costly and from zero outflows in a disturbed wetlands as high as 4.99 Liters/s and 8.41 Litres/s are recorded in in Lubombo and Ngwempisi landscapes from SNPAS project much cheaper than water abstraction of water from rivers located kilometers away remedial action to curb livestock death and poor productivity due to less water availability. Controlled IAPs in rangelands will result in improved pasture yield, as well as livestock health and productivity at less cost as opposed to loss and manufactured feed. The use of category 1 water reservoirs will help communities to adapt to water shortages in winter and in drought seasons at a far cheap cost of using clay to hold water as opposed to the use of very expensive cement and foreign materials into natural environment. Compared with large dams and water reservoirs which are costly to construct and are associated with costly conveyance systems, small water reservoirs such as earth dams are less costly, closer to the communities and can be maintained by the communities. The small water storage infrastructure comes with less costly conveyance systems. The restoration of wetlands can supply portable water to help cut health care costs associated with water scarcity leading to poor sanitation which in turn can increase waterborne diseases. Another adaptation measure is in the use of plants fertilizer tea, which uses affordable and readily available material to communities.

99. Sustainable inclusive (women and youth) value chain development models to be delivered under Outcome 4 that are core-designed together with the communities potentially have better adaptation benefits compared to large scale driven models where members of the communities take up casual jobs in the large corporates. This is because there is ownership, participation and clear benefits sharing mechanisms which provide better incentives for sustainable management of natural resources.

100. Land and water conservation stimulates the sustainable use of Aquatic and terrestrial resources, which will ascertain the regulated and monitored use of the resources. Wetland management is of great importance since the unregulated cropping in wetland will result in constricted water availability and contaminated water resources through eutrophication thus compromising aquatic life and resources and effective fisheries sector. Sustainable rangeland management and effective stocking rates will benefit an agro pastoral community through the sustainable management practices, which will control the density of animals and stimulate off-takes through market linkages and conserved animal genetics that are resilient to climate change hazards.

The support of plant and animal genetics that exhibit traits of resilience to the changing climate is envisaged to support the development of local gene diversity for increased trait exchanges for improved adapted local seed varieties that will be accessed by small holder farmers at lower cost to hybrids that are climate sensitive.

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

101. Eswatini NAP is under development and currently in the process of being evaluated by stakeholders, but the project is hinged on the initial Adaptation Communication and the third national communication to the United Nations Framework Convention on Climate Change (UNFCCC) (2021) and the Update of the Nationally Determined Contributions; The proposal aligns with the NDC, and adaptive measures proposed in the third national communication through

    1) scaling of up actions and investments in ecological infrastructure outlined in the Nationally Determined Contribution (NDC) including actions for:

    - Strengthening Regenerative Landscape Management of degraded lands/ecosystems of Eswatini
    - Improving conservation of genetic resources (indigenous trees and land races)
    - Restoring and protecting wetlands (areas of marshes, fens, peatlands, or water, including artificial, permanent, or temporary) and
    - Improving sustainable utilization of its resources for biodiversity and other benefits to communities.

    2) Establishment of long-term biodiversity conservation, landscape management and natural resources management through actions including increasing Protected Area Network and assess climate resilience of the protected areas to identify valuable ecosystem services.

102. The National Development Plan (NDP) 2023/24-2027/28 supports the improvement of livelihoods through poverty eradication, environmental protection, gender equality and employment creation through a complete integration of environmental management and enforcement in the Eswatini development trajectory. The NDP has also mainstreamed the critical environmental and climate change impacts that compromise livelihoods and income generating activities thus resulting in lower economic activity and compromised food and nutrition security. The NDP has aligned its initiatives towards a drive for the achievement of the SDGs through a nationally coordinated implementation and monitoring plan.

103. The review of the National biodiversity strategy (2016-2022), which recognizes environmental management and sustainable development and alignment objectives of integrated landscape management.
104. The project is in line with the National Determined Contributions (NDC) of 2021, which represents a progression beyond the 2015 NDC by adopting an economy wide GHG emissions reduction target of 5% by 2030 compared to the baseline scenario and help achieve a low carbon and climate resilient development. This economy wide emission reduction can increase to 14% with external financing and this translates to 1.04 million tons fewer GHG emissions in 2030 compared to a baseline scenario.

105. The Eswatini Environment Action Plan (SEAP) is a framework which the country will use to manage the environment in a sound and sustainable manner. The SEAP has the following objectives; provide a state-of-knowledge overview of the environmental conditions in the country; identify, prioritize and where possible quantify environmental problems; propose solutions to immediate environmental problems in the form of programmes and projects, and institutional and legislative reforms, together with details of their funding requirements and their human resource/capacity-building needs; establish a clear indication of government's priority areas with respect to the environment so as to guide and give proper orientation to donor intervention in this field; establish a framework which provides coherent direction for the process of environmental monitoring and action planning in the future; and provide a framework for continuous development and environmental policy dialogue within the country and with donor partners.

106. Eswatini National Irrigation Policy: This policy was established in July 2015 with the purpose to provide clear guidelines on adoption on how to increase national irrigated land and improve agricultural water management

thus improving productivity of labour and environmental resources. The rationale that drove the establishment of the policy was the growing persistence of drought conditions in the country. The main objective of this policy is to ensure that the irrigated agriculture sub-sector in Eswatini contributes fully to economic growth and poverty alleviation in accordance with the Government's Stated Strategy; the National Development Goals, the Water Act of 2003, and the need to use the country's limited natural resources in a sustainable fashion. This policy was able to bring clean piped water to the rural areas of the country more especially the semi-arid and arid areas, which is commonly known as community water. The effects of droughts and aridity is mainly experienced in the water and sanitation sector due to the direct linkages.

107. Food Security Policy (2005) and Food Nutrition Policy (2010): All people in Swaziland always, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The project objectives are enshrined in the food and nutrition policy that seek to reduce poverty and improve food security through the ecosystem approach to terrestrial management, soil degradation and management. Therefore, the project in compliance with national environmental laws, categories and regulations will consider the social aspects of existing livelihoods in their various localities, avoid deterioration of existing livelihoods through assessment of sociological issues and predominant livelihoods.

108. Fisheries Policy (2011): The policy seeks to ensure access to sustainable use of aquatic resources for socio-economic development purposes. The project will contribute to the management and efficient use of the aquaculture and fisheries resources through the ecosystem approach to fisheries livelihoods development.

109. Livestock Development policy: The policy objectively seeks to improve and strengthen animal disease control, surveillance and diagnostic efficiency and the delivery of animal health care services to enhance the quality and reproductive performance of livestock and to ensure risk analysis efficiency, food safety and ensure access to sustainable food, nutrition, and health security. Rangeland degradation control and management programs are part of the livestock policy objectives, and the project informs the management of the ecosystems that ensure the contribution to socio-economic development.

110. Comprehensive Africa Agriculture Development Programme (2010): CAADP is a multi-sectorial and continental Policy that guides social and economic matters in agricultural development. The policy ensures that the agriculture sector contributes fully to socio- economic development, poverty alleviation, food security and sustainable natural resources management. The policy objectively seeks to increase agricultural output and productivity, increase the earnings for those engaged in agriculture by promoting adoption of diversification and sustainable intensification and use of appropriate technology, enhance food security, ensure sustainable use and management of land and water resources.

111. Environmental Policy: The policy promotes the enhancement, protection and conservation of the environment and the attainment of sustainable development in Eswatini.

Table 7 Project component's contribution to National Policies and strategies

Component	Policies contributing to	How component address policies
Component 1: Participatory and gender sensitive Capacity development within landscapes and rangelands.	– National Gender policy (2023) – National Climate Change Policy (2016) – Environmental Management Act (2002) Swaziland National Biodiversity Strategic and Action Plan (2016)	– Promotes inclusive participation. – Project incorporates climate vulnerability assessment, mitigation, and adaptation. – Project will map project areas and highlight biodiversity and natural resources degradation hot spots.
Component 2: Strengthen multi-stakeholder institutional collaboration (public, private & communities) for strategic implementation of agroecosystem-based adaptation	– Comprehensive Agriculture Sector Policy – Natural Resources Management Act 1951 – Environmental Management Act 2002 – Tinkundla Administration Act – National Climate Change Policy (2016) – National Gender policy (2023) –	– the component stimulates adaptive agroecosystems (Output 2.1.1: Training of trainer's modules developed to capacitate lead committees on ecosystem-based adaptation strategies, Output 2.1.2: Institutional capacity building programs for committees to develop ecosystem-based management. – Contributing to Tinkhundla Administration Act, Activity 2.1.2.2. will capacitate Chiefdoms without Chiefdom Development Plans (CDP's) to have the CDC and NRMC coordination functions in place. – Promotes inclusive participation.
Component 3: Stimulate climate- adaptive. investments in integrated ecosystems (forest, wetlands, and rangeland rehabilitation).	– National Climate Change Policy (2016) – Environmental Management Act 2002 – Natural Resources Management Act 1951 – National Forestry Policy (2002)	

	– Livestock Policy – Pasture Management Act – National Water Policy – Irrigation Policy – National Trust Commission Act, 1972,	
Component 4: Upscale climate adaptive technologies for agroecosystems and sustainable alternative livelihoods.	– National Forestry Policy (2002) – Flora Protection Act – Environmental Management Act 2002 – Swaziland National Biodiversity Strategic and Action Plan (2016) – ENAIP 2024 – Poverty reduction strategy – National Development Strategy – Comprehensive Agriculture Sector Policy	
Component 5: Knowledge management	– ENAIP 2024 – Comprehensive Agriculture Sector Policy – Livestock Policy	

E. Describe how the project 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.

112. The programme will comply with the Adaptation Fund standards and policies, such as the Social and Environmental Policy and Gender Policy of the Adaptation Fund and will align and adhere to the national laws and codes of the Government of Eswatini. IFAD's social, environmental and climate assessment procedures (SECAP) are fully aligned with AF related policies. The proposed project complies with the various laws related to the project's implementation, such as environmental, agricultural and water resource acts and laws. Related line Ministries in Eswatini will be instrumental in strengthening compliance and alignment with the laws and policies of the country. Relevant government Ministries will be further engaged during design to ensure that activities comply with relevant national standards. The relevant technical standards applicable to the project include EWS, water supply, water harvesting, irrigation systems, plant and animal production and selection, ecological infrastructure, construction will be further elaborated at full proposal development. A full detailed analysis, evaluations and consultations with the competent services will be carried out during the environmental and social impact study during the full proposal design.
113. An Environmental and Social Management Plan in line with the ISO 14001 Environmental Management System Standards and the Environmental and Social Policy of the Adaptation Fund, including a Risk Assessment for local interventions as Unidentified Sub-projects will be prepared during the proposal development stage.
114. The programme will also be aligned to IFAD's nine Environmental and Social standards under the SECAP. The includes biodiversity strategy, resource efficiency and pollution prevention, cultural heritage, indigenous peoples, Labour and working conditions, community health and safety, physical and economic resettlement, financial intermediaries and direct investments, and climate change. The priorities, as mentioned earlier, comply with the Fund and national policies and regulations for Eswatini.
115. The Environmental and Social Management Plan (ESMP) that will be articulated in this project will consider and track risks that have been identified at proposal stage; screen for any new risks during the implementation of the project and serve to monitor and report on the mitigation measures. The monitoring and reporting measures proposed in the ESMP will be fully integrated in the monitoring plan of the project. The ESMP will not allow the implementation of activities, including undefined sub-projects, with high risk. The proposed project will fully comply with national laws particularly the National Environmental Management Act, the Adaptation Fund's Environmental and Social Policy and the IFAD social and environmental standards. During implementation IFAD and partners will ensure effective coordination with the Eswatini Environmental Authority (EEA) to duly comply with the requirements established within the National Environmental Regulation and Guidelines. A screening form will be developed by EEA for each sub-project and reviewed before implementation starts.

National standards and compliance.

116. Eswatini's Environmental Management Act, 2002, mandates EIAs for projects likely to have significant environmental impacts. The project will conduct comprehensive EIAs for activities such as the construction of

water reservoirs, wetlands restoration, and nursery establishment. These assessments will identify potential environmental risks and propose mitigation measures. The project will engage accredited environmental consultants and seek approval from the Eswatini Environmental Authority (EEA).

117. The National Building Regulations and Building Standards Act, 1968, outlines requirements for construction to ensure safety and durability. All infrastructure development, including nurseries and rainwater harvesting structures, will comply with these building codes. SEASL will obtain necessary construction permits and ensure that all structures meet safety, durability, and environmental standards. Collaboration with local building authorities will be maintained throughout the construction process.
118. The Water Act, 2003, and associated regulations govern water quality standards to protect water resources. The project will adhere to water quality regulations in the establishment of water reservoirs and rainwater harvesting systems. Measures will be implemented to prevent contamination and ensure the provision of clean water for communities and ecosystems. Regular water quality monitoring will be conducted, and results will be reported to the relevant authorities.
119. The Ministry of Agriculture's guidelines and policies, including the National Agricultural Policy, provide standards for sustainable agricultural practices. The project will promote sustainable agricultural practices by following these guidelines. This includes the use of approved agricultural inputs, best practices in land use and soil management, and climate-smart agricultural techniques. Training will be provided to farmers to ensure adherence to these standards.
120. The Forests Act, 2000, and other related regulations govern forest management and conservation. The project will follow forest regulations to ensure sustainable forest management and restoration. This involves compliance with reforestation guidelines, protection of indigenous species, and control of invasive species. The project will collaborate with local forest authorities to align activities with national forest management plans in Eswatini.
121. Occupational Safety and Health Act, 2001, and Waste Regulations, 2000. The project will ensure workplace safety and proper waste management by adhering to these regulations. Safety training will be provided to project staff, and waste management plans will be developed and implemented in accordance with national standards.

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

122. Several climate change related projects and programmes are on-going while others are planned in Eswatini. It is acknowledged that some projects may look like this proposed project but with distinctive differences as articulated on Table 5 below. Numerous discussions with the developers of the other almost similar projects concept notes had been done, and clear unique distinctions were made. It is important to identify synergies and avoid duplications to maximize the use of scarce resources. This project will complement other projects like the SNPAS and FINCLUDE project. The Lower Usuthu Sustainable Land Management Project – LUSIP, no interventions were directed to improving grazing land management even though had been identified in the land use plan cases in CDPs and this project is to address that. The Small Holder Market Led Project – successfully involved smallholders in the production of sugarcane in a large irrigation command, realizing that food security and nutrition were insufficiently addressed but parts of the irrigated command were set aside for cultivation of crops, so this project can complement production under climate smart technologies. Water Harvesting, Small and Medium Dams Project (WHDP) WHDP contemplated the construction and rehabilitation of water storage structures especially in the highveld mostly the Malolotja landscape, yet this project targets Lubombo and Ngwempisi landscapes. The GEF-FAO project targets maize and beans value chains as an entry point towards the broader food system transformations, while the SEASL entry point focuses on ecosystem-based adaptation within specific landscapes Malolotja, Ngwempisi and Lubombo landscapes.

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

123. The Government of Eswatini acknowledges the potential opportunities that the Adaptation Fund project presents to develop and improve, evidence-based and systematic approaches for coordination and enhanced implementation of climate change responses. These include ensuring comprehensive data collection and analysis, a harmonized criteria and indicators for early warning information analysis and dissemination will be

developed, promote new climate information systems, and train local stakeholders on monitoring and early warning networks. Documentation of community-based climate vulnerability baselines to update management plans and develop participatory environmental and social safeguards through interviews and assessments to learn good agricultural practices that are climate resilient for lessons learnt from communities and knowledge management products will be used in sensitizing communities for more informed community-based planning. Products will be added to the GIS portal, the land degradation observatory system will be strengthened for data gathering, and user rights protocols will be established for optimal use of the enhanced services.

124. Climate change impact assessment will be conducted to identify local ecosystems vulnerabilities for learning and knowledge sharing. This assessment will strengthen the development of baselines, community-based climate vulnerability and capacity assessment, which will update management plans and the institutional, regulatory and policy frameworks. Stakeholder engagements will be done to ensure that assessment generates safeguards (environmental and social) by conducting interviews, qualitative and quantitative agroecological assets assessment. Workshops will be conducted to share with stakeholders results of assessment for their awareness and sensitizing for policy directives. Stakeholder engagements will be done to ensure that qualitative and quantitative agroecological assets assessments generate and share results. Lessons will be valued by leveraging data to impact national and regional climate adaptation and sustainable natural resource management policies, promoting best practices across regions and programs, and involving stakeholders in ongoing learning and adaptation. This will ensure that project findings are broadly shared, implemented, and scaled up to improve climate resilience and sustainable livelihoods in Eswatini.

Table 8: Measures to avoid duplication of projects from other funding sources.

Project Name	Entity	Duration	Description	Alignment
Currently completed projects				
Lower Usuthu Sustainable Land Management Project - LUSIP	MOA /ESWADE	2010-2014	The specific project objectives are: 1) to promote development and mainstreaming of a harmonised, cross-sectoral approach to SLM at the national level. 2) to reduce land degradation, biodiversity loss and mitigate climate change in the Lower Usuthu River Basin area through the application of sustainable land management practices which will contribute to adaptation to climate change. 3) to improve the livelihood opportunities, resilience, and food security of rural communities (men, women, and children), including catalysing development of a range of alternative complementary livelihood opportunities, and 4) to manage the project effectively and disseminate results	This project introduced conservation agriculture and climate smart practices, chiefdom development planning, land rehabilitation and re-forestation. It also helped in the drafting of the Swazi Nation Land Commercialisation Bill. The Proposed "Strengthening Ecosystem based adaptation for Sustainable Livelihoods within Landscapes" will build on the lessons learnt from this project to ensure that best practices are up scaled to other communities. In addition, lessons from LUSIP's community engagement strategies and sustainable practices will be important to inform SEASL's implementation.
Active projects				
Small Holder Market Led Project	MoA/ ESWADE	2016-2023	The project outcomes are: Outcome 1: Chiefdom Development Planning process institutionalised in each of the four Regions. Outcome 2: Increased land area under diverse and resilient market-led production systems in all four Regions. Outcome 3: National capacity to establish, implement and promote policies and programmes to meet Swaziland's convention targets; and to share lessons nationally and regionally.	The project has upscaled the concept of Chiefdom Development Planning to 37 Chiefdoms out of a total of 365 Chiefdoms in the country. The Chiefdom Planning improves land use demarcation for various uses within the chiefdoms and preservation of the environment. The Proposed "Strengthening Ecosystem based adaptation for Sustainable Livelihoods within Landscapes" project will further upscale the ecosystems preservation within landscapes in other chiefdoms or communities with an approach of ensuring harmony between land uses.
Water Harvesting, Small and Medium Dams Project (WHDP)	MOA	2017-2023	The project purpose is the sustainable enhancement of smallholders' irrigated crops in project areas based on approaches that reduce vulnerability to climate risks, support improved water resource management and promote access to markets. The project results are: Result No. 1. Water storage capacity increased Result No. 2. Production capacity for smallholders enhanced. Result No. 3. Institutional capacity strengthened	This project is mainly focused on infrastructure development for increasing water harvesting and irrigation development to enhance commercialisation. The "Strengthening Ecosystem based adaptation for Sustainable Livelihoods within Landscapes" project will mainstream the Ecosystem adaptation approaches to the commercial approach of this project.
Pipeline projects				
Increasing the resilience of Eswatini's agro-pastoral communities through integrated ecosystem and watershed management	UNDP	TBC	The project proposed outcomes are: Outcome 1: Increased capacity of rural support institutions. Outcome 2: Increased food and nutrition security of rural households. Outcome 3: Increased access to water for rural communities. Outcome 4: Land productive capacity enhanced. Outcome 5: Diversified rural livelihoods. Outcome 6: Sustainable funding for watershed management. Outcome 7: Rural communities access credit and livestock value chains	This project is mainly concentrated on the water catchments of the Lubombo region, with the use of national policies as a way of governance. For knowledge management this project will use ecosystem accounting protocols at catchment level. Community based natural resource management catchment plans and rangeland management plans will be used for controlling IAPs with the approach of a regional integration on early warning systems. The "Strengthening Ecosystem based adaptation for Sustainable Livelihoods within Landscapes" project focuses on the landscapes of Ngwempisi and Lubombo region on the protected areas buffers. Coordination at landscape and community will be used for governance. Ecosystem habitat assessment at community level will be used for knowledge management. Community development plans, landscape plans, integrated ecosystem management plans will be used for IAPs control, while agriculture sector mainstreaming will be used for early warning systems.
Improving climate resilience in the Kingdom of eSwatini through the integrated management of mountain ecosystems	UNEP	TBC	The project proposes to build the climate change resilience of eSwatini's most vulnerable populations by introducing a bottom-up, integrated management approach in mountain ecosystems. The proposed outcomes are: Component 1. Strengthened institutional and technical capacity of the government, local authorities, and communities for implementing integrated climate-resilient management of mountain ecosystems. Component 2. Enhanced climate resilience of communities and mountain ecosystems supported by innovative finance mechanisms. Component 3. Knowledge management to support the mainstreaming of the integrated climate-resilient catchment management approach.	This project is mainly concentrated on the Highveld mountains water catchment, with the use of national policies as a way of governance. For knowledge management this project will use natural resource accounting at catchment level. Community based natural resource management catchment plans and natural resource management plans will be used for controlling IAPs with the approach of water sector mainstreaming on early warning systems. The "Strengthening Ecosystem based adaptation for Sustainable Livelihoods within Landscapes" project focus on the landscapes of Ngwempisi and Lubombo region on the protected areas buffers. Coordination at landscape and community will be used for governance. Ecosystem habitat assessment at community level will be used for knowledge management. Community development plans, landscape plans, integrated ecosystem management plans will be used for IAPs control, while agriculture sector mainstreaming will be used for early warning systems.
Catalyzing Transformation to Sustainable Food Systems in Eswatini:- GEF-FAO	FAO	2025-2029	The GEF-FAO project's main objective is to catalyze the transformation of Eswatini's food systems to make them more sustainable and resilient to climate change. This project focuses on promoting sustainable agricultural practices, improving food security, enhancing nutritional outcomes, and building the capacity of local institutions and communities. Key activities include the adoption of climate-smart agriculture, development of sustainable value chains, and strengthening of policy frameworks to support sustainable food systems.	The two projects aim to promote sustainable food systems. SEASL focuses on ecosystem-based adaptation within specific landscapes, while the GEF-FAO project targets broader food system transformations. Through alignment of objectives, SEASL can leverage sustainable practices from the GEF-FAO project to enhance local food security and resilience. There is no overlap because SEASL's specific focus on ecosystem restoration and climate resilience ensures, and it does not duplicate the broader food system initiatives of the GEF-FAO project.
Climate-Smart Agriculture for Climate-Resilient Livelihoods (CSARL)	IFAD	2017-2024	The GEF-IFAD Food-IAP CSARL project aimed to enhance the climate resilience of smallholder farmers by promoting CSA practices. This project focused on integrating CSA into farming systems, improving agricultural productivity, and increasing the resilience of rural livelihoods to climate change. Key activities were the development of CSA technologies, capacity building for farmers, and the establishment of supportive policy and institutional frameworks.	The proposed project SEASL complements CSARL by incorporating climate-smart agriculture practices into its ecosystem-based adaptation framework. The two projects aim to enhance climate resilience among smallholder farmers. However, SEASL's focus on ecosystem restoration and adaptive capacity building ensures distinct implementation areas and activities from CSARL's agricultural innovations.
Financial Inclusion and Cluster Development Project (FINCLUDE)	IFAD	2021-2026	FINCLUDE was designed to enhance financial inclusion and promote cluster development in Eswatini. The project focuses on providing financial services to underserved communities, fostering the development of business clusters, and supporting entrepreneurship and economic activities that can boost livelihoods. Key components of FINCLUDE include improving access to credit and savings, building the capacity of financial institutions, and facilitating the growth of small and medium enterprises (SMEs) through cluster development strategies. The project aims to create a more inclusive and dynamic economic environment, particularly for rural communities	The proposed project SEASL focuses on enhancing climate resilience and ecosystem restoration, which supports FINCLUDE's objectives of financial inclusion and cluster development by creating more stable and sustainable livelihoods for rural communities. However, SEASL's ecosystem-based adaptation activities (e.g., wetlands restoration, agroforestry, and rangeland management) provide a foundational basis of environmental sustainability, upon which FINCLUDE can build its financial and entrepreneurial initiatives. By addressing the root environmental challenges, SEASL ensures that FINCLUDE's efforts have a more resilient and more supportive context.

125. In endorsing orderly learning and dissemination of this, the project will develop a digital based knowledge and information management under Component 1, which will stipulate the innovative approaches and activities of the project will be documented and shared. Dissemination of information through reports multimedia and sharing events like capacity building training. Organize workshops and dialogues to raise awareness on climate change adaptation, generate political will and integrate the vulnerability assessment outcome and stakeholders' input into the relevant strategic framework and investment plans. There will be training for technicians and farmers on the tools required to manage a monitoring and early warning network and further engage participation in information dissemination for decision-makers and users of the system. A coordinated structure will be put in place to develop weekly bulletin and radio spots and quarterly reports to share information of short- and medium-term weather forecasts and long-term climate projections.

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

126. A technical working group, technical committee and steering committee were established through the advice of the Ministry of Agriculture and the Food and Agriculture Organization. There were three consultative meetings with the technical working group, three consultative meetings with the Technical Committee, one consultative meeting with Steering Committee and two consultative meetings with the National Designated Authority office. Additional information is provided in Annex 2.

127. Technical Working Group (TWG) consultation: The Technical working group was established on the 17th of April 2022. The technical working group consisted of officers from the different departments of the Ministry of Agriculture. These departments included Department of Land Use Development and Planning, Department of Veterinary Service and Livestock, Crops department, fisheries unit, Department of Economic Planning Service. In mainstreaming gender, in all TWG meeting invitations, female members were encouraged to attend and during meetings it was always emphasized that every member has an equal voice, and all proposed interventions were validated with women members of the TWG. The first working session for working group was held on the 18thMay 2022 where participants constituted 2 females (12.5%) and 14 males (87.5%). From this engagement the initial concept note development was done following a presentation of climate change adaptation gaps in the agriculture and environment and natural resources management sectors. On the engagement each member of the group shared the challenges, adaptive needs, and priorities from their subsectors.

128. The Land Use Development and Planning department raised adaptation gaps and needs including Lack of agroecosystems-based baseline for climate change vulnerability and adaptation needs which informed Output 1.1.1: Inclusive integrated agroecosystem assessment adopted to update biodiversity assessments done by the SNPAS project to inform adoption of climate smart technologies: Output 1.1.2: Adopted use of information services, digital based knowledge and information management integrated for information sharing and Output 1.1.3: Technology support for climate and weather information and early warning and advisories systems strengthened.

129. The Department further voiced out need for capacity building for operationalizing landscape management plans and chiefdom development plans which informed Output 2.1.1 Training of trainer's modules developed to capacitate lead committees on ecosystem-based adaptation strategies, Output 2.1.2 Institutional capacity building programs for committees to develop ecosystem-based management, Output 2.1.3: Regional Consultative Observatory learning on landscapes coordination. unsustainable harvest of natural resources which informed Output 3.1.2 Wetlands management plans developed and implemented to restore disturbed ecosystems due to livestock trampling and human over harvesting, Output 4.1.1: Program on sustainable natural resources harvesting for handicraft and other products to create economic value for protecting ecosystems, mechanizing Climate Smart Agriculture which

informed Output 4.2.2: Catalytic program to switch from conventional irrigation to climate smart technologies such as drip irrigation.

130. The Crop Department raised need for upscaling climate responsive cropping including adoption of drought –tolerant crops and agroforestry practices have proven to provide crop insurance, capacitation on value addition and access to market. These inputs informed Output 3.2.1: Two communities and two public nurseries strengthened to supply restored ecosystems and Output 4.2.1: Drought tolerant, protein rich and early maturing crops promoted in rain fed agroecosystem to address socio-economic adversaries Output 4.3.1: Value chains platform strengthened to promote market driven productivity and Output 4.3.2: Capacity-building program for strengthened value addition. The Livestock Department shared that the project area is faced with degradation of pastures due to overstocking and inversion of IAPS, lack of livestock drinking water due to degraded wetlands and in need of pasture management plans which informed Output 3.1.1: Pasture Management Plans developed and implemented to enhance restoration of pasture carrying capacities currently reduced by overstocking innovative control of IAPS which informed Output 3.2.3: Technologies & practices adopted for Invasive Alien Species and soil erosion control in ecosystems and need of wetlands management plans which informed Output 3.1.2: Wetlands management plans developed and implemented to restores disturbed ecosystems due to livestock trampling and human over harvesting.
131. The Livestock Department further suggested adoption of silvo-pastoral technology and diversifying livelihood through apiary enhance resilience of livelihoods and controlling of woodlots which was also contributing rangeland degradation. This recommendation informed Output 3.1.3: Communal woodlots management plans developed and implemented and Output 3.2.4: Agroforestry and silvo-pastoral technologies adopted as nature-based insurance for alternative livelihoods and Output 4.1.2: Apiary sites (honey production) developed on forest and wetlands ecosystems restored ecosystems. i. The Ministry of Economic Planning and Development provided guidance and emphasis that all interventions should contribute to low carbon and climate resilient development. Second working session was on the 16th of August 2022 where the technocrats narrowed down to come up with the specific activities under each component including assessments to be done, proposed, information and technology support, climate adaptive technologies and trainings and capacity building programmes. On this meeting participation was 3 females (21%) and 11 males (79%). The third meeting on the 21st of November 2022 validated the components of the concept note with further consultations and assessments done. Participation on that meeting was 2 females (14%) and 12 males (86%).

132. Lubombo Landscape Consultations: To ensure gender and women's participation invitation were sent early to ensure that all community members were in attendance. During sessions women and youth were encouraged and given the opportunity to make their contributions. Meeting place was ensured to be in proximity and accessible to women. Meeting time was ensured to be conducive for women to attend. According to submissions by the community members which constituted 47% women, climate change induced challenges faced included: limited labor-intensive conservation agriculture implements, lack of capacity with the conservation agriculture technology, limited government soil tillage implements, high agricultural inputs prices and lack of profitable market for agricultural produce, loss if livestock and crops due to lack of proper transboundary fence resulting in game animals destroying their crops and livestock, breakout of invasive alien species on rangelands, water scarcity for livestock and irrigation and lack of capacity for management of community plant nursery. The community members proposed interventions which included trainings on Conservation Agriculture (CA), provision of mechanized CA implements, provision of transboundary fence, fencing of rangelands, replanting of nutritious grasses on rangelands paddocking and rotational grazing, nature-based solutions for controlling IAPS which include turning them to an energy project, restoration of wetlands to enable resurfacing of water to be used for livestock and irrigation and also regrowth of thatch which has an economic value (used for handcraft) and capacity building to support agro-forestry initiatives from trees nursery all proposed interventions were validated with women participants to ensure inclusivity and equitable access. All interventions proposed by the communities informed the project design.

133. Ngwempisi Landscape Issues and Proposed Interventions: To ensure gender and women's participation invitation were sent early to ensure that all community members were in attendance. During sessions women and youth were encouraged and given the opportunity to make their contributions. Meeting place was ensured to be in proximity and accessible to women. Meeting time was ensured to be conducive for women to attend. The communities under the constituencies which participation constituted 63% women voiced out their livelihoods challenges which included macro-organisms and insects that feed on the roots of their crops and vegetables, unaffordability of insecticides used to control the macro-organisms, loss of essential soil micro-organism due to chemical use to control the macro-organisms, lack of capacity in management of natural resources by Community Development Committees (CDCs), rangelands that have been degraded by IAPS, water scarcity as wetlands have been degraded by IAPS and livestock, lack of water pumping and conveyance material for irrigation, lack of palatable grass for livestock resulting in reduced livestock market price and costly transportation of produce to market. In response to these challenges, the community members proposed interventions including capacity building on natural resources management for CDCs, capacity building in use of nature-based solutions to control insects and macro-organisms, restoration of rangelands through reseeding of indigenous grasses and fencing, nature-based solutions of controlling IAPS including making liquid fertilizer from them, fencing of rangelands, provision of water resources through wetland restoration and building of earth dams bee keeping of which they need capacity building and inputs and lastly market linkage for their produce. all proposed interventions were validated with women participants to ensure inclusivity and equitable access. All interventions proposed by the communities informed the project design. Meeting place was ensured to be accessible to women and be a neutral place where women would feel free to engage and participate. Meeting time was ensured to be conducive for women to attend.

134. Technical Committee (TC) Consultation: This committee provides a forum for stakeholders to engage on pertinent developmental issues in the agriculture sector, and to provide technical guidance on proposed agricultural sector climate finance initiatives by making recommendations to the Steering Committee for its consideration. The composition of this committee includes the Ministry of Agriculture-Department of Land Use Development and Planning, Department of Economic Planning Service, Crops Department, Department of Veterinary Service and Livestock. Ministry of Tourism and Environmental Authority-Department of Forestry, Department of Meteorology (Climate Change). Ministry of Natural Resources and Energy-Department of Water Affairs. Ministry of Economic Planning and Development, National Disaster Management Agency, Coordinating Assembly of Non-Governmental Organization, Deputy Prime Ministers Office-Vulnerability Assessment Committee. The TC Terms of Reference outlines gender mainstreaming strategies including that meeting time and place should not be unfavorable wot women members which are always ahead to. The first consultative meetings with the Technical Committee were held on the 29th of July 2022 where attendance constituted 1 female (7%) and 13 males (93%). On this meeting the concept note was presented, and TC made inputs on need for capacity building programs. The second TC meeting was on the 17th of August 2022 with attendance of 3 females (21%) and 11 males (79%) where TC advised that there were ongoing similar projects which PMU had to ensure there was no overlap. The last TC meeting was on the 23rd of November 2022 where the complete concept note was presented and endorsed by the TC. Attendance included 2 females (12%) and 12 males (88%) where the TC validated the concept note.

135. Steering Committee consultation: This committee consists of principal secretaries from the Ministry of Agriculture, Principal from the Ministry of Tourism and Environmental affairs, and the Assistant Food and Agriculture Organization Representative. 1.Building from a Green Climate Fund Readiness Project the project idea was presented to this committee on the 3rd of March 2022 for the SC's input and a go ahead to develop a concept note. Attendance included 3 females (33%) and 6 males (66%) The SC was endorsed climate adaptive interventions under the proposed project and gave a green light for development of the concept note.

136. National Designated Authority (NDA) office: The NDA is with the Principal Secretary of the Ministry of Tourism and Environmental Affairs and her officers. The NDAs office has the role of reviewing all concept

notes to check for synergies, relevance, duplications from other previous and current developed concept notes. 1. The concept was presented to the NDA's office on the 24th of March 2022 where the NDA requested for project title to be revised, and 27th May 2022 where NDA gave a go ahead for the concept note development after confirming project title change and checking lack of project overlap.

137. Consultative meetings with other stakeholders (UNEP, UNDP): The Ministry of Agriculture and Food and Agriculture Organization held a discussion with the United Nation Development Programme (UNDP) on the 10th of August 2022 to articulate the synergies and alignments of their proposed projects. Also, with UNEP a similar consultation meeting was held on the 25th of August 2022. Table 6 clarifies the alignments from the three projects.

Table 9: Pipeline project initiatives reviewed for project initiative overlaps.

Organisation	UNDP	UNEP	FAO/IFAD
ASPECTS	**Integrated Watershed Management for Agro-pastoral Resilience**	**Improving climate resilience in the Kingdom of eSwatini**	**Strengthening Ecosystem-based adaptation for Sustainable Livelihoods within Landscapes (SEASL)**
Project area selection	Lubombo region,	Highveld Mountains	Landscapes (Ngwempisi & Lubombo)
	Water catchment	Water catchment	Protected areas buffers
Governance/ legislative frameworks	National Policies	National Policies	Coordination at landscape & community
Knowledge management/ Assessments	Ecosystem accounting protocols	Natural resources accounting	Ecosystem habitat assessment
	Catchment level	Catchment level	Community level
Community Based Natural Resource Management	Catchment Plan	Catchment Plan	Landscape plan
	Rangeland MP	NRMP	CDP, Integrated Ecosystem management
	IAPs control	IAPs control	IAPs control
Early warning system	Regional integration	Water sector mainstreaming	Agric sector mainstreaming

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

138. The total funding required for this project includes project management and project implementation costs. Funding is being requested for the implementation of interventions to reduce the vulnerability and improve the resilience of the local communities to reduce the negative impacts of climate change including:
    - Mitigate the negative impacts of climate change on Eswatini's ecosystems and rural communities.
    - Promote sustainable land and water management practices that enhance resilience in Eswatini.
    - Address socio-economic vulnerabilities by supporting disadvantaged groups, particularly women and youth.
    - Create long-term ecosystem regeneration and sustainability through community-driven initiatives.

139. The adaptation measures are customised to address specific aspects of the baseline scenario, ensuring that they provide additional benefits that would not be realised without this targeted investment. The financing not only facilitates the immediate implementation of these measures but also establishes the necessary capacity and systems for ongoing adaptation initiatives that extend beyond the project's duration.

Table 10: Alternative benefits of the Adaptation Fund project compared to baseline scenario

Component	**Baseline Scenario**	**Intervention**	**Alternative benefits of the Adaptation Fund project**	**Cost**	**Beneficiaries**
1. Participatory and Gender-Sensitive Capacity Development and Knowledge management	Currently there are number of challenges which limit sustainable management of Landscapes for building climate resilience. These include fragmented data and information which in many cases is not up to date and not disaggregated by gender. This is compounded by a lack of interoperable and integrated information management system. This affects the monitoring of natural resource use and degradation. Additionally, limited knowledge is	The project will capacitate 18 chiefdoms as well as technicians from Rural Development Areas (RDAs) and 19600 smallholder households(equivalent to 117 600 women, men, and youth) on agroecosystem resilience while existing GIS portal and information systems will be updated. More data will be generated on landscape management including mapping biodiversity land degradation	- Enhanced landscape and rangeland baseline awareness and monitoring. - Improved digital-based knowledge management for better information sharing. - Strengthened early warning systems and climate/weather advisories. - Improved monitoring of natural	**2,780,000**	18 Chiefdoms, 19,600 smallholder households (HHs), equivalent to some 117,600 people (40% women and 60% men, 50% of them are youth

	generated with respect to landscape management which leads to challenges in sharing of best practices.	hotspots.	resource use and degradation - Improved gender inclusivity in landscape management		
2.Multi-stakeholder institutional coordination for implementation of agroecosystem-based adaptation	There is limited multistakeholder (public, private, communities) coordination in management of landscapes. This leads to inefficiencies, lack of collaboration, overlapping of roles and lack accountability responsibilities which results in poor management of natural resources and reduced ecosystems resilience to climate change	The project will capacitate community level structures such as Community Development Committees (CDCs), Chiefdom Development Committees as well as local institutions on ecosystems-based adaptation. The project also focuses on strengthening functional capacities of these local institutions including supporting their institutionalization where there are missing	- Improved coordination among public, private, and community stakeholders for strategic ecosystem management. - Capacity building for committees on ecosystem-based adaptation strategies. - Enhanced capacity through regional learning, and collaboration and through consultative observatories	550,000	Ngwempisi and Lubombo Landscapes Community Development Committees (CDCs), Chiefdom Development Committees, also communities at large
3. Stimulating Climate-Adaptive Investments in Integrated Ecosystems	There is combination of factors which currently constrain integrated ecosystems (forests, wetlands, and rangelands) management and rehabilitation. These include missing rangeland management as well as community woodlots management plans, lack of implementation in cases where they exist- . There is also limited investment in community and public nurseries to facilitate reforestation and afforestation. There is lack of investment in water management infrastructure and limited incentives in the adoption of new technologies and good practices.	The project will facilitate development and implementation of 13 Rangeland Management Plans, wetlands management plans and communal woodlots management plans. In addition, the project will also support the operation of nurseries. Furthermore, community level water management infrastructure will be restored while innovative community driven processes for management of IAPS, agroforestry and silvo-pastoral technologies will be facilitated	- Development and implementation of rangeland pasture management plans to restore rangelands. - Wetlands management plans to restore disturbed ecosystems and improve water availability. - Establishment of communal woodlots to manage invasive species and restore rangelands. - Improved ecosystem-based restoration infrastructure for sustainable ecosystem services. - Water management infrastructure to restore water resources	3 800 000	13 Communities per landscape equivalent to 84,934 people impacted
4. Upscaling Climate Adaptive Technologies for Agroecosystems and Sustainable Livelihoods	- There communities are faced with high vulnerability to climate-induced shocks. There is currently Low adoption of climate-smart technologies in communities and limited alternative livelihood options compounded by unsustainable harvesting of natural resources. There is rangeland degradation due to mismanagement, inversion by IAPS and increasing number agricultural and hydrological droughts events and change in precipitation. There is limited investment in climate smart technologies due to the costs associated with switching from conventional practices to more sustainable practices. Currently most scale producers in the project area are not organized and not linked to formal market and this compromises the sustainability of natural resource management as well as livelihoods. The are no incentives for sustainable management of natural resources	The project will support sustainable entrepreneurship and sustainable harvest of natural resources for handcraft and other products with economic value. Apiaries will also be developed on the restored natural resources and promotion of drought tolerant and early-maturing crops will be undertaken. Project will provide capacities and technical support for sustainable and resilient agricultural practices. It will also strengthen crop and livestock value chains through sustainable community-driven inclusive (women, youth, and men) business models and linkages to formal markets to incentivize sustainable management of natural resources and climate resilience.	- Promotion of sustainable natural resource harvesting and handicraft production - Development of apiary sites for honey production, enhancing biodiversity and livelihoods. - Catalytic programs for adopting climate-smart technologies (e.g., drip irrigation, solar pumping). - Improved agricultural productivity and market linkages through value chain support	2 780 000	18 Chiefdoms, 19,600 smallholder households (HHs), equivalent to some 117,600 people (40% women and 60% men, 50% of them are youth

J. Describe how the sustainability of the project/programme outcomes has been considered when designing the project/programme.

140. The capacity building process of the project allows training local leaders who will be able to build capacity within the communities themselves.

141. The project management structure has been built into an existing national Agricultural Sector Climate Change Coordination Mechanism (ASCCCM) which was facilitated through the GCF Readiness and Preparedness Project. This structure reviews proposed project initiatives and aligned them with country programming frameworks and ensure that mandated private and public entities are fully participating in the design, implementation, and upscaling of project initiatives to realize long-term benefits. Key stakeholder representatives from different sub sectors of agriculture and related sectors form the coordination mechanism for agriculture related projects see Figure 11 below.

Figure 11: Agricultural Sector Climate Change Coordination Mechanism (ASCCCM)

142. With respect to sustainability after project closure, this project ensures delivery is through the natural/already existing community level institutions particularly the CDCs which work with natural resource management committees (NRMC) from different communities as enshrined in the Tinkhundla Bill. These constitutional institutions are naturally mandated to support Output 3.1.2: Wetlands management plan development and implementation, Output 3.1.1: Pasture Management Plan development and implementation through activities 2.1.2.1, 2.1.2.2, 2.1.2.3, and 2.1.2.4. These key institutions ensure sustainability beyond the project.

143. In the agricultural sector, the sustainability of the proposed project depends on the new knowledge provided by the adaptation initiatives, the use of innovative cost-effective technologies, and the monitoring of the effects of climate change and its variations. Efforts will be made to capture the long-term sustainability of the proposed sustainable land management and adaptation measures by supporting an adequate monitoring system.

144. The project promotes initiatives that will continue to provide results beyond the years of implementation. As an example, the rehabilitation of degraded landscape, the restoration and improvement of irrigation water systems, infrastructures, pastures have long-term lifespan. However, these initiatives require regular maintenance after the project implementation period. The participation of local organizations, community authorities, development partners and especially the commitment of local beneficiaries (individuals and organizations) make it possible to preserve and even continuously improve the initiatives.

145. Sustainability will be further supported through mainstreaming and cross-sectoral, multi-stakeholders increasing public awareness and knowledge to farmers, community leaders, and other relevant regional and national officers on climate change and alternate adaptation measures in agriculture and water management.

146. In line with the many activities including awareness raising on climate change, more measures will be undertaken to transform people of Eswatini's attitude and practices in sustainable adaptation to climate change. The project will furthermore strengthen the sustainability of the proposed interventions by supporting the land related policies and legislation and facilitating further investments in support of sustainable land management and climate smart agriculture.
147. To sustain project activities beyond the project implementation period Community management plans will be developed, which will clearly define the responsibilities of all actors engaged in the implementation of the project at community level. Agreements on the maintenance of the sustainability of project outcomes will be developed and signed with all stakeholders during the full project development phase.
148. Development of an Exit Strategy during the proposal development and initial implementation stages will be very vital in ensuring sustainability of the project. Lessons learnt from other projects may be positive while others are negative. These lessons learnt should also for a basis for the sustainability of the project. The sustainability of the outcomes is largely due to:
    - Ensuring a participatory approach.
    - The implementation of activities that are accessible and acceptable to large groups of population.
    - Involvement of development partners.
    - Capacity building of communities and different service provider.
    - Close cooperation with community leaders and community members.
    - Public awareness on progress and outcomes of the project.
    - Raising population's awareness on the objective, results, and maintenance benefits.
    - The existence of a legally binding agreement with communities on the maintenance and sustainability of project results.

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

149. The proposed project concept is expected to be in **Category B** in accordance with the Adaptation Fund's ESP as it has very limited adverse environmental or social impacts. Table 8 below details risk screening against each of the 15 principles of the Adaptation Fund's Environmental and Social Policy (ESP). To ensure continuous risk management, the project will reassess risks at key stages and engage stakeholders through participatory workshops, consultations, and community meetings. This iterative process will help refine mitigation measures and maintain alignment with evolving needs and challenges.
150. A comprehensive risk assessment aligned with Adaptation Fund Environmental and Social Policy covering climate, environmental, social and institutional risks by involving environmental experts, local authorities, and community representatives was conducted during concept note stakeholder consultations. This initial assessment employed both qualitative and quantitative methodologies, including GIS mapping of the project landscapes, climate modeling for risk identification, and stakeholder consultations across 27 communities and participatory vulnerability assessments to ensure and evidence-based approach to gauge potential socio-environmental risks comprehensively. Further risk assessment will be done at proposal stage ensuring that all subprojects undergo environmental and social impact assessments (ESIAs) and comply with Environmental and Social Management Framework (ESMF) and Environmental and Social Management Plans (ESMPs) before implementation. Further risk assessment will be done at proposal stage. To strengthen the risk management, the project commits to conducting annual risk reassessments during implementation, through integration of climate early warning systems, and establishment of community-based Natural Resources Management Committees (NRMCs) for localized adaptation strategies.to ensure that emerging risks are identified and mitigated promptly.
151. The reassessment process will involve a multi-stakeholder approach, ensuring participation from diverse groups. Key participants will include local community members, traditional leaders, government agencies (such as the Eswatini Environment Authority responsible for policy alignment, regulatory compliance, and environmental safeguards and Ministry of Natural Resources, Ministry of Agriculture, Disaster Management Agency), NGOs and CBO's focusing on conservation and sustainable development, and academic institutions conducting climate and environmental research. The outputs of this process will be instrumental in refining project strategies and ensuring sustainability. Anticipated deliverables include a modernized risk register, revised mitigation measures, and an adaptive risk management framework that evolves with changing environmental conditions. Further outputs include enhanced early warning and risk monitoring systems, updated environmental and social safeguards compliance frameworks, and policy recommendations to improve institutional risk governance. This multi-stakeholder, data-driven reassessment will ensure the project remains adaptive, inclusive, and effective in addressing climate and environmental challenges.

Table 11: Risk Screening principles of adaptation fund

Risk Category	Risk	Risk Rate =(L,M,H)	Actions to address risk
Compliance with the Law	Project Noncompliance with Abstraction water permit, CIC regulations and environmental management act	M	Education of key stakeholders on law requirements Monitoring of project activities to ensure compliance
Access and equity	Inclusion and exclusion errors of beneficiaries Beneficiary disputes	H	Implementation of a comprehensive, inclusive beneficiary selection criteria and transparent process Institute a community level grievance handling mechanism
Marginalized and vulnerable groups	Lack of representation and participation of marginalized and vulnerable groups	H	Mapping of marginalized and vulnerable groups in project areas Ensure interest of marginalized groups are integrated in project design and execution
Human Right	Nonadherence to universal human rights on project beneficiaries and implementing staff	L	Creating awareness of stakeholders on human rights during project design and implementation (5 basic needs)
Gender equity and women empowerment	Lack of equal participation of women and men in project design, implementation, and beneficiation	L	Capacity building of community leadership on project gender mainstreaming Develop a project gender mainstreaming plan Ensure equal gender representation in all consultations, meetings, and trainings
Core labor rights	Non-compliance of project to ILO standards	L	Ensure project activities prohibits child and forced or compulsory labour
Involuntary resettlement	Involuntary resettlement of people in project sites	L	Consultations shall be conducted with affected community incase involuntary resettlement required; however unlikely
Protection of natural habitats	Conversion or degradation of critical natural habitats	L	Community education and awareness on protection of natural habitats building from awareness done by the SNPAS project in the same landscapes

Conservation of biological diversity	Disturbance of biological diversity by project interventions	L	The project will adhere to current land use maps to avoid disturbance of biodiversity
Climate change	Interventions that lead to GHG emissions	M	Project will focus on interventions with low GHG emissions
Pollution prevention and resource efficiency	Production of wastes and the release of pollutants to contaminate water streams and underground water	M	The project will adhere to environmental standards that minimizes waste. The project will promote nature-based solutions
Public health	negative impacts on public health.	L	Project will ensure screening for possible impacts on public in all project interventions
Physical and cultural heritage	Alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level.	L	Project will adhere to national legal and regulatory framework for recognition and protection of physical and cultural heritage in the country
Lands and soil conservation	Interventions leading to land degradation	M	The project interventions will promote soil conservation and avoid degradation or conversion of productive lands or land that provides valuable ecosystem services.

152. Activities will be identified during the preparation of the fully developed project proposal to allow for adequate risk identification and impact mitigation and prevention, as well ESMF and ESMP will be developed aligning with Adaptation Fund ESP requirements. This will include baseline vulnerability assessments, sector-specific risk analyses, and scenario planning exercises to anticipate long-term environmental and social impacts. The assessment will integrate traditional ecological knowledge from local communities with scientific climate projections to ensure a holistic understanding of risks. Site specific Environment Impact Analyses will be developed in line with national laws where required. The ESMPs which will be developed at proposal stage will include monitoring and compliance considerations as well as the grievance redress mechanism to address concerns from stakeholders and affected communities. This structured approach ensures that the project adheres to Adaptation Fund safeguards, minimizes adverse environmental and social impacts, and enhances community resilience to climate risks

Table 12: Risk Screening principles of adaptation fund

Checklist of Environmental and social principles	No further assessment required for compliance
Compliance with the Law	***Low Risk: Potential misalignment with national laws and policies related to natural resources, biodiversity, and land management*** ***Mitigation:*** Relevant local and national stakeholders will be consulted at project proposal stage to ensure that all applicable legal requirements are considered. As part of the ESA and ESCMP, the full project proposal will carry out a further analysis of relevant laws and detail the project's compliance with said laws. Project activities will also directly align with IFAD's Social, Environmental and Climate Assessment Procedures, as well as the Adaptation Fund Environmental and Social Policy, and Gender Assessment Policy. Potential misalignment with national laws and policies related to natural resources, biodiversity, and land management. There will be also continuous engagement with legal experts and relevant authorities to ensure project activities comply with existing and evolving national laws and regulations.
Access and Equity	***Low risk:*** *There could be a risk of unequal access to project benefits particularly for vulnerable and marginalised groups* ***Mitigation:*** The project aims at practicing fair treatment and involvement of all people and communities regardless of race, gender or income level as inclusivity is accounted for by the country's constitution. A detailed stakeholder analysis and implementation of community consultations will be done to ensure fair distribution of project benefits among all groups. The project will ensure that the benefits of the project are being distributed fairly with no discrimination nor favouritism. The project will pay special attention to women and youth for equitable access to the benefits of the project. Key considerations have been considered through the initial gender assessment conducted at Concept Note stage. The participatory processes and inclusion of activities specially focused on women such as VSLAs and support to dedicated value chains will enable women to advocate for equality and equity for sustainable development. Additionally, IFAD will widely promote its grievance procedures, providing a means for anyone who believes they have been wronged to seek appropriate remedies. By prioritizing transparency and accountability, the project aims to mitigate any adverse effects on affected individuals and ensure their rights are protected.
Marginalized and Vulnerable Groups	**Low Risk**: *Vulnerable groups (e.g., women, youth, and low-income households) may not fully benefit from project activities.* Mitigation: Marginalized and vulnerable groups – especially women - will be consulted during the proposal development process to ensure that their identified threats, priorities, and mitigation measures are reflected, with the establishment of a Gender Assessment and Gender Action Plan. Key considerations have been considered through the initial gender assessment conducted at Concept Note stage. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge. This project will create a space for women, and youth to choose adaptation activities in a transparent and participatory manner. Additionally, this project will respect land, property, and customary rights. Risk Targeted outreach and engagement strategies will be conducted, including consultations and workshops, to ensure marginalized groups are involved and benefit from project activities.
Human Rights	**Low Risk*:*** *Potential unintended infringement on community rights due to land use changes or resource restrictions.* **Mitigation:** Ensure all activities uphold Eswatini's constitutional human rights protections and are aligned with international standards.
Gender Equality and Women's Empowerment	**Moderate risk*:*** *Women's participation and benefits may be hindered by systemic gender disparities in project areas.* **Mitigation**: The project will implement gender-sensitive approaches and ensure women's active participation. Section 20 of the Constitution recognizes women's equal status in the social, economic, political, and cultural spheres of life. In addition, Section 28 specifically entrenches the rights and freedoms of women and the need for government to allocate resources to address the previous disparities between women and men in terms of their full advancement.40% of persons receiving project support are women 2) 60% men 3)30 % youth (50% of them are women)
Core Labour Rights	***Low risk:*** *There could be a risk of non-compliance with core labour standards such as wages and working conditions may occur during project implementation* ***Mitigation:*** The project will observe core labour rights, and this will be included in the ESMP to be elaborated for the project. The project will also adhere to international labor standards and local labor laws.
Indigenous Peoples	This principle does not apply, as there are no communities in Eswatini that identify themselves as indigenous peoples. No further assessment of potential impacts and risks has been carried out
Involuntary Resettlement	***Low risk****: Possible unintended displacement due to project activities, particularly infrastructure development.* ***Mitigation:*** The project does not require or warrant any resettlement of communities. Any activities that may result in resettlement will not be financed by the project.

Protection of Natural Habitats	Low Risk *of project activities inadvertently impacting ecologically sensitive areas*. No activities envisioned to adversely impact protected areas or high value conservation. Areas. Relevant measures will be included in project Environmental and Social. Management Plan. However, this risk will be further assessed during full proposal development.
Conservation of Biological Diversity	***Low risk:*** *Restoration activities may inadvertently introduce invasive species or disrupt existing ecosystems.* The activities of this project will not adversely impact the conservation of biological diversity. ***Mitigation:*** The project will promote biological diversity as most of the concrete adaptation activities will promote conservation of biodiversity.
Climate Change	***Low Risk:*** *The project area is susceptible to climate shocks. The project will not generate any significant emissions of greenhouse gases and will not contribute to climate change in any other way.* *Mitigation:* The project will promote climate-resilient and promote low-carbon solutions.
Pollution Prevention and Resource Efficiency	***Low risk:*** *Risk of unsustainable resource use, particularly water and soil.* The project will actively promote the adoption of climate resilient practices and efficient water use. Site specific risks are very limited and can be easily identified and effectively addressed. M**itigation**: There will be no emissions and effluent discharge that might pollute the land, water and air from all technologies and practices that will be adopted through the project. Where resources are used such as water and land, efficient use of resources
Public Health	*Low Risk:* Possible risks from improper waste management during project activities. ***Mitigation****:* Project interventions will have a positive effect on public health through sustainable increased ecosystems services that will sustain livelihoods and indirectly impact human health. The project will also implement health and safety protocols on all activities and and promote ecosystem services that indirectly enhance public health.
Physical and Cultural Heritage	***Low risk:*** *Risk of inadvertently damaging heritage sites during implementation (e.g., wetland restoration activities).* The project is not expected to have negative impacts on the physical and cultural heritage of Eswatini. Through the ESMP the project will identify if any national or international cultural heritage will be included in or near the project zones and describe the location of the heritage in relation to the project. Such sites will be de facto excluded from project implementation. *Damage to cultural heritage sites or inadvertently impacting culturally significant sites during construction or development activities* **Mitigation:** Low adoption of adaptation technologies and practices due to cultural heritage will be mitigated through capacity building. The project activities will not be implemented in areas with physical cultural heritage assets.
Lands and Soil Conservation	***Moderate risk****: Risk of soil erosion or degradation from project activities, especially during initial implementation phases.* *M*itigation: The project will have a positive impact on vegetative cover, and introduce soil conservation measures, plant resilient and diverse native plant species and improve water management. The project will aim to promote sustainable land management practices at the two landscapes. Stakeholders will be actively involved in reassessing risks throughout the project lifecycle.

Justification for Unidentified Sub-Projects (USPs) in the proposal

153. Output 4.3.1 will involve the identification, design, and implementation of USPs. An assessment to specify the business water management, infrastructure and equipment needs for the upgraded business models for each VC site will be commissioned. In line with the upgraded business model, and the assessment of aggregated farmer's needs, the Programme will either provide or identify and upgrade/rehabilitate water management, irrigation, storage, processing, and other relevant infrastructure at selected sites. Such water management, climate smart equipment and infrastructure needs will include water efficient micro irrigation systems; construction and rehabilitation of small-scale water storage infrastructure, Rehabilitation of wetlands, Rangeland management, Fresh produce grading and storage facilities, Honey filtering machine and accessories, processing equipment and others that will be identified during the community level in-depth VC needs profiling.

The projects in question are classified as USPs for the following reason:

154. Effective risk identification in line with the Adaptation Fund ESP is not possible for the adaptation infrastructure and assets to be provided for the value chains at the sites because the specific environment and social setting of the activity is not presently known. The specific environment can only be known after deeper value chain analysis and detailed value chain planning specific for each site, although the consultative exercise has given the scope of the nature of investments that are anticipated

155. A full ESP risk screening will be conducted at Full Proposal stage and USP compliance including ESMP will be included at Full proposal stage. Once the USPs under Output 4.3.1 have been identified and clearly defined for each commodity, they will be screened for compliance with the principles of the AF ESP to ensure that any potential unwanted impacts of these activities are anticipated, avoided, reduced, or mitigated. The ESMP will include monitoring and reporting procedures for USPs. Activities will be rated by risk category (low, medium, high), which will determine what further action is required, and high-risk USPs will not be developed or implemented. Potential risks, whether social or environmental, will also be assessed at the community and value chain level. Any identified risks will be subject to monitoring and follow-up to ensure that planned mitigation measures are implemented and effective. All USPs that require further assessment, permitting, etc., will be closely supervised to ensure that they obtain the necessary approvals. Relevant legislation and regulations that pertain to potential USPs are listed in Section II.L.

PART III: IMPLEMENTATION ARRANGEMENTS

156. The Government of Eswatini will receive AF resources through IFAD as the multilateral implementing entity, which will act as the custodian of the funds. IFAD will channel the resources received to FAO and monitor and provide oversight of the project implementation. FAO will house the Project Coordinating Unit (PCU), which is tasked with the overall coordination of the project planning, implementation, monitoring and reporting. FAO will implement the project in close collaboration with the Ministry of Agriculture and the Ministry of Tourism and Environment, which is the AF's National Designated Authority (NDA). The Eswatini meteorological service will support climate adaptation, disaster risk management, including early warning system.

Table 13 below outlines institutions and their roles and responsibilities in the implementation of the project.

Institution	Roles and Responsibilities
IFAD	As the Implementing Entity will act as custodian for the AF, channel the resources from the AF to FAO and monitor and provide oversight of the project implementation
Food and Agriculture Organization of the United Nations (FAO)	FAO as an executing entity will carry out all fiduciary and financial management, procurement of goods and services, monitoring and reporting activities under the project in compliance with FAO's policies and procedures.
Ministry of Agriculture	Responsible for providing policy and technical support to all issues related to agriculture and its sub-sectors. The MoA provide technical strategic advice for the implementation of the project.
Ministry of Tourism and Environmental Affairs	The ministry will provide technical and strategic advice for the implementation of the project, will coordinate with other relevant ministries at the national level on climate change matters and oversee the implementation of the project with FAO
NGOs	As delivery partners who are community-based organizations have experience in delivering agroecosystems development initiatives. They will increase acceptability and efficiency of project initiatives.
Private Sector	Will support market linkages of project livelihood products such as handicraft, crops, and livestock.

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

Table 14: Project objectives' alignment with the results framework of the Adaptation Fund

Project Objective(s)[1]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1. Facilitating capacity development in a participatory approach that is gender sensitive within landscape and rangelands as for improved knowledge management.	No. of participants	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1 % of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	2,780,000
2. Strengthening the institutional arrangements at the landscape and community-levels, with relevance to the national policies directive.	No. of functional institutions from landscape to community level	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic & environmental losses	2.1.1 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector, and scale)	550,000
3. Stimulating climate-adaptive investments in agroecosystems important for adaptive livelihoods such as forest, wetlands, and rangeland rehabilitations.	No. of nature-based interventions	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	3,800,000
4. Upscaling of climate-adaptive technologies for agroecosystems and sustainable alternative livelihoods which will consider risk transfers through micro-insurance and other financial inclusion strategies.	No. of catalytic funding mechanisms	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	2,780,000

Table 15: Project outcomes' alignment with the result framework of the Adaptation Fund

Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
1.1 Improved landscapes and rangelands baselines, awareness and monitoring on agroecosystems resilience.	No. and types of surveillance systems applied	1.1 Risk and vulnerability assessments conducted and updated	1.1 No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) 1.2 No. of early warning systems (by scale) and no. of beneficiaries covered	721,450
1.2 Improved knowledge management and learning on adaptation practices	Number of knowledge products developed	3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge 3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	489,564
2.1 Improved coordination of landscapes by multi-stakeholders (Public, private and communities) for strategic frameworks of implementing the integrated agro-ecosystem approach.	No. of active landscape committees	2.1 Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	2.1.1 No. of staff to respond to and mitigate impacts of climate related events (by gender)	550,000
3.1 Climate smart actions developed for integrated ecosystems adaptation.	Area under climate smart technologies	8. Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.2 No. of key findings on effective, efficient adaptation practices, products and technologies generated	687,000
3.2 Improved ecosystem-based restoration infrastructure in community landscapes for sustainable increased ecosystem services to sustain livelihoods.	No. of eco-entrepreneur projects and area restored	8.Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.1 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	3,113,000
4.1 Disadvantaged group's transformative entrepreneurship promoted.	No. of gender and socio-economic transformative enterprises	6. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts	6.2.1 Type of income sources for households generated under climate change scenario	410,000
4.2 Incentivized climate smart agriculture for improved productivity.	No. of adaptive technology promoted	8.Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.1 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	2,000,000
4.3 Improved and sustainable commodity compliance to market requirements.	No. of successful market linkages	6.Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including	6.2.1 Type of income sources for households generated under climate change scenario	370,000

		variability		

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

A. Record of endorsement on behalf of the government[2]

Ms Khangweziwe Mabuza Principal Secretary Ministry for Tourism and Environmental Affairs	Date: 8 January 2024

MINISTRY OF TOURISM AND ENVIRONMENTAL AFFAIRS

Tel: ++268 404 6428 / 404 1714/8
Fax: ++268 404 5415 / 404 0638
E-mail: pa_tourism@gov.sz / minister@realnet.co.sz

P. O. BOX 2652
MBABANE H100
ESWATINI

8th January 2024

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

Subject: Endorsement for Strengthening Agro-Ecosystem Adaptation for Sustainable Livelihoods within Landscapes (SEASL)

In my capacity as designated authority for the Adaptation Fund in Eswatini, I confirm that the above national grant 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 Eswatini.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by International Fund for Agriculture Development and executed by Food Agriculture Organization and Ministry of Agriculture.

Sincerely,

MINISTRY OF TOURISM AND ENVIRONMENTAL AFFAIRS
PRINCIPAL SECRETARY
08 JAN 2024

KHANGWEZIWE MABUZA
PRINCIPAL SECRETARY

B. Implementing

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

I certify that this proposal 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 Pierre Yves, Lead Climate and Environment Funds, ECG Division	**Email** : p.guedez@ifad.org
Mr Juan Carlos Mendoza Casadiegos, Director, Environment, Climate, Gender and Social Inclusion Division	
Date: 7 August 2024	**Email**: ecgmailbox@ifad.org
Project contact persons	
Mr Claus Reiner, Regional Lead Climate and Environment Specialist	**Email** : c.reiner@ifad.org
Mr Francesco Rispoli, IFAD Country Director for Eswatini	**Email** : f.rispoli@ifad.org

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date:

Adaptation Fund Project ID:
Country/ies: Eswatini
Title of Project/Programme: Strengthening Ecosystem-based adaptation for Sustainable Livelihoods within Landscapes (SEASL)
Type of IE (NIE/RIE/MIE): Multi Multi-lateral Implementing
Implementing Entity: International Fund for Agricultural Development (IFAD)
Executing Entity/ies: Food and Agriculture Organisation (FAO) / IFAD will be executing the project formulation and utilizing the PFG funds.

A. Project Preparation Timeframe

Start date of PFG	Upon Concept Note approval date
Completion date of PFG	(10 months) after Concept Note approval date

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Technical Assessments and Studies	Detailed assessments, including feasibility studies, baseline data collection, and climate vulnerability analysis.	25 000	Detailed assessment of the existing GIS portal, the existing weather information and early warning system, managed by Eswatini Meteorological Service and the functioning of the newly established Landscape Associations (LAs).
Stakeholder Consultations	Stakeholder Consultation reports.	15 000	National and local Stakeholder

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

			Consultation workshops to engage communities, validate findings and refine project design. Includes hall hire, lunch and facilitation.
Preparation of safeguards studies and gender Action plan	Comprehensive Environmental and Social Safeguards screening, management planning and gender action plan	20 000	
Hiring a multi-disciplinary team of consultants	Development of the full proposal document	57 250	Consultancy fees for proposal development
Travel costs for experts to collect data	Field missions to project sites for data collection and stakeholder engagement.	20 000	Hiring vehicle, daily subsistence allowances
Project formulation grant for proposal		137 250	Total PFG allocation for proposal preparation
Implementing Entity (IE) Fee (8.5%)		12 750	IE fee based on 8.5% of total PFG
Project Formulation Grant + IE fee		150 000	Total PFG budget inclusive of IE fee

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation. The PFG will be executed by the IE. The EE will be responsible for execution of the project once approved.

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Addresses
Implementing Entity coordinator: Mr Pierre Yves		12/13/2024	Mr Claus Reiner Regional Climate and		email: p.guedez@ifad.org

Lead Climate and Environmental Funds (AF,GCF,GEF) ECG Division			Environment Specialist		e-mail: c.reiner@ifad.org

Annex 1: Indicative Results framework for the project proposal

Project Objective / Output	Indicator	Baseline	Target	Means of verification	Responsibility	Comment
Project Objective: The project objective is to contribute towards reducing climate and human induced vulnerability of the agroecosystems of the Lubombo and Ngwempisi communities of Eswatini by increasing adaptive capacity of key local institutions and actors, through the pilot of good land management practices and climate resilient practices	Number of beneficiaries (disaggregated by gender and youth) who have received support from the project as a proxy for increasing adaptive capacity to respond to the impact of climate change. It is anticipated that the immediate indirect beneficiaries will be within the regions of the targeted landscapes estimated to be approximately 450,876 people (219,986 miles (49%) and 230,839 females (51%)."	0	At 4,400 households (at least 45% women and 50% youth)	Project Progress Report	PMU	A stable agroecosystem environment with improved gender transformative initiatives
Component 1: 1. Capacity development on a participatory approach within landscapes for improved knowledge management.						
Output 1.1.1: Integrated agro-ecosystem assessment adopted to update biodiversity assessments done by the SNPAS project to inform adoption of climate smart technologies.	Number of agroecosystems assessment reports	3	5	Assessment and management reports	PMU, Eswatini Environment Authority (EEA), Eswatini National Trust Commission (ENTC) and community	The update or expansion of agroecosystem assessment in communities will be compiled per landscape
Output 1.1.2: Adopted use of information services Digital based knowledge and information management integrated for information sharing.	Number of land degradation status reports.	The digitally earth observatory system currently functional at 25% of its potential	75% functionality	Land degradation status reports	PMU, MoA, ESWADE	Currently system piloted in 10 chiefdoms and the target is to roll it out to more than 30 chiefdoms
Output 1.1.3: Technology support for climate/weather early warning systems and advisories strengthened.	Fully functional information dissemination system	Delayed information system	Real timely dissemination	Reports, bulletins, flyers	PMU, MoA, NDMA, MTEA	Delayed flow, current early warning is more reactive than being proactive
Component 2. Strengthen multi-stakeholder institutional collaboration (public, private & communities) for strategic implementation of agro-ecosystem based adaptation						
Output 2.1.1Training of trainer's modules developed to capacitate lead committees on ecosystem-based adaptation strategies.	Number of lead trainers trained	0	20	Reports and module booklets	PMU, ENTC, MTAD, EEA, MoA	Landscape committees currently not functional to capacitate communities
	Number of modules developed	0	3			
Output 2.1.2 Institutional capacity building programs for committees to develop ecosystem-based management	% of targeted chiefdoms have developed ecosystem-based management plans	8	15	Ecosystem-based chiefdoms development plans	PMU, MTAD, ENTC, EEA, MNRE	Strengthen the mainstreaming of natural resources management in chiefdom development plans
Output 2.1.3: Regional Consultative Observatory learning on landscapes coordination.	% of targeted institutional representatives participation	0	90% participation	Learning tour reports	PMU, Landscape committees and MoA	A platform to share experiences from advance landscapes in the region and to foster collaborative efforts
Component 3. Stimulate climate-adaptive investments in integrated ecosystems (forest, wetlands and rangeland rehabilitation.						
Output 3.1.1: Pasture Management Plans developed and implemented	% of executed plans	0	90%	Pasture management plans, Implementation progress reports	PMU, MoA, Landscape committees, community natural resources management committees	Landscape structures supported to effectively manage rangelands
Output 3.1.2 Wetlands management plans developed and implemented to enhance restoration of pasture carrying capacities currently reduced by overstocking.						
Output 3.1.3 Communal woodlots management plans developed and implemented to restore disturbed ecosystems due to livestock trampling and human over harvesting.						
Output 3.2.1:Two community and two public nurseries strengthened to supply restored ecosystems.	Number of community and public nurseries completely strengthened	0	4	Implementation progress reports	PMU, MoA, MTEA, EIRMIP	Restored ecosystems will more resilient to climate change and provide alternative livelihood
Output 3.2.2 Restored wetlands and water reservoirs designed and established considering environmental safeguards.	Number of designed and established wetlands and water reservoirs	0	15	Design reports, Implementation reports	PMU, MoA, ENTC, DWA	Wetlands and water reservoirs established to strengthen their ecosystem services
Output 3.2.3 Technologies & practices adopted for Invasive Alien Species and soil erosion control in ecosystems.	Number of integrating control methods applied, Area of land from which technologies have been adopted	0	4	Progress reports on adoption integrated methods	PMU, EEA, ENTC, MTEA	There is a need to implement the 2021 IAPS strategy which proposes an integrated control approach
Output 3.2.4 Agroforestry and silvopastoral technologies adopted as nature-based insurance for alternative livelihoods.	Area of land on which technologies has been adopted	0	10,000ha	Implementation progress report	PMU, MoA, MTEA	Agroforestry and silvopastoral will strengthening mitigation of soil degradation
Component 4. Upscale climate adaptive technologies for agroecosystems and sustainable alternative livelihoods.						

Output 4.1.1:Program on sustainable natural resources harvesting for handicraft and other products.	Number of chiefdoms on which the program has been fully initiated	0	15	Implementation progress report, Chiefdom natural resource reports	PMU, MTEA, ENTC, EEA	Program will improve sustainable utilization of natural resources
Output 4.1.2:Apiary sites (honey production) developed on forest and wetlands ecosystems restored	Number of apiary sites developed	0	20	Implementation progress report	PMU, MoA, MTEA, ENTC	Apiary sites will bring a sustainable alternative livelihood to communities
Output 4.2.1: Drought tolerant, protein rich and early maturing crops promoted in rain fed agroecosystems to create economic value for protecting ecosystems.	Number of crops and varieties adopted	0	90%	Implementation progress report, Production reports, Nutrition reports	PMU, MoA	Drought tolerant and early maturing varieties are an adaptation strategy
Output 4.2.2: Catalytic program to switch from conventional irrigation to climate smart technologies such as drip irrigation and solar pumping..	Area of land on which climate smart irrigation technologies have been adopted	0	10,000ha	Program implementation progress report	PMU, MoA	Program will incentivize the switch from conventional to climate-smart technologies
Output 4.3.1: Value chains platform strengthened to promote market driven productivity.	Number of successful market linkages	0	10	Implementation progress report, Value chains and market reports	PMU, MoA,	Market driven productivity will strengthen sustainability and livelihood
Output 4.3.2: Capacity building program for strengthened value addition.	Number of individuals and communities capacitated by program	0	20	Implementation progress report	PMU, MoA	There is a need for value addition capacity building for enhanced market linkages

ANNEX 2: CONSULTATIVE EXERCISE

TITTLE OF CONSULTATION

LIST OF STAKEHOLDERS

NDA & MoA, Inception meeting on proposed concepts
Date: 3 March 2022
Venue:
Mbabane

OUTCOME OF MEETING BETWEEN MTEA-NDA, MOA & FAO	
Date:	03 March 2022
Time:	10:30-12:00
Venue:	MTEA Board Room, Mbabane Head Quarters
Participants:	1. Khangezilwe Mabuza (PS-MTEA) 2. Dudu Masina-Nhlengethwa (MTEA) 3. Lindani Mavimbela (FAO) 4. Theophilus Dlamini (FAO) 5. Howard Mbuyisa (MOA) 6. Siphó Shiba (MOA) 7. Patric Dlamini (MOA) 8. Constance Dlamini (MTEA) 9. Mbhekeni Nxumalo (MTAE)

Development of log-frame for Concept note.
Date: 18 May 2022
Venue: Piggs peak

Name of participant	Institution	Designation	Gender (M/F)	Email address
Thulani Sibiya	Ministry of Agriculture	Planner	M	osibiya@gmail.com
Thapelo Hlatshwako	Ministry of Agriculture	R.M.O	M	thapelo.hlatshwako@yahoo.com
Ntokozo Dlamini	Ministry of Agriculture	Agriculture Officer	M	jimmynd247@gmai.com
Louis Musa Kuhlase	Ministry of Agriculture	SAO	M	klouismusa7@gmail.com
Colani Mkhabela	Ministry of Agriculture -Land Use Planning Department	SWCE	M	colanimkhabela3@gmail.com
Patrick Dlamini	Ministry of Agriculture -Land Use Planning Department	Soil Surveyor	M	patrickdlamini@gmail.com
Theophilus Dlamini	FAO	Programme Assistant	M	theophilus.dlamini@fao.org
Christopher Mthethwa	Ministry of Agriculture -DAE	Senior Agricultu	M	mthethwa.chris003@gmail.com
Sifiso Msibi	Ministry of Agriculture -DVLS	R.M.O	M	sifisom@gmail.com
Howard Mbuyisa	Ministry of Agriculture	Senior Economist	M	howardveli@yahoo.com
Phumzile Mhlanga	Ministry of Agriculture	Senior Aquaculture Officer	F	mhlangap@gmail.com
Nkosinathi Mavimbela	MoF	SNR Finance Officer	M	mavimbelank@gmail.com
Lindani Mavimbela	FAO	Programme Coordinator	M	lindani.mavimbela@fao.org

Cuthbert Kambanje	FAO	Technical Officer	M	cuthbert.kambanje@fao.org	
James Mavimbela	World Food Programme	-	M	james.mavimbela@wfp.org	
Naad D Pires	World Food Programme	-	F	maypires@wfp.org	

Technical Committee (TC) meeting
Date: 29 July 2022
Venue: Mbabane

OUTCOME OF MEETING BETWEEN MTEA-NDA, MOA & FAO	
Date:	29 July 2022
Time:	09:30-12:00
Venue:	MoA Board Room, Mbabane Head Quarters
Participants:	1. Mr Thulani Sibiya (MOA) 2. Dr Cuthbert Kambanje (FAO) 3. Dr Lindani Mavimbela (FAO) 4. Mr Theophillus Dlamini (FAO) 5. Mr Sifiso Msibi (MOA) 6. Mr Sipho Shiba (MOA) 7. Ms. Constance Dlamini (MTEA) 8. Mr Mbhekeni Ncumalo (MTAE) 9. Mr Ntokozo Dlamini (MoA) 10. Mr Victor Mahlalela (NDMA) 11. Mr Nkosinathi Mavimbela (MoF) 12. Dr Celi Ndzabandzaba (Red Cross) 13. Mr Spencer Green Thompson (MNRE) 14. Mr Sacolo Sanele (DPMO)

Steering Committee Meeting
Date: 21 September 2022
Venue**:** Mbabane

STEERING COMMITTEE-Q2-MEETING MINUTES	
Date:	21 September 2022
Time:	09:15-11:30
Venue:	MTEA Board Room, Mbabane Head Quarters
Participants:	1. PS MTEA 2. PS MoA 3. US MTEA 4. Dr Lindani Mavimbela (FAO) 5. Mr Thulani Sibiya (FAO)
Apologies	1. Dr. Cuthbert Kambanje (FAO) 2. Mr. Howard Mbuyisa 3. Ms. Khanyisile Mabuza

Finalisation of Agro-ecological Concept Note
Date: 22 November 2022
Venue: Zulwini

Name of participant	Institution	Designation	Gender (M/F)	Email address
Thulani Sibiya	Ministry of Agriculture	Planner	M	osibiya@gmail.com
Lindani Khumalo	FAO	Research Assistant	M	lindani.khumalo@fao.com
Sibusile Mamba	FAO	Research Assistant	F	sibusile.mamba@fao.org
Patrick Dlamini	Ministry of Agriculture - Land Use Planning Department	Soil Surveyor	M	patrickdlamini@gmail.com
Cyril Dlamini	Ministry of Agriculture	Agricultural Officer	M	cyril.sabelo.dl@gmail.com
Nelly Motsa	Ministry of Agriculture	Veterinary Officer	F	zezemvulane@gmail.com
Cuthbert Kambanje	FAO	Technical Officer	M	cuthbert.kambanje@fao.org
Lindani Mavimbela	FAO	Programme Coordinator	M	lindani.mavimbela@fao.org
Daniel Dladla	Ministry of Agriculture	Agricultural Officer	M	luthin2@gmail.com
Sebenele Kunene	Ministry of Agriculture	M&E Officer	M	desmondsebe@gmail.com
Thapelo Hlatshwako	Ministry of Agriculture	R.M.O	M	thapelo.hlatshwako@yahoo.com
Sikhumbuzo Maseko	Ministry of Agriculture - Land Use Planning Department	Soil Surveyor	M	masekosikhumbuzo1@gmail.com
Boy R Mavuso	Ministry of Agriculture -Fishery	Agricultural Officer	M	mavusoboyr@gmail.com

Ndoda Msibi	Ministry of Agriculture,-NPPO	RPPO	M	ndodamsibi@gmail.com

Landscapes (Lubombo and Ngwempisi) Community Consultation
Date: 20-23 June 2023
Venue: Shewula and Tikhuba Community/ Chiefdom centres for Lubombo Landscape

Venue: KaZulu and Luzelweni Community/ Chiefdom centres for Ngwempisi Landscape

Name	Gender	Designation	Name	Gender	Designation	Name	Gender	Designation	Name	Gender	Designation
Shewula			Sibongile Mnisi	F	Chiefdom Development Committee	Goodness Matsenjwa	F	Chiefdom Development Committee	Sihlangu Gwebu	F	Extension Officer-MoA
Musa Masilela	M	Inner concillor	Gcinile Madolo	F	Chiefdom Development Committee	Ncobile Dlamini	F	Chiefdom Development Committee	Gladies Methula	F	NGO
Jim Dladla	M	Inner concillor	Dely Mabila	F	Chiefdom Development Committee	Nompumelelo Nyaba	F	Chiefdom Development Committee-Chair	Musa Ngcamphalala	M	Extension Officer-MoA
Xolile Dlamini	F	Chiefdom Development Ccommittee	Phumlani Nhlabatsi	M	Trust	Phindile Dlamini	F	Trust	KaZulu		
Jeneth Mahlalela	F	Board Member	Lindiwe Sifundza	F	Trust	Phumlile Matsenjwa	F	Trust	Elizabeth Dlamini	F	Inner Council
Thumeli Masilela	F	Chiefdom Development Committee	Khetsiwe Mkhabela	F	Trust	Khanyisile Dlamin	F	Inner Council	Zandile Dlamini	F	Inner Council
Magareth Khumalo	F	Rural Health Officer	Lungile Magagula	F	Community Member	Calton Gamedze	M	Trust	Thembsile Mkumba	F	Inner Council
Hlobsile Ngomane	F	Rural Health Officer	Phlile Ndwandwe	F	Community Member	Elias Matsenjwa	M	Community Member	Makhosi Nhlabatsi	M	Chiefdom Development Committee
Daniel Ndzabandzaba	M	Com.member	Khetsiwe Mamba	F	Community Member	Nomcebo Vilane	F	Farmer	Thandiwe Shongwe	F	Community Member
Dumsani Mabuza	M	Chairperson-ECC	Phumzile Mnisi	F	Community Member	Antony Matsenjwa	M	Chiefdom Development Committee-Chair	Mzwandile Tsela	M	Chiefdom Development Committee
Samuel Maziya	M	Chiefdom Development Committee	Goodness Vilakati	F	Community Member	Bayeza Nkonyane	M	Farmer	Abel Vilakati	M	Inner Council
Elias Bhuky	M	Inner concillor	Mandla Makhanya	M	ENTC	Mfana Nhlabatsi	M	Trust	Nkinase Shongwe	M	Chiefdom Development Committee
Jenneth Nkonyane	F	Chiefdom Development Officer	Luzelweni			Colani Matsenjwa	M	Temvelo	Ireen Ngambi	F	NGO-Temvelo
Mahlasela Mabila	M	Chiefdom Development Officer	Joseph Khoza	M	Chiefdom Development Committee	Mbuso Gamedze	M	Chiefdom Development Committee-VC	Tenele Nxumalo	F	MoA-Extension Officer
Samuel Nyoni	M	Chiefdom Development Committee	Melvin Dlamini	M	Chiefdom Development Committee	Thando Dlamini	F	Community Member	Winile Maseko	F	Community Member
Caphas Msibi	M	Chiefdom Development Committee-Chair	Thutha Dlamini	M	Chiefdom Development Committee	Thandi Wilson	F	Community Member	Siphesihle Hlophe	F	Community Member
Thandi Mhlanga	F	Manager	Gugu Gwebu	F	Chiefdom Development Committee	Alfred Dlamini	M	CD	Fisiwe Shabangu	F	Community Member
Danger Nhlabatsi	M	Inner concillor	Cebile Matsenjwa	F	Chiefdom Development Committee	Khetsiwe Vilakati	F	Community Member	Temadleni Dlamini	F	Community Member
Sikhumbuzo Maseko	M	MoA-LUPD	Sipho Mazibuko	M	ENTC	Ntombikayise Fakudze	F	NGO	Thandi Tsela	F	Community Member
Nonhlanhla Bhembe	F	Trust	Lisaya Nshalinshali	F	Chiefdom Development Committee	Sihlangu Gwebu	F	Extension Officer-MoA	Tandzile Tsela	F	Community Member
Juliet Shabangu	F	Community Member	Lindiwe Sukati	F	Community Member	Fikile Mndzebele	F	Community Member			
Happiness Tsela	F	Community Member	Mabusi hlophe	F	Community Member	Happy Sacolo	F	Chiefdom Development Committee			
Lungile Makhanya	F	Community Member	Ema Sacolo	F	Community Member	Mayenziwe Sacolo	F	Community Member			

Phiness Tsela	M	Community Member	Amos Manana	M	Community Member	Mkhabeko Sacolo	M	Community Member
Gabsile Maseko	F	Community Member	Vusi Vilakati	M	Community Member	Lindiwe Hlophe	F	Community Member
Simphiwe Tsela	F	Community Member	Mlandvo Sacolo	M	Community Member	Thabiso Sacolo	M	Community Member
Celiwe Tsela	F	Community Member	Thembeka Mavuso	M	Community Member	Titselo Sacolo	M	Community Member
Tikhuba			Mazy Khumalo	F	Community Member	Winile Lukhele	F	Inner Council
Petros Sacolo	M	Advisor	Ncamsile Dlamini	F	Community Member	Julien Van Vuren	F	Chiefdom Development Committee
Aenies Sacolo	F	Inner Council	Zodwa Dlamini	F	Community Member	Juba Dlamini	M	Community Member
Fikile Ndzabukelwalo	F	Advisor	Mlungisi Hlophe	M	Community Member	Satile Sacolo	M	Community Member
Thandiwe Sacolo	F	Community Member	Makhosazane Vilakati	M	Community Member	Themba Gwebu	M	Runner
Nombuso Sacolo	F	Community Member	Marry Van Vuren	F	Chiefdom Development Committee	Amos Sacolo	M	Community Member
Buyisile Ntshalinshali	F	Health Advisor	Sicelele Sacolo	M	Community Member	Zola Sacolo	M	Community Member
Welile Dlamini	F	Health Advisor	Thubelihle Simelane	M	Community Member	Zakhele Sacolo	M	Community Member
Lucy Ntshalinshali	F	Community Member	Sibusiso Sacolo	M	Trust	Busisiwe Dlamini	F	Community Member
Ruth Sacolo	F	Community Member	Bongekile Sacolo	F	Community Member	Muzi Hlophe	M	Community Member
Peter Maseko	M	Chiefdom Development Committee	Philisiwe Lushaba	F	Community Member	Mandla Makhanya	M	ENTC
Khathiwe Mavuso	F	Community Member	Khatrina Maseko	F	Community Member	Ireen Ng"ambi	F	TENVELO
Goodness Mhlanga	F	Community Member	Sotunwane Sacolo	M	Chief	Scelo Ntshalintshali	M	Chiefdom Developmen Committee