FULLY DEVELOPED PROPOSAL FOR REGIONAL PROJECT

PART I: PROJECT INFORMATION

Title of Project/Programme:	**ECOVERSE – Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo**
Countries:	Chad and Togo
Thematic Focal Area[1]:	Disaster risk reduction and early warning systems
Type of Implementing Entity:	Regional Implementing Entity
Implementing Entity:	Sahara and Sahel Observatory (OSS)
Regional Executing Entity:	Africa Adaptation Foundation (AAF)
National Executing Entities:	**Chad:** Triple Capital Tchad, Association pour le Development Integré **Togo:** Sustainable Solutions for Africa (SSA), Directorate of Environment under the Ministry of Environment and Forestry (DE/MERF) and Les Instituts de la Formation en Alternance pour le Development (IFAD)
Amount of Financing Requested:	25,250,000 (in U.S Dollars Equivalent)

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

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

Stage of Submission:

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

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

In case of a resubmission, please indicate the last submission date: 8/8/2025

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

Table of contents

List of figures

List of Tables

A. Project Background and Context:

Geographical location and project sites

1. Africa is experiencing an intensification of climate-related risks, with rising temperatures, increasing rainfall variability, more frequent and severe extreme weather events, and accelerating ecosystem degradation. These shifts are affecting food systems, infrastructure, water availability, and the health and livelihoods of the most vulnerable communities both in rural and urban areas. While these challenges are pan-African, they manifest differently across ecological zones, creating a need for targeted, context-specific adaptation strategies. At the regional level, West and Central Africa face overlapping vulnerabilities:
   - Urban centers in the Sahel suffer from extreme heat, flooding during brief rainy seasons, and prolonged dry periods that strain water and health systems.
   - Transitional zones between forests and savannahs experience intense runoff, soil erosion, and the disruption of rural connectivity.
2. The Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo - ECOVERSE project addresses these challenges through a multi-country approach that integrates site-specific adaptation solutions while fostering cross-country learning and replication. The project will be initially implemented in two countries with diverse climate stressors:

Chad – N'Djaména and surrounding departments (Sahelian Urban and Peri-urban Zone)

3. Chad is one of the Least Developed Countries (LDCs) in the world and is highly vulnerable to climate change. The country is recognised amongst the hottest countries, and about 75% of its territory is desert. Since the 1970s, Chad has already experienced an increase in mean annual temperature. Temperature is rising in Chad faster than the global average, threatening food security, due to the vulnerability of the agriculture, livestock, fisheries, and land use sectors to climate change. Chad is particularly affected by low yields and declining harvests, which are exacerbated by weak forecasting, preparedness, response and adaptation.
4. Rural areas in the country are most at risk from climate change because that's where most of the poverty is found. However, urban areas are not safe either, as the country's growing cities struggle to accommodate the arrival of new residents.
5. The project sites include 2 urban localities, N'Djaména 's 8th and 9th districts. These are densely populated urban areas, with poor drainage infrastructure, exposing informal settlements to health and economic risks during seasonal floods. The project will also be implemented in peri-urban and rural areas of Linia and Mandelia, located in the neighbouring Chari Department of the Chari Baguirmi Province, approximately 30 km east of N'Djaména . The province of Chari-Baguirmi is located in southwestern Chad. It is part of the Sahelian region and borders the capital, N'Djaména, to the northwest (Figure 1). It is an agro-ecological transition province between the capital city and rural areas.
6. Both urban and rural areas are subject to severe flooding over the last few years. For most of the year, residents face water scarcity, exposure to extreme heat (often above 40°C), and a lack of green or shaded infrastructure. Socioeconomically, high poverty rates and limited public services make the region especially vulnerable.

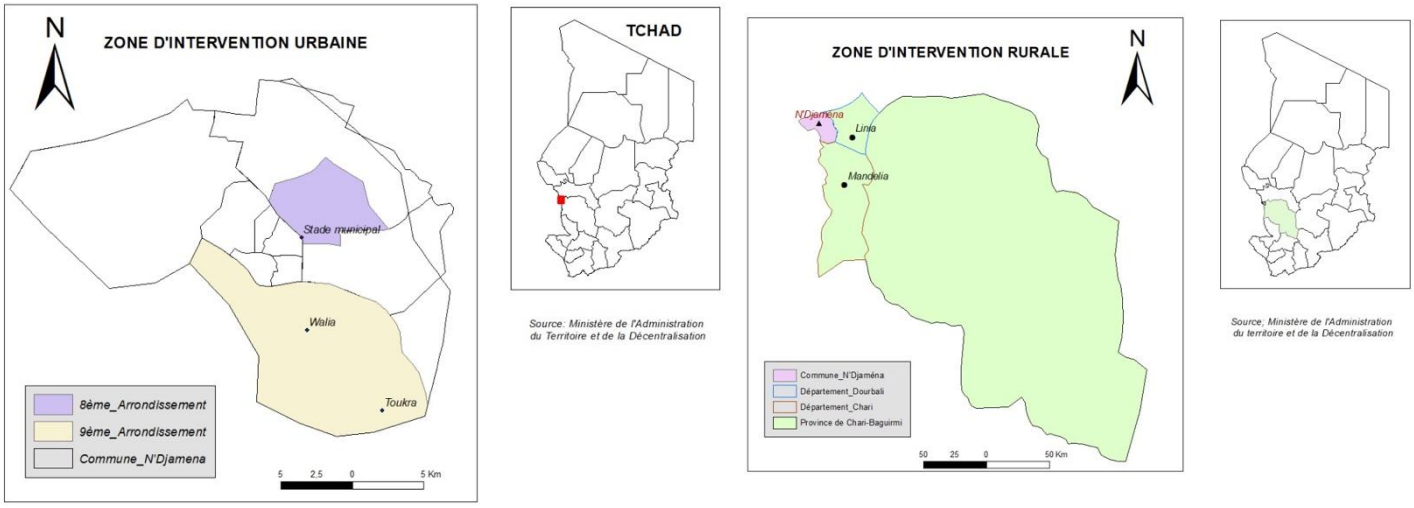


Figure 1: Location of urban and rural project sites in Chad: 8th and 9th District of N'Djaména

[2]Togo – Zogbepimé (Avé 1 Commune, Forest–Savanna Transition Zone)

7. Togo is a West African country located in the Gulf of Guinea spanning an area of 56,600 km². Togo is a low-income country and poverty rates remain high, with an estimated 69% of rural households currently living below the poverty line. Togo's central regions are characterized by dual rainy seasons and frequent dry spells, causing erratic crop yields. The project will be implemented in the Zogbépimé region, which is located in the forest-savannah transition area. Agriculture is the predominant activity in the area, mostly composed if rudimentary farming systems, heavily reliant on rainfall. The region suffers from precarious infrastructure, with limited access to electricity and drinking water. Heavy rains cause severe topsoil erosion and the degradation of unpaved roads from runoff regularly cuts off access to markets, healthcare, and schools, exacerbating rural isolation. Smallholder farmers, many of whom are women, face declining land productivity, food insecurity, and limited access to climate-resilient inputs and finance.

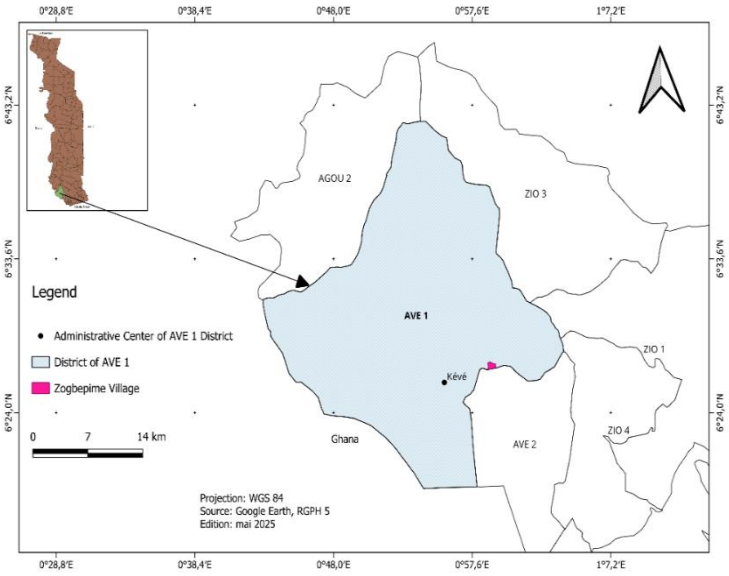


Figure 2:Location of project sites in Togo: Zogbépimé

Climate and weather conditions

8. Chad and Togo, though ecologically distinct, are both increasingly exposed to the adverse impacts of climate change. Chad, situated in the Sahelian zone of Central Africa, is characterized by a hot semi-arid climate with high temperatures year-round and a short, intense rainy season. The country is experiencing more frequent and prolonged droughts, increasing average temperatures, and severe rainfall variability, all of which are exacerbating water scarcity, desertification, and food insecurity. Togo, located in West Africa, exhibits a tropical savanna climate with a bimodal rainfall pattern i.e., two rainy seasons and two dry seasons. However, climate change is disrupting this pattern, leading to unpredictable rainfall, dry spells during key planting periods, and more intense storms. Both countries are grappling with the consequences of rising temperatures and erratic

[2]https://www.google.com/maps/place/Mandji/@-0.8818805,9.7610129,6.96z/data=!4m6!3m5!1s0x1a7d9f3a50a912df:0xb17f8c80fc9a9918!8m2!3d-1.733333!4d10.95!16s%2Fg%2F12pgc_sbs?entry=ttu&g_ep=EgoyMDI1MDYxNi4wIKXMDSoASAFQAw%3D%3D

precipitation, which threaten natural ecosystems, infrastructure, and the livelihoods of their most vulnerable populations.

9. N'Djaména, located in the Sahelian belt of Chad, and its neighbouring rural provinces experience a hot semi-arid climate characterized by prolonged dry seasons and brief, intense rainy periods. Average annual temperatures in the city range between 28°C and 33°C, with daily highs frequently exceeding 42°C during the peak months from April to June. The rainy season typically spans from late June to early September, but precipitation is both erratic and declining in recent decades, averaging between 300 to 600 millimetres annually. Rainfall often occurs in short, intense bursts, with events exceeding 30 mm/hour becoming increasingly common. These sudden downpours overwhelm N'Djaména 's limited drainage systems and result in frequent urban flash floods, particularly in the vulnerable 8th and 9th district, where over 60% of residents live in informal settlements situated in low-lying flood-prone areas. Outside the rainy season, the city endures over 8 months of aridity, with relative humidity often dropping below 20%, and prolonged exposure to Harmattan winds from the Sahara that bring fine dust and exacerbate respiratory illnesses. With projected warming of 2.0–4.4°C by 2050 under medium- to high-emissions scenarios, climate-induced stress on water resources, public health, and urban infrastructure is expected to increase dramatically, placing immense pressure on already underserved populations in N'Djaména 's peri-urban neighbourhoods.
10. Zogbepimé, situated in Togo's forest–savanna transition zone within Avé 1 Commune, is characterized by a tropical savanna climate with two distinct rainy seasons and two intervening dry periods. The long rainy season occurs from April to July, while the short rainy season spans September to October. Annual precipitation ranges between 1,000 and 1,200 millimetres, though recent decades have seen greater intra-seasonal variability, with false starts to the rainy season and an increased frequency of 10 to15 days dry spells occurring within critical planting periods. Average daily temperatures vary from 22°C in July to 32°C in March, with climate projections indicating an increase of 1.6 to 3.0°C by mid-century, along with a likely 10 to 20% decline in seasonal rainfall. Zogbepimé' s undulating topography makes it highly susceptible to runoff-induced soil erosion, with some slopes losing up to 30 tons of topsoil per hectare annually during heavy rain events. The degradation of unpaved roads due to erosion and seasonal flooding frequently cuts off access to essential services, markets, schools, and health posts, particularly for the 70% of the population reliant on subsistence agriculture. As rainfall becomes less predictable and dry spells more prolonged, farmers face significant crop losses and growing food insecurity. These converging climatic and topographic factors render Zogbepimé a hotspot for climate vulnerability, underscoring the urgent need for integrated adaptation strategies that combine erosion control, climate-smart agriculture, and resilient infrastructure.

Water resources

11. Water availability in both Chad and Togo is shaped by geographic, climatic, and hydrological factors, all of which are being profoundly affected by climate change. Chad's water resources are predominantly concentrated in its southern region, where seasonal rainfall feeds major rivers such as the Chari and Logone, transboundary waterways that collectively supply over 90% of the inflow to Lake Chad. However, the country's overall water security is fragile: more than 70% of Chad's territory is arid or semi-arid, and per capita renewable water availability has been declining due to population growth and diminishing rainfall. Lake Chad itself has lost over 90% of its surface area since the 1960s, shrinking from 25,000 km² to less than 1,500 km² in recent dry years. Meanwhile, Togo benefits from a relatively denser river network, including the Mono, Haho, and Zio rivers, and experiences higher annual rainfall, especially in the forest–savanna transition and coastal zones. However, rainfall is increasingly erratic, and access to water is highly uneven, with over 30% of rural populations relying on unprotected wells or surface water. Deforestation, land degradation, and weak water governance also contribute to seasonal imbalances, where flash floods alternat7e with dry season shortages.

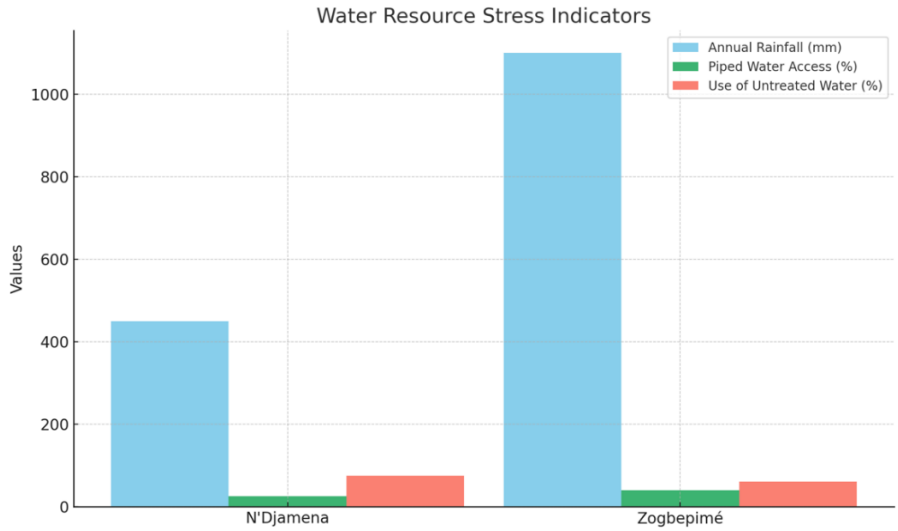


Figure 3: Water Resource Stress Indicators

12. In N'Djaména, one of the capital's most densely populated and underserved urban zones, water insecurity is a chronic and growing crisis. Despite its proximity to the Chari and Logone rivers, the district lacks formal water distribution systems, and less than 25% of households have access to piped water. Most residents depend on shallow hand-dug wells, informal boreholes, or water vendors who sell untreated river water at inflated prices. During the 8–9-month dry season, these informal water sources often dry up or become contaminated, forcing families especially women and children, to travel long distances to access safe water, which can cost up to 10% of daily household income. In the rainy season (June to September), the situation shifts but does not improve: flash floods inundate low-lying neighbourhoods, and runoff from poorly drained streets contaminates water sources with faecal matter and solid waste, increasing the incidence of waterborne diseases such as cholera, typhoid, and diarrhoea. The absence of a comprehensive water storage, purification, and stormwater management system has turned seasonal rainfall into both a missed opportunity and a major public health hazard. Urban heat and dust further compound the stress on water demand, particularly for cooling and hygiene.

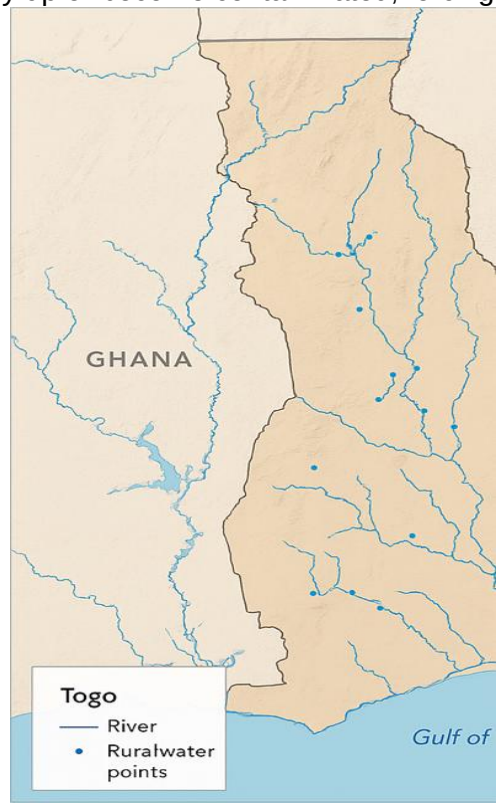


Figure 4: Togo: River System and Rural Water Supply Points

13. Zogbepimé, located in the forest–savanna transition zone of southern Togo, faces a contrasting yet equally precarious water situation, driven by rainfall variability, sloped terrain, and insufficient infrastructure for water harvesting and conservation. Annual rainfall in the area averages 1,000 to 1,200 mm, but it is unevenly distributed across two main rainy seasons (April–July and September–October). Without adequate water retention infrastructure such as tanks, farm ponds, or check dams, most of this rainfall is lost as runoff, leading to both erosion and missed opportunities for water storage. In the dry season (November–March), shallow wells often run dry, and the few mechanized boreholes serve multiple villages, resulting in long wait times and intercommunal tensions. Women and girls are disproportionately affected, often walking 3–5 kilometres daily to fetch water, which compromises school attendance and household well-being. Moreover, slope-induced erosion clogs streams and reduces groundwater recharge, degrading both water quality and availability. Smallholder farmers, who rely on seasonal rainfall for food production, are particularly vulnerable, as inconsistent water supply leads to crop failure, limits dry season gardening, and constrains livestock rearing. Despite relatively higher annual rainfall compared to Chad, Zogbepimé's water system remains highly fragile due to poor management, lack of infrastructure, and increasing climate stress.

Agriculture and Land use

14. Agriculture across sub-Saharan Africa is increasingly under pressure due to the accelerating impacts of climate change, land degradation, and demographic shifts. The region's predominantly rain-fed farming systems are highly sensitive to changes in precipitation and temperature, with over 60% of the population relying on subsistence agriculture for food and income. Soil fertility depletion, erosion, and deforestation are rampant, driven by unsustainable practices such as slash-and-burn farming, overgrazing, and poor land tenure systems. According to the FAO, the continent loses an estimated 2.8 million hectares of forest annually, much of it converted to low-productivity cropland. As rainfall patterns become more erratic and extreme weather events increase in frequency, agricultural productivity has stagnated or declined in many areas, raising concerns about food security, rural poverty, and ecological sustainability. The need for climate-smart agriculture, soil conservation, and integrated land-use planning is therefore urgent, particularly in fragile ecosystems like the Sahel and forest–savanna transition zones.
15. In Chad, agriculture accounts for nearly 40% of GDP and employs more than 75% of the population, yet productivity remains low due to outdated techniques, land degradation, and climate shocks. Farming is concentrated in the southern and central zones, where rainfall is relatively more reliable. Key crops include millet, sorghum, groundnuts, and maize, often cultivated under traditional systems with minimal inputs. The northern and Sahelian zones, including areas around N'Djaména , are more arid and depend on pastoralism and small-scale rain-fed cultivation. Over 13 million hectares of land in Chad are classified as degraded, primarily due to wind erosion, nutrient depletion, and unsustainable land use. Agricultural expansion into marginal lands has led to increasing conflict between farmers and herders, while limited access to improved seeds, irrigation, and finance further constrains productivity. Despite the government's commitment to climate-smart agriculture, uptake remains limited due to weak extension services and lack of infrastructure.
16. In N'Djaména , agriculture plays a secondary but vital role in household resilience. While the district is primarily urban, many residents engage in peri-urban agriculture, cultivating small plots of maize, okra, and leafy greens, and keeping poultry or goats for income and food security. Agriculture activities are more important in the peri-urban and rural areas surrounding N'Djaména . This informal agriculture is often practiced on degraded land along drainage corridors, riverbanks, and vacant lots, without access to irrigation or soil amendments. Erratic rainfall and poor soil fertility, compounded by waste pollution and waterlogging during the rainy season, significantly limit productivity. Moreover, urban expansion has led to encroachment on arable land, while lack of zoning and tenure security creates disincentives for sustainable land management. Without interventions to support soil improvement, water harvesting, and micro-irrigation, these systems remain trapped in a cycle of low yield and vulnerability to climate stress.
17. In Togo, agriculture is similarly central to the economy, contributing about 38% of GDP and employing 65% of the labour force. The country's fertile southern and central regions support diverse farming systems that produce maize, cassava, yams, groundnuts, and cash crops like cocoa and coffee. However, land use pressures are growing due to population expansion, forest clearance, and soil erosion particularly in the forest–savanna transition zone. More than 80% of agricultural land is cultivated by smallholder farmers using basic tools and little external input, making the sector vulnerable to climate variability. Land degradation, particularly due to erosion and nutrient depletion, affects an estimated 60% of cultivated land, threatening long-term productivity. Although national strategies such as the Togo Climate-Smart Agriculture Investment Plan and the REDD+ framework promote sustainable practices, implementation is uneven, and many rural communities still lack access to adaptation knowledge, technologies, and credit.
18. In Zogbepimé, Avé 1 Commune, agriculture is the primary livelihood, with over 90% of households engaged in smallholder farming. The terrain is hilly and prone to erosion, particularly during heavy rains, which strip topsoil and reduce crop productivity. Farms are typically less than 2 hectares, and rely on rain-fed systems to grow maize, cassava, yams, and legumes. Shifting rainfall patterns, combined with lack of terracing or erosion control, have led to significant land degradation, with some fields losing 20–30 tons of soil per hectare annually. Livestock rearing, mainly goats and chickens, supplements income but is constrained by water scarcity and grazing limitations during the dry season. Few farmers have access to extension services, improved seeds, or

post-harvest storage, and there is limited use of agroforestry or conservation agriculture. The result is declining yields, rising food insecurity, and growing pressure on surrounding ecosystems. Introducing climate-smart land

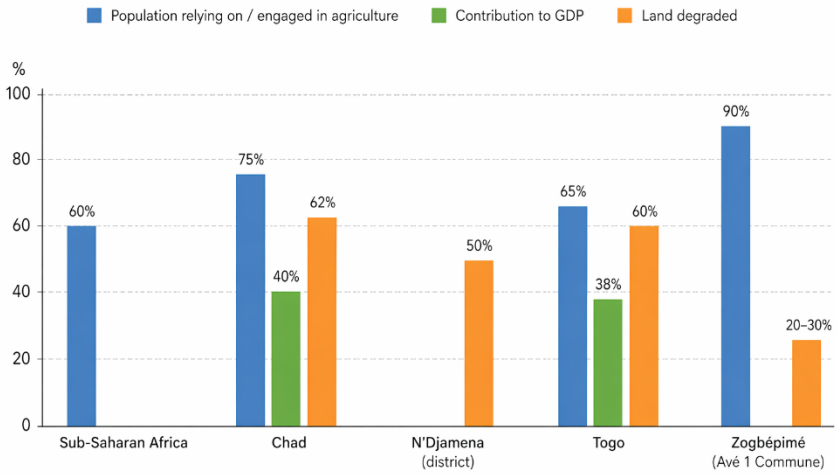


Figure 5:Key agriculture indicators across Sub-Saharan Africa, Chad, N'Djaména , Togo, and Zogbépimé (%)

management practices and community-based soil restoration is therefore essential for reversing degradation and building long-term resilience.

19. Land degradation levels remain high in both locations, estimated at approximately 60% in N'Djaména and slightly higher in Zogbépimé (around 65%). Zogbépimé records higher access to improved seeds and extension services, at about 25% and 20% respectively, compared to 15% and 10% in N'Djaména . Soil loss is also more pronounced in Zogbépimé, reaching roughly 25%, whereas it remains around 10% in N'Djaména, indicating comparatively higher levels of land degradation despite greater access to agricultural support services.

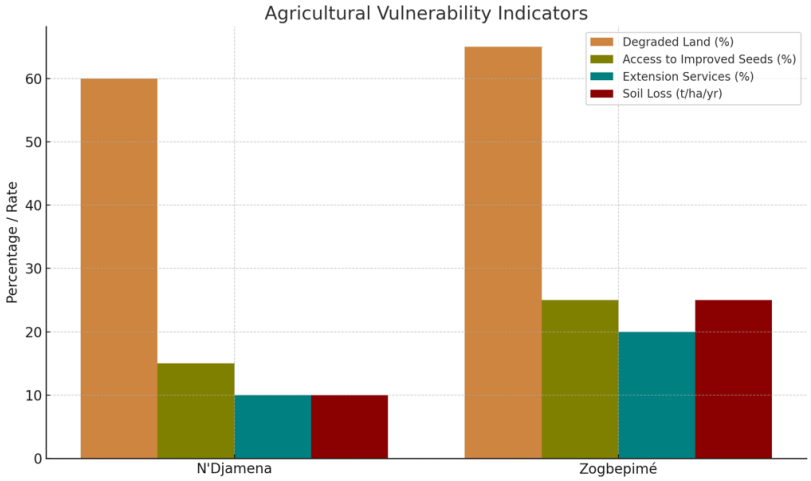


Figure 6: Agricultural Vulnerability Indicators

Biodiversity and Forests Ecosystems

20. Globally, biodiversity and forest ecosystems are under increasing threat due to deforestation, habitat fragmentation, climate change, and land-use conversion. According to the IPBES (2019), over 1 million species are at risk of extinction, and forest degradation is a major driver of biodiversity loss. Sub-Saharan Africa holds one-fifth of the world's remaining tropical forests and some of the planet's richest biodiversity hotspots, but these ecosystems are rapidly shrinking[3]. The Sahelian and savanna zones in West and Central Africa, once rich in grassland and woodland biodiversity, are now facing desertification, declining wildlife populations, and ecosystem collapse due to overgrazing, wood harvesting, agricultural expansion, and climate variability. The

[3] IPBES Global Assessment Report on Biodiversity and Ecosystem Services (2019) – https://ipbes.net/global-assessment

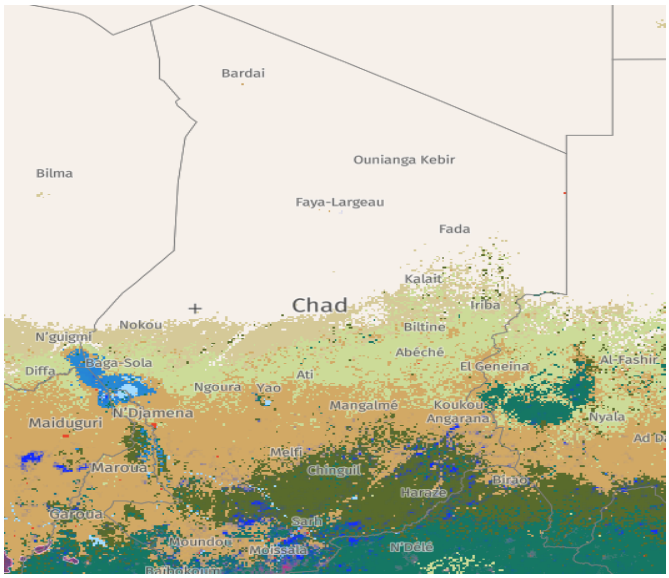


Figure 7:Multi-layer Map of Forest Cover, Biodiversity Hotspots, and Land Cover Dynamics in Chad (Source: https://gfw.global/0O2U1M)

degradation of forest and savanna ecosystems undermines carbon sequestration, water regulation, and food systems, making communities more vulnerable to climate shocks and reducing nature's ability to buffer extreme events. The restoration and conservation of biodiversity and forests is therefore critical to adaptation, food security, and regional ecological stability[4].

21. Chad possesses a diverse range of ecosystems spanning from Saharan deserts in the north to Sahelian savannas and Sudano-Guinean woodlands in the south. The country is home to key biodiversity hotspots such as Zakouma National Park, which shelters endangered species like the Kordofan giraffe and Central African lion. However, widespread deforestation, estimated at 0.6% annual forest loss, is driven by agricultural expansion, fuelwood collection (which meets 90% of household energy needs), and uncontrolled bushfires. In the Sahelian zones, including around N'Djaména, biodiversity is already under acute stress due to low vegetative cover, soil degradation, and water scarcity. Wildlife populations have declined dramatically, and native species face increasing habitat loss. Community and urban forests are sparse and poorly protected, while tree cover in peri-urban zones is continually encroached upon by informal housing and sand mining.

22. Togo, although a small country, contains a variety of ecological zones including coastal wetlands, savannas, and relict forest patches. Historically, Togo's southern and central regions supported dense semi-deciduous forests, but forest cover has declined from 32% in 1990 to under 18% today, largely due to logging, charcoal production, and slash-and-burn agriculture. The forest–savanna transition zone, including areas like Avé 1 Commune, has seen some of the most rapid degradation due to population pressure and erosion. Despite these losses, Togo still harbours significant biodiversity, including over 3,000 plant species and several endemic reptiles and amphibians[5]. The country's protected area system remains under-resourced, and most forest management is community-based but weakly enforced. Fragmented forest patches continue to serve vital ecological roles such as water retention, pollination, and soil stabilization.

23. In N'Djaména and surrounding areas, biodiversity and forest ecosystems are severely depleted. The 8th and 9th districts are largely urbanized, with very limited natural vegetation remaining. However, remnants of riverine vegetation along the Chari and Logone floodplains still support pockets of native flora and fauna, including migratory bird species and small mammals. These riparian zones are under pressure from encroachment, sand extraction, and dumping of solid waste. Urban expansion has led to the near-total clearance of shade trees and green belts, increasing the urban heat island effect and reducing natural flood buffering capacity. The scarcity of green spaces in the district undermines urban resilience and environmental health, making investments in reforestation, green corridors, and community greening essential for restoring ecological balance and public well-being.

24. In Zogbepimé, Avé 1 Commune, the forest–savanna mosaic has been heavily fragmented due to decades of agricultural encroachment and fuelwood harvesting. Once characterized by mixed woodland with species such as *Daniellia oliveri,*

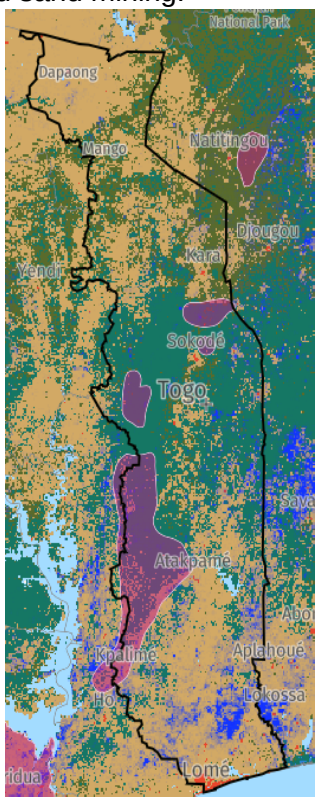


Figure 8:Multi-layer Map of Forest Cover, Biodiversity Hotspots, and Land Cover Dynamics in Togo (Source: https://gfw.global/OAtmiM)

[4] CBD Aichi Target 11 Dossier – Chad – https://www.cbd.int/pa/doc/dossiers/chad-abt11-country-dossier2021.pdf
[5] CBD Country Profile – Togo – https://www.cbd.int/countries/profile/?country=tg

Isoberlinia doka, and Vitellaria paradoxa, much of the natural vegetation has been cleared for subsistence farming, leaving behind fallow shrubland and degraded patches[6]. Biodiversity loss is evident in the decline of pollinators, soil fauna, and bird species critical to agro-ecosystem balance. Sacred groves and remnant forest patches still play important cultural and ecological roles but are increasingly threatened by shifting cultivation and lack of protection. Soil erosion further strips organic matter and reduces vegetation regeneration potential. The loss of biodiversity and ecosystem services directly undermines agricultural productivity and climate resilience, highlighting the need for integrated landscape restoration and agroforestry approaches.

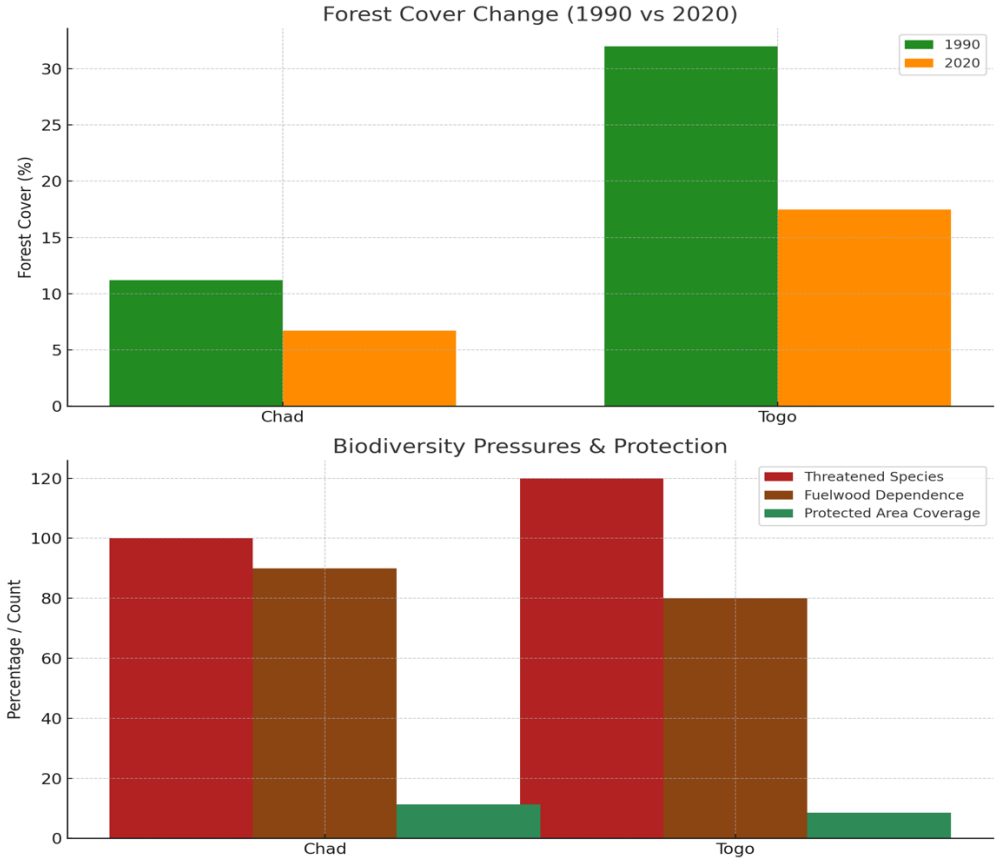


Figure 9: Forest cover change (1990-2020), Biodiversity pressures and protection indicators in Chad and Togo

Infrastructure and Urban Environment

25. Urbanization in sub-Saharan Africa is occurring at one of the fastest rates globally, with over 60% of urban dwellers living in informal settlements lacking basic services[7]. Rapid population growth has outpaced infrastructure development, leading to severe deficits in transport, water supply, sanitation, drainage, and housing. According to UN-Habitat, only 45% of urban populations in the region have access to safely managed sanitation, and solid waste collection rates are below 30% in many cities[8]. Additionally, urban centers are increasingly exposed to climate risks such as flash floods, urban heat, and droughts, yet few have resilient infrastructure in place to manage these challenges. Poor spatial planning, weak enforcement of land-use regulations, and underinvestment in basic services exacerbate urban vulnerability, particularly in low-income neighbourhoods[9].
26. Chad's urban infrastructure is underdeveloped, particularly outside N'Djaména. The capital has grown rapidly, with an estimated population of 1.5 million but faces severe deficits in roads, drainage, sanitation, electricity, and housing[10]. According to the World Bank, only 15% of roads in N'Djaména are paved, and most

[6] Forest-Cover Change and Land Use Study in Togo – https://www.mdpi.com/2073-445X/11/11/1889
[7] UN-Habitat. (2022). World Cities Report 2022: Envisioning the Future of Cities. https://unhabitat.org/wcr/
[8] WHO/UNICEF JMP. (2021). Progress on household drinking water, sanitation and hygiene 2000–2020. https://washdata.org/
[9] IPCC. (2022). Sixth Assessment Report: Urban Systems and Settlements – Chapter 8.
[10] World Bank. (2022). Chad Country Profile: Urban and Infrastructure Indicators. https://data.worldbank.org/country/chad

neighbourhoods lack functioning stormwater systems[11]. Access to improved sanitation stands at 23%, while only 9% of households have access to piped water in urban areas. Informal settlements dominate the urban landscape, where residents often build on floodplains without tenure security or infrastructure support. The expansion of informal housing is largely unregulated, with limited coordination between urban planning agencies and local authorities[12].

27. The project sites are in Chad characterized by unplanned development, poor road conditions, and lack of drainage infrastructure. They are also prone to seasonal flooding and the poorly drained streets and clogged canals result in stagnant water that poses serious public health hazards, especially for waterborne diseases like cholera and dysentery. Only a small fraction of households is connected to the electricity grid, and open defecation remains common in several neighbourhoods. Public infrastructure such as markets, schools, and health posts is often dilapidated or under-resourced. Informal housing expansion on reclaimed wetlands has reduced the city's natural drainage capacity, while rising land prices in the city center push vulnerable groups further into risk-prone zones.
28. Togo's urban population is growing at over 3.8% annually, with increasing pressure on cities such as Lomé, Kpalimé, and Tsévié[13]. Despite this, basic infrastructure coverage remains limited. Only 36% of Togolese households have access to improved sanitation, and solid waste management systems cover less than 20% of municipalities[14]. Urban road networks are poorly maintained, particularly in semi-rural communes where feeder roads become impassable during the rainy season. Rapid urban sprawl in peri-urban areas like Avé 1 Commune has outpaced public service delivery. Weak land administration systems and fragmented institutional mandates further limit effective urban governance. Many settlements in secondary towns rely on self-built infrastructure, resulting in low resilience to erosion, floods, and public health risks[15].
29. Zogbepimé, a rural-urban fringe community in the forest–savanna transition zone, faces a different set of infrastructure challenges. The area lacks paved roads, and during the rainy season, key feeder roads become inaccessible due to flooding and erosion[16]. Most households rely on communal wells for water, but these often dry up or become contaminated during the dry season. Sanitation is limited to traditional pit latrines, and formal waste collection services are non-existent. Schools and health centers exist but are often overcrowded and under-equipped. Housing is predominantly made of mud bricks, vulnerable to both heavy rains and termites. The lack of climate-resilient infrastructure in Zogbepimé increases vulnerability to weather shocks, while weak land-use planning leads to scattered development and inefficient service delivery. Community demand for sustainable infrastructure such as water harvesting systems, improved roads, and solar energy, remains high but largely unmet.

Population and Socioeconomic

30. Across sub-Saharan Africa, rapid population growth and high poverty rates pose significant challenges to sustainable development. The region hosts 17 of the world's 20 fastest-growing populations, with a median age under 20 years and annual growth rates exceeding 2.5% in many countries[17]. Despite economic progress in some areas, over 400 million people remain in extreme poverty, and approximately 80% of workers are engaged in informal employment[18]. These dynamics exacerbate inequality, constrain access to education and health services, and increase pressure on land, water, and infrastructure. Rural–urban migration is accelerating, driven by climate change, insecurity, and lack of economic opportunity, yet urban labour markets often fail to absorb new entrants, especially youth and women. Gender disparities remain widespread, with sub-Saharan Africa exhibiting some of the world's lowest rates of women's participation in formal employment and decision-making processes[19].

[11] UN-Habitat. (2020). N'Djaména City Profile and Urban Vulnerability Assessment.
[12] Global Facility for Disaster Reduction and Recovery (GFDRR). (2021). Chad Urban Flood Risk Assessment.
[13] World Bank. (2022). Togo Urbanization Review: Building Cities for Growth and Inclusion. https://documents.worldbank.org
[14] African Development Bank (AfDB). (2019). Togo Urban Sector Review and Infrastructure Needs.
[15] Government of Togo. (2021). Plan National d'Aménagement du Territoire (PNAT) – Avé Prefecture.
[16] Government of Togo. (2021). Plan National d'Aménagement du Territoire (PNAT) – Avé Prefecture.
[17] United Nations Population Division (2023). World Population Prospects. https://population.un.org
[18] World Bank (2023). Poverty and Shared Prosperity Report. https://www.worldbank.org/en/publication/poverty-and-shared-prosperity
[19] African Union (2022). African Gender Scorecard.

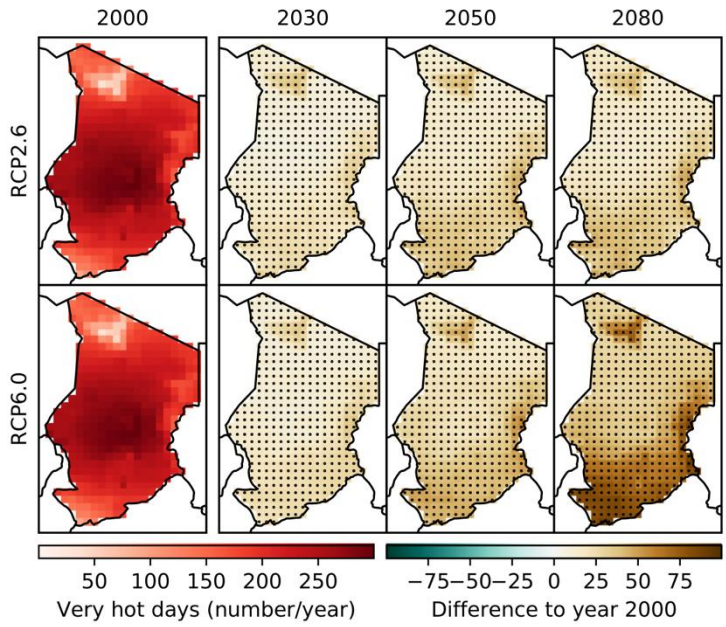
31. Chad's population is estimated at 18.1 million (2024), with a 3.0% annual growth rate, making it one of the fastest-growing populations in Central Africa[20]. The population is overwhelmingly young, more than 65% are under the age of 25 and primarily rural, with only 23% residing in urban areas. The country ranks 190th of 191 on the UNDP Human Development Index (HDI 2023), with over 42% of the population living below the national poverty line[21]. Illiteracy is high, particularly among women, with female literacy at just 28%, compared to 48% for men[22]. Unemployment and underemployment are widespread, particularly among youth. Access to basic services remains severely limited: only 8% of rural populations have access to electricity, and 45% to improved drinking water[23]. Gender inequalities are pronounced, especially in land rights, education, and economic participation, with deeply rooted sociocultural norms limiting women's roles in public life and decision-making.
32. The majority of residents live in informal settlements characterized by insecure land tenure, inadequate housing, and limited access to basic services. Livelihoods are largely informal, with residents engaged in small-scale commerce, artisanal work, and day labour. Women and youth face disproportionate challenges: female-headed households are common, yet often lack secure access to credit, land, or public services. School attendance is inconsistent due to overcrowded facilities and economic hardship, and dropout rates remain high especially for girls after primary school. Health indicators are also poor, with frequent outbreaks of cholera and malaria linked to inadequate sanitation and drainage infrastructure. The compounded effects of poverty, youth unemployment, and climate-related shocks (flooding, drought) exacerbate vulnerability and increase reliance on unsustainable coping strategies[24].
33. Togo's population is estimated at 9.1 million (2024), with an annual growth rate of 2.5%. The country is undergoing rapid urbanization currently at 43% urban population with key cities such as Lomé, Tsévié, and Kpalimé expanding rapidly. Togo ranks 162nd of 191 on the Human Development Index (HDI 2023), with a national poverty rate of 46.4%, and even higher rates in rural areas. The education system has improved in recent years, but disparities remain: female secondary school enrolment stands at 44%, compared to 55% for males. Informal employment constitutes over 85% of all jobs, and rural youth face high barriers to formal employment. Gender gaps persist across sectors, especially in agriculture, where women provide 70% of labour but own less than 10% of land. Access to health, financial services, and infrastructure is lower in rural and peri-urban areas, particularly in regions like Plateaux and Maritime, where Avé 1 Commune is located.
34. Zogbepimé is a peri-urban farming community located in the Plateaux region, within the Avé 1 Commune. The area has a population of approximately 6,500 residents, most of whom rely on subsistence agriculture and petty trade for their livelihoods. Poverty levels are high, with an estimated 65% of households living below the national poverty line, and limited access to essential services such as clean water, healthcare, and electricity. Youth unemployment is a growing concern, particularly due to seasonal migration and limited off-farm job opportunities. Households are typically large, with women playing a central role in agriculture, food processing, and child-rearing. However, women's access to land and extension services remains minimal, and they are underrepresented in local decision-making structures. Vulnerability to climate shocks such as erratic rainfall, erosion, and dry spells further undermines household resilience. Despite these challenges, the community has strong social networks and local leadership structures that could be leveraged to support inclusive development and adaptive capacity.

Climate Change, droughts, heat vulnerability and threats

35. Climate change is intensifying the frequency and severity of extreme weather events globally, with sub-Saharan Africa among the most vulnerable regions despite contributing less than 4% of global greenhouse gas emissions[25]. Increasing global temperatures have led to more frequent and prolonged droughts, reduced rainfall reliability, and intensified heatwaves[26]. According to the IPCC's Sixth Assessment Report, West and Central Africa are projected to experience temperature increases of 2–3°C by 2050 under medium emission scenarios,

[20] World Bank Open Data. Chad and Togo Country Indicators. https://data.worldbank.org
[21] UNDP (2023). Human Development Report. https://hdr.undp.org
[22] UNESCO Institute for Statistics (2022). Education Indicators for Chad and Togo.

[24] Government of Togo. (2021). Monographie de la Commune d'Avé 1.
[25] IPCC (2022). Sixth Assessment Report – Working Group II: Climate Impacts, Adaptation and Vulnerability.
[26] UNDRR (2022). Global Assessment Report on Disaster Risk Reduction.



along with a heightened risk of agricultural failure, water stress, and heat-related health crises. The combination of climate hazards, weak infrastructure, and high poverty levels contributes to compounded climate risks, particularly in fragile and semi-arid states.

36. Chad is highly vulnerable to climate change, particularly due to its geographic position in the arid and semi-arid Sahel. The country ranks among the 10 most climate-vulnerable countries globally in the ND-GAIN Index[27]. Average temperatures have already increased by 1.2°C since the 1970s, and extreme heat days are becoming more frequent especially in Sahelian zones like N'Djaména, where summer temperatures regularly exceed 44°C[28]. Rainfall is highly variable, with the rainy season shrinking in duration and intensity over the past decades. Droughts have become more frequent and prolonged, leading to reduced agricultural productivity, food insecurity, and mass livestock losses[29]. Additionally, climate-induced stress on water resources including the shrinking of Lake Chad by over 90% since the 1960s has contributed to displacement, conflict, and livelihood disruptions in both urban and rural areas[30].

37. Chad does not have many studies on projections and the evolution of climate hazards. Some of the recent studies predict that the air temperature in Chad is expected to increase by 2.1°C to 4.3°C by 2080, depending on different GHG emission scenarios. The number of very hot days per year (days when the maximum temperature exceeds 35°C) is also expected to increase with a high degree of certainty across the country. For the RCP6.0 scenario, the median of the multi-model ensemble (average for the whole country) predicts 17 additional very hot days per year in 2030 compared to 2000[31] in 2050 and 49 in 2080. In some parts of the country, particularly in the centre, this equates to more than 300 very hot days per year by 2080. Future projections of precipitation in Chad are less certain than projections of temperature change due to high natural year-to-year variability. Heavy precipitation events are expected to become more intense. At the same time, the number of days with heavy precipitation events is expected to increase.

38. Togo experiences a tropical climate, with increasing variability in rainfall and rising temperatures that affect both the coastal and inland zones. Mean annual temperatures have risen by 1.1°C since 1960, and climate models project an additional 1.5–2.5°C rise by 2050. The numbers of hot days and hot nights increased by 15.5% and 21.5%, respectively. The country is experiencing more erratic rainfall patterns, leading to both flooding and drought within the same agricultural cycle. This is particularly impactful given that living conditions are significantly shaped by the climate conditions wherein more than 50% of the population is engaged in rainfed agriculture, which represents almost 45% of the country's GDP. The northern and central regions are particularly affected by seasonal droughts and dry spells, while flash floods are increasing in the south due to intense rainfall events. Heat-related stress is rising, especially in semi-urban and rural communities with limited cooling or shelter infrastructure. The combined impacts of drought and heatwaves are reducing crop yields, straining water availability, and increasing the prevalence of vector-borne diseases[31].

39. Future climate projections for the whole country predicted an increase in mean temperature by 1.3°C and 2°C (2021-2050) as compared to the baseline (1976-2005) for the RCP4.5 and RCP8.5, respectively. The regions of Savannas, Kara, Southwestern Plateaux, and Maritime will experience significant changes in ambient

[27] University of Notre Dame. (2023). ND-GAIN Country Index – Chad. https://gain.nd.edu/our-work/country-index/
[28] World Bank (2021). Climate Risk Profile: Chad. https://climateknowledgeportal.worldbank.org
[29] FAO (2020). Building Climate Resilience in the Sahel – Chad Country Brief.
[30] UNEP (2019). Lake Chad: A Climate-Induced Crisis.
[31] Togo Ministry of Environment (2022). Second National Communication on Climate Change.

temperature. Meanwhile, heatwaves have already become a common threat across the country, with significant impacts on livelihoods, human and animal health, and natural resources. Annual rainfall is projected to increase in the western zones of Plateaux and Kara regions, while reduction is predicted in the Savanes and Maritime regions under RCP4.5 and RCP8.5. This trend is expected to persist until 2071-2100, except for the Kara region which will experience a significant decrease in precipitation under RCP4.5. In the long run, an increase in the occurrence and intensity of extreme rain events is projected almost on the whole country (RCP4.5 and RCP8.5).

40. In N'Djaména and the neighbouring areas, residents are increasingly exposed to the compounded effects of extreme heat, seasonal flooding, and prolonged drought. The area experiences average daily temperatures exceeding 40°C for several months annually, with poor housing materials exacerbating indoor heat stress. Informal settlements, often located in low-lying floodplains, face frequent inundation during intense rain events between June and September. Flash floods often contaminate shallow wells and disrupt mobility, leading to health risks and economic loss[32]. Outside the rainy season, the district suffers from acute water scarcity due to long dry spells and limited access to piped water. Urban vegetation cover is minimal, eliminating natural cooling mechanisms. Vulnerability is highest among women, children, and elderly residents who lack access to cooling, healthcare, and evacuation options during climate extremes.
41. Zogbepimé is increasingly affected by erratic rainfall, droughts, and heatwaves that disrupt local agriculture and livelihoods. Once predictable seasonal patterns have shifted, with rains arriving late or ceasing early, leading to crop failure rates of up to 40% in bad years[33]. The area lacks water retention infrastructure, so droughts leave fields parched, while heavy rains quickly wash away topsoil. High temperatures during the dry season often reaching 38°C, accelerate soil moisture loss and increase heat stress on vulnerable populations. Women farmers, who make up the majority of agricultural labour, are particularly affected due to limited access to irrigation, shade, or climate-resilient inputs. These climatic extremes have led to seasonal out-migration of youth and reduced household food security, particularly in female-headed households.
42. Future projections suggest that the Ave 1 region will continue to experience rising temperatures, with significant warming expected by the end of the century, especially under the worst-case CO_2 emission scenario (SSP5-8.5). In this scenario, minimum and maximum temperatures are predicted to rise significantly between 2021 and 2050, at rates of 0.46 and 0.4 degrees Celsius per decade, respectively. From 2071 to 2100, the rates of increase are expected to accelerate to 0.81 and 0.76 degrees Celsius per decade for minimum and maximum temperatures, respectively. Under an intermediate scenario, temperatures are also anticipated to rise, but at a slower pace compared to the worst-case scenario.
43. Regarding climate hazards, the analysis suggests that indicators of heat stress, such as the frequency, number, and intensity of heat waves, are expected to increase significantly in the Ave 1 region in the future compared to the baseline. This rise in heat stress could adversely impact the local economy and daily life. Indeed, increased temperatures could heighten the demand for water, not only for agriculture but also for forestry, fisheries, and aquaculture, thereby straining water resources. Additionally, higher temperatures and more frequent heat waves could exacerbate health problems, increase energy consumption, and place additional strain on Togo's hydro energy-dependent country, which relies heavily on water resources for energy generation. In addition, heat stress could disrupt educational activities, and place additional burdens on healthcare and social services.
44. The evidence presented above makes clear that the communities of N'Djaména and Zogbepimé face a convergence of escalating climate hazards, degraded natural systems, inadequate infrastructure, weak access to finance, and institutional fragility that together trap vulnerable populations in cycles of exposure and loss. Addressing these challenges requires more than isolated technical fixes. It demands an integrated response that simultaneously reduces physical exposure through resilient infrastructure and nature-based solutions, restores the productive natural resource base through climate-smart agriculture and ecosystem rehabilitation, unlocks local adaptive capacity through inclusive community financing, and builds the institutional knowledge and cross-border learning systems needed to sustain and scale effective adaptation practices. This is the integrated logic that the ECOVERSE project operationalises across four mutually reinforcing components, in two ecologically distinct but strategically complementary country contexts.

[32] UN-Habitat (2020). N'Djaména Urban Vulnerability Profile.
[33] IFAD (2023). Rural Vulnerability Assessment – Plateaux Region, Togo.

B. Project Objectives

45. The ECOVERSE project responds to a well-documented confluence of escalating climate hazards, degraded ecosystems, weak infrastructure, and persistent socioeconomic vulnerabilities in Chad and Togo. The objectives below are directly grounded in the climate risks, institutional gaps, and community needs identified in the project's background analysis. Together, they form an integrated logic of intervention covering physical protection, land management, local empowerment, knowledge building, and policy alignment.
46. The main objective of the ECOVERSE project is to strengthen the climate resilience and adaptive capacity of vulnerable communities in Chad and Togo by implementing an integrated, community-centred programme of infrastructure improvement, natural resource restoration, inclusive adaptation financing, and institutional knowledge building, while fostering cross-border learning and alignment with national and regional adaptation frameworks.
47. The specific objectives are as follows:
    1. To reduce the exposure of vulnerable communities in N'Djaména and Zogbepimé to climate-related hazards through targeted investment in climate-resilient infrastructure and nature-based solutions.
    2. To restore degraded land and water resources and improve food and water security through the adoption of climate-smart agriculture, integrated water conservation, and ecosystem rehabilitation practices.
    3. To expand access to locally managed adaptation finance for vulnerable households, with a focus on women and youth, through inclusive micro-grants, revolving funds, and savings mechanisms.
    4. To build a functional regional knowledge and learning system that strengthens institutional capacity, enables structured cross-border exchange, and integrates project evidence into national and regional adaptation policy processes.

C. Project Components and Financing

Project Components	Expected Outcomes	Expected Outputs	Countries	Amount (USD)
1. Integrated approach to climate resilient infrastructure	Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	Climate-resilient infrastructure constructed or upgraded	Chad, Togo	2,865,000
		Flood-resilient roads, permeable drainage systems, and green urban corridors implemented	Chad, Togo	1,205,000
		Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure	Chad, Togo	1,160,000
Total Component 1				**5,230,000**
2. Integrated Land Management for Agricultural, Ecosystem, and Water Resilience	Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities	Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	Chad, Togo	2,190,000
		Erosion control infrastructure implemented across agricultural and risk-prone landscapes	Chad, Togo	2,275,000
		Degraded forest, rangeland, and riparian ecosystems restored for biodiversity and climate risk reduction	Chad, Togo	1,655,000
		Community water harvesting, conservation, and irrigation systems strengthened	Chad, Togo	2,600,000
Total Component 2				**6,120,000**
3. Access to Adaptation Financing	Improved access to and effectiveness of adaptation finance at local level	Revolving adaptation finance mechanism established, capitalised, and operationalized	Chad, Togo	4,180,000
		Financial institutions and community members trained on adaptation finance integration and climate literacy	Chad, Togo	860,000
Total Component 3				**5,040,000**
4. Regional knowledge, learning and institutional strengthening	ECOVERSE adaptation models are validated, institutionalised in national technical systems, and positioned for replication across African drylands and	Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	Chad, Togo	750,000
		South-South Climate-Resilient Construction Learning and Replication Network Operationalised	Chad, Togo	700,000
		Climate Adaptation Financing Knowledge and Advocacy Platform Established	Chad, Togo	813,000

	forest-savanna transition zones			
Total Component 4				**2,263,000**
TOTAL (Components 1–4)				**21,253,000**
Project Execution Cost				**2,019,108**
Total Project Cost				**23,272,108**
Project Cycle Management Fee (10%)				**1,977,892**
Total Project Cost				**25,250,000**

D. Projected Calendar

Milestones	Expected Dates
Start of Project Implementation	January 2027
Mid-term Review	July 2029
Project Closing	December 2030
Final Evaluation	June 2031

PART II: PROJECT JUSTIFICATION

A. Description of Project Components.

48. Sub-Saharan Africa faces mounting climate threats despite contributing minimally to global emissions. The 2022 IPCC Sixth Assessment Report confirms accelerating warming, increasing drought frequency, and intensifying flood risk across the region. These pressures are compounded by persistent poverty, weak institutional readiness, and inadequate infrastructure, making locally anchored, integrated adaptation not only necessary but urgent.
49. Chad is the world's most climate-vulnerable country, ranked 187th overall on the ND-GAIN index, the most vulnerable and 191st in readiness out of 192 countries assessed. Temperature projections for the Sahelian region indicate increases of at least 2.5°C to 3.5°C by 2050 under high-emission scenarios, and potentially higher under rapid-warming trajectories. Recurrent hydrometeorological disasters compound these projections: the 2022 floods displaced over 139,000 people, while the 2024 flood season, the worst in decades, affected 1.9 million people across all 23 provinces, caused over 576 deaths, and destroyed more than 210,000 homes. Lake Chad has lost over 90% of its surface area since the 1960s, deepening food insecurity, displacement, and conflict across the basin, with over 87% of the population affected by overlapping climate, food, and humanitarian crises. Nearly 80% of weather-monitoring equipment remains nonfunctional, critically undermining early warning capacity. In N'Djaména , home to approximately 1.7 million people and growing at 4.8% annually, rapid urbanization is outpacing adaptive infrastructure, with heatwaves, flash floods, inadequate drainage, and deteriorating housing compounding vulnerabilities for the urban poor. Chad's NAP, NDC, and SNC all identify urban resilience, improved water systems, and climate-smart housing as national adaptation priorities.
50. Togo, while comparatively less vulnerable than Chad, faces significant and growing climate stress, ranking 49th in vulnerability and 122nd in readiness on the ND-GAIN index, placing it firmly in the high-need, low-readiness category requiring urgent investment. Average temperatures have risen by approximately 1°C since pre-industrial levels, with projections indicating a further increase of 1.2°C to 1.6°C by 2050, and up to 2.9°C by 2085 under high-emission scenarios. While median annual rainfall may modestly increase by approximately 2.6% by 2050, it will become significantly more erratic, with declining consecutive wet days and increased variability between seasons, undermining agricultural planning and intensifying both drought and flash flood risks. These pressures are acutely felt in Zogbepimé within Avé 1 Commune, located in Togo's Plateaux agro-ecological zone: its sloped terrain amplifies runoff and erosion, and the area lacks adequate agro-meteorological services, watershed management infrastructure, and early warning systems. Women-led farming communities in this zone face the sharpest consequences for food security and livelihoods. Togo's NAP, PND 2025, and regional resilience frameworks identify Zogbepimé as a priority zone for watershed rehabilitation, sustainable land use, and community-based adaptation.
51. The selection of Chad and Togo as ECOVERSE project countries is grounded in both their individual adaptation urgency and their collective value as a regional demonstration platform. Both countries face structural vulnerability drivers, namely climate-exposed livelihoods, fragmented institutional capacity, and insufficient

access to climate finance, while representing contrasting but complementary ecological and socio-economic contexts: urban Sahelian environments subject to extreme heat and flooding in Chad, and forest-savanna transition zones facing erratic rainfall, erosion, and agricultural stress in Togo. This deliberate pairing enables comparative learning, cross-contextual validation of adaptation approaches, and the generation of transferable evidence that would not be possible within a single-country project. The table below presents the comparative selection criteria and their cross-cutting relevance to ECOVERSE.

Table 1: Site selection for Chad and Togo

Selection Criteria	N'Djaména and Chari-Baguirmi Region (Chad)	Zogbepimé – Avé 1 Commune (Togo)	Cross-Cutting Relevance to ECOVERSE
Climate Stressors	Extreme heat, flash floods, prolonged drought, urban heat island effect; temperatures projected to rise +2.5 to 3.5°C by 2050	Erratic rainfall, dry spells, sloped terrain runoff, flash floods; temperatures projected to rise +1.2 to 1.6°C by 2050	Demonstrates the need for climate-resilient infrastructure and NbS solutions tailored to contrasting but connected ecological zones
Vulnerable Populations	Urban and peri-urban poor, informal settlers, women and youth with limited access to services and housing; city growing at 4.8% annually	Smallholder farmers, women-led farming cooperatives, youth in subsistence agriculture with high dependency on rainfall-fed production	Enables gender-responsive, socially inclusive, and locally led financing and livelihood mechanisms
Adaptation Gaps	Insufficient resilient housing, degraded drainage systems, unreliable water supply, near-absent early warning infrastructure	Degraded hillside land, poor rural roads, insufficient watershed and water harvesting infrastructure, limited agro-meteorological services	Supports demonstration of climate-smart agriculture, infrastructure rehabilitation, and decentralized water-smart technologies
Disaster Risk Profile	2024 floods affected 1.9 million people across all 23 provinces; 576 deaths; 210,000 homes destroyed	Increasing frequency of flash floods and prolonged dry spells disrupting the two-season agricultural calendar	Confirms acute and escalating adaptation urgency in both countries, justifying immediate and sustained investment
Policy Alignment	Anchored in Chad's NDC, NAP, and Vision 2050; urban resilience, water systems, and climate-smart housing identified as national priorities	Integrated in Togo's NAP, PND 2025, and regional resilience frameworks; Avé 1 Commune identified as a priority intervention zone	Grounds ECOVERSE activities in nationally owned strategies, enhancing sustainability, government commitment, and scalability
Transformation Potential	Replicable urban adaptation model for Sahelian cities facing heat, flood, and rapid urbanization pressures	Agro-ecological innovation model for rural savanna and forest-transition zones across West Africa	Contributes to a paradigm shift toward locally led, ecosystem-based, and community-financed resilience strategies at continental scale

52. The ECOVERSE Project is structured around four mutually reinforcing components designed to deliver integrated, multi-layered climate resilience. Component 1 reduces physical exposure through climate-resilient infrastructure; Component 2 strengthens adaptive capacity and economic resilience through climate-smart agriculture and livelihood diversification; Component 3 empowers community-level action and ensures financial sustainability through decentralized adaptation finance; and Component 4 enables knowledge capture, institutional strengthening, and long-term scale-up through regional learning systems and policy integration. Implemented together across Chad and Togo, these components create a comprehensive approach that combines physical, social, ecological, and institutional dimensions of resilience, delivering far greater and more durable impact than isolated national interventions.
53. The regional design of ECOVERSE is a deliberate strategic choice grounded in the transboundary and structural nature of the climate risks being addressed. Implementing an integrated adaptation framework across two ecologically and socio-economically distinct contexts, namely urban Sahelian Chad and rural savanna Togo, allows the project to comparatively test, refine, and validate climate adaptation models across different ecological zones. Climate-resilient infrastructure such as permeable roads, green corridors, and heat-mitigating construction is applied in flood-prone N'Djaména , while decentralized water harvesting, agroforestry, and slope stabilization address erosion and rainfall variability in Zogbepimé. Operating under a shared design, monitoring, and learning framework, this cross-contextual approach generates transferable, scalable, and policy-relevant evidence that would be impossible to produce within a single-country project.

54. Institutionally, the regional framework strengthens policy coherence, harmonizes technical standards, and builds the cross-country networks needed for sustained adaptation uptake. Through OSS and ICSEB's coordination roles, ECOVERSE facilitates structured knowledge exchange between ministries, municipalities, extension services, and community institutions in both countries, enabling joint development of operational tools, alignment of planning approaches, and systematic translation of field experience into national and regional policy guidance. This directly supports the Adaptation Fund's emphasis on transformative, nationally owned, and regionally scalable adaptation solutions.
55. The regional approach also delivers clear cost-effectiveness and efficiency gains consistent with Adaptation Fund resource stewardship principles. Shared investments in the digital knowledge hub, annual training academies, practitioner networks, and regional policy dialogues reduce duplication of effort and lower per-country transaction costs. These shared systems function as regional public goods, accessible to both project countries simultaneously and designed for continuity beyond the project lifecycle. Together, the complementary contexts of Chad and Togo reflect the climatic, ecological, and governance diversity found across the Sahel and coastal West Africa, giving ECOVERSE strong demonstration value and credible evidence for replication across the region and the broader Adaptation Fund portfolio.

Component 1: Integrated approach to climate resilient infrastructure

56. This component introduces context-appropriate infrastructure to mitigate the impacts of extreme heat, flooding, and chronic water stress, especially in urban and peri-urban environments. Key adaptation activities include the construction of thermally efficient earth-brick housing in both countries using locally sourced materials to enhance climate resilience while generating local employment. In Chad, the focus will be on the installation of permeable drainage systems and green corridors in flood-prone neighbourhoods of N'Djaména and the Chari-Baguirmi Province, which are highly exposed to flash flooding and extreme heat. These interventions will also include the restoration of degraded riparian zones along the Chari and Logone rivers to improve stormwater management and restore urban ecosystem buffers. In Togo, interventions will target Zogbepimé and surrounding areas in Avé 1 Commune, with a focus on rainwater harvesting systems equipped with solar-powered purification units, designed to address dry-season water scarcity. Additionally, shaded agroforestry corridors will be developed along key rural pathways to reduce surface runoff, lower ambient temperatures, and facilitate erosion control. These measures directly reduce climate exposure by improving shelter, enhancing drainage, and ensuring water availability throughout the year. At the regional level, this component allows diverse climate-resilient infrastructure models, such as urban flood-proofing in Sahelian cities like N'Djaména and water harvesting in tropical zones like Zogbepimé, to be compared, refined, and transferred across countries. By integrating local materials and labour, the approach also fosters economic co-benefits through job creation and skills development. This component supports Component 2 by protecting agricultural land from waterlogging and runoff, and complements Component 4 by integrating green infrastructure that enhances ecosystem functions and supports biodiversity conservation.

Outcome 1: Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure

57. This outcome focuses on enhancing the resilience of vulnerable urban and peri-urban communities, particularly in flood-prone and water-scarce areas, through the construction of climate-smart infrastructure such as earth-brick housing, green corridors, water-harvesting systems, and improved drainage networks. These measures work together to help reduce exposure to extreme temperatures, seasonal flooding, and prolonged droughts taking into account holistic needs of the communities.

Output 1.1: Climate-resilient infrastructure constructed or upgraded

58. This output supports the construction of low-cost, thermally efficient housing using interlocking compressed stabilized earth blocks (iCSEBs) to reduce heat stress and vulnerability to floods in urban and peri-urban settings. These structures offer passive cooling, improved durability, and lower environmental impact compared to conventional housing. They reduce households' exposure to extreme heat and displacement during floods, while also promoting energy efficiency. The use of this technology was initially tested in Togo with good initial results. This project is building on and expanding such experience. Regionally, this model can be adapted and replicated in other hot and flood-prone zones across Africa. It links directly to Output 1.2 by creating integrated

climate-resilient urban environments and to Output 3.1 by enabling communities to access micro-grants for home improvements.

59. *Activity 1.1.1: Conduct technical studies and participatory design workshops:* This activity will start with technical feasibility studies to determine the suitability and safety of proposed construction sites in each country. These studies will analyse but not limited to soil composition and compressive strength for iCSEB production, groundwater depth and seasonal recharge patterns, flood and runoff dynamics, land tenure status, and access to existing infrastructure and services. Structural vulnerability and climate hazard maps will be developed for each location, drawing on available hydrological and meteorological datasets and local knowledge. To carry out these studies, each country will mobilize a dedicated multidisciplinary technical team comprising civil and structural engineers responsible for site assessments, load-bearing analysis, and construction safety evaluations; geotechnical specialists who will conduct soil sampling, compressive strength testing, and groundwater profiling; hydrologists and climate specialists who will model flood and runoff dynamics and validate climate hazard mapping against national meteorological datasets; architects and urban planners who will translate feasibility findings into culturally appropriate and climate-responsive design concepts; public works officials and municipal engineers from relevant line ministries who will provide institutional oversight, ensure alignment with national building codes and standards, and facilitate permitting processes; land tenure and legal experts who will verify site ownership, customary land rights, and the legal basis for construction; and gender and social inclusion specialists who will design and facilitate participatory processes to ensure equitable representation, particularly of women, youth, and persons with disabilities.
60. The team will operate in close coordination with national focal points and local government counterparts to ensure that all technical outputs are context-specific, institutionally validated, and actionable. The feasibility phase will be followed by participatory design workshops, conducted in collaboration with municipal planning departments and community leadership. These workshops will ensure that the architectural design of climate-resilient housing units and public structures reflects cultural norms, local livelihood activities, gender-specific needs for privacy, safety and usage, and accessibility considerations for persons with disabilities. At least 50% of workshop participants will be women and youth, ensuring inclusive decision-making. This co-design process will result in (i) a validated list of buildings and construction site selections, (ii) community-approved architectural layouts and social building designs, and (iii) documented construction permits.
61. *Activity 1.1.2: Develop community-led maintenance plans for long-term upkeep:* To ensure sustained functionality beyond the project, this activity will establish community-led maintenance committees (one per intervention site), composed of local leaders, women's cooperatives, trained artisans, and municipal public works officers. Each committee will be supported to develop a formal maintenance plan, detailing routine inspections, cleaning schedules, repair procedures, cost-sharing arrangements, and reporting mechanisms with local authorities. The project will also support the creation of community maintenance funds, integrated into existing village savings associations or municipal co-financing schemes. The project aims for at least 70% of sites to have functional and funded maintenance systems by the end of Year 2. This activity reinforces the collective stewardship model, prevents dependency on external technical assistance, and ensures that infrastructure continues to support livelihoods, social cohesion, and disaster resilience over time.
62. *Activity 1.1.3: Train local masons and artisans on earth-brick production and low-carbon building techniques:* This activity will develop a skilled national and community-level workforce capable of independently producing and constructing with iCSEBs. The project will train 180 masons, builders, and artisans, with a minimum of 40% women and youth intentionally targeted to expand their participation in the construction and building maintenance economy. Training will include theory and practice covering: soil selection and mixing ratios, block pressing and curing, wall reinforcement, moisture protection, structural alignment, roofing methods, and occupational safety standards. Training will be delivered in collaboration with vocational training institutions, municipal works departments, and master builders, ensuring certification and alignment with national construction codes. The training will be embedded in live construction sites (from Activity 1.1.4 and 1.1.5), enabling trainees to gain practical, real-time experience. To facilitate post-training livelihoods, at least 60 trained artisans will receive basic toolkits including block molds, levels, protective gear, and simple maintenance tools. This activity positions local builders to serve as the primary workforce for future replication and maintenance, strengthening local economic empowerment and resilience.

63. *Activity 1.1.4: Construct model housing units using interlocking compressed stabilized earth blocks (iCSEBs):* Following the validation of designs, this activity will support the construction of model structures (1 in Chad) as Togo has already undertaken a pilot demonstrating climate-resilient housing and essential community infrastructure built with interlocking Compressed Stabilized Earth Blocks (iCSEBs). The iCSEB technology reduces reliance on cement and steel, significantly lowering carbon emissions and construction costs, while providing superior thermal comfort targeting an indoor temperature reduction of 3–6°C compared to conventional concrete and zinc-sheet structures. Construction will integrate climate-adaptive features such as elevated foundations in flood-prone areas, perimeter shading, natural ventilation corridors, and rainwater capture gutters in regions with high seasonal rainfall. Where feasible, space will be designated for household-level food and medicinal gardens to support women-led nutrition and income initiatives. Materials used will be at least 85% locally sourced, stimulating the local resource and labour market while minimizing transport emissions. The model units will serve as open demonstration and training sites, enabling municipalities, community associations, and private builders to replicate the approach beyond the project footprint.
64. *Activity 1.1.5: Construct/revamp damaged or unsustainable community or socio-economic infrastructures using the iCSEBs technology:* In communities where vital public and socio-economic facilities have deteriorated or become unsafe due to climate stressors, this activity will undertake the construction or upgrading of 12 priority structures such as market sheds, women's processing/work centers, shared storage facilities, cooperative meeting halls, health outposts, or primary learning spaces. The consultations in Chad resulted in the preliminary selection of the following infrastructure: rehabilitation or construction of 2 primary schools; construction of 2 community health centers; construction of 2 community economic zones (market); and municipal community building (multiservice recreation area). Similarly, in Togo, the following infrastructure has been identified: The buildings will contribute to strengthening thermal comfort, improving ventilation, elevating structures at risk of flooding, and installing or upgrading stormwater management systems, and improved climate proofed sanitation systems. Using iCSEBs in restoration significantly reduces building heat load and ongoing maintenance costs while improving structural lifespan. The restored facilities are expected to directly benefit between 25,000 users, particularly women and youth who rely on these spaces for trade, food processing, group savings activities, education, and social cohesion. These restoration works will also serve as applied training laboratories for the artisans trained under Ac. 1.1.3, ensuring the consolidation of technical skills while delivering high-impact community infrastructure improvements. The activity will use a selection criterion to identify what type of rehabilitation shall be conducted.

Output 1.2: Flood-resilient roads, permeable drainage systems, and green urban corridors implemented

65. This output focuses on enhancing access to the social infrastructure that has been upgraded under O.1.1. Activities include constructing permeable road surfaces, planting green corridors, and developing shaded public areas. These interventions reduce surface runoff, and improve mobility and social cohesion. By comparing implementation across different ecological zones (e.g., Sahelian vs. tropical climates), ECOVERSE generates regionally applicable best practices. This output complements Output 1.1 by supporting safe and accessible social infrastructure, and connects with Output 4.3, which focuses on urban greening for climate buffering.
66. and contributes to the resilience of the social buildings
67. *Activity 1.2.1: Assess flood risk zones and erosion-prone road segments:* This activity will begin with comprehensive hydrological and geotechnical assessments in the selected urban and peri-urban sites to identify road segments and public spaces most affected by seasonal flooding, flash runoff, and progressive soil erosion. The assessment will map at least 30 km of hotspots through community hazard mapping sessions as well as engaging municipal works departments for floodwater flow pathways, drainage blockages, informal water diversion points, and erosion points, while also analysing soil infiltration capacity and surface compaction. This will result in detailed vulnerability and prioritization maps, technical design specifications for permeable road treatment, and costed rehabilitation plans endorsed by local government. By grounding the intervention in evidence and local knowledge, the project ensures that road improvements strategically reduce flood exposure and improve year-round access to markets, schools, and health services.
68. *Activity 1.2.2: Design and rehabilitate climate proofed road and drainage systems:* Based on the technical assessments, the project will design and rehabilitate 4 priority road segments including climate-resilient

stormwater drainage systems. The permeable road surfaces will be constructed using stabilized earth blocks, stone-set permeable pavers, or compacted laterite mixes depending on local material availability. Drainage designs will include vegetated swales, infiltration trenches, raised culverts, and runoff diversion channels, reducing standing water and minimizing flood damage during peak rainy seasons. Where feasible, roadside shading elements from seedlings produced under ac.2.1.2 and runoff retention basins will be integrated to cool surface temperatures and retain water for productive use. The improved roadways will ensure all-weather access to essential services and markets, particularly benefiting women vendors, smallholder farmers transporting produce, and students commuting to school. By improving access conditions, the intervention reduces climate-related economic losses, improves mobility, and helps stabilize market supply chains in both urban and peri-urban communities.

69. *Activity1.2.3: Establish green corridors in heat-exposed areas through afforestation and reafforestation:* To reduce urban heat island effects and enhance climate-buffering around social infrastructure and pedestrian routes, the project will establish green corridors composed of climate-resilient native tree species along strategic road and settlement perimeters. The activity will plant 120,000 drought-resistant trees and shade-providing shrubs, selecting mostly native species suited to the Sahelian, savanna, and peri-urban conditions of the target areas. Tree establishment will be done using water-saving irrigation techniques such as clay pot irrigation, semi-circular bunds, and small retention basins. Community groups, including women's cooperatives, youth environmental clubs, and school groups, will be engaged in nursery management and tree maintenance, creating local stewardship structures under ac. 2.1.2. The green corridors will lower surface heat, improve pedestrian comfort, stabilize soil along road edges, reduce erosion of embankments, and create shaded gathering areas. Over time, these corridors will serve as microclimate buffers, improving liveability and strengthening nature-based resilience in the built environment.
70. *Activity 1.2.4: Develop manuals and conduct trainings to climate-proof road maintenance:* This activity will strengthen the capacity of public works departments to maintain climate-resilient road and drainage systems, preventing rapid degradation and ensuring sustainability. Training will be delivered to 120 workers and local contractors and will include modules on: early detection of erosion and drainage failure, seasonal clearing schedules, maintenance of vegetated water channels, emergency flood response procedures, and the use of low-cost local materials for repair. They will develop maintenance manuals in conjunction with the public workers, checklists, and inspection routines, and will integrate these into annual planning cycles. By institutionalizing technical skills within local government, the project ensures that road improvements remain functional beyond the project duration, reducing reliance on external contractors and reinforcing locally led adaptation systems.

Output 1.3: Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure

71. This output ensures year-round access to clean water through the installation of decentralized water collection and treatment systems, including rooftop rainwater harvesting tanks and solar-powered pumps. These activities reduce reliance on vulnerable centralized water systems and protect communities from droughts and waterborne diseases. Implemented across the two countries, the output allows for testing different water-access models suitable for urban, peri-urban, and rural settings. It complements Output 2.3 by supporting climate-resilient agricultural irrigation and links to Output 3.1, which may fund household-scale systems.
72. *Activity 1.3.1: Develop and Install rainwater collection infrastructure:* This activity will support the installation of rainwater harvesting systems in priority households, schools, health posts, and community centers in both Chad and Togo to reduce dependence on vulnerable, distant, or costly water sources. The project will install 120 rainwater collection units, selecting configurations based on building type and rainfall regime, including rooftop guttering systems linked to storage tanks and ground-level ferrocement or lined-catchment reservoirs in locations without suitable roofing. Community consultations and hydrological assessments will inform optimal placement and size, ensuring year-round usability and equitable access. Overflow channels and first-flush/screens will be integrated to enhance water quality. Local artisans trained under Component 1 will fabricate tank bases, concrete pads, and protective enclosures, reinforcing local economic benefit. These systems will

reduce average household water collection times by 30–60% and decrease reliance on contaminated surface water sources during the dry season, while buffering communities from drought-related water stress.

73. *Activity 1.3.2: Procure, supply and set up solar-powered purification units:* This activity will equip selected community social buildings with solar-powered filtration/purification units to provide clean and reliable potable water that is needed for their effective function while eliminating diesel or gasoline fuel dependency. The project will install about 12 solar powered purification units, depending on the needs of the social building and the source of water they are currently using. The systems will be housed in secure enclosures with lockable control units to ensure accountability and reduce vandalism risks. Trainings will be conducted on basic repair, preventative maintenance. By shifting to this approach, the project will substantially reduce long-term operational costs while ensuring that these critical social buildings have reliable water access during heatwaves, droughts, and peak seasonal demand to ensure they continue to function optimally.
74. *Activity 1.3.3: Undertake WASH training on safe storage and water hygiene:* Community consultations in both Chad and Togo highlighted waterborne disease as one of the most immediate and recurring health risks faced by target communities, particularly during flood seasons when latrines overflow, groundwater sources become contaminated, and safe water access is disrupted. This activity will provide structured WASH (Water, Sanitation, and Hygiene) training to directly address this risk and ensure that the health benefits of the water infrastructure installed under Activities 1.3.1 and 1.3.2 are fully realized at the household and community level. Training sessions will prioritize women, schoolchildren, health workers, and caregivers, recognizing that these groups bear the greatest burden of water collection, household water management, and care for the sick during disease outbreaks. Sessions will cover safe water collection and transportation, correct use and cleaning of household storage containers, handwashing with soap at critical moments, recognition of waterborne disease symptoms and referral pathways, and basic maintenance of WASH-related infrastructure including latrines, drainage channels, and purification units. Practical demonstrations will be embedded throughout, using locally available materials to ensure that behaviours can be replicated without external inputs. Community health workers and trained artisans will be engaged as co-facilitators to reinforce peer learning and local ownership.
75. Training will be delivered in a seasonal cycle, timed to coincide with the two highest contamination-risk periods: the onset of the rainy season, when flooding increases exposure to faecal pathogens and chemical contaminants, and the peak dry season, when water scarcity drives communities toward unsafe sources. Refresher sessions and household visits will reinforce key messages between cycles, and simple monitoring checklists will be introduced to allow community health committees to track hygiene practice adoption over time. The expected results include a measurable reduction in waterborne disease incidence, reduced healthcare burden on women caregivers, and strengthened household resilience during both drought and flood emergencies.

Component 2: Integrated Land Management for Agricultural, Ecosystem, and Water Resilience

76. This component tackles the interconnected climate related challenges of land degradation, agricultural vulnerability, ecosystem collapse, and water scarcity that threaten the food security and livelihoods of people across the diverse ecological zones of Chad and Togo. By addressing these challenges through a unified landscape management framework, the component aims to achieve outcome 2: Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities in Chad and Togo
77. Central to this component's design is the recognition that farmland health, watershed function, ecosystem integrity, and water availability are interdependent and inseparable dimensions of climate resilience particularly for the smallholder farmers, pastoralists, and vulnerable households that ECOVERSE serves across Chad and Togo, the failure of any one system directly amplifies vulnerability across all others.
78. By integrating climate-smart agriculture, ecosystem restoration, and water harvesting into a single organized framework, this component ensures that each intervention reinforces the others, and equips communities to govern their landscapes as integrated adaptive systems rather than disconnected sectoral investments.
79. The component is organized around four mutually reinforcing outputs, each addressing a distinct dimension of landscape resilience: (i) agroforestry and climate-smart agriculture, (ii) erosion control, (iii) ecosystem and rangeland restoration at landscape level, and (iv) water harvesting and conservation. Together, these outputs

generate ecological, productive, and social co-benefits that reinforce the physical infrastructure built under Component 1, are partially co-financed in part through community adaptation mechanisms under Component 3, and generate comparative field evidence and lessons that feed into Component 4.

Outcome2: Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities in Chad and Togo

80. This outcome addresses the deepening degradation of natural systems in both countries, where accelerating desertification, soil erosion, erratic rainfall, and overexploitation of land and water resources are progressively undermining the livelihoods and food security of smallholder farming communities. By combining landscape restoration with climate-smart agricultural practices, it seeks to rebuild the productive and ecological foundations that communities depend on while reducing their exposure to drought, flooding, and land degradation.
81. Activities will support smallholder farmers in adopting agroforestry systems that restore soil fertility, physical soil and water conservation measures such as contour bunds, half-moon catchments, and Zai pits that reduce runoff and improve rainwater infiltration, and drought-tolerant crop varieties adapted to the increasingly erratic precipitation patterns. Where degradation is most advanced, targeted landscape restoration will rehabilitate degraded plots and riparian corridors, re-establishing vegetative cover and reversing soil loss.

Output 2.1: Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods

82. This output promotes the adoption of agroforestry, conservation agriculture, and sustainable land management (SLM) practices on degraded farmland, directly addressing the compounding crisis of soil degradation and declining agricultural productivity that climate change is accelerating across both countries. It support the transition toward ecologically sound farming systems that restore soil fertility, regulate microclimate, enhance biodiversity, and strengthen food and income security. In Chad's Chari-Baguirmi Province, interventions target peri-urban and rural farms, where soils are heavily degraded by wind erosion, seasonal waterlogging, and nutrient depletion. In Togo, activities target smallholder farms in Zogbépimé and surrounding communities, where increasing rainfall variability and intense precipitation events are stripping topsoil and reducing agricultural yields. This output further complements output 2.3 while executing activities to maximise on intervention outreach, delivery and completion.
83. *Activity 2.1.1: Conduct participatory degraded land assessments and agroforestry site selection:* This activity generates the spatial and social evidence base that underpins all land-based interventions under Component 2. Through systematic participatory assessments of degraded agricultural land, conducted jointly by technical teams, community members, and local agricultural extension officers, the activity will produce geo-referenced land degradation and capability data needed to site agroforestry systems, erosion control structures, ecosystem restoration zones, and water harvesting infrastructure with precision and community validation.
84. Assessments will be conducted across 600 hectares of agricultural and communal land. Using a combination of satellite imagery analysis, GIS terrain modelling, participatory land-use mapping, and community transect walks, the assessments will map: soil degradation severity and typology (wind erosion, waterlogging, nutrient depletion, compaction); land tenure status and boundary agreements; current land use patterns and fallow cycles; and farmer-identified priority zones for restoration and agroforestry establishment.
85. Mapping outputs will include: (i) geo-referenced degradation hotspot maps at plot and landscape scale for each project site; (ii) land capability classification per plot type, identifying suitability for agroforestry, contour bunding, or natural regeneration and (iii) community-validated priority restoration site lists. These outputs will directly inform the siting of agroforestry systems, erosion control structures, ecosystem restoration zones, and water harvesting infrastructure, establishing spatial coherence across the entire component.
86. Women-headed households and smallholder farmers with the most severely degraded plots will be prioritized for early engagement. All mapping data will be integrated into the Component 4 regional GIS and MEL platform, enabling cross-country comparison of degradation profiles and tracking of restoration progress over the project period.
87. *Activity 2.1.2: Establish community nurseries and produce agroforestry seedlings:* This activity establishes the seedling supply system for all agroforestry, erosion control, ecosystem restoration, and urban greening measures. The project will establish 10 community nurseries: 6 rural nurseries (3 in Chad, 3 in Togo) serving

agricultural and rangeland sites, and 4 peri-urban nurseries (2 in N'Djaména , 2 in Zogbépimé) supplying urban and peri-urban planting. Sites will be selected based on secure land access, reliable water, and proximity to priority intervention zones identified under Activities 2.1.1 and 2.3.1.

88. In Chad, rural nurseries will prioritize Faidherbia albida, Acacia senegal, Moringa oleifera, Ziziphus mauritiana, Balanites aegyptiaca, Adansonia digitata, and Tamarindus indica. In Togo, they will focus on Vitellaria paradoxa, Parkia biglobosa, Moringa oleifera, Leucaena leucocephala, Spondias mombin, Irvingia gabonensis, Dacryodes edulis, and Annona senegalensis. Species will be selected using four criteria: suitability to local soils and rainfall, contribution to soil fertility and moisture retention, livelihood and nutritional value, and availability of quality non-invasive seed stock. Peri-urban nurseries will focus on climate-resilient shade, ornamental and wind-break trees, and urban-compatible fruit trees for streets, markets, schools, and health centres.
89. Each nursery will be run by the community of which at least 60% of leadership positions will be held by women and youth. Rural nurseries will be hosted by producer groups and village committees; peri-urban nurseries by women's cooperatives and youth associations. Committee members and nursery managers will receive practical training in seed collection and pre-treatment, germination and potting, water-efficient nursery management, basic pest management, stock record-keeping, and simple enterprise skills (costing, pricing, and client management).
90. Each nursery will produce seedlings synchronized with the rainy seasons, for a cumulative production. Seedlings will be allocated to: (i) smallholder agroforestry under Activity 2.1.3, (ii) bioengineered erosion control structures under Output 2.2, (iii) rangeland and ecosystem restoration under Output 2.3, and (iv) urban and peri-urban tree planting under Outputs 1.2 and 2.3. With support from Component 3, nursery committees will prepare simple business plans and channel revenues into local savings and revolving funds, enabling reinvestment in inputs and basic infrastructure after the project ends.
91. *Activity 2.1.3: Distribute agroforestry seedlings and tools to smallholder farmers:* This activity operationalizes the seedling supply chain established in Activity 2.1.2, delivering climate-adapted agroforestry seedlings and land management tools directly to smallholder farmers across both project countries, with a deliberate equity focus on women-headed households and farmers cultivating the most severely degraded plots identified during Activity 2.1.1 assessments.
92. A total of 120,000 seedlings will be organised and distributed through established community structures, smallholder's cooperatives, women's associations, and Farmer Field School networks, to reinforce collective management norms and ensure equitable access. Women-headed households will constitute a minimum of 50% of beneficiaries, reflecting their disproportionate dependence on and vulnerability within degraded agricultural landscapes. Each beneficiary farmer will receive: a seedling allocation matched to their plot size and agroforestry design; a standardized land management toolkit comprising hoes, planting bars, pruning tools, watering cans, and fencing materials for livestock browsing protection; and a locally translated, illustrated agroforestry planting guide covering species spacing, intercropping design, soil preparation, and seasonal maintenance schedules. In addition, 140,000 seedlings will be further produced to support Activities 1.2.2 and 1.2.3.
93. Distribution campaigns will be timed to coincide with the onset of the rainy season in each country (June–September in Chad and April–July in Togo) to maximize seedling establishment and early survival rates. Each distribution event will be accompanied by a half-day practical orientation session delivered by local extension agents, covering planting technique, initial watering protocols, and soil preparation. Farmers will receive a minimum of two follow-up advisory visits during the first growing season, at 30 days and 90 days post-planting, to assess establishment progress, provide adaptive technical support, and identify early replanting needs.
94. Seedling survival rates will be monitored biannually, with a target survival rate of at least 70% at 12 months post-planting. Where survival falls below 60%, a rapid replanting protocol will be triggered using nursery reserve stock maintained under Activity 2.1.2. All distribution and survival data will be recorded in the Component 4 MEL platform.
95. *Activity 2.1.4: Train farmers on SLM techniques and climate-smart farming practices:* This activity builds the technical knowledge and adaptive management capacity of smallholder farmers to implement, maintain, and expand the agroforestry and SLM systems established, ensuring that seedling distribution and physical investments translate into sustained land management behaviour change and long-term productivity gains.

96. Structured training will be delivered to 2,800 farmers with a minimum of 40% women participants, through a combination of field-based practical sessions, demonstration plot learning, and facilitated group workshops conducted by trained local extension agents and agroecology technicians.
97. Training content will cover a contextually tailored suite of climate-smart land management techniques, selected specifically to address the degradation typologies and climate risks identified during Activity 2.1.1 assessments:
    - Intercropping and multi-story agroforestry design for optimizing tree-crop spacing, canopy management, and species combinations for soil fertility improvement and yield stability under erratic rainfall
    - Composting, green manuring, and organic soil amendment for building soil organic matter and microbial activity to restore degraded soils without chemical inputs
    - Farmer-Managed Natural Regeneration (FMNR) for protecting and managing naturally regenerating trees and shrubs as a low-cost, high-impact soil and microclimate restoration technique, particularly relevant to Chad's Sahelian context
    - Minimum tillage and soil moisture conservation for reducing soil disturbance, maintaining surface cover, and applying mulching and Zai pit techniques to maximize water infiltration during erratic rainfall events
    - Integrated pest and soil fertility management: combining biological, cultural, and minimal chemical pest control with soil fertility cycling to reduce input dependency and production risk.
98. Gender-disaggregated training sessions will be held separately for women and men where socio-cultural norms require, with content adapted to reflect their distinct land management roles: women's sessions will emphasize nursery management, home garden agroforestry, organic composting, and water-efficient vegetable production; men's sessions will focus on field-scale agroforestry design, contour farming, and livestock-crop integration. Women trainers and female extension mentors will be engaged wherever available to improve attendance and knowledge retention among women participants.
99. All training participants will be introduced to opportunities under Component 3, providing a direct financing pathway for additional farm-level investments beyond project-supported inputs. Upon completion of the full training curriculum, participants will receive a community-recognized training certificate co-signed by local agricultural authorities, incentivizing participation and providing formal recognition of acquired skills. A cohort of high-performing participants will be selected in each country and supported as Farmer Champions, receiving additional mentoring to deliver farmer-to-farmer extension within their villages and neighbouring communities, maximizing knowledge outreach well beyond directly trained participants and providing a self-sustaining extension mechanism beyond the project period.
100. *Activity 2.1.5: Establish and operate Farmer Field Schools (FFS) and demonstration plots:* Farmer Field Schools (FFS) constitute the primary experiential learning infrastructure of Output 2.1, ahead of seedling distribution and farmer training, to ensure that learning platforms are operational before physical interventions begin. By grounding training in observed, season-long field performance rather than classroom instruction, FFS transform abstract technical recommendations into evidence that farmers can see, compare, and adapt to their own conditions.
101. A total of 16 FFS will be established on representative farms selected during Activity 2.1.1 assessments, deliberately chosen to reflect the full range of degradation types, soil typologies, and agroecological contexts present in each project zone. Each FFS will be hosted on a farmer-owned plot, formalized through a signed stewardship agreement between the host farmer, the community, and the project, ensuring the plot remains a community learning resource beyond the project period. Each FFS will serve 25–30 farmers per seasonal cycle, with sessions structured around the agricultural calendar: land preparation and planting; early growth monitoring and soil management; mid-season performance assessment and adaptive management; and end-of-season comparative evaluation and scaling decisions.
102. Each FFS will host a structured demonstration area divided into clearly labelled comparative plots showcasing: three to five agroforestry design models (boundary planting, alley cropping, multi-storey intercropping, and windbreak systems); soil conservation techniques (Zai pits, half-moon bunds, mulching, composting); and water management practices (micro-catchments, drip irrigation, soil moisture conservation). The side-by-side

comparative design enables farmers to directly observe and quantify differences in soil moisture retention, crop yield, biomass production, and erosion control across techniques, generating field-level performance evidence that is both locally credible and technically rigorous.

103. FFS facilitation will be delivered by trained local extension agents and agroecology technicians, supported by national agricultural research institutions where available. Lead farmers, selected from Activity 2.1.4 Farmer Champion cohorts, will co-facilitate sessions, building their facilitation skills and reinforcing peer-to-peer learning as the primary extension modality. Upon completing a full seasonal FFS cycle, graduates will receive community-recognized certificates and will be formally enrolled in the Farmer Champion network to extend practices within their villages and neighbouring communities.

Output 2.2: Erosion Control Infrastructure Implemented Across Agricultural and Risk-Prone Landscapes

104. This output addresses the continuum of erosion instability risk, from on-farm contour bunds and soil retention structures on cultivated lands, to bioengineering of gullied terrain and runoff-prone areas above the farm boundary where flash erosion risks are highest. Activities under Output 2.2 build directly on the degraded land and erosion risk mapping conducted in Activity 2.1.1 and are coordinated with agroforestry planting under Output 2.1 to create vegetated, structurally stabilized landscapes that perform erosion-control functions across agricultural and surrounding areas.

105. *Activity 2.2.1: Conduct erosion hazard mapping to guide structural interventions:* This activity will generate detailed erosion hazard maps for each project site, providing the technical basis for siting all erosion control structures under Output 2.2. Using a combination of imagery analysis and participatory community mapping, the activity will classify erosion by severity, identify active gullies and rill networks, and delineate priority intervention areas.

106. In Zogbepimé (Togo), particular attention will be paid to cultivated lands and degraded plots, where soil losses of 10–30 tonnes per hectare annually have been recorded and where road access and farm plots are frequently disrupted by runoff and sheet erosion. In Chad's Chari-Baguirmi Province, the mapping will focus on drainage corridors and seasonally waterlogged depressions that are simultaneously vulnerable to erosion, sediment deposition, and runoff flooding. All mapping will be carried out in close collaboration with local authorities and community representatives to ensure that technical risk classifications align with lived experience of hazard exposure.

107. The mapping outputs will include: (i) geo-referenced erosion severity maps for each project site; (ii) a typology of priority intervention zones (cultivated areas, gullies, drainage corridors, and runoff-prone areas); and (iii) community-validated priority lists of sites for structural and bioengineering measures. These products will directly guide the design and placement of contour bunds, stone lines, check dams, and vegetative stabilization under Activities 2.2.2 and 2.2.3, and will be fully integrated into the regional GIS and MEL platform under Component 4 to enable cross-country comparison of erosion risk profiles and tracking of risk reduction over time.

108. *Activity 2.2.2: Construct contour bunds, stone lines and check dams on agricultural lands:* On degraded farmland, this activity will support the construction of 10 km of contour bunds and stone lines, along with check dams and water retention bunds. These structures will be sited directly on the basis of the erosion hazard maps developed under Activity 2.2.1 and the degraded plot locations identified under the same activity, ensuring that interventions target the most erosion-prone and hydrologically strategic locations.

109. Structures will be constructed using community labour through cash-for-work or food-for-work schemes where appropriate, in coordination with local authorities and community committees. Stone pitching will be used where rock is locally available; where stone is scarce, compacted earth bunds will be reinforced with deep-rooted perennial grasses such as Chrysopogon zizanioides (vetiver), Andropogon gayanus, and Cenchrus ciliaris, which are well adapted to Sahelian and savanna ecosystems and provide strong biological stabilization through dense root systems. In humid areas of Togo, Panicum maximum and Pennisetum purpureum may also be used to strengthen bund structures. Check dams will be designed to slow runoff, promote infiltration, recharge shallow groundwater, and reduce sediment loads entering downstream water bodies and drainage infrastructure.

110. Spatial coordination with agroforestry planting under Activity 2.2.3 will ensure that vegetative buffers and structural bunds function as an integrated on-farm conservation system: trees planted along bunds and stone lines will anchor soil, increase roughness, and provide shade and biomass, while bunds and check dams will retain moisture needed for seedling establishment. Technical design standards (dimensions, spacing, and materials) will be documented and shared with local public works and agriculture services to facilitate replication and integration into local development planning.
111. *Activity 2.2.3: Implement bioengineering and vegetation-based erosion control:* This activity targets gullied terrain beyond the farm boundary particularly areas classified as high erosion risk in Activity 2.2.1 mapping. Bioengineering techniques will be applied to stabilize 500 ha of active gullies and degraded land, using measures that combine structural elements with deep-rooted vegetation.
112. Interventions will include: live bamboo and vetiver grass hedgerows planted along contours; fascine staking and brush layering along gully walls; stone-filled gabion structures at gully heads and critical erosion break points; and assisted natural regeneration of indigenous woody vegetation in adjacent degraded areas. Species selection will prioritize deep-rooted, drought-tolerant, locally available species that offer both structural stability and ecological co-benefits (forage, fuelwood, habitat, and microclimate regulation).
113. In Togo, bamboo and vetiver installations will focus on road-adjacent degraded strips, where rill and gully formation disrupt access and accelerate land loss. In Chad, interventions will target degraded wadis and drainage channels in the Chari-Baguirmi area that are prone to flash erosion. Community labour groups, including women's collectives and youth associations, will be mobilized and trained for planting, gabion assembly, and ongoing maintenance, under technical supervision from engineering and forestry services. These bioengineered structures will be designed to complement the on-farm measures installed under Activity 2.2.2, creating a continuous protective system from upstream catchment areas down to productive land and infrastructure.
114. *Activity 2.2.4: Establish erosion monitoring:* This activity will establish community-operated monitoring systems to detect early signs of gully reactivation and erosion breakthroughs before they evolve into damaging impacts affecting farms, roads, or settlements. In each intervention cluster, 4 community monitors will be selected (with strong participation of women and youth) and trained to carry out regular inspections of treated and untreated erosion-prone areas following heavy rainfall events and during peak risk seasons.
115. Monitors will use illustrated checklists and simple tools (stakes, measuring tapes, photo points) to record visible indicators such as new cracks, soil displacement, undercutting of bunds, scouring around check dams, and increased sediment deposition. Observations will be documented using mobile-phone-based reporting tools where network coverage allows, or via standardized paper forms and community radio channels where digital access is limited.
116. Protocols will define clear alert thresholds and escalation procedures, from community-level warning and temporary access restrictions, through notification of local authorities and technical services, up to triggering district-level support where severe risk is identified. Monitoring data and alert records will be integrated into the Component 4 digital platform.
117. *Activity 2.2.5: Organize community maintenance brigades and provide tools for erosion structure upkeep:* To ensure the long-term functionality and durability of erosion control and bioengineered structures, this activity will establish community maintenance brigades in each intervention area 10 brigades, responsible for routine inspection, seasonal clearing, and minor repair of contour bunds, stone lines, check dams, and vegetated slopes. Brigades will be composed of community members with at least 40% women and meaningful representation of youth, and will be formally recognized by local authorities through simple terms of reference and integration into annual community planning processes.
118. Each brigade will receive a maintenance toolkit including shovels, pickaxes, wheelbarrows, basic gabion repair tools, vetiver or other grass planting stock, and illustrated repair manuals in local languages. Training will be provided on identifying common types of structural damage, prioritizing repairs, and organizing collective workdays ahead of the rainy season. To support financial sustainability, brigades will be linked to existing community savings groups and revolving funds established under Component 3, enabling self-financed minor repairs and replacement of small tools and planting material without waiting for external project funding.

119. Maintenance schedules and responsibilities will be integrated into community development plans and, where possible, into commune or district workplans, ensuring that erosion control and slope stabilization are recognized as ongoing public goods. Basic maintenance records (workdays completed, structures repaired, issues identified) will be shared with local authorities and fed into the Component 4 MEL system.

Output 2.3: Degraded Forest, Rangeland, and Riparian Ecosystems Restored for Biodiversity and Climate Risk Reduction

120. This output restores degraded ecosystems beyond the agricultural frontier, including rangelands, fragmented forest patches, riparian buffers, and peri-urban green spaces, that provide critical ecological functions such as carbon sequestration, watershed regulation, biodiversity habitat, and natural buffering of climate extremes. Its spatial boundary begins where the farm ends: it targets community and public lands, degraded grazing areas, forest fringes, riverbanks, and peri-urban open spaces that are not under individual cultivation but whose degradation directly increases climate risk and livelihood vulnerability for surrounding communities. This output complements output 2.1 towards results based execution.

121. *Activity 2.3.1: Conduct participatory ecosystem assessments and restoration planning:* This activity generates the ecological and social evidence base required to prioritize and design restoration investments under Output 2.3. Participatory ecosystem assessments will be conducted across rangeland, forest fringe, riparian, and peri-urban green zones in each project area, led by project ecologists in collaboration with local communities, traditional resource managers, and district forestry and environment officers.

122. Using a combination of remote sensing, GIS land-cover analysis, field surveys, and community ecological knowledge, assessments will map ecosystem type, degradation severity, biodiversity value (including key species and habitat patches), and hydrological function (infiltration zones, runoff pathways, groundwater recharge areas). For each site, the activity will identify degradation drivers (overgrazing, fuelwood extraction, fire, sand mining, and encroachment) and assess restoration potential and required protection measures.

123. Restoration plans will be co-developed with communities and endorsed by local authorities. Each plan will specify: (i) restoration objectives (e.g. erosion reduction, fodder regeneration, shade provision); (ii) species mixes and planting densities; (iii) assisted natural regeneration versus planting strategies; (iv) fire and grazing management rules; and (v) governance and benefit-sharing arrangements for each restoration zone. Plans will define clear spatial boundaries between restoration zones under Output 2.3 and agricultural land under Outputs 2.1 and 2.2, preventing overlap and ensuring functional complementarity.

124. *Activity 2.3.2: Implement assisted natural regeneration and enrichment planting on degraded rangelands and forest fringes:* On 600 ha of degraded rangelands and forest fringes, this activity will implement Assisted Natural Regeneration (ANR) as the primary, low-cost restoration approach, complemented by targeted enrichment planting where natural regeneration potential is low. ANR will focus on protecting and managing naturally regenerating indigenous trees and shrubs through selective pruning, protection from browsing and fire, and thinning, to accelerate recovery of vegetation structure and cover.

125. In Chad, priority species for enrichment planting will include Acacia laeta, Balanites aegyptiaca, and Ziziphus mauritiana to restore dryland rangelands important for fodder, fuelwood, and non-timber products. In Togo, enrichment planting will focus on Pterocarpus erinaceus, Vitellaria paradoxa (shea), and Parkia biglobosa to rehabilitate forest–savanna transition zones and restore tree-based livelihood systems. Species selection is guided by ecological suitability, contribution to soil and water conservation, and livelihood value for local communities.

126. Community protection committees will be established or strengthened in each restoration block to enforce agreed grazing exclusion or rotational grazing rules, regulate fuelwood collection, and manage fire. These committees will define clear rules for graduated access as vegetation recovers (e.g. initial full protection, followed by controlled use), linked to measurable ecological recovery indicators. Protection committees will coordinate with CBNRM structures under Activity 2.3.4, ensuring that restored rangelands and forest fringes are embedded within broader community natural resource governance systems.

127. *Activity 2.3.3: Restore riparian buffers and degraded wetland margins along waterways:* This activity restores riparian buffer zones, vegetation strips along watercourses, seasonal streams, and wetland margins, to stabilize banks, reduce sedimentation, improve infiltration, and strengthen aquatic and riparian biodiversity. Restoration

will use deep-rooted indigenous tree, shrub, and grass species selected for bank stabilization capacity, shade provision, and compatibility with local ecological conditions and community use.

128. In Chad, interventions will focus on degraded reaches of the Chari and Logone river margins and on eroded drainage corridors in the Chari-Baguirmi Province, where bank collapse and sediment-laden runoff increase flood risk and degrade water quality. In Togo, activities will target eroded stream banks and seasonal watercourse margins in the hilly terrain of Zogbepimé, where concentrated runoff accelerates gully formation and cuts off access routes and farmland. Restoration designs will be co-developed with communities and local authorities, specifying buffer widths, species mixes, and protection measures (e.g. livestock exclusion zones, controlled access points).

129. Riparian restoration activities will be explicitly aligned with the watershed management and water harvesting investments under Output 2.4, ensuring that upstream vegetation recovery increases groundwater recharge, moderates peak flows, and improves the performance of farm ponds, micro-reservoirs, and rainwater harvesting systems.

130. *Activity 2.3.4: Develop and support Community-Based Natural Resource Management (CBNRM) governance structures:* Recognizing that ecosystem restoration is only sustainable where robust local governance systems exist, this activity will establish or strengthen 8 CBNRM committees, with clear mandates, over restored rangelands, forest areas, and riparian zones. Committees will advise on access and use regulations of natural resources (grazing, fuelwood collection, non-timber forest products), and will coordinate with district forestry and environment agencies.

131. Each CBNRM committee will strive to include 40% women and youth in leadership roles, reflecting their central roles in resource use and stewardship. Bylaws will be co-drafted with communities, validated by local authorities, and integrated into commune-level land-use plans to secure formal recognition and alignment with statutory frameworks. Committees will receive targeted training in ecosystem management e.g., using simple ecological indicators, conflict mediation over resource access, sanctions and incentive mechanisms, and governance record-keeping (minutes, decisions etc.).

132. CBNRM structures will also be linked to Component 3 to enable small-scale investments in restoration maintenance (firebreaks, additional planting, and patrols). Monitoring data generated by committees, including compliance records, observed ecosystem changes, and conflict cases, will feed into the Component 4.

133. *Activity 2.3.5: Establish urban green corridors and community reforestation in peri-urban areas*

134. In peri-urban neighbourhoods of N'Djaména and the market centres of Zogbepimé, this activity will establish urban green corridors, community woodlots, and shaded public spaces through the planting of 40,000 trees. Species selection will prioritize fast-growing indigenous shade trees, fruiting species that contribute to nutrition and income, and wind-breaking shrubs adapted to local climatic and soil conditions.

135. Planting will be carried out along roads, around schools and health centres, in and around markets, and in other high-use community gathering spaces, with designs tailored to reduce heat stress, improve air quality, and create small urban biodiversity refuges. Green corridor planting under this activity will be spatially and functionally distinct from the road-aligned drainage corridor planting under Component 1, which focuses on stormwater management infrastructure; here the emphasis is on shade, microclimate regulation, and amenity.

136. Urban tree stewardship committees will be formed or strengthened in each intervention cluster, linked to existing community savings groups and structures supported under Component 3. These committees will be responsible for watering, protection (including fencing and damage prevention), and basic pruning and replacement, guided by simple stewardship plans. Tree survival rates will be monitored quarterly during the first two growing seasons, with a defined replanting protocol where survival falls below agreed thresholds.

Output 2.4: Community Water Harvesting, Conservation, and Irrigation Systems Strengthened

137. This output addresses the critical challenge of water scarcity and seasonal water stress that constrain agricultural productivity, ecosystem health, and household wellbeing across both project sites. It adopts a landscape-level approach to water management, capturing rainfall higher in the watershed through farm ponds and check dams (linked to Output 2.2), conserving soil moisture on fields (linked to Output 2.1), and delivering reliable water supply for dry-season farming and domestic use at household and community levels. Restoration of watershed vegetation under Output 2.3 directly enhances groundwater recharge and reduces peak runoff,

creating a hydrological feedback loop that amplifies the effectiveness and longevity of water harvesting infrastructure installed under this output.

138. *Activity 2.4.1: Conduct water needs assessments and identify sites for water harvesting infrastructure:* Before any water infrastructure is constructed, this activity will carry out systematic water needs and site assessments across both countries. Assessments will evaluate seasonal water availability and groundwater depth; reliability and quality of existing water sources; household and farm-level water demand patterns; runoff capture potential at candidate farm pond and reservoir sites; and the irrigation suitability of candidate agricultural areas.

139. The process will integrate available hydrological and hydrogeological data, participatory mapping with community members, and gender-differentiated water-use and needs surveys, recognizing that women bear the primary burden of water collection and management in both project contexts. Assessment outputs, including water balance profiles, priority village lists, and geo-referenced candidate sites, will directly determine the type, size, and location of water harvesting and irrigation infrastructure to be installed in subsequent activities, and will be incorporated into the Component 4 GIS and MEL platform as the baseline for tracking water security improvements over time.

140. *Activity 2.4.2: Construct micro-reservoirs, farm ponds, and check dams for water harvesting:* Based on the site assessments under Activity 2.4.1, this activity will support the construction or rehabilitation of 60 micro-reservoirs and farm ponds, each with a storage capacity of approximately 20–200 m^3 depending on topography, ground water, rainfall regime, and intended use. Reservoirs will be sited to capture overland runoff from fields and upstream slopes, leveraging the contour bunds and check dams constructed under Output 2.2 to maximize inflow and sediment management.

141. Construction will use context appropriate designs, including semi-circular bunds, stone lined basins, plastic geomembrane liners, and compacted earth banks, with community labour engaged through “cash-for-work” schemes where appropriate. Micro reservoirs will serve both as buffers for agricultural irrigation during dry spells and as livestock watering points, reducing pressure on shared wells and boreholes and lowering the risk of herder–farmer conflict in mixed use landscapes. Basic safety and environmental safeguards (e.g. fencing where needed, safe access points, and erosion control around embankments) will be integrated into all designs.

142. *Activity 2.4.3: Install drip irrigation and solar-powered pump systems for dry-season agriculture:* To enable year-round productive use of harvested water, this activity will install 100 drip irrigation kits and 80 solar-powered pump units at farm pond sites identified through Activity 2.4.1. Drip systems will be matched to plot size and crop choice, focusing on vegetables, legumes, and nursery production, and will be installed together with hands on, insitu training for user households or groups.

143. Solar pumps will support community managed irrigation schemes where gravity fed systems are not feasible, with equipment specifications standardized across countries to simplify maintenance and spare parts procurement. Women’s farmer groups and youth cooperatives will be prioritized for access to irrigation systems, directly expanding their capacity for dry season income generation, dietary diversification, and year-round market engagement. Operation and maintenance responsibilities, water allocation rules, and cost sharing arrangements will be formalized through establishment of Water User Associations (WUAs).

144. *Activity 2.4.4: Provide maintenance toolkits and illustrated manuals to water user groups:* Building on the irrigation systems, water storage infrastructure, and user training delivered under Activity 2.4.3, this activity will ensure the long-term functionality and sustainability of these investments. To secure the longevity of irrigation systems and water storage structures, maintenance toolkits and illustrated, locally translated manuals will be provided to Water User Associations (WUAs), irrigation committees, and women farmers’ associations. Toolkits will include gasket replacements, hose connectors, filter brushes, spanners, bucket filters, and other minor repair supplies for drip and solar irrigation systems, as well as basic tools for tank maintenance.

145. At least 30 community members, selected from beneficiaries trained under Activity 2.4.3, will be designated as Local Water Caretakers and will receive additional technical training on routine maintenance schedules, troubleshooting, and minor repair. Maintenance funds and spare parts savings will be integrated into community savings groups established under Component 3, creating a self-financed mechanism for replacement of small components and reducing long-term dependency on external technical support. Maintenance records and incident reports will be fed into the Component 4 MEL system, reinforcing adaptive management and embedding water infrastructure stewardship within local institutional structures.

Component 3: Access to Adaptation Financing

146. Component 3 aims to establish sustainable and inclusive financial mechanisms that enable vulnerable communities to access and effectively utilize climate adaptation finance. It addresses key barriers to adaptation investment, including limited access to affordable financial services, weak integration of climate considerations into financial systems, and insufficient institutional and community capacity. At the core of this component is the establishment of a Revolving Fund for Adaptation (RFA), capitalized through project resources and operationalized through qualified national financial institutions. The RFA will provide concessional financing for climate-resilient investments, enabling vulnerable households and community groups to adopt and scale locally appropriate adaptation measures. By embedding the fund within formal financial institutions, the project ensures fiduciary integrity, transparency, and long-term sustainability, while strengthening linkages between communities and formal financial systems. In parallel, the component will build the capacity of financial institutions and communities to design, access, and manage adaptation finance, enhancing lenders' ability to integrate climate risk into lending practices and equipping community members with the knowledge and skills to engage effectively with financial systems.

Outcome3: Improved access to and effectiveness of adaptation finance at local level

147. This outcome aims to improve both the availability and effective use of adaptation finance among vulnerable communities in target areas. It addresses key barriers, including the limited availability of affordable financial services, weak linkages with formal financial institutions, and insufficient capacity to invest in climate-resilient solutions. Through a revolving adaptation finance mechanism and strengthened institutional and community capacities, households and local groups will be able to access concessional financing for climate-resilient investments. Investments will be aligned with climate risks, technically viable, and capable of delivering sustainable resilience benefits. By strengthening the role of national financial institutions and improving outreach to underserved populations, the project will promote inclusive access to finance under robust fiduciary oversight, resulting in increased uptake of climate-resilient investments and sustainable financing pathways that continue beyond the project lifecycle.

Output 3.1: Revolving Adaptation Finance Mechanism Established, Capitalized, and Operationalized

148. Rural and peri-urban communities in Chad and Togo face increasing exposure to climate variability including prolonged droughts, erratic rainfall, land degradation, and periodic flooding which significantly undermine agricultural production, livestock systems, and the climate-sensitive microenterprises that constitute primary income sources for vulnerable households. Amongst the barriers to the uptake and scaling up of the adaptation measures proposed in Components 1 and 2 is the limited access to formal financial services across many target areas, constraining households' ability to invest in climate-resilient practices or recover from climate-related losses. Although informal savings groups and rotating credit systems are widespread, they remain undercapitalized and unable to support larger-scale adaptation investments such as drought-resilient crops, small-scale irrigation systems, soil restoration measures, water harvesting infrastructure, and livestock feed storage.
149. Building on prior experience in community-based adaptation finance including lessons from initiatives such as DIZA-EST, the project will establish the RFA as a structured concessional financing mechanism embedded within qualified national financial institutions. Preliminary stakeholder consultations conducted during project preparation, encompassing engagement with financial institutions, community representatives, and regulatory bodies, confirmed both the demand for adaptation finance and the availability of potential financial partners. These consultations have informed the design of the RFA and the identification of candidate institutions, which will be subject to a structured due diligence and selection process under Activity 3.1.1.
150. The RFA will be capitalized through AF resources and managed through dedicated, ring-fenced accounts within selected institutions, ensuring compliance with fiduciary and audit requirements. These institutions will be responsible for loan appraisal, disbursement, repayment collection, portfolio management, and financial reporting. Community structures will support beneficiary identification, mobilization, and peer-based accountability, while fiduciary responsibility will remain exclusively with regulated financial entities.
151. The fund will operate a tiered interest rate structure aligned with the Adaptation Fund’s principle of equitable distribution of benefits to vulnerable communities. A lower concessional tier will serve the most climate-

vulnerable and economically marginalised borrowers, including women-headed households, smallholder farmers cultivating severely degraded land, and households in flood-exposed settlements, ensuring that affordability barriers do not exclude those with the greatest adaptation need. A second tier, still below prevailing market rates, will apply to less vulnerable borrowers and more commercially viable climate-resilient investments such as microenterprises and value chain activities. Revenue generated from the second tier will cross-subsidise the first and contribute to the fund's operational sustainability, ensuring that the partner financial institution can cover the marginal costs of administering the adaptation portfolio without external subsidy.

152. The project recognises that concessional revolving funds operating in low-income, climate-vulnerable contexts face an inherent tension between affordability and long-term capital preservation. Inflation, even within the relative stability of the CFA franc zone, progressively reduces the real value of the fund's capital base, while the concessional rates necessary to reach the most vulnerable borrowers limit the margin available to offset this erosion. Experience from comparable community-based finance mechanisms in Africa confirms that funds which do not explicitly address this tension risk functional depletion within a limited number of lending cycles. Accordingly, the participatory design of the operational framework under Activity 3.1.2 will assess and incorporate capital preservation measures appropriate to each country context. Options to be considered will include the establishment of a ring-fenced inflation provision reserve invested in low-risk instruments to partially compensate for purchasing power loss; the calibration of interest rates through a break-even analysis ensuring that operational costs and a minimum capital maintenance margin are covered; the integration of portfolio quality safeguards, including seasonal lending calendars informed by climate forecasts and early intervention protocols for at-risk loans, to minimise default-driven capital loss; and the development of a structured recapitalisation pathway identifying potential sources of periodic capital replenishment, including government budget contributions, future climate fund proposals, and blended finance partnerships. The sustainability strategy developed under Activity 3.1.6 will consolidate these measures into a comprehensive capital stewardship plan, ensuring that the fund's adaptation mandate and lending capacity are maintained over the long term.

153. Repayments will be reinvested into the fund, enabling continuous lending cycles and progressive expansion of beneficiary reach, while a structured recapitalisation pathway, developed under the sustainability strategy, will ensure long-term continuity of the fund's lending capacity beyond the initial capitalisation.

154. Eligible investments will be defined through a positive list specifying investment categories that demonstrably reduce identified climate risks, and a negative list excluding investments that do not meet the fund's adaptation rationale. The positive list will be finalised during Activity 3.1.2, informed by the vulnerability and adaptation assessments conducted under Component 2, and will include as a minimum: adoption or expansion of agroforestry systems and drought-tolerant crop varieties demonstrated under Output 2.1; installation or upgrading of household or farm-level water harvesting, storage, and drip irrigation systems consistent with the technologies deployed under Output 2.4; climate-resilient housing improvements including iCESB retrofitting, elevated foundations, improved roofing, and ventilation enhancements consistent with the construction standards established under Output 1.1; small-scale climate-resilient microenterprises with a demonstrable link to adaptation, such as seedling production, iCESB block manufacturing, solar equipment maintenance, or climate-adapted food processing; livestock adaptation investments including improved feed storage, drought-resilient breeds, and mobile watering infrastructure; and soil restoration and erosion control measures including composting equipment, fencing for regeneration zones, and bioengineering materials. The negative list will exclude standard agricultural inputs with no distinct adaptation rationale such as conventional seeds, chemical fertilisers, and pesticides; consumption loans; debt refinancing; and investments in activities that would increase environmental degradation or climate vulnerability. Priority will be given to initiatives led by or benefiting women, youth, smallholder farmers, pastoralists, and community-based organisations, ensuring inclusive access. Loan officers will use a simplified climate relevance checklist, developed during Activity 3.2.2 training, to verify eligibility at appraisal stage.

155. Financing decisions will be guided by transparent, publicly disclosed selection criteria to ensure investments effectively contribute to climate resilience and sustainable development. These criteria include: climate adaptation relevance, environmental sustainability, economic viability and repayment capacity, social inclusion and equity, community-level benefits, and technical feasibility.

156. The operational framework will include a comprehensive loan default management and provisioning protocol. This will define graduated intervention stages: early warning triggers activated upon the first missed payment, restructuring eligibility criteria for force majeure events including climate-related crop failure, flood damage, or livestock loss, and write-off thresholds beyond which recovery efforts are discontinued. Recognising that climate shocks, the very risks the fund is designed to address, are a primary driver of borrower distress, the protocol will distinguish between wilful default and climate-induced default, applying differentiated treatment. For climate-induced default, restructuring options will include extended grace periods, reduced instalments aligned with the next productive season, and in exceptional cases partial principal forgiveness funded from a dedicated loan loss provision. The fund will maintain a loan loss reserve, provisioned at capitalisation and replenished from interest income, sized to absorb a non-performing portfolio ratio of up to 10% without compromising the fund's ability to continue lending. Portfolio quality targets will be set with quarterly monitoring and escalation procedures when performance falls below established threshold. This approach protects both the fund's capital base and the borrowers it serves, avoiding the documented risk from comparable initiatives where rigid repayment enforcement forced vulnerable households to sell productive assets to meet loan obligations, leaving them worse off than before the intervention.

157. A comprehensive operational and governance framework will guide the RFA, covering loan appraisal, disbursement, repayment, monitoring, and risk management. Environmental and social safeguards, gender-responsive targeting, grievance redress mechanisms, and regular financial reporting and audits will be integrated to ensure compliance with Adaptation Fund standards.

158. *Activity 3.1.1: Undertake institutional assessment and financial partner selection:* This activity will undertake a structured due diligence process to identify and select the most suitable national financial institutions to administer the Revolving Fund. Building on initial consultations undertaken during project preparation, this activity will further assess shortlisted institutions against defined criteria, including regulatory compliance, geographic presence in target areas, rural lending performance, portfolio quality indicators, and experience in serving low-income and climate-vulnerable populations. The assessment will combine document review, field verification, and stakeholder consultations with regulatory authorities, sector associations, and community representatives. A transparent evaluation framework will guide partner selection, with final approval through project governance mechanisms. Formal fund management agreements will be established with selected institutions, including provisions for ring-fenced accounts, fiduciary compliance, and clearly defined roles and responsibilities.

159. *Activity 3.1.2: Elaborate an operational framework and legal documentation:* This activity will establish a multi-stakeholder technical working group to develop the operational and governance framework for the Revolving Fund. This framework will define loan product parameters, eligibility criteria, appraisal and disbursement procedures, repayment modalities aligned with livelihood cycles, and portfolio risk management protocols. It will also establish governance arrangements, reporting requirements, and accountability mechanisms. Environmental and social safeguards, gender-responsive targeting, and grievance redress systems will be fully integrated. In parallel, legal documentation including fund management agreements and regulatory notifications will be prepared to ensure compliance with national regulatory frameworks and Adaptation Fund fiduciary standards.

160. The operational framework will include at least one gender-responsive product feature designed to address the specific financial access barriers identified by women in the target communities during stakeholder consultations. Based on documented barriers in comparable contexts across the Sahel and West Africa, features to be considered during participatory design will include: a group solidarity guarantee option enabling women borrowers who lack individual collateral to access loans through jointly guaranteed groups of three to five members; flexible repayment schedules aligned with women's distinct agricultural and income calendars, which in both target areas differ from men's in timing and seasonality; a streamlined application process using pictorial and oral formats to accommodate low-literacy borrowers, with dedicated application support sessions for women's groups; and reduced minimum loan thresholds for first-time women borrowers to lower the entry barrier and build credit history progressively. The final product design will be validated through dedicated consultations with women's associations, savings groups, and cooperatives in each target area before fund operationalization.

161. *Activity 3.1.3: Capitalize and operationalize revolving adaptation funds:* This activity will operationalize and capitalize the RFA through the phased transfer of project resources into dedicated, ring-fenced accounts managed by institutions selected under Activity 3.1.1. Capitalization will proceed in tranches linked to predefined performance and compliance milestones including operational readiness, adherence to fiduciary requirements, and satisfactory portfolio performance enabling adaptive management and reducing financial risk during early implementation.
162. The capitalized fund will provide concessional loans for locally led climate resilience investments through the tiered interest rate structure described above. Financial institutions will manage loan appraisal, disbursement, and portfolio management, while community structures will support beneficiary identification and outreach without assuming fiduciary responsibilities. Loan repayments will be reinvested into the fund, with financial tracking systems established to monitor loan performance, beneficiary profiles, and portfolio risk indicators.
163. *Activity 3.1.4: Conduct community mobilization and beneficiary preparation:* This activity will prepare target communities to access adaptation finance through the RFA. Existing community structures including savings groups, cooperatives, and producer associations will be mobilized and sensitized by the EEs on fund access, eligibility criteria, and application procedures. Outreach will use inclusive and participatory approaches to ensure accessibility for women, youth, and marginalized households. Potential beneficiaries will be supported to develop viable, climate-resilient investment proposals aligned with defined eligibility criteria, while maintaining a clear distinction between community facilitation roles and financial management responsibilities.
164. *Activity 3.1.5: Undertake lending operations, disbursement, and adaptive portfolio management:* Loan operations will be implemented through a structured appraisal process combining community-level screening and financial institution verification. Applications will be assessed for eligibility using the climate relevance checklist, technical feasibility, and repayment capacity prior to approval. Lending will be timed to align with seasonal agricultural and livelihood calendars, informed by available climate forecasts, to maximise the productive impact of adaptation investments and minimise climate-induced default risk. Disbursements will be made through accessible financial channels, including digital payment systems where available such as mobile money payments platforms in Chad. Portfolio performance will be continuously monitored including repayment rates and emerging risks with periodic reviews enabling adaptive management: adjusting loan terms, eligible activities, and targeting approaches in response to implementation experience and evolving climate risks.
165. *Activity 3.1.6: Elaborate monitoring, evaluation, and fund sustainability mechanisms for the revolving fund:* A comprehensive monitoring and evaluation system will be established to track financial performance, adaptation outcomes, and compliance with environmental and social safeguards. Partner financial institutions will provide regular reports on loan disbursement, repayment rates, and portfolio performance, while project teams will conduct field verification to assess outcomes and ensure appropriate use of funds. Performance data will inform adaptive management through regular review processes.
166. The post-project governance of the revolving fund will be defined through the sustainability strategy, with the governance model selected and formalised no later than the end of Year 3 to allow sufficient time for institutional transition. Regardless of the governance model selected, the sustainability strategy will define minimum safeguards for post-project operations, including continued application of the adaptation eligibility criteria, maintenance of gender targeting provisions, annual financial audit requirements, and a cap on administrative costs as a percentage of the portfolio to prevent management fee extraction from the capital base.

Output 3.2: Financial Institutions and Community Members Trained on Adaptation Finance Integration, Climate Literacy

167. This output addresses a critical institutional gap that undermines the long-term effectiveness of externally capitalized revolving funds: the absence of adaptation finance capacity within the financial institutions that manage them and the communities that depend on them. This output therefore intervenes at two levels: at the institutional level, through a structured training programme that embeds adaptation criteria into lending operations, loan appraisal methodology, portfolio risk management, and institutional learning systems; and at the community level, through financial and climate literacy training that enables borrowers to make informed adaptation investment decisions, exercise their fund governance rights, and sustain group savings discipline. This output directly underpins Output 3.1 by ensuring that both the financial institutions administering the

revolving fund and the community members accessing it have the capacity to maintain the fund's adaptation integrity over time. It also supports Outputs 2.1 and 2.3 by building household-level confidence and capability to invest in productive, climate-resilient activities.

168. *Activity 3.2.1: Deliver an Adaptation Finance Training Programme to Partner Financial Institutions:* A structured, multi-module training programme will be delivered to all fund-facing staff of partner financial institutions, combining microfinance operations expertise and climate adaptation specialization. All materials will be contextualised to the agricultural and climatic conditions of Chad and Togo. The first module grounds staff in local climate dynamics using national meteorological data and community inputs from the participatory vulnerability and adaptation assessment process, covering the distinction between adaptation investments and conventional agricultural credit, and the link between climate risk and portfolio quality. The second module focuses on integrating adaptation into lending operations, including a revised loan appraisal methodology incorporating the climate relevance checklist, light-touch verification tools practicable in low-literacy field settings, seasonal repayment schedule construction, and gender-sensitive lending practices addressed through role-play and real case review. The third module covers monitoring, reporting, and institutional learning, introducing the fund's dual performance framework, which tracks both financial indicators and adaptation outcome indicators, and establishing a structured internal learning mechanism through which field observations feed into periodic reviews of the fund's operational procedures. Together, these modules ensure that financial institution staff have the knowledge, tools, and systems needed to administer the revolving fund with full fidelity to its adaptation mandate.

169. *Activity 3.2.2: Deliver Community Financial and Climate Literacy Training:* This activity will support a structured training programme for all registered community group members including savings groups, cooperatives, and producer associations before any revolving fund disbursements are made. This training is a non-negotiable prerequisite under the fund's operational framework, ensuring that borrowers are fully informed and prepared before entering into loan agreements. Training will be delivered by trained facilitators in local languages, with pictorial materials supporting participants with low literacy levels. The programme covers three interconnected areas: financial literacy, addressing savings and credit mechanics, interest calculation, loan contract comprehension, group solidarity guarantee obligations, and basic group recordkeeping; climate adaptation literacy, translating community vulnerability and adaptation assessment findings into practical investment decision support and clarifying how each eligible activity reduces locally identified climate risks; and fund governance and rights, explaining how the revolving fund operates, what borrowers are entitled to, how to navigate the application and appeals process, and how community oversight structures function in practice. At least 40% of all trainees will be women and youth, and participants will receive basic financial recordkeeping materials to support continued practice following training.

170. *Activity 3.2.3: Provide Ongoing Technical Support and Coaching to Partner Institutions:* The training programme will be reinforced through regular technical support visits from the project's financial specialist to each partner institution branch managing the revolving fund. Structured as peer review sessions, these visits will involve the specialist reviewing a sample of loan files with responsible staff, identifying any drift from adaptation appraisal criteria or repayment structuring standards and providing on-the-job coaching. As institutional confidence grows over the course of implementation, visits will progressively transition from corrective support to peer learning and quality assurance. By project end, each partner institution's internal supervisory systems which are informed by structured learning mechanisms and the adaptation training programme and are expected to sustain quality and adaptation integrity standards without ongoing external support, constituting a durable institutional capacity that outlasts the project financing cycle and ensures the revolving fund's adaptation mandate is maintained over the long term.

Component 4: Regional knowledge, learning and institutional strengthening

171. This component ensures that the adaptation models demonstrated through ECOVERSE are rigorously evaluated, institutionalised within national technical systems, and positioned for replication across Africa. It addresses the persistent challenge that climate adaptation projects, however successful during implementation, rarely generate the structured evidence, validated technical references, and institutional relationships required for scale-up beyond their original footprint. By investing in adaptation evidence generation, integration into

national technical training systems, structured south-south learning focused on climate-resilient construction technologies, and strategic advocacy for community-based adaptation finance, Component 4 creates the conditions for ECOVERSE's field-level innovations to become durable, nationally owned, and continentally relevant public goods.

172. The component is organised around three mutually reinforcing outputs. Output 4.1 generates comparative technical evidence from ECOVERSE interventions, translates it into nationally validated practitioner references, integrates those references into vocational and technical training curricula, and establishes a fit-for-purpose monitoring system that sustains data-driven management beyond the project lifecycle. Output 4.2 establishes a structured south-south learning and replication network focused on climate-resilient construction and associated water infrastructure technologies, leveraging Hydraform's technical expertise to position iCESB building systems as a scalable adaptation solution across African drylands and forest-savanna transition zones. Output 4.3 captures and promotes community-based adaptation finance as a distinct knowledge and policy domain, producing continental-level evidence and convening high-level dialogues that support the institutionalisation and replication of revolving fund mechanisms beyond Chad and Togo.

173. Together, these outputs transform ECOVERSE from a two-country demonstration into a structured platform for evidence-based replication, ensuring that the investments made under Components 1, 2, and 3 generate returns well beyond their immediate geographies. The component is anchored institutionally within OSS's mandate as an intergovernmental organisation supporting climate resilience across the Sahara and Sahel region, and is aligned with the AAF framework for continental adaptation coordination.

Outcome 4: ECOVERSE adaptation models are validated, institutionalised in national technical systems, and positioned for replication across African drylands and forest-savanna transition zones

174. This outcome strengthens the capacity of national and local institutions in Chad and Togo to sustain, replicate and scale up ECOVERSE-validated adaptation approaches through evidence-based technical references, trained technical workforces, and structured regional learning networks. By anchoring adaptation knowledge within vocational training systems, technical standards processes, and practitioner networks rather than in project-specific platforms, the outcome ensures that institutional capacity outlasts the project financing cycle and creates credible pathways for uptake by other countries and development partners.

Output 4.1.: Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems

175. This output generates the rigorous, comparative technical evidence that underpins all knowledge and scaling functions of Component 4 and ensures that evidence is translated into nationally validated practitioner references embedded in the institutions responsible for training the next generation of construction professionals, agronomists, water technicians, and development finance practitioners in Chad and Togo. Rather than investing in a standalone digital knowledge platform with uncertain post-project sustainability, this output anchors adaptation knowledge within existing national technical training systems that already have institutional mandates, staff, and recurrent budgets, maximising the likelihood that ECOVERSE-validated approaches continue to be taught, referenced, and applied long after project completion.

176. *Activity 4.1.1: Establish and Implement a Structured Adaptation Evidence Programme:* This activity will commission rigorous, comparative technical assessments of ECOVERSE interventions across both countries, generating the hard evidence required to validate adaptation approaches, inform replication decisions, and support investment advocacy. Assessments will follow standardised protocols enabling cross-site and cross-country comparison, and will cover the following thematic areas: iCSEB construction performance, including thermal efficiency (indoor temperature reduction relative to conventional structures), structural durability under climate stress (flood resistance, heat cycling), construction cost relative to conventional methods, and embodied carbon analysis; agroforestry and sustainable land management performance, including soil fertility recovery rates, crop yield differentials between demonstration and control plots, seedling survival rates by species and agro ecological zone, and erosion reduction measured at treated versus untreated sites; water harvesting and solar-powered water system performance, and maintenance cost profiles; and revolving fund financial and adaptation performance, including repayment rates, portfolio quality, beneficiary adaptation investment profiles, and evidence of livelihood resilience improvements among borrowers.

177. Each thematic assessment will produce two outputs: detailed technical reports of sufficient rigour for peer review by national technical authorities, and a concise two-page policy brief summarising key findings, cost-effectiveness data, and replication implications for decision-makers. Assessment findings will be validated through structured review workshops involving national technical agencies, academic partners, and community representatives from both countries, ensuring that the evidence base is both technically robust and locally credible. Assessments will be conducted at two defined intervals, mid-term and end of project, enabling tracking of performance trajectories and supporting adaptive management during implementation. All assessment data and reports will be made available to the regional learning network under Output 4.2 and will inform the adaptation finance knowledge products produced under Output 4.3.

178. *Activity 4.1.2: Produce a National Practitioner Reference Library and Integrate into Vocational and Technical School Curricula:* Drawing on the evidence generated under Activity 4.1.1 and the operational experience accumulated across Components 1, 2, and 3, this activity will produce a curated, authoritative set of nationally contextualized technical reference materials covering the core ECOVERSE adaptation technologies and approaches. The reference library will include, as a minimum: an iCSEB construction manual covering soil selection, block production, structural design, climate-adaptive features (elevated foundations, ventilation, shading), quality control, and maintenance protocols; an agroforestry and sustainable land management field guide covering species selection by agro ecological zone, planting design, intercropping models, soil conservation techniques, and Farmer Field School facilitation methods; a water harvesting and solar-powered water systems technical reference covering system design, installation, operation, maintenance, and troubleshooting; and a revolving adaptation fund operational template covering institutional assessment, fund design, operational framework development, lending procedures, and monitoring protocols.

179. In addition, this activity will support the integration of such reference content into the curricula of vocational and technical training institutions in Chad and Togo. Priority will be given to institutions training construction professionals, agricultural extension agents, water and sanitation technicians, and community development practitioners, as these are the frontline cadres responsible for implementing adaptation measures at scale. Curriculum integration will be developed in collaboration with institutional leadership and teaching staff, and will include the provision of teaching materials, practical demonstration modules linked to ECOVERSE project sites where feasible, and training-of-trainers' sessions to build instructor capacity. By embedding ECOVERSE-validated knowledge into the institutions that train Chad and Togo's technical workforce, the activity ensures that adaptation competencies are continuously reproduced through normal institutional functioning, independent of project funding.

180. *Activity 4.1.3: Design and Operate a Project M&E and Spatial Monitoring System with Periodic National and Regional Baseline Contributions:* This activity will design, establish, and operate a fit-for-purpose, lightweight monitoring, evaluation, and spatial tracking system to support evidence-based adaptive management throughout the project period and to ensure continuity of data-driven management after project completion. The system will track core ECOVERSE performance indicators across all components, including restoration area and vegetation recovery, infrastructure construction and condition status, seedling survival and agroforestry establishment rates, water system functionality and utilization, revolving fund disbursement and repayment performance, and beneficiary outcome indicators disaggregated by gender and vulnerability status.

181. The system will be designed from the outset for handover to executing entities and commune authorities at project close, using accessible, low-cost tools (mobile data collection, simple GIS interfaces, and spreadsheet-based dashboards where appropriate) that do not require specialized technical capacity or expensive hosting infrastructure to maintain. Training on system operation and data interpretation will be provided to EE staff and commune technical personnel throughout implementation, ensuring that handover is a gradual capacity transfer rather than an abrupt transition. Where data generated by the project is compatible with and relevant to OSS's existing observatory and environmental monitoring databases, the project will explore integration of selected spatial datasets into OSS systems during implementation, subject to data format compatibility and institutional agreement, providing an additional pathway for long-term data preservation and regional accessibility.

182. At two defined intervals, mid-term and end of project, the system will produce standardized data packages formatted for contribution to relevant national reporting processes. Priority reporting frameworks will include land degradation neutrality reporting under the UNCCD, and relevant indicators under the UNFCCC's Global

Goal for Adaptation where ECOVERSE restoration and erosion control data can contribute to national baseline and progress tracking, and water and housing sector baseline assessments, where infrastructure performance data can inform national planning. These contributions will be coordinated with the relevant national focal points and statistical services in each country to ensure data compatibility and institutional uptake.

Output 4.2: South-South Climate-Resilient Construction Learning and Replication Network Operationalized

183. This output establishes a structured south-south learning and replication network focused on climate-resilient construction technologies, positioning the iCSEB building systems and associated climate-resilient water infrastructure demonstrated under ECOVERSE as scalable, transferable adaptation solutions for African countries facing comparable climate and housing challenges. The strategic focus on construction and built-environment technologies reflects a deliberate assessment of transferability: earth-based construction techniques are fundamentally material science and engineering, adaptable across climate zones through adjustments in soil composition, wall design, ventilation, and foundation specification, while the core production process and technical skills remain consistent. This makes them substantially more transferable across contexts than land management approaches, which are inherently site-specific. Where participating countries also express interest in climate-resilient water infrastructure technologies demonstrated under ECOVERSE, including rainwater harvesting configurations and solar-powered water supply systems, these will be included within the network's learning and exchange programme.
184. Hydraform, a South African construction technology company specialising in interlocking block-making machinery and building systems with over three decades of experience across more than 78 countries worldwide with extensive experience in Africa, will serve as a technical partner for this output. Hydraform's existing training academy, onsite training capacity, and ground support services provide a proven institutional platform for technology transfer, quality assurance, and practitioner training. AAF will lead the convening and coordination functions, leveraging its intergovernmental mandate and established relationships across the Sahel and West Africa to ensure political engagement and institutional continuity.
185. *Activity 4.2.1: Establish an Africa Climate-Resilient Construction Learning Network:* This activity will convene a formal learning network of 5 to 8 countries facing comparable climate and housing challenges across the Sahel, coastal West Africa, and East African drylands, anchored by Hydraform's technical expertise and OSS's convening role as an intergovernmental organisation. Network membership will be established through a structured expression-of-interest process targeting countries where climate-resilient construction and housing are identified priorities in national adaptation plans or urban resilience strategies.
186. The network will meet annually, rotating between participating countries, with each meeting structured around a specific technical theme: iCSEB production and quality control, climate-adaptive building design for different climate zones, maintenance systems and community stewardship models, or integration of water harvesting into climate-resilient buildings. Meetings will combine site-based demonstrations at ECOVERSE project sites or comparable facilities in host countries, structured peer-to-peer exchange between practitioners, and technical working sessions to analyse implementation approaches, enabling factors, and barriers. A network coordination function will be established within AAF to maintain institutional relationships between meetings, track replication interest and progress, and facilitate bilateral technical exchanges between network members as demand arises.
187. *Activity 4.2.2: Develop and Disseminate Standardised Construction Replication Toolkits:* This activity will package ECOVERSE's validated climate-resilient construction approaches into modular, context-adaptable replication toolkits designed to enable other countries and organisations to adopt the technology without starting from zero. A primary toolkit will be developed for iCSEB construction, covering the full value chain: soil testing and selection, block production equipment and specifications, structural design standards for different climate zones (heat, flood, wind exposure), quality control protocols, artisan training curricula, community maintenance systems, and cost modelling tools. Where demand from network countries is confirmed, a complementary toolkit will be developed for climate-resilient water infrastructure, covering rainwater harvesting system design, solar-powered pump and purification system specifications, installation and commissioning procedures, and community-operated maintenance protocols.

188. Each toolkit will be structured as a self-contained technical package, including specifications, illustrated step-by-step guides, training materials, bill-of-quantities templates, and quality checklists, produced in French and English to serve the primary language groups of the network. Toolkits will build on other training materials and technical standards, and be validated through the network's technical review process before dissemination. Distribution will be through the network, through AAF and OSS's institutional channels, and through direct engagement with AF and other climate fund project pipelines where climate-resilient construction is a relevant component.
189. *Activity 4.2.3: Present ECOVERSE Climate-Resilient Construction Evidence at a Major African Architecture or Urban Planning Forum:* Rather than organizing a standalone event, the project will present its validated iCESB construction and climate-resilient water infrastructure evidence at a few established continental architecture, urban planning, or sustainable construction forums, leveraging the visibility, convening power, and audience reach of events that already attract the relevant academic and professional communities. Target forums will be identified during implementation based on timing and thematic alignment, and may include events such as the Pan-African Architecture Biennale, the Association of African Planning Schools (AAPS) international conference, the African Centre for Cities research conference, or comparable high-profile continental platforms focused on sustainable design, resilient urbanism, or construction innovation in Africa.
190. The project will secure a dedicated session or side event within the selected forum to present ECOVERSE technical assessment findings from Activity 4.1.1, distribute the replication toolkits developed under Activity 4.2.2, and engage university-level engineering, architecture, and urban planning faculties in discussion on integrating climate-resilient construction content into higher education programmes across the continent. This activity is distinct from the national vocational curriculum integration pursued under Activity 4.1.2: whereas 4.1.2 targets technical and vocational schools in Chad and Togo to build national construction workforces, this activity targets university-level and research institutions at regional scale to build the broader academic and professional base for climate-resilient construction. These events will be timed to coincide with the availability of end-of-project technical assessment results, maximizing the quality and credibility of the evidence presented. Outputs will include a session proceedings document summarizing research priorities and partnership commitments, and a directory of academic institutions expressing interest in applied research collaboration or curriculum integration using ECOVERSE data and protocols.

Output 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established

191. This output captures, analyses, and promotes community-based adaptation finance mechanisms as a distinct and scalable approach to closing the adaptation finance gap at local level. It occupies a strategic space that is distinct from the operational training delivered under Component 3: whereas Output 3.2 builds the capacity of partner financial institutions and community borrowers to operate the ECOVERSE revolving funds effectively, Output 4.3 generates continental-level evidence on community adaptation finance performance, convenes high-level policy dialogues targeting regulatory and climate finance decision-makers, and develops a concrete strategy for replicating and capitalizing revolving fund mechanisms in additional countries. The intended audience is not the project's own practitioners but rather the policymakers, regulators, and investors who control the systemic conditions under which community adaptation finance can grow.
192. *Activity 4.3.1*: *Produce an Annual State of Community Adaptation Finance in Africa Report:* This activity will produce an annual analytical report tracking the growth, performance, and impact of community-level adaptation finance mechanisms across the continent. ECOVERSE revolving fund data from Chad and Togo will serve as the primary anchor of the report, supplemented by data and case material gathered from comparable initiatives operating across Africa through desk research and structured information exchange with peer programmes. Each edition of the report will cover fund capitalization and portfolio growth, repayment performance and portfolio quality, beneficiary profiles and gender and vulnerability targeting outcomes, types of adaptation investments financed and their observed resilience effects and enabling institutional and regulatory conditions across different country contexts.
193. The report will be positioned as a reference document for climate finance decision-makers, including the AF, the GCF, bilateral donors, and national climate finance entities, providing them with a consolidated, evidence-based overview of what community adaptation finance delivers, under what conditions, and at what cost. It will

be produced in English and French and disseminated through the regional learning network, OSS institutional channels, and targeted distribution at relevant climate finance forums.

194. *Activity 4.3.2: Convene High-Level Adaptation Finance Policy Dialogues:* This activity will organize high-level policy dialogue events over the course of the project, bringing together central bank regulators, microfinance apex bodies, climate finance decision-makers from national and multilateral institutions, and senior representatives from community finance networks. These dialogues, will focus on establishing the agenda for systemic engagement with community adaptation finance, presenting early ECOVERSE revolving fund performance data, and identifying regulatory and institutional barriers to the growth of community-based adaptation lending. They will further present consolidated evidence from the full implementation period, including findings from the annual reports produced under Activity 4.3.1, and will focus on actionable policy recommendations and concrete replication potentials.

195. Dialogue themes will address systemic barriers to the growth of community adaptation finance, including regulatory frameworks governing microfinance institutions' capacity to offer concessional climate-linked products, capital adequacy and risk provisioning requirements that constrain adaptation lending, integration of climate risk assessment into financial supervision, and the role of public capitalization in catalysing sustainable community finance systems. The dialogues will generate structured outputs, including policy recommendations, regulatory reform proposals, or joint position statements, designed to inform national regulatory processes and multilateral climate finance programming. Dialogue events will be strategically timed and located to maximize influence, aligning where possible with major climate finance events or regional economic policy forums.

196. *Activity 4.3.3: Develop a Revolving Fund Replication and Capitalisation Strategy:* Before project completion, this activity will produce a detailed, operationally actionable strategy for replicating and capitalising additional revolving adaptation funds in new countries using the ECOVERSE model. The strategy will draw on the full body of evidence generated through Activities 4.3.1 and 4.3.2, as well as the operational experience of Component 3, to define the institutional, regulatory, and financial prerequisites for successful replication; identify 3 to 5 priority countries for replication based on climate vulnerability, microfinance sector maturity, and regulatory environment; map potential financing sources for capitalisation, including the AF, the GCF, bilateral climate finance facilities, domestic government budget allocations, and blended finance structures; specify the institutional partnerships, technical assistance requirements, and timeline for launching replicated funds; and outline the governance and fiduciary arrangements needed to ensure Adaptation Fund-compliant fund management in new country contexts.

197. The strategy will be formally presented to relevant regional institutions, positioning ECOVERSE's revolving fund model as a ready-to-deploy, evidence-backed financing instrument for community-level adaptation investment across Africa. By producing this strategy before project close, the activity ensures that the institutional momentum and evidence base generated during implementation are channelled directly into concrete next steps for scaling.

B. Innovative solutions to climate change adaptation.

198. The ECOVERSE project promotes context-driven innovation, combining traditional ecological knowledge with modern climate-resilient technologies and institutional mechanisms tailored to the Sahel–Guinean transition zones of Chad and Togo. Rather than importing generic solutions, the project co-designs adaptation models with communities, allowing interventions to be socially legitimate, economically feasible, and technically replicable.

199. First, ECOVERSE introduces low-cost climate-resilient infrastructure solutions that significantly reduce vulnerability to heat stress, flooding, windstorms, and water scarcity. The use of the iCSEBs for housing and public buildings replaces conventional cement-based construction with a locally produced, low-carbon, thermally efficient alternative, lowering material costs by up to 30% and improving indoor comfort in extreme heat. The project similarly pilots permeable pavements, bioswales, and green corridors in urban and peri-urban areas to reduce runoff and flash flooding without the high maintenance burdens associated with conventional drainage systems. Meanwhile, solar-powered water pumping and filtration systems decentralize safe water access and reduce dependence on fragile diesel supply chains while lowering operational emissions.

200. Second, ECOVERSE introduces integrated climate-smart agriculture and ecosystem restoration packages that move beyond isolated technical fixes. Agroforestry design combines traditional species such as moringa, acacia, and néré with modern contour bunds, vetiver hedgerows, and micro-irrigation using greywater recycling. This integrated approach simultaneously improves soil fertility, reduces erosion, enhances crop yields, and restores degraded rangelands, making livelihoods more resilient to drought and erratic rainfall. Demonstration farms and farmer field schools convert these approaches into living classrooms where learning occurs through shared observation and iteration.
201. Third, ECOVERSE pioneers community-driven adaptation finance mechanisms that shift agency and decision-making to those most affected by climate impacts. Through micro-grants for locally defined resilience actions, community savings and lending groups, and a revolving adaptation fund, the project enables women, youth, producer associations, and water user associations to design, own, and scale solutions that reflect local priorities. This represents a departure from conventional top-down delivery models, strengthening local governance, entrepreneurship, and accountability.
202. Finally, the project introduces a regional knowledge and learning architecture, anchored by a digital knowledge hub, annual Regional Adaptation Training Academies, and cross-country exchange missions. This system transforms local practice into transferable models, enabling scaling across similar climatic zones in the Sahel and West Africa. The hub integrates GIS, MEL dashboards, and technical libraries, making ECOVERSE one of the first adaptation programs in the region to link community-level implementation data to regional policy decision-making.
203. Through this package, ECOVERSE demonstrates a shift from one-off project delivery toward a lasting adaptation ecosystem where innovation is locally owned, financially supported, institutionally embedded, and continuously learned from. The approach is designed for scaling and replication through national programmes, regional platforms, vocational training centers, and municipal governance systems.

C. Economic, social and environmental benefits.

204. The ECOVERSE project is designed to deliver tangible and sustained improvements in economic wellbeing, social inclusion, and environmental resilience, with a deliberate emphasis on climate-vulnerable communities and groups traditionally excluded from decision-making and resource access, including women, youth, persons with disabilities, and indigenous communities. The project applies a human-centred, ecosystem-based adaptation approach, ensuring that climate resilience is not only a technical outcome but also a pathway to empowerment, dignity, and equitable development. All interventions are fully aligned with the AF Environmental and Social Policy (ESP) and Gender Policy, and incorporate safeguards to prevent or mitigate adverse environmental and social impacts.
205. *Economic Benefits:* ECOVERSE strengthens household and community economic resilience by diversifying income sources, stabilizing food production, and reducing climate-related asset loss. Climate-smart agroforestry, soil conservation techniques, and water-efficient micro-irrigation systems will lead to more reliable yields, improved soil fertility, and longer-term land productivity. In Linia and Mandelia, for example, 450 hectares of climate-resilient agriculture will be established, benefiting multiple producer organizations and ensuring that at least 50% of direct beneficiaries are women. In Zogbépimé, 30 hectares of diversified agroecology systems will support 150 farmers (60% women), with projected income gains of at least 20% (≈ USD 150 per household annually).
206. The project will also generate new employment opportunities in the production of iCSEBs, construction of flood-resilient housing, establishment of community nurseries, maintenance of green corridors, and restoration of degraded lands. These activities promote local value-added manufacturing, retain wealth within communities, and reduce dependence on imported construction materials. Tailored support including climate entrepreneurship training, mentorship, micro-grants, and revolving savings schemes will enable women- and youth-led enterprises to expand into climate-resilient sectors such as eco-processing, sustainable crafts, agroecological seedling production, and decentralized water services. Overall, ECOVERSE works to reduce economic precarity, strengthen local markets, and build self-sustaining adaptation economies rooted in local innovation, skill-building, and cooperative organization.

207. *Social and Gender Benefits:* The project directly enhances social resilience, equity, and community cohesion by promoting inclusive governance systems and ensuring that access to resources, training opportunities, and project benefits is distributed fairly across all social groups. Through participatory planning and implementation processes, ECOVERSE will meaningfully involve women, youth, older persons, and persons with disabilities in community adaptation committees, producer cooperatives, and local management structures, ensuring that decision-making reflects the diverse needs and knowledge of those most affected by climate change. In Zogbépimé, community consultations highlighted the disproportionate burden placed on women due to climate-related crop stress, household water collection responsibilities, and high levels of unpaid care labour. To address these inequalities, the project will establish safe and reliable water points closer to homes, reducing water collection time by up to two hours per household each day and freeing time for education, childcare, and income-generating activities. Women-led savings groups and producer cooperatives will be supported to strengthen financial inclusion and economic agency, while women and girls will receive tailored training in climate-smart agricultural practices, entrepreneurship, financial literacy, and cooperative management to increase participation in climate-resilient livelihoods. Gender balance will be ensured in all training programs and community governance structures, with a minimum target of 50% female participation in leadership and technical skill-building activities. At the same time, youth will be engaged through vocational training, paid apprenticeships, and leadership opportunities in constructing resilient housing, maintaining green infrastructure, and managing digital knowledge platforms strengthening their role as drivers of long-term adaptation. Elderly persons and individuals with disabilities will benefit from improved access to thermally comfortable public buildings, shaded communal areas, and secure water points, reducing exposure to extreme heat and improving mobility and health outcomes. By addressing the structural inequalities that reinforce vulnerability such as unequal labour burdens, limited livelihood opportunities, and restricted access to decision-making the project advances women's empowerment, strengthens intergenerational resilience, and promotes socially just and inclusive climate adaptation pathways.

208. *Environmental Benefits:* The ECOVERSE project will generate substantial environmental benefits by restoring ecosystem integrity, improving climate regulation, and enhancing natural resource stability across both rural and urban landscapes. Through activities such as assisted natural regeneration, agroforestry enrichment, community-led reforestation, and slope stabilization, the project will restore more than 2,000 hectares of degraded forests, riverbanks, and agricultural lands. These interventions will increase vegetation cover and biodiversity, improve soil structure and organic carbon content, enhance water infiltration and groundwater recharge, and reduce erosion, sedimentation, and advancing desertification. The resulting improvement in soil moisture retention and landscape stability will support more reliable agricultural production, particularly in drought-prone areas. In Zogbépimé, the restoration of 20 hectares of degraded land will sequester approximately 100 tCO_2 per year, while also improving habitat for pollinators and strengthening local nutrient cycles that support sustainable food production. In peri-urban and urban zones such as N'Djaména, the establishment of green corridors, tree-lined public spaces, and permeable drainage systems will reduce the impacts of extreme heat and recurrent flooding in densely populated neighbourhoods, improving both environmental conditions and public health. These nature-based solutions simultaneously enhance ecosystem resilience and human adaptive capacity, while delivering co-benefits for biodiversity conservation, watershed protection, climate mitigation, and landscape connectivity. By integrating ecological restoration with community livelihoods and local governance, ECOVERSE ensures that environmental gains are not only significant, but also long-lasting, socially supported, and embedded into local land-use practices.

D. Cost-effectiveness of the project.

209. ECOVERSE is designed to be both cost-effective and sustainable by prioritising adaptation solutions that are technically proven, affordable over their full lifecycle, and appropriate to the institutional and financial capacities of Chad and Togo. The project also builds on existing government structures, municipal services, community organisations, and regional platforms. This approach minimises the need for new administrative layers and reduces transaction and overhead costs, ensuring that a substantial share of project resources is directed toward on-the-ground adaptation investments.

210. Across all four components, ECOVERSE prioritises nature-based solutions, locally sourced materials, decentralised systems, and community-led delivery models. These approaches carry lower capital costs, reduced operation and maintenance requirements, and longer functional lifespans compared to conventional capital-intensive alternatives. Because most proposed interventions are technically well established and already implemented in comparable contexts, the primary cost-efficiency gains stem from effective targeting, local ownership, and avoidance of recurrent emergency and reconstruction expenditure rather than from technological innovation. Given the multi-sectoral and preventive nature of ECOVERSE, a full ex-ante cost-benefit analysis is neither feasible nor appropriate at this stage. Cost-effectiveness is instead demonstrated through comparison of alternative technical options, lifecycle costs, avoided losses, and consistency with established economic evidence.

211. Recent World Bank economic analysis for Chad confirms that nature-based restoration interventions yield benefit-cost ratios ranging from 1.7 to 6.9, with an average of 3.78, even under conservative assumptions that exclude several non-market benefits.[34] These results are consistent with global evidence showing that investments in resilient and nature-based infrastructure typically generate benefit-cost ratios above 2:1 and often exceeding 4:1, largely due to avoided reconstruction costs, reduced service disruptions, and lower long-term maintenance expenditure.

212. The macroeconomic rationale for proactive adaptation investment is particularly compelling in both project countries. The 2022 World Bank Climate Change Development Report for the Sahel estimates that climate change could reduce GDP in G5 Sahel countries by between 2.2% and 11.9% by 2050,[35] primarily through impacts on agriculture, infrastructure, health, and water systems. These impacts are compounded in fragile and conflict-affected settings, where economic buffers, institutional capacity, and household coping mechanisms are more limited. The cost of inaction is systematically higher in Fragile, Conflict, and Violence (FCV) contexts. Approximately 75% of people experiencing acute food insecurity globally live in FCV settings, where climate shocks directly translate into humanitarian crises and higher public expenditure on emergency assistance.[36] For Chad specifically, the annual average costs of inaction related to land degradation alone are estimated to exceed USD 920 million in present value over the period 2025 to 2050, equivalent to approximately 7.5% of national GDP, with agriculture and pastoral systems accounting for nearly 58% of these losses.[37] The World Bank's Togo Agriculture and Infrastructure Public Finance Review establishes that 50% of Togolese living below the national poverty line depend on agriculture as their primary income source, yet agricultural growth has been driven entirely by cropland expansion rather than productivity gains[38]. This further justifies that ECOVERSE's integrated approach (agroforestry, water harvesting, finance) represents a cost-effective departure from business-as-usual. The report also highlights that the incremental cost of making roads flood- and landslide-resilient is just 0.6% on average (up to 5% in the most expensive cases), but disaster damage is reduced by 50%.

213. The project further enhances cost-effectiveness by addressing gendered and social vulnerabilities that undermine the sustainability of adaptation investments. By reducing time burdens related to water collection, improving thermal comfort in housing and public spaces, stabilising livelihoods, and strengthening women's and youth's access to productive assets and finance, ECOVERSE increases the economic returns and durability of adaptation outcomes. In FCV contexts, where social safety nets and insurance mechanisms are limited, such

[34] World Bank (2025). Strategic Landscape Restoration for Resilience: Leveraging Ecosystem Services to Secure Livelihoods in Chad, Chapter 4, pp. 68-72. https://documents1.worldbank.org/curated/en/099111725125528776/pdf/P176188-92372f03-71bb-4812-b633-8d90cc827bcd.pdf

[35] World Bank (2022). Sahel Climate Change Development Report (CCDR). https://openknowledge.worldbank.org/server/api/core/bitstreams/197f07e0-d3ec-48bc-9d52-38d551d5d312/content

[36] World Bank – Fragility, Conflict and Violence Overview – Food Security. https://www.worldbank.org/en/topic/fragilityconflictviolence/overview

[37] World Bank (2025). Strategic Landscape Restoration for Resilience: Leveraging Ecosystem Services to Secure Livelihoods in Chad, Executive Summary, p. xi. https://documents1.worldbank.org/curated/en/099111725125528776/pdf/P176188-92372f03-71bb-4812-b633-8d90cc827bcd.pdf

[38] World Bank (2024). Togo's Agriculture and Infrastructure Public Finance Review (PFR): Leveraging Public Investment to Transform the Rural Economy.

inclusive and preventive measures are particularly cost-effective, as they reduce reliance on repeated humanitarian and social protection expenditures following climate shocks.[39]

214. Importantly, this analysis constitutes a preliminary cost-effectiveness assessment. A full cost effectiveness including cost-benefit analysis, ecosystem service valuation, and long-term avoided cost modelling will be conducted during the next phase of project development. This will assess alternative delivery models (e.g., prefabricated housing, centralized water systems) and benchmark ECOVERSE's interventions against infrastructure, energy, and agricultural baselines in both countries. However, initial scenario modelling already demonstrates that ECOVERSE's integrated and regionally coordinated design delivers significant climate, economic, and social returns per dollar spent, while building the adaptive capacity of some of the most climate-vulnerable communities in Africa.

215. To demonstrate cost-effectiveness, ECOVERSE assessed multiple technically feasible options for infrastructure, water access, land restoration, and adaptation finance in the target areas and selected those offering the best balance between cost, durability, scalability, and suitability to local conditions. Among the proposed interventions, decentralised solar water systems, agroforestry-based restoration, and nature-based urban drainage offer the highest cost-effectiveness ratios due to low Operation and Maintenance (O&M) costs, high beneficiary reach, and strong avoided-cost effects.

Table 2: ECOVERSE alternative comparative table

Thematic area	ECOVERSE approach: benefits and rationale	Alternatives considered and why it was rejected
Climate-resilient housing and public infrastructure (Component 1)	ECOVERSE prioritises iCSEBs over conventional cement block or reinforced concrete construction. Using locally available soils with minimal cement content, iCSEB construction reduces embodied carbon emissions by more than 50% compared to fired bricks or concrete blocks [40] and delivers superior indoor thermal performance and enhanced flood resilience. Construction costs are estimated to be 20 to 30% lower than conventional approaches,[41] while maintenance is less expensive as local communities can undertake repairs without specialised contractors. Over the full building lifecycle, iCSEB construction offers a more cost-effective and climate-adapted solution for vulnerable households and public facilities.	Conventional cement-based construction relies on imported materials with high embodied energy and exhibits poor thermal performance in hot climates, increasing long-term cooling costs. Maintenance is more expensive, requiring specialised contractors and imported materials for rehabilitation and reconstruction.
Urban flood management and heat reduction (Component 1)	For urban and peri-urban roads and drainage, the project favours permeable pavements, bioswales, vegetated channels, and green corridors over conventional concrete drainage and fully paved systems. These nature-based solutions can reduce runoff volumes by 25% to near-complete infiltration[42] and reduce surface temperatures by up to 3 to 5°C in hot urban environments. [43] They are estimated to cost up to 70% less than equivalent concrete infrastructure [44] and provide co-benefits for groundwater recharge, biodiversity, and public comfort.	Centralised concrete stormwater drainage networks and impermeable asphalt roads are capital-intensive, maintenance-heavy, and require reconstruction every five to eight years. They offer limited co-benefits for groundwater recharge, heat mitigation, or biodiversity. In agricultural and peri-urban contexts, poorly designed hard infrastructure can also create maladaptation risks.
Water supply systems (Components 1 and 2)	ECOVERSE prioritises decentralised solar-powered water systems and community-managed rainwater harvesting over fuel-based pumping, water trucking, or large	Diesel pumping and water trucking carry very high recurrent costs, are vulnerable to fuel price volatility and supply disruptions, and are

[39] World Bank Group Strategy for Fragility, Conflict, and Violence 2020-2025. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/528191582812429461

[40] World Bank (2024). Embodied carbon and climate-resilient construction in Sub-Saharan Africa. https://openknowledge.worldbank.org/bitstreams/a3474878-71ca-44ad-a584-3c888722673e/download

[41] Ibitoye, O.A., Alagbe, O., and Dare-Abel, O. (2022). Comparative Cost Advantages of Interlocking Stabilized Soil Block and Sandcrete Block for Building Construction in South-West Nigeria. IJSRED, Volume 5, Issue 5. https://ijsred.com/volume5/issue5/IJSRED-V5I5P72.pdf

[42] MDPI Water (2023). Performance of Permeable Pavements for Stormwater Management: A Review. https://www.mdpi.com/2073-4441/15/3/433

[43] Santamouris, M. et al. (2020). Urban heat mitigation through green and permeable infrastructure. Energy and Buildings. https://www.sciencedirect.com/science/article/pii/S0360132319308039

[44] Fernandez, R.R. and Dupont (Utah State University). Green vs. Gray Infrastructure Cost. https://digitalcommons.usu.edu/cgi/viewcontent.cgi?params=/context/cee_facpub/article/4609/&path_info=Fernandez_Green_Vs_gray_cost.pdf

	centralised treatment systems. Solar-powered systems require higher upfront investment but carry minimal operating costs and longer lifespans, making them substantially more cost-effective over time.[45] Rainwater harvesting systems further reduce water collection time for women and girls by an estimated 30 to 60%, decreasing exposure to waterborne disease during the dry season. Community management further reduces maintenance costs and strengthens long-term sustainability.	economically unsustainable in the long term. Water trucking costs in humanitarian contexts can reach approximately USD 10 per cubic metre, making it unsuitable as a durable adaptation investment.
Land restoration and livelihoods (Component 2)	In rural and peri-urban areas, the project adopts an integrated approach combining agroforestry, assisted natural regeneration (ANR), vegetation-based slope stabilisation, and soil and water conservation structures. These approaches are significantly less expensive than mechanical land rehabilitation or repeated input subsidies and deliver multiple co-benefits simultaneously: improved soil fertility, reduced erosion, increased water retention, enhanced crop yields, and restored ecosystem services. Evidence from Sahelian contexts shows that farmer-managed natural regeneration and agroforestry practices can increase crop yields by 30 to 100% while restoring degraded land at costs well below conventional rehabilitation approaches.[46]	Mechanical rehabilitation using heavy machinery and chemical fertiliser subsidies is not cost-effective relative to expected benefits and generates long-term negative impacts, including decreased soil fertility and progressive land degradation, requiring ever-greater chemical inputs to maintain yields over time.[47] Such approaches also lack the ecosystem service co-benefits that underpin the long-term economic case for nature-based restoration.
Access to adaptation finance (Component 3)	The Revolving Funds for Adaptation (RFA), embedded within regulated financial institutions with ring-fenced accounts, provides a structurally sustainable mechanism for channelling highly concessional finance to vulnerable communities. The revolving structure preserves capital across successive lending cycles, eliminating the need for standalone project financial management infrastructure and lowering per-beneficiary transaction costs. The tiered interest rate structure cross-subsidises access for the most climate-vulnerable borrowers while contributing to operational cost recovery, ensuring fiduciary continuity beyond the project lifecycle.	Standalone grant mechanisms and one-off micro-grant schemes were assessed but rejected on sustainability grounds. Without a revolving structure, grant capital is consumed in a single cycle with no capital preservation. Ad-hoc community credit schemes outside regulated institutions lack the governance, provisioning, and audit capacity required under Adaptation Fund fiduciary standards and carry higher default and misappropriation risks.

216. The table below provides the indicative unit cost framework for ECOVERSE interventions. Unit costs and beneficiary estimates are drawn from comparable projects and from the project's own technical assessments; where precise per-unit metrics such as USD/m³ are not yet fully calculated, these will be refined during detailed design. The cost-effectiveness assessment accordingly focuses on relative efficiency, avoided costs, and lifecycle performance rather than point estimates.

Table 3: Indicative unit cost framework for ECOVERSE interventions

ECOVERSE Output	Key activity	Indicative capital cost (USD)	Estimated O&M cost (USD/year)	Cost per m³ (USD)	Estimated beneficiaries	Indicative lifespan (years)
Output 1.1 -- Earth-brick climate-resilient housing and community infrastructure	iCSEB housing unit (model and replicated)	USD 80,000	USD 200 - 500	N/A	10 persons per unit	20 -- 30
	Rehabilitation of community / socio-economic buildings (iCSEB)	USD 200,000	USD 500 - 1,500	N/A	400 users per facility	20 - 30
Output 1.2 -- Permeable drainage, roads, and	Permeable road and drainage (per km equivalent) -- Chad only	To be determined during detailed design	To be determined	N/A	N/A	N/A

[45] Xie, H., Ringler, C., and Hossain Mondal, M.A. (2021). Solar or diesel: A comparison of costs for groundwater-fed irrigation in sub-Saharan Africa under two energy solutions. Earth's Future, 9, e2020EF001611. https://doi.org/10.1029/2020EF001611

[46] Tropenbos International (2017). Managing Trees on Farms: FMNR in Africa. https://www.tropenbos.org/file.php/1896/Managing+trees+on+farms+FMNR+in+Africa.pdf

[47] Ahmad, N. (2025). Chemical Fertilizers and Soil Degradation: Long-Term Environmental Consequences. Pollution 8: 359. https://www.hilarispublisher.com/open-access/chemical-fertilizers-and-soil-degradation-longterm-environmental-consequences.pdf

shaded spaces	Green corridors and shaded community spaces	USD 50,000 per ha	USD 500 - 1,000	N/A	>30,000 users	10 - 15
Output 1.3 - Rainwater harvesting and solar-powered water systems	Solar-powered water supply system	USD 100,000 per system	USD 1,500 - 3,500	To be calculated (USD/m³ supplied)	>100 users	8 - 10
	Rainwater harvesting system (household/community)	USD 50,000 per unit	USD 500 - 800	To be calculated	600 users	8 - 10
Output 2.1 - Agroforestry systems and climate-smart agriculture	Agroforestry / intercropping (per ha)	USD 120,000 per ha	USD 100 -- 500	N/A	50 households per ha	20 -- 30
	Community nursery (annual operation)	USD 50,000	USD 200 - 500	N/A	50 households	5 - 7
Output 2.2 - Erosion control infrastructure	Contour bunds, vetiver strips, and check dams (per unit, labour-based)	USD 50,000 per unit	USD 500 - 1,000	To be estimated (sediment/runoff)	200 households	20 - 30
Output 2.3 - Ecosystem and rangeland restoration	ANR and enrichment planting on degraded rangelands and forest fringes (per ha)	USD 50,000 per ha	USD 200 - 600	To be estimated (flood regulation value)	50 households per ha	10 - 20
	Bioengineering and slope stabilisation (per ha)	USD 100,000 per ha	USD 300 - 800	N/A	>15,000 persons	10 - 15
	Urban green corridors and peri-urban reforestation (per ha)	USD 50,000 per ha	Part of local municipality maintenance budget	N/A	>50,000 urban residents	10 - 20
Output 2.4 - Water harvesting, conservation, and irrigation systems	Low-cost irrigation (drip / treadle, per unit)	USD 50,000 per unit	USD 1,000 - 1,500	To be calculated (USD/m³ saved)	200 households per system	5 - 10
	Micro-reservoirs and farm ponds (per unit)	USD 60,000 per unit	USD 500 - 1,000	To be calculated	200 households	10 - 15
Output 3.1 - Revolving Fund for Adaptation (RFA)	Concessional loan disbursements through regulated MFI partners	USD 100,000 per institution	Part of fund operational costs (context-specific)	N/A	>300 households	Revolving beyond project end

217. *Illustrative Cost Benefit Analysis:* A quantitative Cost-Benefit Analysis (CBA) was conducted for the two ECOVERSE outputs for which benefits can be meaningfully quantified: iCSEB construction compared to conventional concrete block methods (Output 1.1), and agroforestry and soil restoration compared to conventional monoculture systems (Output 2.1). Both analyses apply a 25-year evaluation horizon, reflecting the expected service life of iCSEB structures and the multi-decadal productive cycle of agroforestry systems, and use a social discount rate of 6%, consistent with public sector appraisal practice in low-income and climate-vulnerable contexts.

218. *iCSEB construction versus conventional concrete block (Output 1.1):* The CBA applies an avoided-cost approach, comparing the full lifecycle costs of rehabilitating a typical three-classroom primary school (approximately 280 m² including classrooms, administrative space, and sanitation) using conventional construction materials against iCSEB technology.[48] Data and assumptions are drawn from stakeholder consultations with local engineers and from a review of peer-reviewed literature on stabilised earth block construction in West Africa. Since the intervention does not generate direct cash flows for beneficiaries, the comparison focuses on economic costs and the incremental economic surplus attributable to iCSEB adoption,

[48] World Bank school construction standards. https://documents1.worldbank.org/curated/en/109291468007863249/pdf/488980PUB0prim101Official0Use0Only1.pdf

including avoided CO_2 emissions valued at the World Bank social price of carbon (USD 35 per tCO_2e)[49] and local employment generated through community-based block production and construction.

Table 4: Key data and assumptions

Assumption	Value	Unit	Source
Surface area of a typical three-classroom primary school	280	m²	World Bank school construction standards
Estimated construction / renovation cost using conventional materials per m²	300,000	XOF/m²	Local market data, 2025
Estimated construction / renovation cost using iCSEBs per m²	245,000	XOF/m²	Wiomont (2022), ULiège[50]
Annual maintenance cost - conventional materials (fissure repair)	100,000	XOF/year	Stakeholder consultations
Annual maintenance cost - iCSEBs	45,600	XOF/year	Stakeholder consultations
Annual economic gain on maintenance	54,400	XOF/year	Derived calculation
Exchange rate (monthly average 2022 - 2026)	601	XOF/USD	Investing.com historical data
Avoided emissions advantage of iCSEBs versus conventional	1.5	tCO_2/100 m²	Djossou et al. (2024), MDPI Buildings[51]
Social price of carbon (minimum value)	35	USD/tCO_2e	World Bank Shadow Price of Carbon Guidance Note (2023)[52]
Additional local jobs created per building	18	jobs	Osei-Tutu et al. (2024), ResearchGate[53]
Annual expense growth factor	4	%	Project assumption

Indicator	Conventional construction	iCSEB construction
Social discount rate	6%	6%
Total lifecycle cost (25 years)	USD 146,270	USD 126,621
Total cost per m² of construction / rehabilitation	USD 522	USD 452
Gross economic benefits including avoided emissions and local employment	--	USD 36,856
Incremental Economic Net Present Value (ENPV) of iCSEB versus conventional	Reference	USD +7,568

219. The analysis confirms that iCSEB construction is both more cost-effective and more climate-resilient over the full building lifecycle. The cost saving relative to conventional construction (USD 19,649 over 25 years for a typical community building) is compounded by lower maintenance expenditure, avoidance of CO_2 emissions, and the employment co-benefits of community-based block production, generating a positive incremental ENPV of USD 7,568.

220. *Agroforestry and soil restoration versus monoculture systems (Output 2.1):* The CBA compares the economic performance of a one-hectare agroforestry system integrating climate-resilient tree species with annual crops against a conventional monoculture system over 25 years. Data and assumptions are drawn from a review of agroforestry economics literature in Sahelian and savanna West Africa and from consultations with agroforestry specialists, local extension agents, and community representatives. The Economic Net Present Value (ENPV) is derived by discounting annual net benefits over the 25-year period at a 6% social discount rate, allowing direct comparison of long-term economic performance between the two land-use models.

[49] World Bank (2023). Shadow Price of Carbon Guidance Note. https://documents1.worldbank.org/curated/en/099553203142424068/pdf/IDU1c94753bb1819e14c781831215580060675b1.pdf
[50] Wiomont, F. (2022). Analyse du cycle de vie des blocs de terre comprimé stabilisés. Université de Liège (ULiège). https://matheo.uliege.be/bitstream/2268.2/14340/14/TFE_WIOMONT_Fran%C3%A7ois.pdf
[51] Djossou, A. et al. (2024). Embodied carbon assessment of compressed stabilised earth blocks. MDPI Buildings. https://www.mdpi.com/2075-5309/15/23/4362

[53] Osei-Tutu, E. et al. (2024). Cost-Benefit Analysis of Using Stabilized-Earth Block to Conventional Block Use in Housing Construction. ResearchGate. https://www.researchgate.net/publication/385740818

Table 5: Initial costs and annual operating costs per hectare

Cost item (per ha)	Agroforestry (USD)	Monoculture (USD)
Initial installation costs		
Soil preparation	200	275
Seeds and seedlings	275	150
Trees (plants and planting)	400	0
Fertilisers and inputs	125	500
Labour	250	200
Mechanisation	100	275
Total installation cost	1,350	1,400
Annual operating costs		
Fertilisers	125	550
Labour	200	200
Mechanisation and energy	75	250
Tree pruning and maintenance	100	500
Irrigation	75	200
Total annual operating cost	575	1,700
Annual income from Year 2 onwards		
Food crops	600	450
Fruits (trees)	300	0
Timber	150	0
Non-timber forest products	100	0
Total income per year (from Year 2)	1,150	450

Table 6: Table portraying 25-year results

Profitability indicator (per ha, 25 years)	Monoculture system	Agroforestry system
Social discount rate	6%	6%
Total economic costs	USD 42,500	USD 15,725
Gross economic benefits (including non-market benefits such as avoided GHG emissions and soil fertility)	USD 15,000	USD 215,959
Economic Net Present Value (ENPV)	USD -384	USD +523

221. The results confirm that agroforestry is substantially more cost-effective than conventional monoculture, delivering higher benefit-cost performance and positive long-term economic value. The monoculture scenario is economically non-viable under the same assumptions, generating a negative ENPV of USD -384 at a 6% discount rate, driven by high fertiliser and mechanisation dependency against a narrow, single-crop revenue stream. The agroforestry scenario generates a positive ENPV of USD +523, supported by diversified income streams across food crops, fruits, timber, and non-timber forest products, as well as non-monetised co-benefits including carbon sequestration, soil fertility recovery, erosion control, and enhanced watershed function that reinforce the investment case further.

222. *Cost-Effectiveness of the Regional Approach:* The regional modality of ECOVERSE further enhances cost-effectiveness by pooling technical expertise, training curricula, monitoring tools, safeguards systems, and knowledge products across Chad and Togo. A harmonised MEL system, a structured south-south learning network anchored within AAI and OSS, and joint technical supervision reduce per-country transaction costs compared to stand-alone national projects, consistent with World Bank evidence on efficiency gains from regional programming.[54]

223. The integrated regional design also generates knowledge and replication value that a single-country project could not produce. By operating across two ecologically and socio-economically distinct contexts: Sahelian urban Chad and rural savanna Togo, ECOVERSE generates comparative evidence on adaptation performance across different ecological zones, accelerating learning and reducing the costly trial-and-error associated with technology transfer. The practitioner reference library, vocational curriculum integration, and construction replication toolkits developed under Component 4 are designed as regional public goods, accessible beyond

[54] World Bank (2018). Regional Integration: An Evaluation of World Bank Support, 2008-2017.

the two project countries and contributing to replication across the Adaptation Fund portfolio at no additional cost per country.

224. Given the fragility and conflict-affected context of Chad, the project also emphasises simplicity, flexibility, and reliance on existing institutional platforms. By avoiding overly complex technical systems and limiting the creation of new structures, ECOVERSE reduces operational risks and ensures that implementation remains feasible under constrained institutional conditions.

225. *Cost of Inaction:* The cost of inaction in the target areas of Chad and Togo is substantial and growing. According to the Sahel Climate and Development Report, since 2000, an average of 248,000 people/year have been affected by floods that have damaged homes, roads, and other infrastructure, disrupted services, and degraded productive assets. Droughts have imposed even greater cumulative harm, with more than 20 million people suffering food insecurity or economic hardship between 2016 and 2020.

226. In N'Djaména , recurrent floods have repeatedly displaced tens of thousands of households, damaged roads and housing, and disrupted markets and basic services. The 2024 flood season, the worst in decades, affected 1.9 million people across all 23 provinces of Chad, caused over 576 deaths, and destroyed more than 210,000 homes. In Togo's Zogbepimé, seasonal flooding regularly renders roads impassable, isolating households from markets, schools, and health facilities, while dry spells during critical growing periods cause crop yield losses of up to 40%.[55] In the target communities, women and girls travel between three and five kilometres to access water during the dry season in the absence of reliable rainwater harvesting systems[56] a burden that imposes significant time and health costs on households. Climate-related shocks disproportionately affect women, children, elderly persons, and informal workers, increasing public health expenditures and social protection needs.

227. Without proactive adaptation investments, these impacts will continue to generate high recurrent costs linked to emergency response, humanitarian assistance, infrastructure rehabilitation, and livelihood recovery. The complementary World Bank analysis cited above estimates that inaction on land degradation alone costs Chad upwards of USD 920 million per year in present value terms, a figure that substantially exceeds the cost of the preventive investments ECOVERSE proposes. By reducing exposure to extreme climate events, stabilising productive systems, and building the institutional capacity for sustained adaptation, ECOVERSE helps avoid these future losses and represents a cost-effective use of grant-based adaptation finance in two of the continent's most climate-exposed communities.

E. Consistency with regional, national or sub-national sustainable development strategies

228. The ECOVERSE project is closely aligned with the regional, national, and sub-national climate priorities and development frameworks of Chad and Togo, ensuring strong policy coherence and institutional ownership. In Chad, the project supports the country's National Adaptation Plan (NAP 2019), which prioritizes the development of resilient urban infrastructure, integrated water management, and drought risk reduction. It also aligns with Chad's Connexon 2030, the National Development Plan (NDP 2025–2030)[57], and the Third National Communication to the UNFCCC, which emphasize strengthening the adaptive capacity of vulnerable urban populations, enhancing the resilience of agroforestry activities, and deploying financial tools. Furthermore, the project contributes to Chad's updated Nationally Determined Contribution (NDC 2021), which targets climate-resilient agriculture, sustainable land management, and disaster risk reduction; priorities directly addressed by ECOVERSE Components 1 and 2.

229. In Togo, ECOVERSE contributes to the objectives of the National Adaptation Plan to Climate Change of Togo (PNACC 2017) and the National Development Plan (PND 2018–2022), as well as the Governmental Roadmap Togo 2020–2025, which call for sustainable rural development, erosion control, and improved connectivity for remote communities. The project directly supports the Togo Climate-Smart Agriculture Investment Plan and

[55] IFAD (2023). Rural Vulnerability Assessment – Plateaux Region, Togo.
[56] WHO/UNICEF (2025). Progress on household drinking water, sanitation and hygiene 2000-2024: special focus on inequalities. https://washdata.org/report/jmp-2025-wash-households
57 Ministry of Finance, Budget, Economy, Planning and International Cooperation. (2025). Chad Connection 2030: National development plan. https://tchadconnexion2030.td/wp-content/uploads/2025/10/20251022_National-Development-Plan_Chad-Connection-2030_Report.pdf

aligns with the Togo REDD+ strategy by promoting forest restoration and agroforestry. Furthermore, ECOVERSE is fully consistent with Togo's Long-Term Low Emission and Climate-Resilient Development Strategy (LT-LEDS, 2025–2060)[58], which sets a national vision for carbon neutrality by 2060 while strengthening the resilience of populations and ecosystems. Specifically, the project operationalizes key adaptation measures of the LT-LEDS across multiple sectors: climate-smart agriculture and sustainable land management, forest restoration and community-based forest governance, resilient water infrastructure and integrated water resources management, and climate-resilient settlements and early warning systems. The project also supports Togo's updated NDC (2022), which prioritizes ecosystem-based adaptation and climate-resilient infrastructure, and operationalizes these objectives through its four components.

230. At the regional level, ECOVERSE supports the African Union's Climate Change and Resilient Development Strategy and Action Plan (2022–2032), which is anchored in the AU Agenda 2063 vision for climate-resilient and low-emission development across the continent. The project also aligns with the ECOWAS Regional Climate Strategy and Action Plan (2022–2030), which provides a harmonized framework for adaptation and mitigation across West Africa, as well as the Economic Community of Central African States (ECCAS) efforts to accelerate the implementation of the Sendai Framework for Disaster Risk Reduction (2015–2030). The project contributes to the African Forest Landscape Restoration Initiative (AFR100) and complements goals set by the Great Green Wall Initiative in Chad. By aligning with these strategies, ECOVERSE not only ensures relevance and buy-in across policy levels but also enhances its scalability and long-term sustainability. The table below presents consistency with regional, national or sub-national sustainable development strategies of the project:

Table 7: Regional, national or sub-national sustainable development strategies.

Country / Region	Relevant strategy / plan	Year / Period	Relevant priorities	Consistency with the ECOVERSE project
Chad	Chad Connexon 2030- National Development Plan (NDP)	2025–2030	• Climate-resilient infrastructure • Agricultural productivity • Poverty reduction • Territorial development • Resilience investment	The proposed project is consistent with the National Development Plan by supporting climate-resilient urban and peri-urban infrastructure, decentralized water supply systems, land restoration, and climate-resilient livelihoods that contribute to resilience-oriented economic development and poverty reduction.
	National Adaptation Planning (NAP process and related adaptation instruments)	Ongoing national process	• National adaptation planning • Sectoral integration of adaptation • Prioritization of adaptation actions	The project contributes to the operationalization of national adaptation priorities by implementing concrete adaptation measures in infrastructure, water security, climate-smart agriculture, ecosystem-based adaptation, and institutional learning, in line with NAP objectives.
	National Communications to the UNFCCC	Periodic submissions	• Climate risk and vulnerability assessment • Identification of adaptation needs	The project generates concrete adaptation experience, monitoring data, and lessons learned that can inform future national communications and strengthen evidence-based adaptation planning and reporting.
	Nationally Determined Contribution (NDC), updated	2021	• Climate-resilient agriculture • Sustainable land management	The project directly operationalizes NDC adaptation priorities through climate-smart agriculture, land restoration, flood risk management, and community resilience financing.
	UNCCD – Land Degradation Neutrality (LDN) Target Setting Programme	Adopted in 2018	• Sustainable land management • Land restoration • Prevention of land degradation	The project is consistent with Chad's LDN commitments through restoration of degraded land, agroforestry systems, erosion control, and governance mechanisms that contribute to maintaining

58 République Togolaise. (2025). Stratégie de développement à long terme à faible émission de carbone et résilient au climat du Togo (LT-LEDS 2025–2060).https://unfccc.int/documents/652921

				or improving land productivity and ecosystem services.
	National Biodiversity Strategy and Action Plan (NBSAP)	Current version	• Biodiversity conservation • Ecosystem restoration • Sustainable use of natural resources	The project supports NBSAP priorities through assisted natural regeneration, enrichment planting with native species, protection of restored areas, urban and peri-urban greening, and community-based ecosystem stewardship.
Togo	Long-Term Low Emission and Climate-Resilient Development Strategy (LT-LEDS)	2025–2060	• Agricultural resilience • Forest restoration • Water resource management • Resilient settlements • Carbon neutrality by 2060	The project operationalizes key LT-LEDS adaptation measures across agriculture, forestry, water, and settlements, contributing to Strategic Axis 2 on strengthening resilience at all levels.
	National Development Roadmap / Development Programming Framework	2021–2025	• Inclusive development • Employment • Territorial development • Basic services and resilience	The project is consistent with national development priorities by strengthening water security, climate-resilient agriculture, ecosystem restoration, community-based adaptation financing, and institutional capacity for resilience at local level.
	Nationally Determined Contribution (NDC), updated	2022	• Ecosystem-based adaptation • Climate-resilient infrastructure • Climate-smart land management	The project supports NDC adaptation commitments through ecosystem restoration, resilient rural infrastructure, and climate-smart land management.
	National Adaptation Plan (NAP)	2017	• Adaptation mainstreaming • Water resources management • Resilient agriculture • Disaster risk reduction	The project contributes to implementation of NAP priorities by delivering concrete adaptation measures related to water harvesting and treatment, irrigation efficiency, ecosystem restoration, urban nature-based solutions, and institutional learning for scale-up.
	UNCCD – Land Degradation Neutrality (LDN) Target Setting Programme	Adopted in 2018	• Sustainable land management • land restoration • resilience of productive landscapes	The project is aligned with LDN priorities through agroforestry systems, soil and erosion control, water conservation measures, and community-based governance arrangements supporting sustainable land management.
	REDD+ Strategy 2020-2029/ Forest and Landscape Restoration Framework	2018	• Forest conservation • restoration • Emissions reduction • Community forestry	The project contributes to forest and landscape restoration objectives through assisted natural regeneration, enrichment planting, community nurseries, protection measures, and generation of replicable restoration practices.
	National Biodiversity Strategy and Action Plan (NBSAP)	Current version	• Biodiversity conservation • Ecosystem restoration and sustainable use	The project supports NBSAP priorities through ecosystem restoration, native species planting, urban and peri-urban greening, and integration of biodiversity considerations into local land-use and adaptation planning.
Regional / Continental	AU Climate Change and Resilient Development Strategy and Action Plan	2022–2032	• Continental adaptation • Resilience building • Climate risk governance	The project is consistent with continental priorities by promoting integrated adaptation solutions, ecosystem-based approaches, and regional learning and policy dialogue facilitated by a regional institution.
	ECOWAS Regional Climate Strategy and Action Plan	2022–2030	• Regional adaptation coordination • Climate finance mobilization • Capacity building	The project aligns with ECOWAS climate objectives through cross-country learning, regional knowledge sharing facilitated by OSS, and contribution to regional adaptation benchmarks.

	AFR100 Initiative	Launched 2015	• Forest landscape restoration • Restoration scale-up	The project contributes to AFR100 objectives through implementation of forest and landscape restoration measures and documentation of restoration practices and results to support replication and scaling.
	Great Green Wall (GGW) Initiative	Initiated 2007	• Desertification control • Land restoration • Resilient livelihoods	The project is consistent with GGW objectives through agroforestry, sustainable land management, ecosystem restoration, and livelihood diversification in dryland and semi-arid contexts.

F. Alignment with relevant national technical standards

231. The ECOVERSE project has been designed to comply fully with the relevant national technical standards and environmental regulatory frameworks in Chad and Togo, as well as the AF Environmental and Social Policy (ESP). The selection, design, and implementation of project activities will be guided by country-specific legislation and sectoral norms, including those governing environmental protection, urban planning, agriculture, water resource management, and infrastructure development.
232. In Chad, the project will comply with the Environmental Code (2018), which requires Environmental and Social Impact Assessments (ESIAs) for infrastructure interventions such as flood management systems and urban housing improvements. Building codes defined by the Ministry of Urban Planning and Housing will inform the design of climate-resilient housing and drainage infrastructure. The project will also align with national guidelines for community consultation and land use planning.
233. In Togo, activities such as contour bunding, road stabilization, and agroforestry development will adhere to national standards under the Environmental Law No. 2008-005 and associated decrees, which govern impact assessments and ecological restoration. Project interventions will undergo environmental screening and, where required, ESMPs will be developed and approved by the National Agency for Environmental Management (ANGE).
234. Across both countries, the project will be executed in accordance with the AF's ESP, ensuring that activities do not result in unjustified environmental degradation or adverse social impacts. A detailed environmental and social risk screening has been conducted using the Fund's 15 principles, and appropriate risk management measures, including ESMPs, will be implemented during full proposal development and project execution. The project will adopt a gender-responsive and inclusive approach, safeguard vulnerable groups, respect indigenous knowledge, and uphold human rights throughout its lifecycle.
235. Regular monitoring, participatory audits, and national stakeholder consultations will be integrated into the project's environmental and social management framework to ensure compliance and responsiveness to emerging risks.
236. The ECOVERSE project has been designed to comply fully with the relevant national technical standards and environmental regulatory frameworks in Chad and Togo, as well as the AF ESP. The selection, design, and implementation of project activities will be guided by country-specific legislation and sectoral norms, including those governing environmental protection, environmental and social impact assessment, urban planning, land tenure, agriculture, forestry, water resource management, and infrastructure development, as well as relevant African regional standards for building materials, including the African Standard ARS 1333:2018 on iCSEBs[59]. A detailed compliance framework, summarized in Table 8 below, maps each applicable standard to the relevant ECOVERSE activities and outlines the corresponding compliance approach.
237. In Chad, the project will comply with the new Environmental Protection Law (Loi n°023/CNT/2024 of 15 October 2024)[60], which establishes the current legislative framework for environmental management. This law requires Environmental and Social Impact Assessments (EIES), Environmental and Social Impact Notices, and Environmental Audits for development projects, with a mandatory Environmental Permit issued by the Ministry of Environment before works. The implementing regulations, notably Décret n°630/PR/PM/MERH/2010, further

59 African Organization for Standardization (ARSO). (2018). Compressed stabilized earth blocks—Requirements, production and construction (ARS 1333:2018). https://www.arso-oran.org/wp-content/uploads/2014/09/WD-ARS-1333-2017-Compressed-stabilized-earth-blocks-Requirements-production-and-construction.pdf
60 République du Tchad. (2024). Loi n° 023/CNT/2024 portant protection de l'environnement. https://faolex.fao.org/docs/pdf/Cha231452.pdf

detail the ESIA procedures applicable to infrastructure interventions such as flood management systems, drainage works, water points, and erosion control structures. Water-related activities; including solar pumping stations, community water points, rainwater harvesting, and small-scale irrigation; will comply with the Water Code (Loi n° 016/PR/1999 du 18 août 1999), which governs water abstraction, equitable distribution, and protection of water bodies. Forest restoration assisted natural regeneration, and community nursery activities will comply with the Law on Forests, Fauna and Fishery Resources (Loi n° 14/PR/2008). This law provides the national legal framework for sustainable forest management, biodiversity conservation, and the participatory management of forest resources alongside local communities, which is directly relevant to the implementation of ECOVERSE activities. Building codes defined by the Ministry of Urban Planning and Housing, specifically the Construction Code (Loi n°004/PR/2010), will inform the design of climate-resilient housing and drainage infrastructure. The project will also align with national guidelines for community consultation and land use planning.

238. In Togo, the project will comply with the Framework Law on the Environment (Loi n° 2008-005 du 30 mai 2008), which establishes the general legal framework for environmental management. This law requires Environmental and Social Impact Assessments (ESIA) for development projects to ensure ecological preservation. The implementing regulations, notably Décret n° 2017-040/PR du 23 mars 2017, further detail the ESIA procedures and mandate that ESMPs be developed, reviewed, and approved by the National Agency for Environmental Management (NAEM) before the start of any works. Water-related activities; including solar pumping stations, community water points, rainwater harvesting, and small-scale irrigation; will comply with the Water Code (Loi n° 2010-004 du 14 juin 2010), which governs the integrated management of water resources, equitable abstraction, and the protection of water bodies. Forest restoration, assisted natural regeneration, and agroforestry development will comply with the Forestry Code (Loi n° 2008-009 du 19 juin 2008). This law provides the national legal framework for sustainable forest management, ecological balance, and biodiversity conservation, which directly aligns with ECOVERSE activities. Infrastructure and spatial planning activities, such as contour bunding and road stabilization, will be guided by the Framework Law on Land Use Planning (Loi n° 2016-002 du 20 juin 2016) and align with national guidelines for climate-resilient development and community consultation.

239. Across both countries, the project will be executed in accordance with the AF's ESP, ensuring that activities do not result in unjustified environmental degradation or adverse social impacts. A detailed environmental and social risk screening has been conducted using the Fund's 15 principles, and appropriate risk management measures, including ESMPs, will be implemented during full proposal development and project execution. The project will adopt a gender-responsive and inclusive approach, safeguard vulnerable groups, respect indigenous knowledge, and uphold human rights throughout its lifecycle.

240. Regular monitoring, participatory audits, and national stakeholder consultations will be integrated into the project's environmental and social management framework to ensure compliance and responsiveness to emerging risks.

Table 8: National technical standards applicable to ECOVERSE

Country	Standard / policy	Scope & relevance to ECOVERSE	Compliance approach
Chad	Loi n° 023/CNT/2024 du 15 octobre 2024 portant protection de l'environnement	Framework environmental obligations applicable to all infrastructure and land-based works (housing prototypes, roads/drainage, water systems, restoration/ANR, agroforestry, ponds).	Apply OSS/AF environmental and social screening to all outputs • Ensure national compliance pathway is triggered early (screening-ToR - review/validation -authorization) • Integrate mitigation measures into ESMP checklists and contractor clauses.
	Décret n° 630/PR/PM/MERH/2010 du 4 août 2010 portant réglementation des études d'impacts sur l'environnement	Establishes the national EIA/ESIA requirements and procedures that will apply where works and/or site conditions trigger obligations (e.g., drainage works, water points, public structures, erosion control/check dams).	• For each site, confirm the national requirement (screening categorization) and prepare the required instrument (EIES/ESMP) for submission to the competent authority • Obtain written clearance before works start

			• Integrate E&S requirements into procurement and supervision.
	Loi n° 016/PR/1999 du 18 août 1999 portant Code de l'Eau	Governs abstraction/use of water resources and protection of water points relevant to solar pumping stations, community water points, rainwater harvesting systems, and small-scale irrigation/water storage.	• Confirm authorizations required for each water point (abstraction, works, protection perimeter) • Align design with local water services and community water committees • Establish O&M and water-quality monitoring procedures for systems supported under Output 1.3 and Output 2.3.
	Décret n° 09-904/PR/PM/MERH du 6 août 2009 relatif aux pollutions et nuisances	Regulates pollution/nuisance aspects relevant to construction sites (dust/noise/waste), water quality risks (runoff, sediment), and any small-scale treatment/disposal practices.	• Include site ESMP measures for dust/noise control, construction waste handling, erosion/sediment control near waterways, and community health & safety • Enforce contractor compliance through supervision and reporting.
	Loi n° 004/PR/2010 du 9 février 2010 portant Code de la Construction & Loi n° 006/PR/2010 du 9 février 2010 sur l'Urbanisme	Required for siting, land tenure clearance, and authorization of housing prototypes, rehabilitated facilities, drainage/road works in N'Djaména /Chari-Baguirmi.	• Obtain municipal authorizations (permits/technical approvals) prior to works • Ensure designs are stamped/validated by the competent technical service • Maintain a "permit register" per site with copies of approvals and inspection notes.
Togo	Loi n° 2008-005 du 30 mai 2008 portant loi-cadre sur l'environnement	Framework environmental obligations relevant to all infrastructure, agroforestry/SLM, ecosystem restoration, and water interventions in Avé 1 / Zogbépimé and associated sites.	• Apply environmental and social screening to all activities • Prepare required national instrument(s) and secure national clearance before works • Integrate mitigation and monitoring measures into ESMP and contractor obligations.
	Décret n° 2017-040/PR du 23 mars 2017 fixant la procédure des évaluations environnementales et sociales	Establishes practical procedures for environmental assessment/authorization relevant to drainage/works, water points, and any intervention requiring national environmental authorization.	• For each intervention, confirm whether a full EIES or simplified instrument is required; prepare and submit documentation to relevant authority • Ensure clearance and disclosure (as applicable) prior to works • Monitor implementation with periodic reporting.
	Loi n° 2010-004 du 14 juin 2010 portant Code de l'Eau	Governs water abstraction/protection and water services governance relevant to rainwater harvesting + purification units and any irrigation/pond works.	• Secure required authorizations for water works • Align siting/operation with local water governance structures • Adopt water-quality and O&M procedures • Integrate user-fee/maintenance arrangements via committees and training.
	Décret n° 2016-043/PR du 1er avril 2016 portant réglementation de la délivrance des actes d'urbanisme	Needed for compliance on iCSEB demonstration structures, public facility rehabilitation, and any municipal works/road drainage interfaces.	• Obtain municipal permits and technical approvals for each structure/works package • Ensure designs comply with locally applicable structural/safety requirements • Maintain an approvals dossier per site (designs, BoQs, approvals, inspections).
Both countries	African Standard ARS 1333:2018 — Compressed Stabilized Earth Blocks: Requirements, Production and Construction (ARSO)	Specifies requirements for soil suitability, stabilizer type and proportion, block dimensions, compressive strength, water absorption, durability, fire resistance, and construction practices for iCSEB masonry. Directly applicable to iCSEB construction under Component 1.	• Source soil tested • Stabilizer proportioning (cement 3–10% or lime 2–10%) • Block production quality control (compressive strength, water absorption, dimensional tolerances) • Construction practices

G. Project duplication with other funding sources.

241. The ECOVERSE project does not duplicate existing or planned climate adaptation investments in Chad and Togo. A systematic review of the active and recently approved climate finance portfolio in both countries

confirms that while several projects funded by the GCF, GEF, World Bank, UNDP, FAO, AFD, and bilateral partners address related climate challenges, none combines the specific geographic focus, integrated four-component design, community-led adaptation financing model, and bi-national cross-learning architecture that ECOVERSE proposes. Where thematic or geographic proximity exists with other initiatives, ECOVERSE is deliberately positioned as a complementary layer that operates at the community and peri-urban scale, fills documented adaptation gaps, and generates transferable evidence that reinforces rather than replicates larger institutional investments. Formal coordination mechanisms with relevant projects will be established at the inception phase through joint planning sessions, GIS-based site screening, shared monitoring frameworks, and direct liaison with national executing partners and line ministries. The table below presents the scenario of no duplication, alignment and lessons learnt for the ECOVERSE Project.

Table 9: Project duplication/complementarity with other funding sources

Project / Initiative	Funder	Relevant ECOVERSE Component	Complementarity and No Duplication
N'Djaména Urban Resilience Project (P177044)	World Bank	Component 1: Climate-Resilient Infrastructure	ECOVERSE's permeable drainage roads, green corridors, and climate-resilient earth-brick housing operate at neighbourhood and community scale as demonstration models that complement and can inform municipal replication under P177044. Site demarcation is confirmed through municipal mapping and GIS screening to ensure no overlap with World Bank-financed infrastructure packages.
GEF Water Supply and Sanitation in Chad (GEF ID 10089)	GEF / Ministry of Environment, Water and Fisheries	Component 1: Climate-Resilient Infrastructure	ECOVERSE's solar-powered water systems and rainwater harvesting units target community-scale water access in urban and peri-urban areas not covered by the GEF scheme, which focuses on rural populations and national water governance mainstreaming. Complementarity is ensured through coordination with the Ministry of Environment at project inception to align design standards and avoid overlap in supply zones.
World Bank Water Services Enhancement Project, Chad (P507957)	World Bank	Component 1: Climate-Resilient Infrastructure	This project enhances water and sanitation services in selected regions of Chad with a focus on drought and flood resilience at infrastructure and governance level. ECOVERSE complements this by embedding community-managed rainwater harvesting and solar water pumping systems at neighbourhood scale in N'Djaména 's peri-urban districts, filling last-mile gaps not addressed by the World Bank scheme. Site screening confirms no overlap in supply infrastructure.
GCF USD 100 Million Commitment to Chad (2026)	Green Climate Fund	Components 1, 2, 4	In February 2026, GCF committed a minimum of USD 100 million in short-term climate investments for Chad, aligned with the National Development Plan Chad Connect 2030 and Chad's revised NDC. ECOVERSE complements this by providing community-scale, locally led adaptation evidence and replicable models that can directly inform the design and targeting of GCF-financed programmes. Coordination with GCF's Chad focal point will be established during the ECOVERSE inception phase.
DIZA-Est (Developpement Inclusif des Zones d'Accueil Est)	AFD / Concern Worldwide	Component 3: Local Adaptation Financing	DIZA-Est operated in eastern Chad with a humanitarian-development nexus focus on social cohesion, livelihoods, and resilience for displaced populations and host communities. ECOVERSE draws on DIZA-Est lessons on community-based group formation, inclusive savings models, and vulnerable household engagement for the design of its micro-grant and revolving fund mechanisms under Component 3. No geographic or thematic duplication exists as ECOVERSE targets urban and peri-urban communities in N'Djaména and Chari-Baguirmi, a distinct context from DIZA-Est's eastern Chad displacement zones.
DIZA-Sud (Developpement Inclusif des Zones d'Accueil Sud)	AFD / Swisscontact	Component 3: Local Adaptation Financing	DIZA-Sud focused on southern Chad, supporting livelihoods, social integration, and economic resilience of displaced and host populations. Its community enterprise and savings group models offer directly transferable methodologies for ECOVERSE's Component 3 inclusive financing architecture. ECOVERSE's inception phase will include a structured learning exchange with DIZA-Sud implementing teams to capture operational best practices, particularly on targeting women and youth-led groups in fragile contexts. No geographic overlap exists.

UNDP/GEF Chad National Adaptation Plan Project	GEF-LDCF / UNDP	Component 4: Regional Knowledge and Institutional Strengthening	This completed project integrated climate change adaptation into Chad's planning and budgeting across agriculture, livestock, fisheries, and water sectors, and produced the current NAP framework. ECOVERSE builds directly on this institutional foundation by generating community-scale adaptation evidence from N'Djaména and Chari-Baguirmi that can feed back into NAP revision cycles, and by supporting local-to-national knowledge flows through Component 4. No duplication exists as this project has been completed and ECOVERSE operates at implementation rather than planning scale.
IFAD / GCF Climate-Resilient Agriculture Project, Chad	IFAD / GCF	Component 2: Integrated Land Management	Launched in 2025, this national project supports smallholder farmers to improve incomes, food security, and climate adaptation across the agriculture sector. ECOVERSE complements this by targeting a defined peri-urban and rural fringe area in Chari-Baguirmi with a community-scale multi-sectoral adaptation model integrating agroforestry, water harvesting, erosion control, and ecosystem restoration. Coordination with IFAD's national team will be formalised at inception to ensure geographic and thematic complementarity with no overlap in activity design or beneficiary targeting.
UNDP Togo Central Region Climate Resilience Project (USD 6.65M, approved 2025)	UNDP / GEF	Component 2: Integrated Land Management	Approved in November 2025, this five-year project will restore 7,500 hectares of degraded land, promote regenerative agriculture on 35,000 hectares, and improve integrated land management across 270,000 hectares in five prefectures of Togo's central region. ECOVERSE's Component 2 activities in Zogbepimé, Av 1 Commune, are directly complementary and share the same national land restoration logic, while covering a distinct geographic footprint in the Plateaux region. ECOVERSE will align its agroforestry and ecosystem rehabilitation species lists and community governance models with this initiative through coordination with the national forestry and environment directorate.
FAO/LDCF Coastal Communities Resilience Project, Togo	GEF-LDCF / FAO	Component 2: Integrated Land Management	This project strengthens the resilience of coastal communities in Togo through agricultural value chain development, ecosystem-based adaptation, and sustainable land management. ECOVERSE is geographically distinct, targeting the inland forest-savanna transition zone at Av 1 Commune, and complements this coastal initiative by addressing inland agricultural and watershed resilience, contributing to a more complete national adaptation coverage from coast to inland transition zones.
West Africa Food System Resilience Program, Phase 1, Togo	World Bank	Components 2 and 3	This World Bank programme supports food system resilience across Togo, including in the Savanes, Kara, and Centrale regions, through agricultural inputs, value chain support, and food crisis preparedness. ECOVERSE adds climate-smart land management, ecosystem restoration, and community adaptation financing dimensions that fall outside the programme's food system mandate, operating in Av 1 Commune in the Plateaux region where the World Bank programme has limited footprint. Coordination with the World Bank country team will ensure alignment rather than overlap.
Great Green Wall (GGW) Regional Initiative	AU / UNCCD / multi-partner	Component 2: Integrated Land Management	ECOVERSE's dryland restoration and agroforestry activities contribute field-level demonstration evidence, community-tested methodologies, and monitoring data that strengthen restoration scaling narratives relevant to Chad's GGW national commitments. ECOVERSE intervention sites are selected outside already-financed GGW blocks, confirmed through national GGW focal structures and GIS screening.
AFR100 (African Forest Landscape Restoration Initiative)	AU / multi-partner	Components 2 and 4	AFR100 is a continental umbrella initiative rather than a site-financing project. ECOVERSE contributes ground-level restoration demonstration, community-verified protocols, and monitoring evidence that strengthens AFR100 national commitments for both Chad and Togo. No duplication risk exists.
REDD+ Forest Landscape Restoration, Togo	GEF / Government of Togo	Component 2: Integrated Land Management	ECOVERSE's ecosystem restoration activities in Zogbepimé including assisted natural regeneration, community nurseries, and stewardship committees are compatible with Togo's REDD+ methodology. Sites are coordinated with forestry authorities to ensure species selection and plot boundaries do not overlap with REDD+-financed areas, and ECOVERSE's monitoring data can feed into national MRV systems.

H. Learning and knowledge management to capture and disseminate lessons learned.

242. The ECOVERSE project integrates a dedicated learning and knowledge management system designed to ensure that experiences, innovations, challenges, and lessons generated through implementation are systematically tracked, validated, stored, and disseminated throughout the project lifecycle. Learning is treated as a continuous, structured process rather than an end-of-project activity, enabling real-time adaptive management and long-term institutional uptake.
243. The tracking of experiences and lessons learned will be led by the OSS as the IE, in close coordination with executing entities, municipal authorities, and community-level structures. OSS will establish a learning and knowledge management protocol at project inception, defining standardized data collection templates, quality assurance procedures, and responsibilities at community, national, and regional levels. This protocol will ensure consistency, comparability, and reliability of learning inputs across both countries.
244. At the community and site level, experiences will be tracked continuously by trained local facilitators, extension agents, and community committees associated with each intervention e.g., infrastructure maintenance committees, agroforestry groups, water user associations, savings groups inter alia. These actors will document implementation progress, operational challenges, adaptation outcomes, and user feedback using simple, standardized tools, including field observation forms, photo and video logs, geo-tagged monitoring records, and short beneficiary testimonies. Particular attention will be given to documenting women's, youth's, and indigenous peoples' experiences to ensure inclusive learning.
245. At the national level, dedicated Learning and MEL focal points within each executing entity will be responsible for validating, synthesizing, and uploading learning materials on a quarterly basis. These focal points will work with OSS to curate high-quality case studies, before-and-after analyses, and thematic summaries linked to specific components (e.g. climate-resilient housing, permeable roads, agroforestry, community finance). National technical services and ministries will be engaged in periodic review sessions to ensure lessons are technically sound and policy-relevant.
246. At the regional level, OSS will oversee the operation of the bi-country digital knowledge hub, which will function as the central learning repository and coordination platform. The hub will integrate:
    a. GIS-based interface mapping intervention sites and progress;
    b. MEL dashboard tracking outputs, outcomes, and emerging lessons; and
    c. A structured knowledge library hosting validated case studies, technical guidelines, training materials, and multimedia content.
247. Content will be updated semi-annually, with priority learning briefs uploaded following major implementation milestones, annual reviews, and mid-term evaluation.
248. To ensure that learning is not only captured but actively interpreted, ECOVERSE will institutionalize annual learning cycles. These will include structured reflection workshops at community and national levels, followed by Regional Adaptation Academies and cross-country exchanges between Chad and Togo. During these events, tracked experiences from the digital hub will be reviewed, compared across ecological and institutional contexts, and translated into practical recommendations for scaling and replication.
249. OSS will further ensure that lessons learned are translated into policy-relevant knowledge products, including technical guidance notes, sectoral toolkits, and policy briefs. These will be produced following defined learning milestones (mid-term and final years) and validated through national policy dialogues before dissemination. This ensures that experiences captured in the digital hub directly inform national planning instruments, municipal investment decisions, and regional adaptation frameworks.
250. The learning and knowledge management system is fully integrated with project monitoring, evaluation, and adaptive management. Findings emerging from tracked experiences will be used to inform mid-course corrections, improve implementation quality, and adjust approaches where needed. By embedding learning responsibilities within community structures, national institutions, and OSS's regional mandate, the project ensures that knowledge generated under ECOVERSE remains accessible, actionable, and sustainable well beyond the project's completion. Below is an analysis for knowledge generation, learning and dissemination strategy, the following constrains, and proposed actions will be taken into account:

Table 10: Knowledge generation, learning and dissemination strategy, the following constrains, and proposed actions

Constraint / Baseline Situation	Proposed interventions
Limited cross-country exchange on adaptation practices, technologies, and institutional lessons.	Organize Annual Regional Adaptation Academies and South–South peer exchanges between Chad and Togo, including technical workshops and field visits to demonstration sites.
Lack of digital infrastructure for storing and sharing adaptation knowledge and monitoring results.	Develop and maintain a bi-country digital knowledge hub with GIS mapping, MEL dashboards, training libraries, case studies, and media-based learning resources accessible in multiple languages.
Fragmented documentation of community innovations and indigenous knowledge, resulting in loss of learning.	Conduct participatory documentation with communities, producer associations, women's groups, and youth networks to systematize local practices and integrate them into official training materials and policy dialogues.
Weak extension services and absence of structured training systems for climate adaptation practices.	Establish a Train-the-Trainer (ToT) model for extension workers, lead farmers, green infrastructure technicians, and local facilitators, enabling sustained delivery of knowledge at village and district levels.
Limited involvement of youth and marginalized groups in climate decision-making and knowledge processes.	Create inclusive innovation and learning hubs, youth-led climate action labs, and school-based environmental education modules; ensure representation in adaptation committees and leadership programs.
Poor feedback loops between field experience and national/regional policy formulation.	Convene national and regional policy dialogues and produce policy briefs and technical guidelines to integrate local adaptation evidence into planning frameworks, budgetary processes, and national climate strategies.

I. Consultative process.

251. Chad and Togo initially engaged with the OSS through a series of consultations and technical exchanges involving national and local institutions, during which both countries formally expressed their interest in collaborating on a regional initiative to strengthen climate resilience and address ecosystem vulnerabilities. These exchanges built on the piloting of Hydraform iCSEB technology in Togo, which has shown promising results as a locally appropriate solution for strengthening the resilience of rural communities and climate-vulnerable infrastructure. They also created the foundation for regional knowledge exchange, cross-fertilization of experiences, and opportunities to scale up the ECOVERSE approach more broadly across Africa.
252. These consultations directly supported the design of the ECOVERSE project by identifying priority climate risks, vulnerable groups, locally appropriate adaptation options, community preferences, and institutional capacities in both countries. The selection of potential intervention areas and the orientation of proposed activities were informed by national adaptation priorities, local development strategies, and the specific vulnerability profiles raised by stakeholders during the consultation process.
253. In Chad, structured public consultations were conducted through two complementary phases in 2025 and early 2026 across Mandelia, Kournari, N'Djaména Koura, Mabrio, Linia, and the 8th and 9th arrondissements of N'Djaména. These consultations brought together 613 participants, including 346 women and 267 men, and generated broad-based inputs on climate vulnerability, ecosystem degradation, livelihoods, social inclusion, governance, and environmental and social risks relevant to project design.
254. In Togo, consultations undertaken in July 2025 were further deepened through targeted supplementary consultations focused on infrastructure held on 29 and 30 January 2026 in Zogbépimé, Houvé, Howuiévé, Agbozomé, Awatomé, and Zokopé, with infrastructure identification also covering Avédomé. These supplementary consultations brought together 108 participants and enabled a more detailed assessment of climate-related infrastructure degradation, community priorities, gender-differentiated impacts, and locally preferred resilient construction options.
255. The primary objective of these consultations was to ensure that stakeholder concerns, expectations, and proposals were effectively integrated into project design and implementation arrangements. They also helped validate the relevance of the proposed intervention logic and confirmed strong community support for the ECOVERSE project objectives in both countries, while highlighting the need for continued stakeholder participation in implementation, monitoring, evaluation, and oversight in order to strengthen transparency, accountability, and local ownership.
256. The methodology adopted was participatory, inclusive, iterative, and locally appropriate. Activities included: (i) open community meetings and workshops to facilitate collective discussion; (ii) focus group discussions with

women, youth, vulnerable households, civil society organizations, and community leaders; (iii) semi-structured interviews with administrative authorities, traditional leaders, technical services, and other key stakeholders; and (iv) qualitative and quantitative data collection on climate risks, local needs, infrastructure conditions, social vulnerabilities, and practical adaptation solutions. In Togo, this methodology was complemented by field visits, direct observation, georeferencing, and photo documentation of priority infrastructure to support site-specific planning of rehabilitation activities using iCSEB technology. In Chad, consultations were also used to assess environmental and social risks, community perceptions, and local expectations to inform the ESMP and broader project design.

257. The consultations highlighted several recurrent priorities across both countries. Communities emphasized the severe impacts of flooding, erosion, drought, heat stress, and degraded infrastructure on livelihoods, access to services, and local resilience. In Chad, stakeholders identified strong needs related to water access, agroforestry, soil and water conservation, livelihood diversification, storage, irrigation, flood control, and improved access to climate-resilient infrastructure. In Togo, consultations particularly underscored the urgent need to rehabilitate degraded schools, sanitation facilities, markets, and other community infrastructure exposed to floods, high winds, drought, and fire risks, while also supporting women's livelihoods and children's well-being.

258. The consultation findings also informed key design features of the project. Community feedback on flooding, erosion, and water stress supported the inclusion of water management, drainage, erosion control, and resilient infrastructure measures tailored to local conditions. Inputs from women, youth, and vulnerable households informed the design of gender-responsive and socially inclusive activities, including improved access to livelihoods, climate-resilient productive assets, financial inclusion opportunities, and mechanisms to reduce barriers to participation. The consultations also highlighted the importance of integrating participatory monitoring, accessible grievance redress, local institutional strengthening, and conflict-sensitive approaches to resource management into the project design.

259. In line with the AF's ESP, Gender Policy, and FPIC principles, specific attention was given to vulnerable and marginalized groups, including women, youth, poor households, and, where relevant, indigenous and mobile pastoral communities such as the Mbororo in Chad. Consultation sessions were conducted in locally appropriate formats and languages to facilitate inclusive participation, and the process helped identify differentiated vulnerabilities, barriers to decision-making, and measures needed to strengthen equity and social inclusion in project implementation. The consultations further underscored the need for a grievance mechanism that is accessible, transparent, and responsive to the needs of women, youth, and other vulnerable groups, particularly in contexts where informal complaint systems currently dominate.

260. The table below summarizes the consultations undertaken in both countries, the main issues raised by stakeholders, and the way these inputs have informed project design. Further in-depth details are provided in the consolidated report annexed to the FP.

Table 11: Table indicating consultations undertaken towards ECOVERSE Project development

Period	Country / location	Participants	Main consultation feedback	Implications for project design
May–June 2025 and December 2025–January 2026	Chad: Mandelia, Kournari, N'Djaména Koura, Mabrio, Linia, 8th and 9th arrondissements of N'Djaména	613 participants: 346 women, 267 men	Communities highlighted recurrent flooding, drought, land degradation, erosion, heat stress, water scarcity, livelihood losses, weak infrastructure, limited access to finance, and governance constraints; women and youth were identified among the most vulnerable groups, and stakeholders called for transparent implementation, inclusive decision-making, participatory monitoring, and effective grievance redress.	These consultations informed the targeting of climate-resilient infrastructure, agroforestry, soil and water conservation, irrigation, drainage, livelihood diversification, financial inclusion, gender-responsive actions, participatory monitoring mechanisms, and grievance redress measures in the project design.

July 2025 and 29–30 January 2026	Togo: Zogbépimé, Houvé, Howuiévé, Agbozomé, Awatomé, Zokopé; infrastructure identification also in Avédomé	108 participants across 6 consulted villages; infrastructure identified in 7 villages	Communities identified severe degradation of schools, sanitation facilities, market infrastructure, and other community assets due to flooding, strong winds, drought, heat, and fire risks; stakeholders emphasized gender-differentiated impacts, especially on women traders, girls, and children, and expressed strong support for resilient rehabilitation using iCSEB technology.	These consultations informed the prioritization of resilient community infrastructure rehabilitation, gender-sensitive WASH and education-related measures, locally adapted construction standards, community-level governance arrangements, and inclusive planning for infrastructure-based resilience actions under the project.

261. Overall, the consultations confirmed that the ECOVERSE project is both relevant and socially supported in the targeted areas, while also demonstrating that interventions must remain context-specific, inclusive, and responsive to locally expressed priorities. The consultation process therefore constitutes a substantive part of project design rather than a preliminary standalone step.
262. Following project approval, stakeholder engagement will remain continuous throughout implementation. In line with FPIC principles, the Gender Assessment and Action Plan (GAAP), and the ESMP, the project will maintain ongoing consultation and participation mechanisms at community, sub-national, and national levels to support detailed activity planning, site validation, inclusion of vulnerable groups, grievance redress, participatory monitoring, and adaptive management over the course of implementation. This continuous engagement process will assist in ensuring that project interventions remain socially acceptable, gender-responsive, environmentally sound, and aligned with community priorities and national adaptation objectives.

J. Justification for funding requested, focusing on the full cost of adaptation reasoning.

263. The funding requested under the ECOVERSE project is justified as the full cost of adaptation required to safeguard highly vulnerable populations in Chad and Togo from the accelerating impacts of climate change. Both countries are experiencing rapid climatic shifts, including intensifying heatwaves, increasingly erratic rainfall, recurrent floods, advancing desertification, and persistent land degradation, which together undermine agricultural productivity, damage critical infrastructure, reduce access to safe water, and erode the natural resource base on which rural and peri-urban communities depend. The most affected groups, including smallholder farmers, informal urban and peri-urban settlers, women headed households, migrant pastoralist communities, and youth, lack the financial resources, technical capacity, and institutional support needed to adopt climate resilient practices on their own. In the absence of targeted adaptation finance, these communities will continue to experience escalating losses, deepening poverty traps, and rising risks of climate induced displacement.
264. ECOVERSE is designed as a grant only intervention with no co financing, reflecting the fact that the core measures supported are public goods that cannot realistically be financed through commercial markets or private investment. The adaptive infrastructure and resilience solutions promoted, such as iCSEB construction for climate resilient housing and public facilities, ecosystem and watershed restoration, peri-urban green corridors, community managed solar powered water systems, soil stabilisation and erosion control, and locally managed adaptation finance mechanisms, generate high social and environmental value but do not yield short term, bankable cash flows that would attract private capital. The target communities also lack disposable income and collateral to access loans for such investments. Concessional grant support from the AF is therefore essential to remove the structural financing barrier that prevents vulnerable groups and local authorities from accessing lifesaving and livelihood protecting adaptation options.
265. The requested financing covers the full cost of designing, piloting, institutionalising, and scaling climate resilient systems that would not materialise under the baseline, across all four project components. Under *Component 1*, iCSEB technology significantly improves thermal comfort and flood resistance compared to conventional cement-based construction but requires upfront investments in training, equipment, quality control, and model structures that are beyond the reach of municipalities and low-income households; solar powered water systems and permeable drainage infrastructure similarly require capital and technical inputs unavailable to communities

and local governments. Under *Component 2*, the restoration of degraded watershed areas, establishment of agroforestry and climate smart agriculture systems, and deployment of water harvesting infrastructure offer long term risk reduction and productivity benefits but demand multi season labour, nursery development, and technical extension support that cannot be self-financed by smallholders facing income instability. Under *Component 3*, community-based adaptation finance mechanisms such as revolving funds, gender responsive savings groups, and micro grant schemes are not viable without catalytic grant capital and capacity building to establish transparent governance structures and mitigate fiduciary risk. Under *Component 4*, the development of a regional knowledge platform, cross country learning exchanges, Regional Adaptation Academies, and policy engagement functions requires sustained investment in technical expertise, digital infrastructure, and institutional coordination that falls entirely outside the operational budgets of the national and local partners involved.

266. The regional modality of ECOVERSE further enhances cost effectiveness and accelerates learning across the four components. By linking Chad and Togo under a single programme, the project enables joint development and sharing of technical standards, training curricula, monitoring tools, and field-tested methodologies across comparable Sahelian and forest savanna transition zones. This reduces duplication of effort, spreads fixed transaction and advisory costs over two countries, and deepens institutional cooperation between national and local partners. Pooled regional functions, such as shared technical advisory missions, Regional Adaptation Academies, a bi country digital knowledge and monitoring, evaluation and learning platform, and coordinated policy engagement, create efficiencies and scale effects that isolated national projects could not achieve independently, thereby maximising the adaptation impact of each dollar invested.

267. In summary, the AF support is indispensable to overcoming the financial, technical, and institutional barriers that currently prevent climate vulnerable communities in Chad and Togo from investing in, and benefiting from, adaptive infrastructure, resilient livelihood systems, and restored natural ecosystems. Without this grant-based support, the outcomes targeted by ECOVERSE, including reduced exposure to climate hazards, stabilised and diversified livelihoods, rehabilitated ecosystems, strengthened community governance, and enhanced adaptive capacity, would not occur or would remain fragmented, small scale, and unsustainable. The project therefore represents a clear case of full cost adaptation financing, filling a critical gap and enabling a transformative, equitable, and durable climate resilience pathway for the most vulnerable populations in both countries.

268. The distribution of costs across Components 1 to 4 in Section D directly reflects this full cost adaptation logic, with each component financing the incremental adaptation measures described for the corresponding thematic areas above.

Table 12: ECOVERSE AF justification for funding comparison

ECOVERSE Component	**Adaptation Area**	**Without Adaptation Fund Support (Baseline Scenario)**	**With Adaptation Fund Support (Proposed ECOVERSE Intervention)**
Component 1: Climate Resilient Infrastructure and Nature Based Solutions Nature Based Solutions	Climate Resilient Housing and Community Infrastructure	Communities rely on traditional, heat absorbing and flood prone construction materials. Housing and social buildings remain highly vulnerable to seasonal flooding and extreme heat, leading to repeated asset losses, unsafe living conditions, and frequent service disruption.	Climate resilient housing and public structures are constructed using low carbon iCSEB with higher thermal efficiency and improved flood resistance. Communities gain durable social infrastructure that protects lives, assets, and essential services under intensifying climate stress.
	Water Security and Access	Water scarcity worsens during dry seasons. Households, especially women and girls, walk long distances to collect unsafe water. Waterborne disease risks remain high due to contaminated sources and lack of reliable supply.	Solar powered water pumps, rainwater harvesting systems, and improved storage and distribution infrastructure provide stable, safe water access close to households and community facilities, reducing labour burdens, improving health, and building drought resilience.
	Urban Resilience and Heat/Flood Management	Informal settlements and peri urban areas face recurrent floods and intensifying heatwaves. Drainage is	Green corridors, permeable pavements, shade trees, and improved micro drainage are

		inadequate and urban greening is minimal, increasing health risks and damage to homes, roads, and livelihoods.	established in high-risk neighbourhoods such as N'Djaména 's 8th and 9th districts, reducing urban heat islands, lowering flood incidence, and protecting densely populated areas.
Component 2: Integrated Land Management for Agricultural, Ecosystem, and Water Resilience	Climate Smart Agriculture and Food Security	Smallholder farmers face declining yields due to soil erosion, land degradation, and erratic rainfall, with limited access to climate resilient practices, inputs, or extension. Food insecurity and income volatility increase, especially for women and youth.	Agroforestry, conservation agriculture, intercropping, and micro irrigation systems are adopted, improving soil fertility, stabilising yields, restoring degraded land, and increasing incomes for smallholders, with targeted support to women and youth farmers.
	Ecosystem Restoration and Landscape Stability	Forest and land degradation continues unchecked, accelerating erosion, desertification, biodiversity loss, and downstream flood and siltation risks. Communities lack the resources and incentives to protect or restore natural systems.	More than 2,000 ha of degraded land, riverbanks, and communal areas are restored using assisted natural regeneration and reforestation. Landscape stability, biodiversity, and carbon sequestration are improved, while ecosystem services underpinning agriculture and water regulation are strengthened.
Component 3: Local Adaptation Financing and Community Empowerment	Local Adaptation Finance and Savings Capacity	Vulnerable groups, particularly women and youth, lack access to capital, savings mechanisms, and credit, so locally prioritised adaptation initiatives remain unfunded and adaptation decisions stay externally driven.	Community micro grant schemes, revolving adaptation funds, and women and youth focused savings groups build financial autonomy and enable communities to prioritise and finance locally led resilience initiatives on a sustained basis.
	Community Participation and Governance	Marginalised groups have limited voice in local planning. Adaptation decisions often fail to reflect gender, age, disability, and social inclusion needs, weakening ownership and long-term sustainability.	Inclusive community adaptation committees and leadership training ensure meaningful participation of women, youth, elderly persons, and persons with disabilities in planning and oversight, strengthening social cohesion, accountability, and local governance of adaptation investments.
Component 4: Regional Knowledge, Learning and Institutional Strengthening	Knowledge Sharing and Institutional Capacity	Adaptation lessons remain fragmented across projects and sectors, with limited cross-country learning and weak linkages between field experience, data systems, and national policy processes.	A digital regional knowledge hub, Regional Adaptation Academies, cross country exchanges, and policy briefs enable systematic learning, scaling, and institutional embedding of successful practices across Chad and Togo and into regional platforms.

K. Project sustainability.

269. The ECOVERSE project has been intentionally designed to ensure that its outcomes are sustained and expanded well beyond the implementation period, through an integrated approach that combines institutional mainstreaming, local ownership, durable financing mechanisms, and nature-based, self-reinforcing climate resilience practices. The sustainability logic is embedded in the design of all four components and operates across six mutually reinforcing dimensions: institutional and policy, capacity and human resources, financial and economic, operation and maintenance, environmental, and knowledge and learning.

270. Institutional and policy sustainability: The sustainability of ECOVERSE is anchored in the systematic integration of all four components within existing national, subnational, and sectoral regulatory frameworks in Chad and Togo. Interventions under Comp 1 (integrated climate-resilient infrastructure), Comp 2 (integrated land management), Comp 3 (access to adaptation financing), and Comp 4 (regional knowledge, learning and institutional strengthening) are aligned with and implemented through established public institutions responsible for housing, water, agriculture, land management, and disaster risk reduction, ensuring that project-supported

approaches function as operational extensions of existing policy mandates rather than stand-alone pilots. Relevant ministries, decentralized technical services, and municipal authorities in both countries are engaged throughout the project cycle, from design and site selection through procurement, supervision, and monitoring, ensuring institutional ownership and regulatory compliance. This includes alignment with NAPs, NDC implementation frameworks, land restoration strategies under UNCCD obligations, national building and water regulations, and municipal development and investment plans, creating a clear pathway for post-project continuation through public programmes and recurrent budget allocations.

271. Institutional capacity and human resource sustainability: Long-term sustainability is reinforced through a layered capacity-building strategy that runs across all four components and targets both institutions and communities. Under Comp 1 and 2, the project trains municipal engineers, extension agents, water technicians, forestry officers, and local artisans, ensuring that the technical know-how required to operate, maintain, and replicate infrastructure, land management, and water systems remains available locally after project completion. At community level, women's groups, youth associations, producer cooperatives, water user committees, rangeland management groups, and savings associations are trained as frontline custodians of adaptation assets across all project sites. Under Comp 4, Training-of-Trainers (ToT) approaches and integration of curricula into national training institutions and municipal workflows institutionalize these skills over generations, reducing reliance on external technical support. The deliberate prioritization of women and youth across all components strengthens social sustainability and reinforces long-term leadership in community-based adaptation governance.

272. Financial and economic sustainability: The project incorporates multiple, complementary financial sustainability mechanisms that are designed, primarily through Comp3, to support operation, maintenance, reinvestment, and scaling after project closure. At community level, savings and lending groups, revolving adaptation funds, and micro-grant mechanisms provide continuous access to capital for maintenance of water systems, small repairs to climate-resilient infrastructure under Comp 1, replacement of irrigation components and nursery operations under Comp 2, and livelihood diversification. At municipal and national levels, the project strengthens planning and budgeting linkages by supporting local governments to progressively integrate O&M costs for climate-resilient infrastructure and ecosystem management into annual budgets and sector investment plans. This dual-track approach, combining community finance with public financing, ensures that maintenance responsibilities are realistic, shared, and affordable over time, and that every dollar invested in community finance mechanisms mobilizes an estimated two to three dollars in community co-financing and reinvestment.

273. Operation and maintenance sustainability: For each infrastructure and ecosystem intervention supported under Comps 1 and 2, including climate-resilient housing, permeable roads and drainage systems, rainwater harvesting and solar-powered water installations, irrigation systems, and restored ecosystems, the project establishes explicit O&M arrangements at activity level. Community-based maintenance committees and user groups are formed and trained, with written maintenance plans detailing inspection schedules, basic repair procedures, cost-sharing mechanisms, and escalation pathways to municipal technical services. For water and irrigation systems, user-fee or pooled savings mechanisms are introduced where appropriate to cover minor repairs and component replacement, drawing on financial structures established under Comp 3. Municipal technical services are trained and equipped to provide periodic oversight and technical backstopping, ensuring that infrastructure remains functional and safe beyond the project period. Nature-based interventions including agroforestry systems, assisted natural regeneration, slope stabilization, and urban greening are inherently low-maintenance and improve in functionality over time, requiring only community stewardship arrangements and protection measures rather than recurrent external inputs.

274. Environmental sustainability: Environmental sustainability is central to the design of Comp 2 and reinforces the resilience outcomes of all other components. ECOVERSE prioritizes ecosystem-based and regenerative adaptation practices, including restoration of degraded land, agroforestry establishment, riparian buffering, slope stabilization, and urban greening, that enhance soil fertility, water regulation, microclimate moderation, and biodiversity recovery. These interventions are self-reinforcing: as vegetation cover increases and soils recover, the need for costly remedial measures declines, and ecosystem services that reduce exposure to climate risks strengthen progressively over time. This ecological trajectory ensures that environmental benefits persist and expand after project completion, contributing to long-term climate resilience and reduced disaster

risk in both Chad and Togo, fully consistent with the AF Environmental and Social Policy requirements on natural asset protection and rehabilitation.

275. Knowledge, learning and institutional memory sustainability: The regional learning and knowledge architecture established under Comp 4 ensures that experiences, tools, and lessons generated across all components are retained within institutions and continue to inform planning and implementation beyond the project lifecycle. The bi-country digital knowledge hub, regional training academies, practitioner networks, and policy dialogues provide persistent platforms for structured South-South learning, peer exchange, and policy dialogue. Standardized technical guidelines, GIS-based tools, and decision-support frameworks are integrated into national and municipal training institutions and workflows, reducing institutional memory loss and enabling continuous improvement of adaptation practice in both countries.

276. Adaptation benefits sustained after project completion: Because ECOVERSE invests in durable infrastructure, sustainably managed landscapes, robust community finance and governance systems, and self-reinforcing ecosystems, its principal adaptation benefits are structural and not time-bound to AF financing. These benefits are maintained through community stewardship, local institutions, and public systems, and include:
    - reduced exposure to flooding and heat through climate-resilient infrastructure (Comp 1);
    - sustained water security from decentralized rainwater harvesting and solar-powered systems (Comps 1 and 2);
    - improved and stabilized agricultural productivity through agroforestry, soil conservation, and small-scale irrigation (Comp 2);
    - reduced land degradation, erosion, and disaster risk through ecosystem restoration and slope stabilization (Comp 2);
    - improved and sustained access to local adaptation finance for community-led initiatives (Comp3); and
    - strengthened national and regional institutional adaptive capacity through knowledge systems, skills, and governance (Comp 4).

277. Replication and scaling-up potential: ECOVERSE has been explicitly designed for replication and scale-up within and beyond Chad and Togo, consistent with AF expectations that adaptation benefits enable scaling with other resources after project closure. Replication is enabled through standardized technical designs (e.g. iCSEB housing, permeable roads, decentralized water systems), modular implementation packages, and documented operational guidelines hosted on the Comp 4 digital knowledge hub. Scaling pathways include: (a) horizontal replication by communities and municipalities using local finance mechanisms and trained artisans; (b) vertical scaling through integration into national programmes, sector investment plans, and donor-financed pipelines; and (c) regional scaling through OSS-led knowledge exchange, South-South cooperation, and alignment with continental initiatives such as the Great Green Wall (GGW) and AFR100.

278. The regional approach, spanning two contrasting ecological and institutional contexts in Chad and Togo, allows solutions to be tested, adapted, and transferred efficiently, increasing cost-effectiveness and resilience impact at scale and generating transferable public goods for wider uptake across similar contexts in West and Central Africa.

L. Environmental and social impacts and risks identified.

279. The ECOVERSE project has undergone an environmental and social risk screening in alignment with the AF's ESP. This screening provides a preliminary assessment of risks based on the nature of the proposed interventions, the ecological and social characteristics of target landscapes, and the presence of vulnerable groups and community institutions in Chad and Togo. While the project is designed to deliver long-term positive environmental and social outcomes, including climate-resilient infrastructure, enhanced ecosystem services, increased livelihood security, and strengthened inclusion of women and youth, certain site-specific risks may arise during implementation and will require careful management. Thus, the project is **Category B** classified.

280. Potential environmental risks include: (i) temporary vegetation clearing and soil disturbance during construction of climate-resilient housing, water harvesting systems, and flood-control structures; (ii) risks of erosion, sedimentation, or localized pollution if construction or land restoration works are not supervised adequately; (iii) risks of biodiversity disruption if tree species or agroforestry models are selected without consideration of ecological suitability; and (iv) minor, short-term dust, noise, and waste management challenges associated with

material production and site preparation. These risks are site-specific, reversible, and manageable with standard mitigation measures and do not involve significant or irreversible environmental impacts.

281. Potential social risks include: (i) the risk of unequal access to project benefits for women, youth, pastoralists, elderly individuals, or persons with disabilities if inclusive targeting and meaningful participation are not intentionally applied; (ii) risks of land tenure disputes or resource access conflicts, particularly in areas targeted for reforestation, rangeland rehabilitation, or slope stabilization; (iii) risks of poorly designed grievance resolution processes leading to unresolved community concerns; and (iv) cultural or social sensitivity risks in contexts where Indigenous Peoples or mobile pastoralists depend on seasonal access to land and water. These risks will be managed through participatory planning; gender-responsive and socially inclusive beneficiary selection criteria; the use of FPIC where relevant; and open community dialogue processes grounded in local customs and institutional frameworks.

282. To ensure compliance with the 15 principles of the AF ESP, the project developed a comprehensive ESMP during the Full Proposal (FP) stage, alongside site-level ESIAs where required. The ESMP included: safeguards screening protocols for each activity; mitigation and monitoring measures; Codes of Environmental and Social Conduct for contractors; grievance redress mechanisms accessible to all community groups; clear biodiversity-sensitive restoration practices; and protection measures for Indigenous Peoples where applicable and customary land users. Further consultations will be carried out with affected populations to ensure meaningful participation and community ownership during implementation.

Table 13: Environmental and social impacts and risks identified

Environmental and Social Principle	Risk Level	No Further Assessment Required	Potential Impacts/Risks – Further Assessment & Management Required for Compliance
Compliance with the Law	Moderate		There is a risk of non-compliance with national environmental, land, labour, and water regulations, particularly where local government enforcement capacity is weak or legal frameworks are fragmented. For example, in Chad, land tenure arrangements vary significantly between customary and statutory systems, while in Togo, decentralized land management committees may interpret national law inconsistently. During full proposal development, a detailed legal gap analysis will be undertaken for each site, with specific compliance checklists developed. Mitigation will involve legal liaison mechanisms between project teams, local authorities, and national ministries to ensure uniform application of laws.
Access and Equity	Moderate		Without targeted outreach, communities in remote or socio-economically disadvantaged areas may have reduced access to project benefits such as training, infrastructure, or climate finance. In Chad, highly dispersed settlements in desert zones may be harder to reach; in Togo, rural villages without road access risk exclusion. The full proposal will map socio-economic access barriers and propose outreach and communication strategies, including mobile extension services and equitable beneficiary selection criteria.
Marginalized and Vulnerable Groups	Moderate		Women, youth, elderly persons, persons with disabilities, and minority ethnic groups may face structural barriers to participation in planning or accessing project benefits. This risk is heightened if meetings are held at times or locations that exclude these groups, or if decision-making structures are male-dominated. Further assessment will include a vulnerability analysis disaggregated by gender, age, and disability status, and mitigation will involve inclusive planning processes, quotas for participation, and tailored capacity-building approaches.
Human Rights	Low		If community participation mechanisms are not robust, there is a risk of undermining rights to free expression, association, and access to information. This could occur if local power structures suppress dissent or if technical language is not translated into local dialects. The full proposal stage will include participatory rural appraisals (PRAs) in local languages to ensure all groups can express concerns and shape project decisions.
Gender Equity and Women's Empowerment	Moderate		Prevailing gender norms may limit women's roles in decision-making, access to land, or participation in capacity-building. In Togo, customary land tenure often restricts women's ownership rights; in Chad, women's workload in water and fuel collection may limit time for project activities. Further assessment will conduct a gender analysis to identify barriers and

			opportunities. Mitigation will include FPIC processes that specifically engage women, gender-responsive training schedules, and safeguards against elite capture of benefits by male household heads.
Core Labour Rights	Moderate		The use of casual or seasonal labour for construction and planting may risk non-compliance with international labour standards, including fair wages, working hours, health and safety, and prohibition of child labour. In Chad, informal labour arrangements are common in rural works, while in Togo, local contractors may lack formal labour management systems. The full proposal will assess labour supply chains and propose contractor requirements, labour codes of conduct, and monitoring protocols.
Indigenous Peoples	Low		While Indigenous People are identified in Chad (Mbororo Fulani and Toubou), they are primarily found in other areas of the country. Consultations confirmed that no Indigenous People groups are present in the project sites. As the Mbororo Fulani are nomadic pastoralists, further assessment during the fully developed proposal determined their temporary seasonal camps. Based on available information and consultations conducted with local communities, no Indigenous Peoples, as defined under the AF ESP, have been identified within the ECOVERSE project area in Zogbépimé, Togo. However, given seasonal mobility patterns and the potential for intersecting grazing routes, site-specific verification will be carried out. If any Indigenous Peoples are identified, FPIC protocols and culturally appropriate benefit-sharing measures will be implemented.
Involuntary Resettlement	Low		There is a negligible risk of physical displacement, but certain infrastructure (e.g., bunds, small-scale irrigation systems, water harvesting structures) could require land reallocation that temporarily restricts access to agricultural plots or grazing areas. During the full proposal, a land acquisition and use assessment will identify any such cases, with measures to avoid displacement or provide equitable compensation and livelihood restoration.
Protection of Natural Habitats	Moderate		Land preparation, vegetation clearance, or construction of bunds and water harvesting systems could temporarily disrupt local flora and fauna. This is particularly relevant in semi-arid habitats of Chad and riparian zones in Togo. The full proposal will include habitat sensitivity mapping and design measures to avoid high-biodiversity areas. Post-construction restoration will be incorporated into all work plans.
Conservation of Biological Diversity	Moderate		Agroforestry and climate-resilient cropping could unintentionally promote monocultures or introduce non-native species if species selection is not biodiversity-sensitive. In Chad, tree species for windbreaks may be selected for fast growth without considering ecological fit; in Togo, demand for marketable species may drive monocultures. The full proposal will include a biodiversity management plan, native species preference lists, and farmer training on mixed cropping systems.
Climate Change	Low		While the project is climate-positive overall, transport of materials and construction activities could produce minor GHG emissions. In hot regions, use of certain construction materials could also increase local heat absorption. The full proposal will propose low-emission logistics options, renewable energy for operations, and climate-smart materials.
Pollution Prevention and Resource Efficiency	Moderate		Construction and agricultural activities could generate solid waste, wastewater, agrochemical runoff, or sedimentation in waterways. Without proper design, cisterns and bunds could concentrate pollutants. The full proposal will identify pollution hotspots and propose waste management protocols, agroecological pest management, and sediment control measures.
Public Health	Moderate		Standing water from irrigation or water harvesting structures could increase the risk of water-borne and vector-borne diseases such as malaria and bilharzia. In both countries, construction works may also create dust that exacerbates respiratory issues. Health risk assessments and community health education programs will be incorporated into the full proposal, along with design features to prevent stagnant water accumulation.
Physical and Cultural Heritage	Low		No known cultural heritage sites are located within project areas, but chance finds during excavation remain possible. The full proposal will incorporate chance finds procedures and worker training to prevent accidental damage.
Lands and Soil Conservation	Moderate		Bunding, contour farming, and land treatment measures may fail or cause erosion if poorly designed or maintained. In Chad's sandy soils, wind erosion risk is high; in Togo's slopes, water erosion can be severe. The full proposal will integrate soil stability studies, maintenance training, and erosion control measures into all land management interventions.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Project implementation and management arrangements.

283. The ECOVERSE project is structured around a three-tier institutional architecture: regional, national, and local, designed to ensure coherent technical delivery, robust fiduciary oversight, inclusive governance, and sustained community ownership across both Chad and Togo. The arrangements described below reflect the complementary mandates and comparative advantages of each entity and are fully consistent with the AF's fiduciary standards, ESP, and Gender Policy.

284. The project's implementation structure comprises: (i) a Regional Implementing Entity (RIE) providing fiduciary oversight and quality assurance; (ii) a Regional Executing Entity (REE) supporting harmonisation, knowledge management, and cross-country coordination; (iii) National Executing Entities (NEEs) in each country responsible for operational delivery and for hosting the national project management functions; (iv) a Regional Steering Committee and two National Steering Committees providing strategic guidance and policy oversight; (v) a Regional Project Management Unit hosted and two National Project Management Units (NPMUs) embedded within the lead NEEs to ensure day-to-day operational management at country level; and (vi) local government structures and community institutions co-designing and stewarding adaptation assets. A Project Implementation Manual (PIM) will be developed during the inception phase to codify institutional roles, decision-making procedures, escalation mechanisms, fund-flow arrangements, and implementation protocols across all tiers.

285. The OSS serves as the RIE for the ECOVERSE project. OSS holds overall accountability for project performance and reporting to the Adaptation Fund, providing end-to-end oversight across the financial, administrative, legal, safeguards, and learning dimensions of the project in both Chad and Togo.

286. OSS will ensure that implementation complies with the AF's ESS Policy, Gender Policy, and fiduciary guidelines. Its functions include: consolidated planning, budgeting, and procurement supervision; review and approval of regional and national Annual Work Plans and Budgets (AWPBs) and Procurement Plans (PPs); facilitation of external audits; Monitoring, Evaluation, and Learning (MEL) oversight; and submission of annual Project Performance Reports (PPRs) and other required updates to the Adaptation Fund Secretariat.

287. OSS will enter into Subsidiary Agreements (SA) with the executing entities, establishing the legal framework for fund transfers, accountability, reporting obligations, and compliance with the project's ESMP and GAAP. OSS will sign an SA with AAF. In Chad, OSS will sign SA directly with Triple Capital Tchad (TCC) and the Association pour le Développement Integré, Durable et Équitable (ADIDE). In Togo, OSS will sign a SA with Sustainable Solutions for Africa (SSA), which will in turn sub-contract the Institut des Formations en Alternance pour le Développement (hereafter IFAD-Togo, to distinguish from the International Fund for Agricultural Development) for training delivery. Activities involving the Directorate of Environment under the Ministry of Environment and Forestry Resources (DE/MERF) will be executed directly by SSA under the SA framework to maintain clear fiduciary lines.

288. OSS will also establish, host, and manage the project-level Grievance Redress Mechanism (GRM), ensuring it is accessible, transparent, impartial, confidential, predictable, and publicised in appropriate languages and formats across both countries. Beyond compliance, OSS will provide technical backstopping to the EEs, assuring quality of technical designs, alignment of methods and standards across countries, and facilitation of cross-country learning.

289. The AAF serves as the REE. AAF is the entity providing the legal, governance, and operational infrastructure through which the Africa Adaptation Initiative (AAI) delivers its continental mandate. AAI is a pan-African initiative established by African Heads of State and Governments to strengthen collaboration on adaptation across the continent through high-level policy dialogue, on-the-ground action, and closing the adaptation financing gap. As REE, AAF is responsible for coordinating and executing regional-level activities, supporting the harmonisation of technical approaches across countries, where relevant. AAF's regional coordination role is particularly central to Component 4. In addition to leading regional knowledge, learning, replication, and policy dialogue functions under the component, AAF will provide broader regional execution and coordination support

across the project by AAF consolidating regional technical and financial reports, supporting the monitoring of regional indicators, and ensuring that cross-country dimensions of the programme, including knowledge exchange, technical standards, and regional learning, are fully articulated. AAF operates under the oversight of OSS, with clear terms of reference and no-objection procedures by OSS on key appointments and procurement decisions within the regional coordination structure.

National Executing Entities

a. Chad

290. In Chad, the project's execution architecture combines the technical and strategic leadership of TCC with the field-level operational capacity of the ADIDE. The complementary roles of these two entities ensure effective linkage between upstream technical design, institutional requirements, and community-level delivery.

291. *TCC* acts as the technical and strategic executing entity. TCC is responsible for upstream technical structuring, climate adaptation design, and alignment with Adaptation Fund requirements. Its functions include conducting technical feasibility studies; supporting the climate-resilient design of infrastructure and systems; structuring adaptation interventions under Components 1, 3, and 4; strengthening the results framework including indicators, milestones, and adaptation cost justification; and ensuring technical coordination among executing entities and coherence between project components and expected outcomes. TCC will also lead the design and operationalisation of the Revolving Fund for Adaptation (Component 3) in partnership with qualified national financial institutions.

292. *ADIDE* acts as the local executing entity responsible for field-level implementation and community mobilisation in the project intervention areas. ADIDE is responsible for the delivery of community-based adaptation activities under Component 2, including environmental restoration works, climate-resilient agriculture and pastoralism interventions, water and sanitation-related actions, and community-level awareness-raising and capacity building. ADIDE also supports community ownership, operation, and maintenance of project-supported infrastructure to ensure the sustainability of outcomes.

b. Togo

293. In Togo, the project's execution is delivered through three complementary entities: Sustainable Solutions for Africa (SSA) as the lead executing entity, the Directorate of Environment under the Ministry of Environment and Forestry Resources (DE/MERF), and the Institut des Formations en Alternance pour le Développement (IFAD-Togo).

294. *SSA* plays the lead technical and strategic coordination role in Togo, analogous to TCC's role in Chad. SSA is responsible for upstream technical structuring, climate adaptation design, and alignment with Adaptation Fund requirements at the national level. SSA leads the execution of Components 1 (climate-resilient infrastructure), 2 (integrated land and ecosystem management), and 3 (access to adaptation financing), and holds the primary SA with OSS. SSA coordinates with DE/MERF on field execution and manages the sub-contractual relationship with IFAD-Togo for training delivery. SSA also leads the design and operationalisation of the Revolving Fund for Adaptation in Togo.

295. *DE/MERF* provides the governmental institutional anchor for the project in Togo. DE/MERF supports field execution across the project components, ensures alignment with national environmental policies and regulatory frameworks, and facilitates the integration of ECOVERSE results into Togo's national adaptation planning instruments including the NAP, NDC, and PND 2025. Activities involving DE/MERF are executed directly by SSA under the SA framework to maintain clear and streamlined fiduciary lines.

296. *IFAD-Togo* is the project's specialised training delivery partner in Togo, sub-contracted by SSA. IFAD-Togo is responsible for the delivery of vocational and technical training activities across the project, including artisan and mason training on iCSEB construction techniques (Activity 1.1.3), farmer training on sustainable land management and climate-smart agriculture (Activity 2.1.4), community financial and climate literacy training (Activity 3.2.2), and the integration of ECOVERSE technical content into vocational training curricula (Activity 4.1.2). IFAD-Togo's role is limited to training delivery; it does not hold field execution responsibilities beyond this scope.

297. Together with DE/MERF, IFAD-Togo contributes to the execution of Component 4 (regional knowledge, learning, and institutional strengthening), with IFAD-Togo focusing on curriculum integration and training-of-

trainers activities and DE/MERF supporting the institutionalisation of ECOVERSE-validated approaches within national technical systems.

Governance structure

a. Regional Steering committee (RSC)

298. The RSC is the highest-level governance body for the ECOVERSE project at implementation level, providing strategic direction, policy oversight, and cross-country coordination. The RSC will meet at least twice annually, with meetings held physically or in hybrid format, rotating between Chad and Togo. Extraordinary meetings may be convened to address implementation bottlenecks, fiduciary risks, or significant safeguard-related issues requiring strategic guidance.

299. The RSC will be chaired by an elected chairperson on a yearly rotational basis. Core membership will comprise the National Designated Authorities (NDAs) of Chad and Togo, representatives of the Executing Entities. Additional observers may be invited as appropriate, including representatives from relevant regional organisations, civil society networks, women's and youth organisations, and research institutions. Written operating rules, membership criteria, and decision procedures will be agreed during the first regional steering committee and codified in the PIM.

300. The RSC's primary responsibilities include: reviewing and endorsing regional and national AWPBs and Procurement Plans; examining consolidated technical and financial reports; assessing safeguards compliance and risk mitigation measures; ensuring that cross-country coordination and knowledge sharing are on track; and resolving strategic and inter-institutional issues that cannot be addressed at the national level.

b. National Steering Committee, Chad

301. In Chad, the National Steering Committee (NSC) provides strategic guidance, policy oversight, and inter-institutional coordination at the country level. The NSC is chaired by the Principal Secretary of the Ministry responsible for the Environment, or a nominee. The composition of the Chad NSC is as follows:

1. Principal Secretary of the Ministry in charge of Environment or nominee (Chair)
2. Principal Secretary of the Ministry of Agriculture, or nominee
3. Representative of the Mayor of N'Djaména , or nominee
4. Representatives of the local mayors of the target districts, or nominees
5. Representative of the Government Delegate of Linia, or nominee
6. Representative of the Government Delegate of Mandelia, or nominee
7. National Project Coordinator, Chad (Member/Secretary)
8. Representative of TCC (observer)
9. Representative of ADIDE (observer)

302. The NSC will review and approve the national AWPB and PP, provide strategic direction on implementation progress, ensure alignment with national adaptation policies and development plans, and review safeguards performance. The NSC will meet at project inception and at yearly intervals thereafter, with extraordinary meetings convened as needed to address urgent implementation issues.

c. National Steering Committee, Togo

303. In Togo, the National Steering Committee (NSC) provides strategic guidance and oversight at the country level. Given that ECOVERSE interventions in Togo are concentrated within Avé 1 Commune and directly engage local government and community structures, the NSC is chaired by the Mayor of Avé 1 Commune, reinforcing the project's locally led approach and ensuring strong territorial anchoring. The composition of the Togo NSC is as follows:

1. Mayor of Avé 1 Commune or nominee (Chair)
2. Prefectoral Director for Environment, Forestry Resources, Coastal Protection and Climate Change, or nominee, acting on behalf of the Ministry of Environment and Forestry Resources at the prefectoral level within the deconcentrated administration
3. Prefectoral Director of the Ministry of Agriculture, Fisheries, Livestock and Food Sovereignty, or nominee, acting on behalf of the Ministry at the prefectoral level within the deconcentrated administration
4. Chief of Zogbépimé or nominee, representing local communities and beneficiaries
5. Representative of women and youth groups of Zogbépimé
6. National Project Coordinator, Togo (Member/Secretary)

7. Representative of SSA (observer)
8. Representative of DE/MERF as Executing Entity (observer)
9. Representative of the Institut des Formations en Alternance pour le Développement (IFAD-Togo) as Executing Entity (observer)

304. The Togo NSC will discharge the functions of: reviewing and approving the national AWPB and PP, providing strategic direction, ensuring policy alignment with Togo's NAP, PND 2025, and sectoral strategies, and reviewing safeguards and gender compliance. The NSC will meet at project inception and at yearly intervals thereafter.

Project Management Structure

a. Regional Project Management Unit (RPMU)

305. A RPMU will be established to manage day-to-day regional operations, ensure cross-country coherence, and provide the administrative backbone for the project's governance structure. The RPMU will ensure direct alignment between regional execution functions, technical coordination, cross country learning, and day to day management support to the national level. OSS, as RIE, will exercise fiduciary and safeguards oversight over the RPMU through agreed supervision, no-objection, and reporting arrangements outlined during inception. The RPMU will serve as Secretariat to the Regional Steering Committee, consolidate national reports into regional synthesis reporting, coordinate joint supervision missions, validate technical deliverables, and manage the regional M&E systems and knowledge platforms, and support harmonised implementation and adaptive management across the two countries. The RPMU will also provide structured technical backstopping to National Project Management Units (NPMUs), ensuring consistency of methodologies, tools, safeguards approaches, and reporting formats across countries and components.

306. The RPMU will be staffed with a Regional Project Coordinator, a MEL Specialist, a Knowledge and Learning Officer, a Finance and Administration Officer, a Gender and Environmental/Social Safeguards Specialist, and thematic advisors as required. All RPMU appointments will be made in compliance with AAF's human resource rules.

b. National Project Management Unit (NPMU)

307. An NPMU will be established in each country to manage day-to-day execution, coordinate with the national project partners, and ensure compliance with the project's results framework, ESMP, and GAAP. The Chad NPMU will be led by a National Project Coordinator who will report to the National Steering Committee for strategic guidance and to OSS for fiduciary compliance and reporting requirements. The NPMU will be staffed with a Finance and Administration Officer, a Monitoring and Evaluation Officer, a Gender Equality and Social Inclusion (GESI) Officer, and a Communications Officer.

308. The NPMU's core functions include: strategic planning and budgeting; ensuring smooth execution of activities by the EEs in accordance with the results framework; monitoring and reviewing delivery against milestones and financial progress; consolidating physical, technical, and financial progress reports for submission to the RPMU and OSS; reviewing and tracking portfolio-level risks; providing technical support on safeguards compliance; and managing knowledge at the national level. On-site monitoring of field activities will be conducted on a quarterly basis, with quarterly progress reports submitted by the EEs for review and desk appraisal.

Roles and Responsibilities of Executing Entities

309. All Executing Entities operate under the overall oversight of OSS as the RIE, in accordance with the AF's fiduciary standards, environmental and social safeguards, and reporting requirements. Performance of the EEs is monitored through periodic technical and financial reviews, with corrective actions agreed where necessary in line with the Subsidiary Agreements. Each Executing Entity is responsible for:

- Executing assigned activities and delivering results in accordance with the project document and approved AWPB and PP.
- Maintaining competent technical staff for project implementation.
- Collecting, maintaining, and furnishing data required for monitoring the impact and results of project activities.
- Coordinating the implementation of activities within their respective intervention areas and component scopes.
- Ensuring effective, efficient, and economic utilisation of resources.

- Preparing and submitting physical, technical, and financial progress reports to the relevant NPMU.
- Managing and mitigating project-level risks within their operational scope.
- Ensuring compliance with the ESMP and GAAP in all activities under their responsibility.
- Supporting the operation of the project-level GRM at the field level, including facilitating accessible and confidential complaint intake from communities and ensuring timely referral to the relevant NPMU and, where necessary, to OSS.

Fund Flow Arrangements

310. At project approval, funds will be transferred from the AF to the RIE who will later sign Agreements with the REE and the NEEs in-line with the disbursement schedule outlined. This will be direct transfers with the funds flow arrangement for accountability and tracking purposes. To ensure stewardship of resources, audit will be undertaken as well as the use of the no-objection process at implementation level between the RIE, REE, and the NEEs.
311. At the national level, the NEEs shall transfer funds to the projects partners who will liaise with, municipal councils, community committees, local extension services, and qualified local artisans and cooperatives to manage site-level implementation, and assume responsibility for the operations, maintenance, and stewardship of infrastructure and restored ecosystems. Community structures include water user associations, community maintenance committees, rangeland and natural resource management committees, women's cooperatives, youth associations, and producer groups. These structures will implement community maintenance plans, manage cost-sharing arrangements where applicable, and undertake community-based monitoring feeding into the NPMU MEL systems.
312. Local structures will also serve as the primary intake point for the project-level Grievance Redress Mechanism, ensuring safe, accessible, and confidential intake and referral of complaints to the national and regional levels. Community engagement will be maintained throughout implementation through regular consultations, feedback mechanisms, and participatory monitoring, ensuring that interventions remain grounded in local realities and responsive to the needs of vulnerable groups, women, and youth.

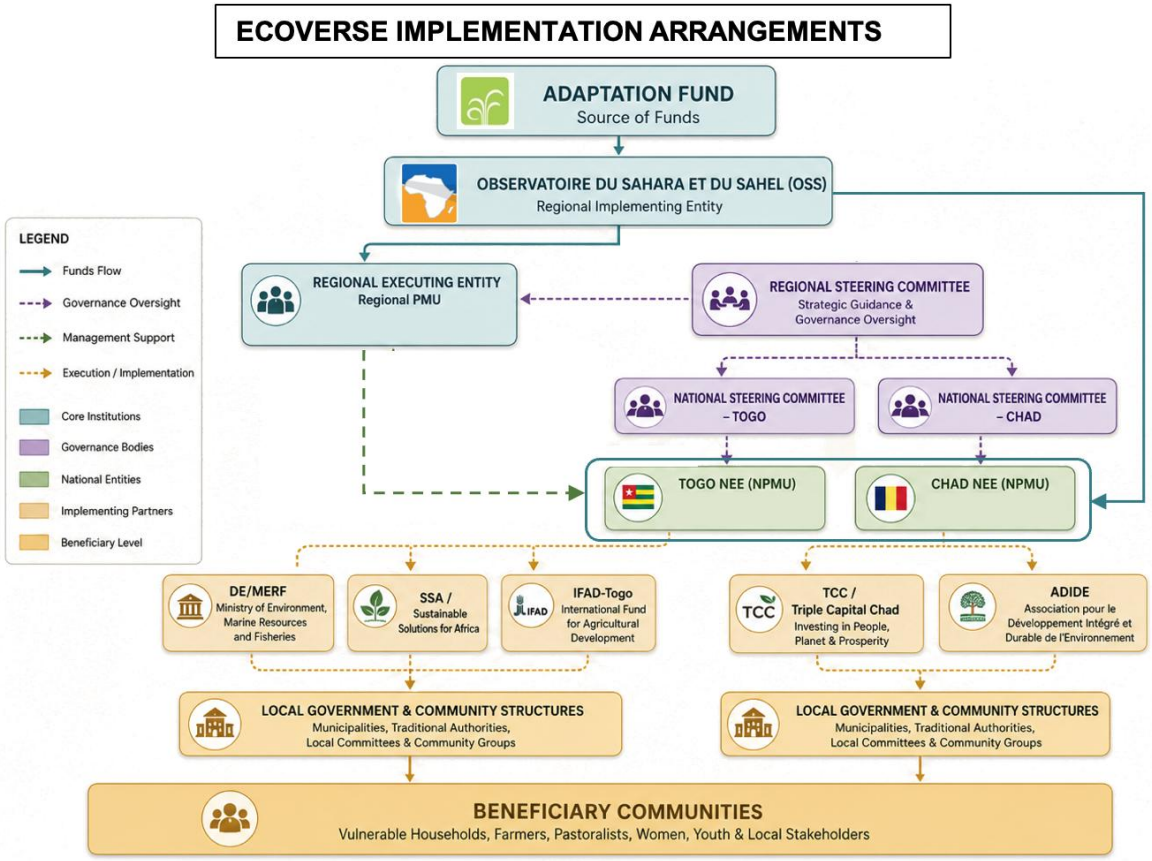
Gender and Safeguards Integration in Implementation Arrangements

313. The implementation arrangements are designed to ensure full compliance with the AF ESS and Gender Policy throughout the project cycle. Gender-responsive elements are integrated at every tier of the governance and management structure:
    - Gender Equality and Social Inclusion (GESI) Officers are embedded in each NPMU and the RPMU, with responsibility for ensuring that gender targets, sex-disaggregated data collection, and gender-responsive participation are systematically implemented and tracked.
    - The project Steering Committees will include representation from women's organisations and will review gender compliance as a standing agenda item.
    - All Agreements will include explicit obligations on compliance with the ESMP and GAAP, with performance monitored through quarterly reporting and periodic field verification.
    - Community-level structures will strive for at least 40% women's participation in leadership positions, consistent with the project's gender targets across all components.
    - The GRM will be designed with gender-sensitive intake procedures, ensuring that women, youth, and marginalised groups can raise concerns safely and confidentially.
    - Building on the participatory approach used during project design, the project will maintain strong community engagement throughout implementation. Feedback received through the GRM and community engagement processes will directly inform adaptive management decisions by the PMUs and will be reported to the NSCs and RSC for strategic oversight.

Table 14: Responsibility Matrix

Entity / Structure	Role and Responsibilities
Regional Implementing Entity (RIE)	•Overall fiduciary oversight and accountability to the Adaptation Fund Board •Review and approval of AWPBs, Procurement Plans, budgets, and progress reports •Compliance assurance for AF ESP, Gender Policy, and fiduciary guidelines •Safeguard supervision, technical missions, and audit facilitation

	•Hosting and management of the project-level Grievance Redress Mechanism •Technical backstopping and quality assurance to the REE and NEEs
Regional Steering Committee (RSC)	•Strategic direction and policy oversight at regional level •Review and endorsement of regional and national AWPBs and PP •Cross-country coordination and resolution of inter-institutional issues •Review of consolidated progress, safeguards, and gender compliance reports
Regional Executing Entity (REE)	•Execution of regional-level activities •Cross-country harmonisation of implementation approaches, reporting formats, MEL systems, and knowledge management •Consolidation of regional reporting; support to planning, supervision, and adaptive management across components • Operationalisation of regional learning, replication, and policy dialogue functions, including but not limited to Component 4. •Demand-driven support to NEEs for planning, supervision, and reporting
Regional Project Management Unit (RPMU)	•Day-to-day regional operations and cross-country coordination •Secretariat to the RSC •Consolidation of national reports into regional reporting •Management of regional MEL systems, spatial monitoring, and knowledge platforms •Provision of structured technical backstopping and harmonised tools
National Steering Committees (NSCs)	•National-level strategic guidance and inter-institutional coordination •Approval of national AWPBs and review of progress and safeguards performance •Policy alignment with NAPs, NDCs, and national development plans •Chad NSC: Chaired by Ministry of Environment; Togo NSC: Chaired by Mayor of Avé 1 Commune
Chad National Executing Entities	•TCC: Upstream technical structuring, feasibility studies, infrastructure design, revolving fund operationalisation •ADIDE: Field-level delivery, community mobilisation, environmental restoration, climate-resilient agriculture •Both: Reporting to the NPMU, compliance with SA obligations and safeguards
Togo National Executing Entities: (SSA, DE/MERF, IFAD-Togo)	•SSA: Lead EE; technical design, field execution, revolving fund operationalisation; sub-contracts IFAD-Togo •DE/MERF: Governmental anchor; field execution support; policy alignment and institutionalisation •IFAD-Togo: Training delivery across all components; curriculum integration •All: Reporting to the NPMU, compliance with SA obligations and safeguards
National Project Management Units (NPMUs)	•Day-to-day operational management of national-level execution •Preparation of national AWPBs, budgets, and Procurement Plans •Field data collection, MEL system operation, and GRM record-keeping •Quarterly and annual progress reporting to the RPMU and OSS
Local Government and Decentralised Services	•Site identification, participatory planning, and community mobilisation •Local permitting, land-use compliance, and technical supervision •Linkages between communities and national institutions
Community Structures	•Co-design and co-execution of adaptation activities •Operation, maintenance, and stewardship of project assets •Community-based monitoring and GRM intake •Governance of water, agroforestry, housing, and restoration assets •Participation in savings groups, revolving funds, and livelihood activities



B. Measures for financial and project risk management.

314. Effective risk management is central to the successful implementation of ECOVERSE. The project will operate across diverse ecological, institutional, and administrative environments in Chad and Togo; therefore, risks may arise in fiduciary control, procurement, climate and security conditions, social dynamics, gender inclusion, environmental safeguards, and long-term sustainability. The project adopts a preventive and adaptive risk management approach, with clear roles and response protocols at the Regional Implementing Entity, the Regional Executing Entity, National Executing Entities and local implementing partners. Risks are identified, monitored, and updated quarterly in national project review meetings, bi-annually by the Regional Steering Committee, and proactively addressed through operational adjustments, strengthened internal controls, on-site supervision, and transparent grievance and accountability mechanisms. The matrix below summarizes the principal project and financial risks, their country-specific context, mitigation strategies, and the entities responsible for implementation and follow-up.

315. Robust risk management is fundamental to the successful and accountable implementation of ECOVERSE across the contrasting ecological, institutional, and socio-political environments of Chad and Togo. Risks span fiduciary control, procurement integrity, climate variability, land tenure, gender exclusion, environmental safeguards, institutional capacity, political governance, public health, and digital infrastructure. The project adopts a preventive and adaptive risk management framework fully aligned with AF fiduciary standards, ESP, Gender Policy, and Procurement Policy. Risk identification, rating, and mitigation are embedded across all levels: OSS/RIE, REE/AAF, NEEs and local executing partners. Risks are reviewed quarterly at NPMU level, bi-annually by the RPSC, and reported in all APRs and MTR documentation. Where new risks emerge during project implementation including USPs will be assessed and plausible mitigation measures will be employed taking into account the AF's ESP screening criteria.

Table 15: ECOVERSE Financial and Project risk management

Nbr.	Risk Area	Context Risk	Country	Level	Prob.	Key Mitigation Measures	Responsible
1	Financial management	Multiple fund flows across RIE, REE and NEEs	Chad & Togo	M	M	Financial Management (FM) manual with clear segregation of duties; dual	RIE, REE, NEEs, NPMUs

		increase risks of misallocation, idle balances and late reconciliations, especially in remote areas with weak banking.				signatories for disbursements > USD 5,000; ceiling-based advances; monthly reconciliations; quarterly financial reviews; annual external audits; tranches released only after justification of previous advance.	
2	Currency and prices	Chad and Togo operate in the CFA Franc (XOF) zone, pegged to the Euro at a fixed rate of 655.96 XOF/EUR, providing Euro-side stability. USD depreciation against the Euro and by extension the XOF, directly reduces the real purchasing power of each AF tranche. Current USD/EUR trends reflect ongoing global monetary instability. Additionally, commodity price inflation (fuel, construction materials, seeds) in both countries creates cost overrun risk for multi-year civil works contracts.	Chad & Togo	M	M	Hold funds in USD at RIE; convert using a 30-day average rate; align procurement plans with annual work plans; include 5% price-contingency in BoQs; monitor key market prices in quarterly reports.	RIE, NEEs (FM units)
3	Procurement	Thin supplier markets in project zones can limit competition, increase prices and delay delivery of works, materials and services.	Chad & Togo	M–H	M	Approved annual procurement plans; open competitive bidding above AF thresholds; framework contracts for recurrent goods; supplier pre-qualification; complaint mechanism with fixed response time; RIE prior review for high-value contracts and sample post-reviews.	NEEs (procurement), REE, RIE
4	Fraud and corruption	Community grants and incentives can be diverted or misused at local level.	Chad & Togo	M	M	Use of e-payments where feasible; witnessed cash payments with signed lists otherwise; mandatory Codes of Conduct; semi-annual community scorecards; anonymous GRM channels; anti-corruption clauses in all agreements; RIE spot checks on a sample of community grants.	RIE, NEEs, local committees
5	Political instability	Institutional changes in Chad can delay signatures, disrupt NEE mandates or restrict field access; political risk in Togo is lower but present.	Chad (H) / Togo (L)	H / L	M / L	Legal agreements drafted to ensure continuity across government changes; RIE as regional anchor; mix of state and non-state NEEs; documented force-majeure and suspension/resumption procedures; quarterly review of political context and early dialogue with AF Secretariat if needed.	RIE, REE
6	Land tenure	Overlapping customary and statutory rights may delay civil works and land-based investments and exclude women or vulnerable groups.	Chad & Togo	H	M	FPIC for all land-based activities; participatory land mapping; signed land-access agreements before works; involvement of customary leaders; mediation protocol linked to GRM; gender-disaggregated monitoring of land access.	NEEs, municipalities, community bodies, RIE (ESP)
7	Herder–farmer conflict	Land restoration and water infrastructure in Chad can interfere with transhumance routes and trigger conflict.	Chad	H	M	Mapping of livestock corridors before site selection; participation of pastoralist representatives in planning; no interventions on mapped routes without negotiated agreements; shared-use design of watering points; coordination with national transhumance authorities.	NEEs (Chad), local authorities, RIE

8	Gender exclusion	Women, youth and marginalized groups may not fully participate in or benefit from project activities and governance.	Chad & Togo	M–H	M	GAAP with clear targets; minimum 40% women in trainings and local bodies; quotas for women in user committees; tailored communication in local languages; GRM with female focal points; sex- and age-disaggregated data and annual gender review.	REE (gender), NPMUs, NEEs
9	Climate variability	Floods, dry spells and storms can delay works, damage assets and disrupt planting and training schedules.	Chad & Togo	M–H	H	Use of seasonal forecasts for annual planning; flexible calendars for works and planting; contingency plans for resequencing activities; drought-buffer storage in water designs; climate indicators in routine field reports; climate-related clauses in works contracts.	NPMUs, NEEs, RPMU, RIE
10	Public health	Flood-related cholera and other outbreaks in N'Djaména and waterborne disease in Zogbépimé can interrupt field work and community meetings.	Chad (H) / Togo (M)	M–H / M	M	Schedule intensive field work outside peak outbreak periods where possible; design WASH and drainage works to reduce disease risks; coordination with local health services; basic health and hygiene protocols for field teams; reference to national guidance for epidemics.	NPMUs, NEEs, REE
11	Security and access	Parts of Chad face insecurity and movement restrictions; access in Togo may be temporarily reduced during specific events.	Chad (H) / Togo (L–M)	H / M	M / L	Regular security risk assessments; coordination with local authorities; clear no-go and travel clearance procedures; remote monitoring using geo-tagged data and third-party monitoring where needed; mandatory security briefing for field staff.	RIE, REE, NEEs
12	Technology uptake	Farmers and households may be slow to adopt agroforestry, CSA and iCSEB techniques if they perceive high costs or low benefits.	Chad & Togo	M	M–H	Early demonstration plots and model units; farmer field schools; peer learning with community champions; small grants that support initial adoption; participatory selection of practices; tracking of adoption rates and mid-term adjustment if uptake is low.	REE, NPMUs, NEEs
13	Institutional capacity	Local government, NEEs and cooperatives have limited experience with AF standards, M&E and safeguards.	Chad & Togo	M	M	Institutional capacity assessments at start; targeted training on FM, procurement, ESP and M&E; mentoring by REE technical staff; surge technical assistance when gaps are identified; gradual transfer of responsibilities tied to performance.	REE, RPMU, NEEs
14	Implementation delays	Cross-border coordination, procurement lead times and staffing gaps can slow implementation and disbursement.	Chad & Togo	M–H	M	Early procurement for Year 1 activities; clearly defined fast-start actions; phased contracting; monthly progress dashboards; escalation through RPMU and RPSC when delays exceed agreed thresholds; planning for a possible no-cost extension if needed.	REE, NEEs, RPMU, RIE
15	Digital and connectivity	Low access to electricity and internet limits use of the digital knowledge hub and real-time reporting tools.	Chad (H) / Togo (M)	M	H	Use of offline-capable data tools; provision of solar-powered tablets to field teams; SMS-based reporting options; local caching and downloadable content for the knowledge hub; mapping of connectivity at inception and use of urban offices as data relay points.	RPMU, REE, NPMUs
16	Environmental and social safeguards	Civil works and land-based activities may cause local environmental impacts or restrict access for some	Chad & Togo	M	M	ESP and gender screening for all sub-projects; ESMPs prepared where required; safeguards clauses in contracts; supervision checklists that	RIE (ESP), NEEs, REE

		groups if not screened and managed.				include E&S items; GRM available before works start; annual ESP compliance review by RIE.	

(Risk Level and Probability rated: High – H, Medium – M, Low – L)

C. Environmental and social risk management, in line with the ESP and gender policy of the AF

316. In accordance with the AF's ESP, the ECOVERSE project has been classified as a **Category B project**, indicating that the project may involve some environmental and social risks, but these are expected to be site-specific, reversible, and manageable with appropriate mitigation measures. Activities such as small-scale construction, rehabilitation of public infrastructure, community-based water harvesting, agroforestry development, and ecosystem restoration may temporarily disrupt local environments or create localized resource-use pressures if not carefully planned and monitored. However, the project does not involve large-scale land conversion, involuntary resettlement, hazardous materials, or irreversible ecological change, and therefore does not trigger Category A requirements.
317. To ensure full compliance with the ESP, the project will implement a comprehensive Environmental and Social Risk Management Framework, operationalized through a site-specific ESIA and a detailed ESMP. All interventions will undergo screening and classification against the 15 ESP principles to avoid unintended harm and ensure equitable benefit-sharing. Where Indigenous Peoples, nomadic pastoralists, customary land users, or other vulnerable groups are present, the project will apply FPIC and participatory land-use planning processes to safeguard rights of access, mobility, and cultural identity.
318. Social risk prevention will be strengthened through inclusive governance arrangements, gender-responsive beneficiary selection criteria, and mandated minimum representation of women and youth in community adaptation committees. All contractors, extension agents, and implementing partners will operate under Environmental and Social Codes of Conduct, including Occupational Health and Safety standards and conflict-sensitive engagement protocols. Construction and landscape rehabilitation works will follow best-practice erosion control, biodiversity protection, and waste management procedures to minimize temporary environmental disturbances.
319. A multi-tier GRM elaborated in section D below, with local entry points, confidential reporting channels, and escalation pathways to national and regional levels, will ensure that affected individuals can raise concerns safely and equitably. Continuous capacity building will equip community institutions, local government units, and national executing entities to maintain safeguard responsibilities beyond the project period.
320. The significance of each environmental and social risk is assessed against the 15 principles of the AF ESP through a two-dimensional analysis combining impact severity and probability of occurrence. Each dimension is scored on a five-point scale, and the resulting product determines the risk significance category.
321. Impact severity (scale 1–5) reflects the scale, reversibility and breadth of the potential adverse effect, ranging from 1 (very localised, fully reversible, affecting few persons or no protected receptors) to 5 (widespread, irreversible, affecting many persons or critical receptors). Probability (scale 1–5) reflects the likelihood that the residual risk would materialise after standard project-level mitigation is in place, ranging from 1 (very unlikely) to 5 (almost certain).
322. The product of the two scores defines the significance category according to the following thresholds: scores of 4 or below indicate Low significance, scores between 5 and 12 indicate Moderate significance, and scores of 15 or above indicate High significance. Activities or sub-projects that would generate any residual risk in the High significance category are excluded under the AF Category A criteria and may not proceed under ECOVERSE. The risk matrix in Table 16 below shows the score grid and significance bands.

Table 16: Risk Significance Matrix (5*5)

	Probability →				
Impact ↑	**1 Very low**	**2 Low**	**3 Medium**	**4 High**	**5 Very high**
5 Very high	**5**	**10**	**15**	**20**	**25**

4 High	**4**	**8**	**12**	**16**	**20**
3 Medium	**3**	**6**	**9**	**12**	**15**
2 Low	**2**	**4**	**6**	**8**	**10**
1 Very low	**1**	**2**	**3**	**4**	**5**

323. Table 17 presents the inherent risk for each of the 15 ESP principles, before the application of project-level mitigation. Substantiating evidence is drawn from the stakeholder consultations conducted in 2025 and 2026 in the project intervention areas of Chad (N'Djaména 8th and 9th Arrondissements; Mandelia, Kournari, Linia, Mabrio, N'Djaména Koura) and Togo (Avé 1, Zogbépimé, Howuivé, Kévé, Yométchin, Edzi, Zokopé, Agbozomé, Awatome). Country-specific evidence is integrated within each principle's narrative. Mitigation measures designed to reduce these inherent risks are set out in Table 6 of this ESMP.

Table 17: ECOVERSE Environmental and social risk management and mitigation measures

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
1. Compliance with the Law	ECOVERSE activities have been mapped against an established legal framework in both countries. In Chad, the project is anchored in the new Environmental Protection Law (Loi n° 023/CNT/2024 of 15 October 2024), the EIA Decree (Décret n° 630/PR/PM/MERH/2010), the Water Code (Loi n° 016/PR/1999), the Forest, Fauna and Fishery Resources Law (Loi n° 14/PR/2008), and the Construction and Urbanism Codes (Loi n° 004 and 006/PR/2010). In Togo, alignment is established with the Framework Environmental Law (Loi n° 2008-005), the ESIA Procedure Decree (Décret n° 2017-040/PR), the Water Code (Loi n° 2010-004), the Urbanism Decree (Décret n° 2016-043/PR), and the 2022 Labour Code. African regional standard ARS 1333:2018 governs iCSEB construction in both countries. The inherent risk of non-compliance arises from multiple permitting touchpoints across two countries with different regulatory regimes, and from decentralised enforcement at municipal and prefectural levels which creates some risk of inconsistent interpretation. Specific operational pathways include sequencing risk where works could begin before required municipal authorisations, environmental permits or ESIA clearances are issued, and the need to coordinate cross-border alignment of standards in a regional programme. The risk is rated as moderate impact. Mitigation through the permit register (Annex 2B), pre-works clearance protocols and contractor compliance clauses is set out in Table 6 of Annex 2.	**2 – 3** *(score 6)*	**Moderate**
2. Access and Equity	Access and equity risks are substantiated by site-level evidence in both countries. In Togo, stakeholders in Zogbépimé expressed strong anxiety regarding potential elite capture of the limited number of demonstration housing units and rehabilitated market stalls, given high local demand against finite outputs. Remote villages without all-weather road access face seasonal exclusion from training and revolving-fund services. In Chad, demand for green jobs and revolving-fund products in the dense urban environments of N'Djaména's 8th and 9th Arrondissements significantly exceeds project supply, raising the likelihood of selection disputes among internally displaced persons, low-income households and informal settlers. Inherent risk is rated Moderate because, absent affirmative measures, the combination of high local demand, scarce demonstration outputs and seasonal accessibility constraints would likely lead to exclusion of the most vulnerable from project benefits. Mitigation through the GAAP, transparent eligibility criteria with a focus on the most vulnerable, public posting of beneficiary lists, proactive outreach via community radios and women's associations, and disaggregated MEL is set out in Table 6 of Annex 2.	**3 – 3** *(score 9)*	**Moderate**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
3.Marginalised and Vulnerable Groups	Vulnerability profiles differ across the two countries but converge on the same risk pattern: structural barriers to participation that, without affirmative measures, would reproduce existing exclusion. In Togo, adolescent girls in Howuivé are marginalised by the absence of safe school latrines, which suppresses school attendance during menstruation; older women in several villages fear digital exclusion from financial services due to high illiteracy. In Chad, female-headed households, internally displaced persons in N'Djaména's peri-urban areas, unemployed youth, the elderly and persons with disabilities raised explicit concerns during consultations about their effective inclusion in project activities. Inherent risk is rated Moderate because, absent adapted participatory methods and targeted outreach, meeting times, locations, communication formats or selection criteria would likely favour men, literate adults, or residents of well-connected localities, perpetuating exclusion. Mitigation through pictogram-based formats, women's and youth associations as outreach channels, minimum representation quotas in user committees, and disaggregated indicators is set out in Table 6 of Annex 2.	**3 – 3** *(score 9)*	**Moderate**
4.Human Rights	No human-rights violations were reported during the consultations conducted in either country. ECOVERSE contributes positively to the right to a healthy environment, the right to a safe learning environment and the right to participation through the project's stakeholder engagement framework. Inherent risk is rated Low because no rights-incompatible practice has been identified at design stage. the project's activities advance rights rather than threaten them. Limited residual pathways concern indirect issues such as inadvertent information-access barriers for non-French/Ewe/Arabic speakers and discriminatory contractor labour practices, addressed through Codes of Conduct, multilingual disclosure and the GRM as set out in Table 6 of Annex 2.	**2 – 2** *(score 4)*	**Low**
5.Gender Equality and Women's Empowerment	Gender risks are substantively documented. In Togo, customary tenure systems often restrict women's land ownership; women in Zogbépimé represent 95% of market traders but operate from collapsed market sheds; women across the target villages report a daily water-collection burden of approximately two hours, which the project's water related measures directly address. In Chad, female-headed households in the 8th and 9th Arrondissements face compounded vulnerability to flooding, with constrained access to credit, training and decision-making fora. Inherent risk is rated Moderate with high probability because the structural gender inequalities documented in both countries mean that, without targeted measures, project benefits would predictably flow disproportionately to men and women's participation in user committees and revolving-fund governance would remain symbolic. Mitigation through the GAAP (including a women's participation threshold, gender-responsive financial products, female SEAH focal points and sex-disaggregated reporting) is set out in Table 6 of Annex 2.	**3 – 4** *(score 12)*	**Moderate**
6.Core Labour Rights	The construction phase of Component 1 is the principal labour-rights interface. In Togo, contractors frequently lack formal occupational health and safety systems, and youth in Kévé called for a 'local-first' hiring policy; community members in Howuivé currently perform hazardous unpaid labour to repair school walls, which the project will replace with paid contractor-led works under formal OHS standards. In Chad, similar capacity gaps exist among small construction firms operating in N'Djaména. Inherent risk of project-induced harm is rated Low. The project's labour interventions are formalising rather than precursing, replacing informal unpaid community labour with regulated contractor employment under the national Labour Codes. Probability of minor OHS incidents during iCSEB block production and borehole drilling is low, and the impact severity per incident is low when standard PPE and contractor protocols are in place. Mitigation through ILO-aligned contractor clauses, OHS	**1 – 3** *(score 3)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	protocols, fair-wage commitments and worker grievance pathways is set out in Table 6 of Annex 2		
7.Indigenous Peoples	No Indigenous Peoples have been identified in the project intervention areas. In Togo, the populations are predominantly Ewe and Adja-Ewe. In Chad, the urban and peri-urban populations of N'Djaména and Chari-Baguirmi are ethnically diverse but do not include groups recognised as Indigenous under the AF ESP. Inherent risk is rated Low. Residual procedural attention is required for transient and seasonally mobile pastoralist groups in Chad, whose movements may intersect with restoration sites and water points; the project will document seasonal mobility patterns during inception and apply Free, Prior and Informed Consent principles to any USP that materially affects pastoralist seasonal access. The risk is rated Low rather than Not Applicable to maintain procedural attention to mobility-rights issues throughout implementation.	**2 – 1** *(score 2)*	**Low**
8.Involuntary Resettlement	No physical displacement is anticipated. Infrastructure under Component 1 (school and market rehabilitations, drainage works, demonstration housing) will be implemented on existing municipal footprints in Togo, on existing public or communal land in Chad, and through partnership with local authorities. All works locations are confirmed at design stage to avoid physical resettlement. Avé 1 in Togo operates under approximately 95% customary tenure, and N'Djaména's 8th and 9th Arrondissements include informal urban settlements where tenure is contested. Inherent risk is rated Low. The project's design choice to site works on existing public footprints fundamentally avoids displacement; any residual concern relates to potential economic displacement or access restriction in customary-tenure contexts (e.g., restoration sites, contour bunding or urban greening corridors inadvertently affecting access to agricultural plots, pasture, fuelwood collection sites or informal commerce). Impact would be moderate if it occurred, but probability is low because of the existing-footprint design. Mitigation through, participatory site selection and pre-works socio-economic screening of every USP is set in Table 6 of Annex 2	**2 – 2** *(score 4)*	**Low**
9.Protection of Natural Habitats	No project activities are sited within designated protected areas, RAMSAR sites, World Heritage properties or critical natural habitats. Project sites in Togo are in already degraded rural and peri-urban zones; project sites in Chad are in urban, peri-urban and rural-mosaic landscapes that have already undergone substantial anthropogenic modification. Inherent risk of project-induced harm is rated Low. The use of iCSEB technology is itself a habitat-protection measure: by replacing fired-brick construction, the project removes a major driver of localised deforestation associated with brick-kiln fuelwood demand. Limited residual concerns relate to micro-siting of urban green corridors, drainage interventions adjacent to seasonal wetlands, and species selection in restoration plantings; these are addressed through site-level ESIA screening and technical guidelines set out Table 6 of Annex 2.	**2 – 2** *(score 4)*	**Low**
10.Conservation of Biological Diversity	In Togo, the planned reforestation site in Awatome will prioritise the native Khaya grandifoliola;. In Chad, restoration of urban and peri-urban wooded areas must use locally adapted species and avoid cross-contamination from nursery sources. Inherent risk is rated Low. The project is biodiversity-positive by design through restoration, native-species planting and assisted natural regeneration deliver net habitat gains. Probability of minor species-selection or micro-siting issues across multiple restoration USPs is low as is the per-incident impact. Mitigation through native-species lists, certified seed sourcing, pre-planting biodiversity screening and consultation with traditional custodians of sacred biodiversity sites is set out Table 6 of Annex 2.	**1 – 3** *(score 3)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
11.Climate Change	ECOVERSE is a pure adaptation RM and does not generate significant greenhouse-gas emissions. Embodied-carbon analysis confirms that iCSEB construction has substantially lower lifecycle emissions than conventional fired-brick or cement-block construction. Restoration, agroforestry and assisted natural regeneration activities deliver net carbon sequestration. Solar pumping and rainwater harvesting avoid emissions associated with diesel-pumped or trucked water supply. Inherent risk is rated Low. The project is climate-positive in both adaptation and mitigation dimensions. Limited residual risk relates to slow community uptake of climate-smart practices.	**2 – 1** *(score 2)*	**Low**
12.Pollution Prevention and Resource Efficiency	Construction activities are the principal pollution interface. In Togo, residents in Agbozomé reported respiratory complaints from dust on unpaved school floors, which iCSEB rehabilitation will address; iCSEB construction itself generates noise and particulate emissions during block production. Borehole drilling generates noise and drilling-mud waste requiring proper management. In Chad, construction of permeable drainage and demonstration housing in dense urban settings raises dust-suppression and construction-waste-handling requirements. Inherent risk of project-induced harm is rated Low. Probability of routine construction nuisance (dust, noise, minor waste) is moderate, but per-incident impact is low, time-bound and fully reversible. The project's design is pollution-improving overall: iCSEB has lower lifecycle emissions and waste than fired-brick alternatives, and improved drainage reduces flood-related contamination. Mitigation through standard contractor clauses (dust suppression, working-hours restrictions, waste segregation, drilling-fluid containment) and site-level USP ESMPs is set out Table 6 of Annex 2.	**1 – 3** *(score 3)*	**Low**
13.Public Health	The project operates in environments with documented public-health vulnerabilities that inform site scheduling and design rather than being created by the project. In Chad, N'Djaména is exposed to recurrent flood-related cholera outbreaks, particularly in the 8th and 9th Arrondissements. In Togo, Zokopé reported widespread open defecation due to absence of latrines, and the influx of external workers in Kévé raises legitimate community concerns regarding STI and HIV transmission. Inherent risk of project-induced harm is rated Low. The project's activities are health-improving: drainage works reduce vector and waterborne-disease habitat, WASH interventions address open defecation, and iCSEB rehabilitation reduces respiratory dust exposure. Limited residual concerns relate to standing water at new boreholes if not properly designed (mosquito vector risk) and worker-community interaction at construction sites; both are moderate-impact-if-they-occurred but low probability with proper design. Mitigation through health-sensitive design standards, seasonal field scheduling, contractor sexual-health awareness sessions and the SEAH protocol is set Table 6 of Annex 2.	**2 – 2** *(score 4)*	**Low**
14.Physical and Cultural Heritage	Cultural-heritage sites are documented at specific locations. In Togo, sacred forests and shrines in Edzi are located near proposed restoration footprints; the village cemetery in Zogbépimé, considered a sacred site, is exposed to flooding and communities have explicitly requested protective fencing, which the project will provide. In Chad, the urban context of N'Djaména contains historical and religious sites that may intersect with rehabilitation works. No World Heritage properties or sites on the List of World Heritage in Danger lie within the project's area of influence. Inherent risk is rated Low. Damage to a sacred site or religious feature would be a high-impact event, but probability is very low because all known sites are mapped, communities have already flagged sensitive locations during consultations, and the project's interventions are protective in cases such as the Zogbépimé cemetery. Mitigation through pre-works cultural-heritage screening of every USP, mandatory	**3 – 1** *(score 3)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	consultation with traditional and religious custodians prior to earth-moving works, and chance-find protocols in contractor clauses is set out Table 6 of Annex 2.		
15.Lands and Soil Conservation	Soil degradation is a documented baseline condition the project addresses, not a condition created by the project. Slopes in the Avé 1 region are losing approximately 30 tonnes of topsoil per hectare per year, and schools in Howuivé and Zogbépimé are sited in low-lying zones prone to siltation. In Chad, the peri-urban areas of N'Djaména and the rural sites in Chari-Baguirmi face compounded pressures from informal land conversion, gully erosion and overgrazing in the Sahelian context. Inherent risk of project-induced harm is rated Low. The project integrates soil conservation techniques through assisted natural regeneration, contour bunding, permeable drainage, agroforestry and check-dam construction. Probability of localised soil disturbance during earth-moving works is non-trivial, but per-incident impact is low, time-bound and reversible. Mitigation through erosion-control clauses in contractor agreements, seasonal scheduling of earth-moving works to avoid the rainy season, and topsoil-erosion monitoring is set Table 6 of Annex 2.	**1 – 3** *(score 3)*	**Low**

324. Additionally, the cumulative impact matrix below is designed to complement the 15-Principle Environmental and Social Risk Screening table by capturing the cross-site and cross-year effects that emerge only at the program scale, such as changes in hydrological balance, biodiversity composition, social equity dynamics, and the long-term operation and maintenance burden on municipalities and communities. Unlike site-specific safeguards, this matrix supports adaptive management across the entire ECOVERSE portfolio by linking standardized indicators directly to the project's MEL dashboard and to the annual review processes of the RSC. This allows for timely adjustments to implementation for example, modifying species mixes in restoration zones, adjusting water abstraction schedules, or securing additional maintenance resources where needed. The estimated costs associated with these measures cover the monitoring systems, compliance audits, training, mediation, and corrective actions required to effectively manage environmental and social risk; they do not include construction or capital expenditures, which are budgeted separately within component activities.

Table 18: Cumulative impact matrix complementing ESS screening

Potential Impacts (Cumulative)	Mitigation Measures (Program-Level)	Indicators	Responsible
Watershed hydrology & downstream environmental flows from multiple water points, ponds, and green drainage	• Apply environmental flow rules at sub-watershed scale • Stagger abstraction schedules • Rainwater harvesting first; groundwater second • Annual hydrological review with corrective actions	• Nbr. sub-watersheds meeting min. environmental flow • Nbr. corrective actions implemented/year	NEEs; Municipal Water Authorities; REE Hydrology Lead; RIE Oversight
Landscape biodiversity shifts from large-scale tree planting/agroforestry	• Native/locally adapted species lists • Mixed-species designs; no monocultures • Pollinator habitat strips and buffer zones • Annual species survival & diversity audits	• Tree survival ≥70% Y1; ≥60% Y2 • Nbr. ha with pollinator strips	NEEs; Forestry Services; Community Nurseries; REE Biodiversity
Cumulative soil/borrow-pit disturbance for iCSEB inputs	• Approved sourcing plans • Micro-borrow pits with rotation • Pit rehabilitation & vegetative cover • Prohibit riverbank extraction	• Nbr. borrow pits rehabilitated within 60 days • Zero riverbank extraction incidents	Contractors; Municipal Works; NEEs Safeguards; RIE Audit
Erosion/sedimentation pulses from many worksites	• Standard erosion control (silt fences, check dams, mulching) • Wet-season work moratoriums where needed • Rapid revegetation	• Suspended sediment (NTU) trend decreased in sentinel streams • Nbr. sites revegetated ≤30 days post-works	Contractors; NEEs; REE Civil/Env; Community Committees

Urban microclimate & stormwater regime change (mostly positive) needing sustained O&M	• O&M playbooks for permeable pavements/drains • Municipal budget lines for cleaning/repairs • Community stewardship days	• Nbr. green–grey assets functional at 12/24 months • Nbr. municipal O&M budget lines adopted	Municipalities; NEEs; Community Groups; RIE KM/MEL
Social equity/exclusion risks aggregating across sites	• Inclusive targeting with quotas (≥50% women) • Disability-access design & schedules • Outreach in local languages • Equity checks each quarter	• Participation rates by sex/age/disability • Nbr. activities passing equity checklists	NEEs Gender/SE Teams; Community Committees; RIE Gender
Land tenure/resource access conflicts accumulating across restoration & water sites	• Participatory land-use mapping • Access/use MoUs • FPIC where applicable • Conflict mediation panels	• Nbr. signed land/access agreements • Nbr. grievances resolved ≤30 days	NEEs; Traditional Authorities; Mediation Panels; RIE GRM
Labour & OHS exposure across multiple small sites	• Contractor Codes of Conduct • Toolbox talks & PPE audits • LTIFR monitoring and corrective actions	• LTIFR (lost-time injury rate) decrease • Nbr. sites with full PPE compliance	Contractors; Municipal Labour Offices; NEEs; RIE Safeguards
Construction & nursery waste streams (plastics, cement bags, organics)	• Site Waste Management Plans (SWMP) • Segregation & back-hauling contracts • Composting of organics; recycling of plastics	• Nbr. sites with active SWMP • tonnes of waste recycled/composted	Contractors; Municipal Sanitation; NEEs MEL
Invasive/pest/disease pressures with expanded vegetation	• Pre-planting risk screening • Nursery hygiene protocols • Rapid response eradication fund	• Nbr. invasive outbreaks contained ≤30 days • Nbr. nurseries passing hygiene audits	Forestry/Env Agencies; Nurseries; NEEs
O&M/fiscal burden on municipalities when assets accumulate	• Handover MoUs with costed O&M • Tariff/user-committee micro levies where appropriate • Annual functionality & cost audits	• Nbr. costed O&M plans signed • Nbr. assets functional at 24 months	Municipalities; NEEs Finance; Community O&M Committees; RIE

325. The ECOVERSE project includes a limited number of partially Unidentified Sub-Projects (USPs) across Comp 1, 2, and 3, where the typology, technical standards, and geographic scope of activities are clearly defined at design stage, but the final identification of specific locations, sites, parcels, or beneficiaries will be determined during implementation through participatory mapping, evidence-based technical assessments, and transparent community-led selection processes. All USPs in ECOVERSE are of the partially unidentified type (either by location, micro-site, slope/gully, parcel, or beneficiary) in full conformity with AF Decision B.39/52, which expressly prohibits the inclusion of fully unidentified sub-projects in funded proposals. Component 4, which focuses exclusively on regional knowledge management and institutional strengthening, contains no USPs, as all activities under that component are fully defined at design stage.

326. Justification for the use of USPs. The decision not to fully identify these activities at design stage is grounded in technical, participatory, and adaptive management considerations, and the specific benefits of this approach clearly outweigh the additional compliance burden it entails. For infrastructure and land management activities under Components 1 and 2, the precise siting of permeable roads, green corridors, bioengineering erosion control structures, and ecosystem restoration parcels depends directly on evidence generated through early-phase technical studies, specifically flood risk mapping (Activity 1.2.1), topographic and erosion hazard mapping (Activity 2.2.1), and participatory degraded land assessments (Activity 2.1.1), none of which can produce reliable, site-specific results before project inception. Pre-identifying specific road segments, gullies, or restoration parcels in the absence of this evidence base would risk directing investment to lower-priority or tenure-contested sites, reducing community ownership, and generating avoidable environmental and social safeguard risk. For the community adaptation finance mechanism under Component 3, the identification of final grantees and sub-project locations is, by design, determined through a community mobilisation process (Activity 3.1.4) and a demand-driven application mechanism (Activity 3.1.5); pre-selecting beneficiaries at design stage would undermine both the participatory integrity and the adaptive finance rationale of the component.

327. Fixed framework and exclusion criteria. All USPs operate within a clearly defined, non-negotiable implementation framework established at design stage. For each USP, the typology of admissible interventions,

technical standards, eligible species portfolios, maximum grant sizes, and beneficiary selection criteria are fixed in advance and may not be revised during implementation without formal no-objection from OSS as RIE. A project-wide exclusion list is provided in Table 20 below, defining all categories of activities, location conditions, and social circumstances that are absolutely prohibited across all USPs, regardless of country or implementation context. This list draws directly on the 15 principles of the AF ESP, Gender Policy, and the exclusion criteria established in the ECOVERSE ESMP. No USP may proceed to implementation if any exclusion criterion is triggered.

328. ESP and Gender Policy screening process. In line with AF Decision B.39/52 and the ECOVERSE ESMP, each USP will undergo a mandatory four-step environmental, social, and gender screening process prior to implementation: (1) identification of environmental and social risks in accordance with the 15 ESP principles; (2) commensurate impact assessment for all identified risks; (3) identification of appropriate avoidance, minimisation, or management measures; and (4) integration of these measures into the ESMP and the activity-level AWPB. Screening will be conducted by the responsible Executing Entity under mandatory OSS oversight, with formal no-objection clearance from OSS required before any USP proceeds to implementation. In accordance with paragraph 29 of the AF USP guidance, the environmental and social risks specific to USPs are by definition not fully known at this stage and are therefore not included in the ESP risk screening table in Section L of this proposal. These risks will be systematically identified, documented, and reported in annual Project Progress Reports (PPRs) submitted to the AF Secretariat.

Table 19: ECOVERSE USP activity register

Component and Output	Activity	USP Type	What is fixed at design stage	What is determined during implementation	Justification for USP	Responsible entity for ESP/GP screening
Component 1 Output 1.2: Flood-resilient roads, permeable drainage, and green urban corridors	1.2.2 Design and rehabilitate climate-proofed road and drainage systems	Partially unidentified by location	Intervention typology (permeable roads, vegetated swales, drainage channels); technical standards and materials; target municipalities (N'Djaména districts, Zogbepimé)	Exact road segments to be rehabilitated; drainage layouts and alignments; final construction footprints	Final prioritisation of road segments depends on flood risk and hazard mapping conducted under Activity 1.2.1 in Year 1; pre-selection without this evidence base risks misallocation of investment and avoidable ESP risks	Executing Entities under OSS no-objection
	1.2.3 Establish green corridors in heat-exposed areas	Partially unidentified by micro-site	NbS typology (tree corridors, shaded public spaces, school/market greening); climate-adapted native species lists; urban/peri-urban focus; target municipalities	Final planting sites and plot selections; corridor alignments; community stewardship arrangements; planting density	Green corridor siting depends on Activity 1.2.1 hazard mapping and community co-design workshops; advance selection risks placing corridors where they generate minimal flood or heat relief benefit	Executing Entities under OSS no-objection
Component 2 Output 2.2: Erosion control infrastructure implemented	2.2.3 Implement bioengineering and vegetation-based erosion control	Partially unidentified by slope/gully	Bioengineering methods (vetiver hedgerows, gabions, brush layering); admissible species; risk reduction objective; intervention size range per country	Specific slopes and gullies to be treated; final stabilisation layouts; boundaries of intervention zones	Selection of specific gullies depends on topographic and erosion hazard mapping under Activity 2.2.1; advance identification without this data would lack technical rigour and community validation	Executing Entities under OSS no-objection; hazard assessment required prior to screening
Component 2 Output 2.3: Degraded	2.3.2 Implement assisted	Partially unidentified by parcel	Restoration techniques (ANR, enrichment planting, community	Exact restoration blocks; parcel	Final parcels depend on degraded land assessments under	Executing Entities under OSS no-

forest, rangeland, and riparian ecosystems restored	natural regeneration and enrichment planting		reforestation); admissible species portfolios; landscape typologies; target countries and provinces	boundaries and sizes; land tenure arrangements per parcel	Activity 2.1.1; early selection risks targeting lower-priority or tenure-contested land and triggering unnecessary land access risks	objection; FPIC process required for all parcels
Component 3 Output 3.1: Revolving adaptation finance mechanism established, capitalised, and operationalised	3.1.5 Undertake community lending and sub-grant operations	Partially unidentified by beneficiary and site	Eligible activity typologies; maximum and minimum grant/loan sizes; beneficiary selection criteria; gender and equity quotas (minimum 50% women); geographic scope (project municipalities); prohibited uses aligned with Exclusion List	Final grantees and borrowers; exact sub-project sites; specific activities to be financed per household or group	Beneficiary identification depends on community mobilisation (Activity 3.1.4) and a demand-driven application process; pre-selecting grantees at design stage would undermine community-led selection integrity and financial inclusion objectives	Executing Entities under OSS no-objection; mandatory individual ESP/GP screening checklist per sub-grant prior to disbursement

329. Table 19 applies to all USPs listed above No USP may proceed to implementation if any of the criterion listed in table 20 is triggered

Table 20: ECOVERSE project-wide exclusion list

Category	Excluded activity, location, or condition	Applies to
Land and Physical Displacement	Any activity requiring involuntary resettlement or physical displacement of persons	All USPs
	Any restriction of access to land, water, or natural resources without documented voluntary consent and agreed compensation	All USPs
	Works on private or customary land without written consent of the land user or rights holder	1.2.2, 2.2.3, 2.3.2
Ecosystems and Biodiversity	Any activity in, or immediately adjacent to, legally designated protected areas, national parks, Ramsar sites, or UNESCO World Heritage zones	1.2.3, 2.2.3, 2.3.2
	Conversion or degradation of natural forests, primary vegetation, or wetlands	2.3.2
	Introduction of invasive, non-native, or ecologically unsuitable species	1.2.3, 2.2.3, 2.3.2
	Monoculture plantations replacing multi-species or natural systems	1.2.3, 2.3.2
Infrastructure and Scale	Any large-scale infrastructure or activities classified as Category A under the AF ESP	All USPs
	Any hard engineering works (concrete dams, retaining walls, major drainage canals) not explicitly approved in technical design	2.2.3
	Works in or near human settlements without a prior site-level safety and social risk assessment	2.2.3
Social and Rights-Based	Any activity affecting communities with the characteristics of Indigenous Peoples (per AF ESP) without a completed Free, Prior, and Informed Consent (FPIC) process	All USPs
	Any activity that excludes or disadvantages women, youth, elderly persons, or persons with disabilities from participation or benefit access	All USPs
	Any activity creating or exacerbating risks of gender-based violence, exploitation, or abuse	All USPs
	Sub-grants or loans to political entities, government bodies, or for-profit commercial enterprises	3.1.5
	Sub-grants or loans for activities on the AF Prohibited Practices list	3.1.5
Regulatory and Fiduciary	Any activity for which the required national environmental, land, or construction authorisation cannot be obtained	All USPs
	Any activity exceeding the agreed maximum grant or loan size without prior written no-objection from OSS	3.1.5
	Any activity for which adequate ESP/GP screening cannot be completed due to insufficient site information	All USPs

D. Monitoring and evaluation arrangements and budgeted M&E plan.

330. The ECOVERSE project will establish a comprehensive Monitoring and Evaluation (M&E) framework to ensure that project activities are implemented effectively and that progress toward outputs, outcomes, and impacts is systematically tracked throughout the project lifecycle. The M&E system will support evidence-based decision making, adaptive management, and accountability to stakeholders, including the Adaptation Fund and participating countries.
331. The framework will monitor the delivery of project inputs, adherence to implementation schedules, achievement of output and outcome targets, and the overall contribution of the project to strengthening climate resilience in participating countries. It will also evaluate the project's relevance, effectiveness, efficiency, sustainability, and long-term impact. The system will collect, analyse, and report information from project partners and stakeholders to ensure transparency and continuous learning.
332. The ECOVERSE M&E system will follow the AF methodologies for tracking core indicators and reporting on project results. Monitoring and reporting will align with the AF Results Framework and comply with AF guidance on monitoring, evaluation, and reporting.
333. Indicators will include quantitative and qualitative measures related to climate resilience, ecosystem restoration, climate-smart livelihoods, and institutional strengthening. Data collected will support reporting on the project's contribution to AF outcomes and outputs and will inform annual PPRs submitted to the AF.
334. Special attention will be given to gender-responsive indicators, inclusion of vulnerable and marginalized groups, and monitoring of environmental and social safeguards in accordance with the AF ESP and Gender Policy.
335. Monitoring and evaluation for the ECOVERSE project will be implemented through a multi-level institutional structure involving regional and national actors and presented in the table below.

Table 21: Roles and Responsibilities for Monitoring and Evaluation

Entity	Roles and Responsibilities
OSS *As the Regional Implementing Entity (RIE), OSS oversees the overall monitoring and evaluation of the project*.	• Reviewing and approving annual work plans and progress reports. • Monitoring compliance with Adaptation Fund policies and environmental and social safeguards. • Ensuring implementation of recommendations from evaluations, audits, and supervision missions. • Preparing and submitting Project Performance Reports to the Adaptation Fund.
Regional Project Steering Committee (RPSC)*Provides strategic oversight of the project's monitoring and evaluation system.*	• Reviewing and validating annual work plans and budgets. • Supervising project implementation and financial execution. • Assessing project progress through annual reports and evaluation findings. • Ensuring coordination and collaboration among participating institutions and stakeholders at regional and national levels.
Regional Project Management Unit (RPMU) *Coordinates day-to-day monitoring and evaluation activities across the project.*	• Developing and implementing the project's operational plan and M&E framework. • Coordinating monitoring and data management systems across participating countries. • Consolidating national monitoring reports into regional reports. • Preparing quarterly and annual progress reports. • Disseminating monitoring results and lessons learned to relevant stakeholders. • Supervising implementation of monitoring activities at regional level.
Regional M&E Expert (within RPMU) *Provides technical leadership for the monitoring and evaluation system.*	• Coordinating data collection across participating countries. • Supporting national teams in the application of monitoring tools and methodologies. • Ensuring data quality and consistency in reporting. • Supporting analysis of results and preparation of project progress reports.
National Project Management Units (NPMUs) *Established by National Executing Entities to monitor project implementation at the national level.*	• Collecting and analysing project monitoring data. • Monitoring implementation of project activities at field level. • Preparing quarterly and annual national progress reports. • Supporting monitoring missions, field assessments, and targeted studies. • Disseminating monitoring findings to national stakeholders and decision makers.
National M&E Experts *Responsible for operational monitoring at country level.*	• Conducting routine field monitoring visits to project sites. • Supporting data collection and validation processes. • Working closely with implementing partners and community organizations. • Ensuring timely reporting of project indicators and results.
Local Communities and Stakeholders *Participatory monitoring mechanisms will involve communities and project beneficiaries.*	• Providing feedback on project implementation and outcomes. • Identifying emerging environmental and social risks. • Supporting monitoring of mitigation measures under the ESMP. • Participating in community-based monitoring activities and capacity-building initiatives.

336. *Project Planning and Inception Phase:* Project implementation will begin with an inception workshop involving representatives from participating countries, executing entities, civil society organizations, and community stakeholders. The inception workshop will: Finalize the project implementation arrangements; Review and validate the annual work plan and budget; Present the monitoring and evaluation framework; and clarify roles and responsibilities of project partners.
337. *Development of the Monitoring and Evaluation System:* During the initial phase of implementation, the project will establish a comprehensive Monitoring and Evaluation system and develop a Project M&E Manual. The manual will define indicators, data collection methods, reporting procedures, and institutional responsibilities. A centralized monitoring database and digital dashboard will be established to facilitate real-time data entry and reporting across participating countries. This system will allow national teams to upload monitoring data and enable the Regional Project Management Unit to track project progress. Training workshops will be organized to build the capacities of national M&E officers, field agents, and community representatives in the use of monitoring tools and data collection methodologies.
338. *Baseline Study:* A baseline study will be conducted at the beginning of the project to establish reference values for all indicators in the Results Framework. The study will assess: Socio-economic conditions of target communities; Climate vulnerability and exposure; Gender inequalities and social inclusion gaps; Ecosystem conditions and natural resource management practices; and Livelihood opportunities and climate-resilient economic activities. The baseline data will allow the project to measure progress over time and assess the impact of interventions.

Monitoring and Reporting:

339. *Quarterly monitoring* reports will be prepared by NPMUs and submitted to the RPMU. These reports will provide updates on: Progress in implementation of planned activities; Early results and lessons learned; Financial expenditures and resource utilization; and Implementation challenges and corrective measures.
340. *Annual progress* reports will provide a comprehensive review of project implementation. These reports will evaluate progress against indicators and targets defined in the Results Framework and include both technical and financial performance assessments. The annual report will serve as the basis for the PPRs submitted to the AF. Regular monitoring missions will also be conducted by the RPMU and OSS to verify project results on the ground and consult with beneficiaries and local authorities.
341. A *mid-term evaluation* will be conducted approximately two years after the start of project implementation. The review will assess progress toward project outcomes, identify implementation challenges, and recommend corrective actions for the remaining project period. The evaluation will be conducted by an independent consultant.
342. A *final evaluation* will be conducted toward the end of the project to assess the overall performance and impact of ECOVERSE. The evaluation will focus on: achievement of project objectives; effectiveness of project interventions; sustainability of results; and lessons learned and opportunities for replication. The results of the evaluation will be presented during the project closure workshop.
343. During the final months of the project, the project team will prepare a *comprehensive project completion report* summarizing, results achieved, lessons learned, challenges encountered, and recommendations for scaling up and sustaining project outcomes.

Project Grievance mechanism

344. The ECOVERSE project will utilize OSS existing grievance mechanism as the basis to allow affected populations to raise concerns related to non-compliance with social and environmental policies or commitments.
345. OSS has established a grievance mechanism through which a matter arising from a project it finances or implements may be submitted as a complaint. The mechanism is available to stakeholders and is part of the OSS's environmental and social policy framework, addressing compliance concerns and USP-related grievances that may arise during implementation.
346. The grievance mechanism is coordinated and managed by the OSS's environmental and social committee. Communities and other stakeholders affected by the project may submit complaints by mail, email, fax, or phone. Complainants may also refer the matter to the Ad hoc Complaint Handling Mechanism (ACHM) of the Adaptation Fund if the RIE is not responsive or if they are not satisfied with the outcome of their complaint.

Sahara and Sahel Observatory Boulevard du Leader Yasser Arafat BP 31 Tunis Carthage 1080 Tunisia Tel: (+216) 71 206 633/634 Fax: (+216) 71 206 636 Email: doleances@oss.org.tn or boc@oss.org.tn	Adaptation Fund Board Secretariat Mail stop: MSN P-4-4-400 1818 H Street NW Washington DC 20433 USA Tel: 001-202-478-7347 Email: afbsec@adaptation-fund.org

347. *At the project level:* The NEEs serve as the contact point for project-related complaints from stakeholders in each country. The national project management teams, with support from the REE, will respond promptly and appropriately. Where complaints cannot be managed at the project level, the NEE or REE will direct complainants to the implementing entity for further action. All relevant stakeholders will be adequately informed about the grievance mechanism through awareness and sensitization campaigns, particularly regarding potential USPs. The mechanism will be made available during launching workshops, meetings, and trainings, and will be published on the project and REE websites.
348. *Complaint Filing:* Anyone or communities affected by project activities may file complaints through multiple channels, including: telephone; self-referral during supervision missions; social networks (WhatsApp, etc.); project webpage; website of the OSS or directly at Grievance Mechanism Guide; mail via complaint boxes in project localities; and during field visits or community meetings. All means will be available at national and regional levels.
349. *Receipt and Registration:* The NEE is responsible for receiving and recording all project-related complaints upon receipt. Complaints are classified into: (a)Non-sensitive complaints, related to implementation processes, choices, methods, or achieved results; and (b)Sensitive complaints, generally concerning personal misconduct such as corruption, sexual abuse, or discrimination. A formal acknowledgment will be sent by the NEE within a maximum of one week, informing the complainant of next steps and requesting any additional information needed for a full assessment.
350. *Complaint Handling:* This involves verifying the eligibility of the complaint and establishing the link between the facts raised and the project's activities and impacts. The eligibility assessment will determine whether the case should be addressed under the project-specific grievance mechanism or referred to other mechanisms as appropriate.
351. In the case of unfounded complaints, the necessary investigations will be conducted to protect the project's integrity and reputation. Public accusations considered unfounded will be formally addressed by the implementing entity, REE, and NEEs.
352. In the case of well-founded complaints, two types of response may apply: (i) direct action to resolve the complaint; or (ii) a broad audit or joint investigation, dialogue, and negotiation to reach a substantive resolution, potentially involving national and local experts.
353. Below is the grievance mechanism flow diagram:

Monitoring of Environmental and Social Safeguards and Unidentified Sub-Projects (USPs)

354. Given that ECOVERSE includes activities classified as USPs as described in part II section C above, the M&E system will incorporate specific procedures to track their environmental and social impacts.

355. Environmental and social monitoring will be conducted at project execution level by the EEs under the supervision of the Environmental and Social Committee of OSS. The committee will ensure that project activities comply with the AF ESS Policy and that mitigation measures defined in the ESMP are effectively implemented. Environmental and social monitoring will involve: regular field inspections, monitoring of mitigation measures, documentation of environmental and social risks, and tracking of grievance cases and responses.

356. Annual reports submitted to the AF will include updates on ESMP implementation and grievance management. Monitoring of USPs will follow the AF screening and safeguard procedures, ensuring that environmental and social risks are identified, assessed, and managed prior to implementation.

Budget for Monitoring and Evaluation

357. The ECOVERSE project allocates dedicated financial resources to support monitoring and evaluation activities throughout the implementation period. The M&E budget will support the following as presented in the table below:

Table 22: ECOVERSE Monitoring and Evaluation, Work Plan and Budget Timeline

Type of Activity	Responsible	Budget (USD)	Timeline															
			YR1				YR2				YR3				YR4			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Project Implementation Manual	REE	15,000																
Design of M&E System and Manual	REE, RIE	35,000																
Assessments including baseline	EEs, RIE	30,000+50,000																
M&E Digital Database, Dashboard	REE / RIE	40,000																
Quarterly M&E Meetings, Reports	EEs, M&E Officers	120,000																

Quarterly Field Monitoring Visits	EEs, M&E Experts	200,000																	
Annual Joint Monitoring Missions	RIE, REE, EEs	220,000																	
Annual Monitoring Reports	EEs	60,000																	
Annual Financial Audits	RIE-External Auditors	80,000																	
Annual Regional Steering Committee Meetings	RPSC	70,000																	
Annual National Steering Committee Meetings	NPSC	70,000																	
TOTAL		**780,000**																	

Specific implementing entity costs related to M&E:

Type of Activity	Responsible	Budget (USD)	Timeline															
			YR1				YR2				YR3				YR4			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Mid-term evaluation	RIE	75,000																
Final evaluation	RIE	125,000																
Project completion report	RIE	70,000																
Final project audit	RIE	30,000																
TOTAL		**300,000**																

358. The total budget allocated to monitoring and evaluation activities is estimated at approximately USD 1,080,000, covering monitoring, evaluation, reporting, and auditing activities during the project lifecycle. Additionally, the M&E system for the ECOVERSE project is closely aligned with the Results Framework section E to ensure that all outputs, outcomes, and impact indicators are systematically tracked throughout implementation. Each M&E activity contributes directly to monitoring progress toward the AF's core indicators and the project's specific results targets as presented below:

Table 23: Alignment of Monitoring and Evaluation Activities with ECOVERSE Results Framework

M&E Activity	Purpose	Results Framework Link	Key Outputs/Outcomes Monitored
Project Implementation Manual	Establish operational procedures, monitoring protocols and reporting structures	Supports all outputs and outcomes	Defines monitoring procedures for all project components
Design of M&E system and M&E manual	Establish indicators, data collection tools, and reporting mechanisms	All outputs and outcomes	Ensures systematic tracking of Results Framework indicators
Baseline studies and assessments	Establish baseline values for indicators	Outcome indicators and impact indicators	Climate vulnerability levels, ecosystem conditions, livelihoods, gender inclusion
M&E digital database and dashboard	Manage and consolidate monitoring data across countries	All outputs and outcomes	Enables tracking of indicators across components and countries
Quarterly M&E meetings and progress reports	Track implementation progress and address operational challenges	Outputs across all components	Monitoring of activity delivery, capacity-building outputs, and stakeholder engagement
Quarterly field monitoring visits	Verify project implementation on the ground and assess progress	Outputs and outcomes	Ecosystem restoration activities, climate-resilient livelihood interventions, community adaptation measures
Annual joint monitoring missions	Assess progress toward project outcomes and identify implementation issues	Outcome indicators	Climate resilience improvements, ecosystem restoration outcomes, institutional strengthening
Annual monitoring reports	Consolidate progress reports and track Results Framework indicators	Outputs, outcomes and impact indicators	Annual progress toward Adaptation Fund indicators
Annual financial audits	Ensure transparency and efficiency in resource use	All outputs	Financial management supporting delivery of project outputs
SC meetings and results workshops	Review results and provide strategic guidance	Outcomes and project impact	Regional progress toward climate resilience objectives
Midterm evaluation	Assess progress toward achieving project outcomes and identify adjustments needed	Outcomes	Effectiveness of adaptation interventions, progress toward climate resilience objectives

Project completion report	Document results, lessons learned and best practices	All outputs and outcomes	Achievement of Results Framework targets
Final evaluation	Evaluate overall project impact, effectiveness and sustainability	Impact indicators	Long-term resilience outcomes and sustainability of interventions
Final project audit	Ensure accountability and compliance with financial procedures	All outputs	Financial accountability supporting project delivery

E. Project results framework including milestones, targets and indicators.

359. The ECOVERSE project will directly benefit 80,000 people (45,000 in Chad and 35,000 in Togo), of whom at least 40,000 are women (representing 40% or more of direct beneficiaries), and at least 15,000 are youth under 30 years of age. Direct beneficiaries include households receiving climate-resilient housing, water supply systems, and rehabilitated roads; smallholder farmers accessing agroforestry, irrigation, and soil conservation services; and community members participating in savings, revolving finance, and livelihood training programmes. An estimated 300,000 people will benefit indirectly through restored ecosystems, rehabilitated community infrastructure, improved local governance structures, and regional knowledge dissemination, including family members of direct beneficiaries, users of rehabilitated roads and drainage, and downstream communities in restored watersheds. All beneficiary data will be disaggregated by sex, age, and country through systematic household surveys, beneficiary registers, and participatory monitoring.

Table 24: ECOVERSE Results Framework

Results Level	Indicators	Baseline	Milestone (Year 2)	End-of-Project Target	Means of Verification	Responsible Parties	Risks & Assumptions
Enhance the resilience of vulnerable communities and ecosystems in Chad and Togo by strengthening climate-resilient infrastructure, restoring degraded landscapes, improving water security, and promoting adaptive livelihoods in response to intensifying climate change impacts.	• No. of direct beneficiaries with reduced vulnerability to climate risks (disaggregated by sex, age, country) • No. of people with improved access to climate-resilient infrastructure and services • Ha of land and ecosystems restored or under climate-resilient management • No. of households reporting improved adaptive capacity and livelihood stability	• High exposure to heat, floods, drought, land degradation, and water insecurity; • Informal and fragile livelihoods; [baseline survey to be completed in Year 1]	• 48,000 direct beneficiaries accessing at least one climate-resilient service; • 1,200 ha under restoration; • 32,000 households reporting improvement	• 80,000 direct beneficiaries (at least 40,000 women; at least 15,000 youth); • 75,000 with improved access to resilient services; • 3,500 ha restored; • 56,000 households with improved adaptive capacity	• Household surveys; • Beneficiary registers (sex/age disaggregated); • GIS land-use maps; mid-term and final evaluations; • Project completion report	• IE (OSS); • REE; • EEs	• RISKS: Extreme climate events exceeding design thresholds; political or security instability; inflation affecting costs. • ASSUMPTIONS: Continued government support; community ownership; effectiveness of integrated adaptation approach.
COMPONENT 1: Regional Climate-Resilient Infrastructure and NbS Solutions							
OUTCOME 1: Enhanced resilience of vulnerable communities through regionally harmonized climate-resilient infrastructure	• No. of target communities reporting reduced frequency or severity of climate-related service disruptions (heat, flood, access)	• High exposure; • Frequent service disruption documented through community hazard assessments	• At least 4 target communities with documented reduction in disruption	• At least 8 target communities with sustained reduction in climate-related service disruption, verified by engineering and M&E data	• Engineering monitoring reports; • Community disruption logs; • Thermal and flood monitoring data	• EEs; • Municipal authorities; • REE	• RISKS: Extreme rainfall beyond design thresholds. • ASSUMPTIONS: Local authorities fund and execute O&M.
OUTPUT 1.1: Climate-resilient housing and public infrastructure constructed or upgraded (iCSEB technology)	• No. of feasibility studies and participatory design workshops conducted • No. of iCSEB housing and community units constructed/rehabilitated • No. of masons and artisans trained and certified • No. of community maintenance plans formally adopted • No. of socio-economic infrastructure using iCSEB	• Predominance of flood-vulnerable housing; • 0 iCSEB structures; • Weak local building standards	• 2 feasibility studies completed; • 8 participatory design workshops; • 3 iCSEB units constructed; • 80 masons/artisans trained (at least 40 women/youth); • 4 maintenance plans adopted • At least 4 social structures rehabilitated	• 2 feasibility studies; • 5 iCSEB units constructed; • 8 participatory design workshops; • 180 masons/artisans trained and certified (at least 7 women/youth); • 8 community maintenance plans formally adopted and funded • At least 12 social structures rehabilitated	• Feasibility and design reports; • Construction completion certificates; • Training and certification records; • Maintenance plan documents	• EEs; • REE; • Municipal authorities; • Vocational training institutions; • Community construction committees	• RISKS: Supply constraints for local materials; extreme weather delays; community resistance to iCSEB. • ASSUMPTIONS: Community acceptance; municipal design approval; skilled trainers available.
OUTPUT 1.2: Flood-resilient roads, permeable drainage systems, and green urban corridors implemented	• Km of priority roads assessed and mapped for flood risk • No. of road segments rehabilitated (permeable paving and drainage) • No. of trees planted along green corridors (with survival count at 12 months) • No. of municipal staff and workers trained in climate-proof road maintenance	• Frequent seasonal flooding; • Poor drainage; • 0 road segments meeting climate-resilient standards; • Limited municipal maintenance capacity	• 30 km of roads assessed and mapped; • 4 road segments rehabilitated; • 40,000 trees planted; • 40 staff trained	• 30 km of roads fully mapped; • 14 road segments rehabilitated; • 120,000 trees planted (80,000 Chad / 40,000 Togo) • 120 workers trained; • Maintenance protocols adopted	• GIS flood-risk maps; • Engineering and construction reports; • Municipal transport records; • Tree inventory and survival assessment reports	• EEs; • REE; • Municipal public works departments; • Urban planning services; • Community groups	• RISKS: Extreme rainfall; delayed co-financing; tree mortality in arid zones. • ASSUMPTIONS: Local materials available; municipal maintenance commitment; community stewardship.
OUTPUT 1.3: Climate-resilient water supply systems established (rainwater harvesting and solar-powered infrastructure)	• No. of solar-powered pumping and purification systems installed • No. of rainwater collection units installed • No. of households trained in WASH practices • Daily volume of potable water supplied per system (litres/day)	• High dependence on unsafe or distant water sources; • 0 renewable-powered water systems in target communities	• 60 rainwater units installed; • 4 solar systems operational; • 1,500 households trained (at least 750 women)	• 120 rainwater collection units installed; • 12 solar-powered pumping and purification systems operational; • 3,000 households trained in WASH (at least 1,500 women); • At least 8,000 litres per day per operational solar system	• Installation and commissioning reports; • Pump operation logs; • Water quality test results; • WASH training records; • Household survey data	• EEs; • REE; • Municipal water services; Community water committees; • Health and WASH partners	• RISKS: Groundwater depletion; vandalism; maintenance gaps. • ASSUMPTIONS: Adequate rainfall; functional community water governance; spare parts available.

COMPONENT 2: Integrated Land Management for Agricultural, Ecosystem, and Water Resilience							
OUTCOME 2: Landscapes, farms, and water systems sustainably managed and restored to reduce climate risk and strengthen productive and ecological resilience in Chad and Togo	• Ha of land under agroforestry, • Soil conservation, ecosystem restoration, or improved water management	• Degraded and declining landscapes; • Low SLM adoption; • Limited water infrastructure	• 1,200 ha under restored or improved land management	• 3,500 ha under agroforestry, erosion control, ecosystem restoration, or climate-resilient water management	• Remote sensing analysis; • Field surveys; • GIS land-use maps; • M&E reports	• EEs; • Forestry and agriculture services; • REE	• RISKS: Drought affecting seedling survival; land tenure conflicts. • ASSUMPTIONS: Community protection of restored areas; timely seasonal rainfall.
OUTPUT 2.1: Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	• Ha mapped and rehabilitated through agroforestry • No. of community nurseries established • No. of seedlings produced and distributed • No. of farmers trained (disaggregated by sex) • No. of FFS and demonstration plots established • No. of trained farmers confirmed applying at least one SLM practice (follow-up survey)	• Degraded land with declining soil fertility; • 0 community nurseries; • Low agroforestry adoption	• 2 assessments and plans developed • 300 ha mapped and allocated; • 6 nurseries operational; • 120,000 seedlings distributed; • 600 farmers trained (at least 270 women/youth); • 8 FFS established	• 2 assessments and plans developed • 600 ha rehabilitated through agroforestry; • 10 community nurseries; • 260,000 seedlings produced and distributed annually; • 2,800 farmers trained (at least 45 women or youth in every 100); • 16 FFS operational; • At least 1,680 trained farmers confirmed applying SLM practices	• Land-use and GIS maps; • Nursery production records; • Seedling distribution logs; • Training attendance lists; • Post-training follow-up surveys; • FFS reports	• EEs; • REE; • Agricultural extension services; • Community producer groups; • Forestry services	• RISKS: Drought affecting seedling survival; grazing pressure; land tenure disputes. • ASSUMPTIONS: Community protection of planted areas; timely rains; extension support available.
OUTPUT 2.2: Erosion Control Infrastructure Implemented Across Agricultural and Risk-Prone Landscapes	• Ha of erosion-prone land assessed and mapped • Ha rehabilitated through SWC measures • Km of contour bunds and erosion control structures constructed • No. of check dams installed • No. of farmers trained in SWC (disaggregated by sex) • No. of trained farmers applying erosion control practices (follow-up survey)	• High soil erosion and runoff; • 0 ha under structured erosion rehabilitation; • Weak SWC structure maintenance	• 200 ha mapped; • 30 ha rehabilitated; • At least 4 km contour bunds; • 4 check dams; • 300 farmers trained (at least 135 women/youth)	• 500 ha mapped and zoned; • 80 ha rehabilitated; • At least 10 km of contour bunds; • 8 check dams and water retention structures; • 600 farmers trained (at least 270 women/youth); • Follow-up surveys confirm practice adoption in at least 360 farmers	• GIS and erosion maps; • Construction and inspection reports; • Training lists; • Farmer surveys; • Vegetation and soil stability assessments	• EEs; • REE; • Agricultural and forestry extension services; • Community land management committees	• RISKS: Extreme rainfall damaging structures; grazing pressure; limited maintenance. • ASSUMPTIONS: Community commitment to upkeep; local materials available; continued extension support.
OUTPUT 2.3: Degraded Forest, Rangeland, and Riparian Ecosystems Restored	• No. of assessments and plans • Ha of rangeland, forest fringe, and riparian ecosystem restored (ANR and enrichment planting) • No. of CBNRM governance structures established and operational • Ha of urban and peri-urban areas reforested	• Severe degradation of rangelands, forest fringes, and wetland margins; • 0 CBNRM governance bodies in target communities	• 2 assessments and plans developed; • 200 ha under ANR or enrichment planting; • 4 CBNRM committees formed; • 20,000 seedlings procured and planted. • 2 peri-urban reforestation sites active	• 2 assessments and plans developed; • 600 ha restored through ANR and enrichment planting; • At least 4 riparian buffer sites completed; • 8 CBNRM committees operational with legally recognized structures; • 40,000 seedlings procured and planted. • At least 4 peri-urban reforestation sites established	• GIS and vegetation survey data; • Remote sensing; • Ecological monitoring; • Committee registration and governance records; • Community monitoring reports	• EEs; • REE; • Forestry services; • Community resource management groups	• RISKS: Grazing pressure; bushfire; drought limiting regeneration; land tenure conflicts. • ASSUMPTIONS: Community compliance with restoration rules; adequate seasonal rainfall; effective CBNRM governance.
OUTPUT 2.4: Community Water Harvesting, Conservation, and Irrigation Systems Strengthened	• No. of assessments developed • No. of micro-reservoirs, farm ponds, and check dams constructed • No. of drip irrigation and solar pump systems installed • No. of Water User Associations formed and operational • No. of caretakers trained	• 0 purpose-built micro-reservoirs; • 0 drip/solar pump systems; • 0 formal WUAs in target communities	• 2 assessments developed • 15 micro-reservoirs functional; • 40 drip irrigation systems installed; • 10 WUAs formed • At least 10 caretakers trained in O&M	• 2 assessments developed • 60 micro-reservoirs and farm ponds functional; • 100 drip irrigation systems installed; • 80 solar pumping systems operational; • At least 30 WUAs formed and operational • At least 30 caretakers trained in O&M	• Installation and commissioning records; • Technical inspection reports; • Water-use measurements; • WUA registration and governance records	• EEs; REE; Extension services; • Community water and irrigation committees	• RISKS: Groundwater depletion; extreme drought; poor maintenance. • ASSUMPTIONS: Adequate rainfall and runoff capture; farmer adoption of water-efficient practices; functional maintenance systems.
COMPONENT 3: Access to Adaptation Financing							
OUTCOME 3: Improved access to and effectiveness of adaptation finance at local level through nationally anchored and regionally coordinated mechanisms	• No. of community adaptation initiatives sustained beyond initial capitalization	• 0 community climate finance mechanisms operational	• At least 20 community adaptation initiatives operational	• 60 community adaptation initiatives sustained, with documented evidence of climate impact and financial management	• Grant monitoring reports; • Case studies; • Revolving fund performance reports	• EEs; • Community committees; • Partner financial institutions; • REE	• RISKS: Market volatility; income shocks reducing repayment; governance weaknesses. • ASSUMPTIONS: Transparent selection; strong community

							oversight; sustained demand for local adaptation solutions.
OUTPUT 3.1: Revolving Adaptation Finance Mechanism Established, Capitalized, and Operationalized	• No. of partner financial institutions selected and operationalized • Total amount capitalized in revolving adaptation fund (USD) • No. of adaptation loans or grants disbursed • Revolving fund repayment rate (documented)	• 0 climate finance mechanisms at community level; • 0 partner institutions engaged	• 2 partner institutions with signed frameworks; • USD 1,500,000 capitalized; • 40 loans or grants disbursed	• 4 partner financial institutions operational (2 per country); • USD 2,800,000 capitalized; • 80 loans or grants disbursed (average grant size USD 2,000 to USD 10,000); • Repayment rate of at least 85	• Operational framework documents; • Fund capitalization records; • Audited financial statements; • Loan disbursement and repayment records; • Portfolio management reports	• EEs; REE; Partner financial institutions; • Community finance committees	• RISKS: Institutional fiduciary weaknesses; slow fund uptake; regulatory bottlenecks. • ASSUMPTIONS: Selected institutions meet AF compliance standards; communities prepared for fund access.
OUTPUT 3.2: Financial Institutions and Community Members Trained on Adaptation Finance and Climate Literacy	• No. of financial institution staff trained in climate risk integration and adaptation finance • No. of community members trained in financial and climate literacy (disaggregated by sex)	• 0 staff trained in climate-aligned finance; • 0 community members with financial/climate literacy training	• 30 financial institution staff trained; • 1,200 community members trained	• 60 financial institution staff trained (at least 2 cohorts per country); • 3,000 community members trained in financial and climate literacy (at least 1,500 women and youth)	• Training attendance records; • Pre- and post-training assessments; • Certification records	• EEs; • REE; • Partner financial institutions	• RISKS: Staff turnover at partner institutions; limited initial interest in climate products. • ASSUMPTIONS: Institutional buy-in sustained; trained staff retained.
COMPONENT 4: Regional Knowledge, Learning, and Institutional Strengthening							
OUTCOME 4: ECOVERSE adaptation models validated, institutionalized in national technical systems, and positioned for replication across African drylands and forest-savanna transition zones	**No. of national or sub-national institutions formally referencing or adopting ECOVERSE technical guidance**	**0 institutions with formal reference to ECOVERSE methods**	**At least 4 institutions referencing or piloting ECOVERSE guidance**	**At least 8 institutions (4 per country) formally adopting or referencing ECOVERSE guidance in planning or training systems**	**Institutional policy and planning documents; ministerial endorsement records; training curriculum records**	**IE (OSS); REE; National authorities**	**RISKS: Policy inertia; limited connectivity for platform users. ASSUMPTIONS: Continued political engagement; partner institutions maintain staff capacity.**
OUTPUT 4.1: Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	• No. of validated adaptation evidence reports and practitioner reference materials produced • No. of vocational and technical schools integrating ECOVERSE content into curricula	• 0 ECOVERSE-specific evidence publications; • 0 vocational schools with climate-resilient construction content	• 2 adaptation evidence reports produced; • 2 vocational schools with curriculum integration underway	• 2 adaptation evidence and practitioner reference documents produced and disseminated; • 4 vocational schools with curriculum adopted	• Published documents; • Validation workshop reports; curriculum integration records; • School endorsement letters	• EEs; • REE; • IE (OSS); • Vocational and technical training institutions	• RISKS: Data quality gaps; delayed validation processes. • ASSUMPTIONS: Structured M&E yields usable evidence; vocational institutions receptive to curriculum integration.
OUTPUT 4.2: South-South Climate-Resilient Construction Learning and Replication Network Operationalized	• No. of African countries or institutions engaged in the Learning Network • No. of standardized construction replication toolkits developed and disseminated	• 0 network members (pre-project); • 0 replication toolkits	• 10 institutions engaged in the network; • 1 toolkit developed and in pilot testing	• 20 institutions from at least 4 African countries engaged in the network; • 2 standardized construction replication toolkits disseminated	• Network governance records; • Participant registers; • Toolkit distribution logs; • Pilot testing reports	• IE (OSS); • REE; • African partner institutions	• RISKS: Limited travel budget for cross-border exchanges; competing institutional priorities. • ASSUMPTIONS: Strong interest from peer countries; effective communications platform maintained.
OUTPUT 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established	• No. of annual State of Community Adaptation Finance in Africa reports produced • No. of high-level policy dialogues convened • No. of revolving fund replication strategies developed and validated	• 0 annual reports; • 0 policy dialogues on community adaptation finance	• 2 annual reports produced; • 1 high-level policy dialogue convened	• 4 annual reports produced; • 1 high-level policy dialogues convened; • 1 revolving fund replication and capitalization strategy developed and validated	• Published reports; • Dialogue proceedings; • Strategy document; • Media coverage records	• IE (OSS); • REE; • Policy and advocacy partners	• RISKS: Limited political appetite for scaling community finance; replication constrained by regulatory environments. • ASSUMPTIONS: Strong interest from peer countries and DFIs in revolving fund model.

F. Results Framework of the Adaptation Fund

Project Objective(s)[61]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant in USD
To strengthen the climate resilience of vulnerable communities in Chad and Togo by constructing climate-resilient infrastructure, restoring degraded landscapes and ecosystems, improving water and food security, expanding access to adaptation finance, and fostering regional knowledge exchange and institutional learning.	• No. of direct beneficiaries with measurably reduced climate vulnerability (disaggregated by sex and age): 80,000 (≥40,000 women; ≥15,000 youth • No. of indirect beneficiaries: 300,000 • No. of physical assets (housing, roads, water systems) constructed or strengthened: at least 165 (16 housing units + 35 solar water systems + 60 micro-reservoirs + 14 road segments + 40 other community structures • Ha of natural assets protected or rehabilitated: 3,500 ha	• Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets *Also contributing to:* • Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress • Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	• 4.1 Responsiveness of development sector services to evolving needs from changing and variable climate • 4.2 Physical infrastructure improved to withstand climate change and variability-induced stress *AF Core Indicators:* • Number of beneficiaries (direct and indirect) • Assets produced, developed, improved, or strengthened • Natural assets protected or rehabilitated	23,272,108
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant in USD**
Outcome 1: Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	• No. of climate-resilient housing and community infrastructure units constructed or rehabilitated using iCSEB technology: 16 units • No. of road segments rehabilitated with permeable paving and drainage: 14 segments • No. of solar-powered water supply systems installed: 35 • No. of rainwater collection units installed: 120 • No. of local masons and artisans trained and certified (disaggregated by sex): 180 (≥72 women/youth)	• Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	• 4.1.2 No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale): 165+ physical assets (housing units, water systems, road segments, drainage infrastructure) [165+ assets produced, developed, improved, or strengthened]	5,230,000
Outcome 2: Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities in Chad and Togo	• Ha of land rehabilitated through agroforestry: 600 ha • Ha rehabilitated through erosion control: 80 ha • Ha of forest, rangeland, and riparian ecosystem restored: 600 ha • Total ha under improved climate-resilient land management: 3,500 ha	• Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	• 5.1 No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale): 3,500 ha of natural assets protected or rehabilitated • 6.1.1 No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or	6,120,000

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

	• No. of farmers trained in SLM and agroforestry (disaggregated by sex): 2,800(≥45 women or youth in every 100 trained)	• Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts	community livelihood strategies: 2,800 farmers with strengthened livelihood assets [3,500 ha of natural assets protected or rehabilitated]	
Outcome 3: Improved access to and effectiveness of adaptation finance at local level	• No. of partner financial institutions operationalized: 4 (2 per country) • Total amount capitalised in revolving adaptation fund: USD 2,800,000 • No. of adaptation loans or grants disbursed to community beneficiaries: 80 loans/grants • Revolving fund repayment rate (documented): at least 85 in every 100 • No. of community members trained in financial and climate literacy (disaggregated by sex): 3,000 (≥1,500 women/youth)	• Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability • **Specifically:** Output 6.2 Targeted population groups with sustained access to financial services	• 6.2 No. of targeted population with sustained climate-resilient alternative livelihoods: 3,000 community members with improved financial and climate literacy; 80 loans/grants disbursed • 6.1.1 No. and type of adaptation assets created or strengthened in support of livelihood strategies: USD 2,800,000 capitalised; 4 revolving fund mechanisms operational [Increased income or avoided decrease in income]	5,040,000
Outcome 4: ECOVERSE adaptation models are validated, institutionalised in national technical systems, and positioned for replication across African drylands and forest-savanna transition zones	• No. of national/sub-national institutions formally adopting or referencing ECOVERSE guidance: 8 (4 per country) • No. of validated adaptation evidence reports and practitioner reference documents produced: 8 • No. of vocational schools integrating ECOVERSE content: 4 (2 per country) • No. of African countries/institutions engaged in the South-South Learning Network: 20 from ≥4 countries • No. of standardised construction replication toolkits disseminated: 2 • No. of high-level adaptation finance policy dialogues convened: 1	• Output 7: Improved integration of climate-resilience strategies into country development plans • Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated	• 7.1 No. of policies introduced or adjusted to address climate change risks (by sector): At least 4 national or sub-national policies/plans incorporating ECOVERSE guidance • 7.2 No. of targeted development strategies with incorporated climate change priorities enforced: 8 institutions with formally adopted ECOVERSE guidance • 8.1 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated: 2 replication toolkits disseminated; 20 institutions in Learning Network • 8.2 No. of key findings on effective adaptation practices generated: 8 practitioner reference documents; 3 annual State of Community Adaptation Finance reports	2,263,000

G. Project detailed budget

Outcome / Output / Activity	Year 1	Year 2	Year 3	Year 4	Budget (USD)	Budget notes
Component 1: Integrated approach to climate resilient infrastructure	**735,000**	**1,865,000**	**1,925,000**	**705,000**	**5,230,000**	
Outcome 1: Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	**735,000**	**1,865,000**	**1,925,000**	**705,000**	**5,230,000**	
Output 1.1: Climate-resilient infrastructure constructed or upgraded	**180,000**	**930,000**	**1,260,000**	**495,000**	**2,865,000**	
Ac. 1.1.1:Conduct technical studies and participatory design workshops	100,000	0	0	0	100,000	*Technical consultancy (engineers, architects, climate risk experts) @50,000/ country
Ac. 1.1.2:Develop community-led maintenance plans for long-term upkeep	80,000	60,000	60,000	0	200,000	*Facilitation of community maintenance committee formation (2 countries) @40,000 *Development of formal maintenance plans and manuals @35,000 *Establishment of community maintenance funds and cost-sharing arrangements @50,000 *Training of maintenance committee members (local leaders, artisans, officers) @45,000 *Monitoring and reporting systems development @15,000 *Travel and field supervision missions @15,000
Ac. 1.1.3:Train local masons and artisans on earth-brick production and low-carbon building techniques	0	220,000	120,000	45,000	385,000	*Training delivery and facilitation @120,000 *Training materials, manuals and illustrated technical guides @35,000 *Toolkits for 60 trained artisans (block molds, levels, protective gear) @80,000 *Vocational training institution partnerships and certification @40,000 *Practical on-site training sessions integrated in live construction @60,000 *Travel and field missions (intercountry) @30,000 *Training certification and documentation @20,000
Ac. 1.1.4:Construct model housing units using interlocking compressed stabilized earth blocks (iCSEBs)	0	550,000	530,000	200,000	1,280,000	*Construction materials (locally sourced, min. 85% local content) @700,000 *Skilled labour and artisan wages (iCSEB construction teams) @170,000 *iCSEB block pressing equipment and machinery @120,000 *Climate-adaptive design features (elevated foundations, ventilation, rainwater gutters) @100,000 *Site preparation and groundworks @80,000 *Engineering supervision and quality control @70,000 *Documentation, demonstration site setup and handover reports @40,000
Ac. 1.1.5:Construct/revamp damaged or unsustainable community or socio-economic infrastructures using the iCSEBs technology	0	100,000	550,000	250,000	900,000	*Construction materials for priority community structures @480,000 *Skilled labour and artisan wages (iCSEB teams) @175,000 *iCSEB block production and building works @75,000 *Stormwater drainage, sanitation and ventilation upgrades @80,000 *Engineering supervision and quality assurance @50,000 *Community liaison and environmental/social safeguarding @30,000 *Structural documentation and commissioning @10,000
Output 1.2: : Flood-resilient roads, permeable drainage systems, and green urban corridors implemented	**290,000**	**395,000**	**370,000**	**150,000**	**1,205,000**	
Ac. 1.2.1:Assess flood risk zones and erosion-prone road segments	200,000	0	0	0	200,000	*Hydrological and geotechnical assessment specialists @100,000 *GIS remote sensing analysis and mapping software @10,000 *Community hazard mapping workshops @30,000 *Field surveys and soil infiltration testing @25,000 *Drainage vulnerability maps and prioritization lists @20,000 *Technical reporting and design specifications @15,000
Ac. 1.1.2: Design and rehabilitate climate proofed road and drainage system	0	200,000	230,000	100,000	530,000	*Civil engineering design and technical supervision @80,000 *Permeable road surfacing materials @210,000 *Drainage infrastructure @100,000 *Community labour @80,000 *Equipment and construction logistics @40,000 *Quality assurance, testing and commissioning @20,000
Ac. 1.2.3:Establish green corridors in heat-exposed areas through afforestation and reafforestation	0	140,000	110,000	40,000	290,000	*Procurement of drought-resistant native trees and shrubs@80,000 *Planting and establishment @80,000 *Community engagement and nursery management support @50,000 *Site preparation, aftercare and replanting @40,000 *Training for women's cooperatives and youth environmental clubs @25,000 *Monitoring, survival assessment and reporting @15,000

Ac. 1.2.4:Develop manuals and conduct trainings to climate-proof road maintenance	90,000	55,000	30,000	10,000	185,000	*Development of maintenance manuals, inspection checklists and seasonal schedules @40,000 *Training delivery @70,000 *Training materials and printed technical guides (bilingual) @20,000 *Seasonal maintenance demonstrations @30,000 *Travel and field missions @24,000
Output 1.3: Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure	**265,000**	**540,000**	**295,000**	**60,000**	**1,160,000**	
Ac. 1.3.1:Develop and Install rainwater collection infrastructure	100,000	200,000	75,000	0	375,000	*Rainwater collection units procurement @220,000 *Equipment for water (Storage tanks, ferrocement and lined-catchment reservoirs, guttering systems, first-flush filters and overflow channels...) @95,000 *Local artisan installation labour @35,000 *Site assessment, community consultations and hydrological studies @15,000 *Quality control, commissioning and documentation @10,000
Ac. 1.3.2:Procure, supply and set up solar-powered purification units	145,000	200,000	140,000	40,000	525,000	*Procurement of solar-powered filtration/purification units @300,000 *Solar panels and energy storage components @80,000 *Installation works and secure protective enclosures @80,000 *Training on O&M @40,000 *Technical supervision, commissioning and handover @25,000
Ac. 1.3.3:Undertake WASH training on safe storage and water hygiene	20,000	140,000	80,000	20,000	260,000	*WASH training facilitation @100,000 *Training materials and illustrated hygiene guides @30,000 *Seasonal training events @60,000 *Community health educator engagement @40,000 *Monitoring and assessments @20,000 *Travel and field missions @10,000
Component 2: Integrated Land Management for Agricultural, Ecosystem, and Water Resilience	**520,000**	**2,390,000**	**2,350,000**	**860,000**	**6,120,000**	
Outcome2: Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities in Chad and Togo	**520,000**	**2,390,000**	**2,350,000**	**860,000**	**6,120,000**	
Output 2.1: Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	**260,000**	**960,000**	**745,000**	**225,000**	**2,190,000**	
Ac. 2.1.1: Conduct participatory degraded land assessments and agroforestry site selection	60,000	0	0	0	60,000	*Technical assessment specialists @40,000 (shared mobilization with Ac. 2.3.1 - parallel implementation) *Satellite imagery and GIS terrain modelling @15,000 (joint with Ac. 2.3.1 - same landscapes) *Community transect walks and participatory land-use mapping (joint with 2.3.1 community workshops) *Field survey equipment and reports - shared with Ac. 2.3.1 [Activity remains distinct in narrative; budget reflects shared specialist team and GIS analysis platform with Ac. 2.3.1 across the same target landscapes] @5,000
Ac. 2.1.2: Establish community nurseries and produce agroforestry seedlings	200,000	180,000	120,000	40,000	540,000	*Establishment of community nurseries @100,000 (scaled to supply seedlings across Ac. 2.1.3, 2.3.2, 2.3.3, and 2.3.5) *Procurement and production of seeds, seedlings and nursery stock @310,000 (aggregated demand from agroforestry + ecosystem restoration + peri-urban reforestation) *Nursery management training for community groups @40,000 *Water supply and efficient irrigation systems for nurseries @50,000 *Monitoring, quality control and seedling survival assessments @40,000 [Nursery network operates as integrated supplier; downstream activities (2.1.3, 2.3.2, 2.3.3, 2.3.5) source seedlings at cost rather than running parallel procurement]
Ac. 2.1.3: Distribute agroforestry seedlings and tools to smallholder farmers:	0	300,000	295,000	0	595,000	*Seedling distribution @140,000 *Land management toolkits (hoes, planting bars, pruning tools, fencing) @200,000 *Distribution event facilitation and logistics @80,000 *Practical orientation sessions by extension agents @80,000 *2 follow-up post planting advisory visits @70,000 *Seedling survival monitoring and rapid replanting protocol @25,000

Ac. 2.1.4: Train farmers on SLM techniques and climate-smart farming practices	0	180,000	180,000	90,000	450,000	*Training delivery @170,000 *Local extension agent and agroecology technician fees @90,000 (extension cadre pooled with Ac. 2.1.5 and Ac. 2.3.2 - parallel implementation in same communities) *Training materials, illustrated SLM guides and manuals (bilingual) @40,000 *Training sessions @40,000 *Farmer Champion selection, mentoring and certification @70,000 *Travel and field missions @40,000 (joint missions with Ac. 2.3.2 supervision where geographically aligned) *Training certification and documentation @25,000 [Extension agent cadre serves multiple training/restoration activities in parallel; no parallel mobilization]
Ac. 2.1.5: Establish and operate Farmer Field Schools (FFS) and demonstration plots	0	300000	150,000	95,000	545,000	*Establishment of FFS on representative farms @95,000 *Seasonal facilitation and extension agent fees @150,000 (shared cadre with Ac. 2.1.4 and Ac. 2.3.2) *Demonstration plot materials, inputs and comparative plot setup @130,000 *FFS facilitator training and capacity building @70,000 (shared training of trainers with Ac. 2.3.4 CBNRM facilitators) *Farmer Champion co-facilitation and peer-learning support @55,000 *Monitoring, performance data collection and FFS documentation @45,000 (leverages MEL platform under Ac. 4.1.3) *FFS graduation, community-recognized certification @35,000 [FFS facilitator training pooled with CBNRM facilitator capacity building; field monitoring rides on MEL system established in Output 4.1]
Output 2.2: Erosion Control Infrastructure Implemented Across Agricultural and Risk-Prone Landscapes	**200,000**	**805,000**	**885,000**	**385,000**	**2,275,000**	
Ac. 2.2.1: Conduct topographic and erosion hazard mapping to guide structural interventions	200,000	0	0	0	200,000	*Remote sensing imagery and GIS terrain analysis @60,000 *Field survey teams and topographic survey equipment @60,000 *Community participatory hazard mapping sessions @30,000 *Erosion severity classification, typology maps and priority zones @25,000 *Technical reports and community-validated intervention lists @25,000
Ac. 2.2.2: Construct contour bunds, stone lines and check dams on agricultural lands	0	500,000	350,000	175,000	1,025,000	*Materials (stones, compacted earth, perennial grasses: vetiver, Andropogon) @300,000 *Technical engineering design and field supervision @60,000 *Community labour via cash-for-work and food-for-work schemes @300,000 *Construction of contour bunds and stone lines @200,000 *200 check dams and water retention bunds @125,000 *Quality assurance, monitoring and reporting @40,000
Ac. 2.2.3: Implement bioengineering and vegetation-based erosion control	0	200,000	400,000	100000	700,000	*Procurement and establishment of vegetative material@200,000 *Construction of gully walls ascine staking, brush layering and gabion works @300,000 *Assisted natural regeneration of indigenous woody vegetation @100,000 *Bioengineering specialists and technical supervision @70,000 *Monitoring, follow-up assessments and reporting @30,000
Ac. 2.2.4: Establish erosion monitoring	0	45,000	55,000	30000	130,000	*Erosion monitoring equipment @50,000 *GIS monitoring platform and MEL system data integration @30,000 *Community-based erosion monitor training @30,000 *Quarterly field assessments and data collection missions @10,000 *Monitoring reports and cross-country data harmonization @10,000
Ac. 2.2.5: Organize community maintenance brigades and provide tools for erosion structure upkeep	0	60,000	80,000	80000	220,000	*Community brigade formation and governance support @30,000 *Maintenance tools and equipment provision @80,000 *Brigade training and capacity building workshops @50,000 *Maintenance scheme administration @40,000 *Seasonal inspection and repair campaigns @20,000
Output 2.3: Degraded Forest, Rangeland, and Riparian Ecosystems Restored for Biodiversity and Climate Risk Reduction	**60,000**	**625,000**	**720,000**	**250,000**	**1,655,000**	
Ac. 2.3.1: Conduct participatory ecosystem assessments and restoration planning	60,000	0	0	0	60,000	*Ecological assessment specialists @45,000 (shared mobilization with Ac. 2.1.1 - parallel implementation across same landscapes) *Biodiversity and ecosystem health mapping (joint analysis with 2.1.1 land capability classification) *Community participatory restoration planning (combined with 2.1.1 land-use planning workshops)

						*Remote sensing and landscape-scale analysis - shared with Ac. 2.1.1 *Restoration plans, site priority lists and documentation @15,000 [Activity remains distinct in narrative; budget reflects single integrated landscape assessment mobilization, shared GIS analysis, and community workshops jointly held with Ac. 2.1.1]
Ac. 2.3.2: Implement assisted natural regeneration and enrichment planting on degraded rangelands and forest fringes	0	280,000	245,000	125,000	650,000	*Seedling enrichment planting @170,000 (seedlings sourced from Ac. 2.1.2 nursery network at cost; parallel implementation eliminates duplicate procurement chain) *Community labour for site preparation, planting and maintenance @200,000 *Fencing and livestock exclusion measures @130,000 *Technical supervision and ecological monitoring @90,000 (extension cadre pooled with Ac. 2.1.4/2.1.5) *Maintenance, gap-filling and replanting operations @60,000 (gap-fill seedlings from 2.1.2 nurseries) *Ecosystem performance documentation and reporting (leverages MEL platform under Ac. 4.1.3) [Activity runs in parallel with agroforestry; seedling supply from shared nursery network; technical cadre and monitoring infrastructure shared with Output 2.1 and Output 4.1]
Ac. 2.3.3: Restore riparian buffers and degraded wetland margins along waterways	0	105,000	160,000	55,000	320,000	*Riparian buffer restoration @80,000 (planting stock from Ac. 2.1.2 nursery network) *Wetland margin rehabilitation works @70,000 *Community labour for planting, maintenance and stewardship @40,000 *Water quality and ecosystem monitoring equipment @15,000 (data feeds to MEL platform under Ac. 4.1.3) *Technical supervision and ecological specialists @15,000 (shared with Ac. 2.3.2) [Riparian planting stock sourced from integrated nursery network; monitoring rides on shared MEL infrastructure]
Ac. 2.3.4: Develop and support community-based natural resource management (CBNRM) governance structures	0	90,000	95,000	35,000	220,000	*CBNRM committee formation, governance facilitation and support @55,000 (committee scope encompasses agroforestry maintenance + ecosystem stewardship; parallel implementation avoids parallel governance structures) *Legal framework, by-laws and tenure agreement documentation @45,000 *Community training on natural resource governance and land rights @60,000 (training delivered jointly with FFS facilitator training under Ac. 2.1.5 - same trainee groups) *Resource use maps, land-use plans and CBNRM operational manuals @30,000 (uses outputs from joint Ac. 2.1.1/2.3.1 assessments) *Technical facilitation and legal advisory services @25,000 *Governance performance monitoring and reporting @5,000 [Single integrated CBNRM scope; training and assessments shared with Outputs 2.1 and 2.3 activities run in parallel]
Ac. 2.3.5: Establish urban green corridors and community reforestation in peri-urban areas	0	150,000	220,000	35,000	405,000	*Urban and peri-urban tree planting @150,000 *Community reforestation in degraded peri-urban areas @100,000 *Seedling procurement (sourced from Ac. 2.1.2 nursery network at cost; eliminates parallel seedling procurement chain) *Street greening, public space planting and landscape works @80,000 *Community engagement, training and stewardship structures @50,000 (community engagement aligned with Ac. 2.3.4 CBNRM where peri-urban communities overlap) *Monitoring, urban ecosystem assessments and reporting @25,000 (data into MEL platform under Ac. 4.1.3) [Seedlings sourced from shared nursery network; community structures aligned with CBNRM where peri-urban/rural interface]
Output 2.4: Community Water Harvesting, Conservation, and Irrigation Systems Strengthened	**100,000**	**1,030,000**	**1,050,000**	**420,000**	**2,600,000**	
Ac. 2.4.1: Conduct water needs assessments and identify sites for water harvesting infrastructure	100,000	0	0	0	100,000	*Hydrological and hydrogeological assessment specialists @50,000/ country
Ac. 2.4.2: Construct micro reservoirs, farm ponds, and check dams for water harvesting	0	450,000	450,000	200,000	1,100,000	*Engineering design and technical supervision @100,000*Construction of micro-reservoirs and farm ponds @900,000 *Community labour via cash-for-work schemes @200,000 *Safety, fencing and environmental safeguard measures @60,000 *Quality assurance, commissioning and documentation @40,000

Ac. 2.4.3: Install drip irrigation and solar powered pump systems for dry season agriculture	0	400,000	500,000	200,000	1,100,000	*Procurement of drip irrigation kits procurement and supply @400,000 *Procurement and installation of solar-powered pump units @500,000 *In-situ hands-on training for user households and farmer groups @50,000 *Water User Association formation and operational support @100,000 *O&M, maintenance starter kits and supply, chain setup @50,000
Ac. 2.4.4: Provide maintenance toolkits and illustrated manuals to water user groups	0	180,000	100,000	20,000	300,000	*Procurement of maintenance toolkits (gaskets, connectors, filters, tools) @120,000 *Illustrated, locally translated maintenance manuals (bilingual) @60,000 *Local Water Caretaker training @60,000 *O&M and spare parts savings into community savings groups @40,000 *Maintenance record-keeping and MEL system reporting @20,000
Component 3: Access to Adaptation Financing	**1,280,000**	**1,790,000**	**1,730,000**	**240,000**	**5,040,000**	
Outcome3: Improved access to and effectiveness of adaptation finance at local level	**1,280,000**	**1,790,000**	**1,730,000**	**240,000**	**5,040,000**	
Output 3.1: Revolving Adaptation Finance Mechanism Established, Capitalised, and Operationalized	**1,000,000**	**1,610,000**	**1,410,000**	**160,000**	**4,180,000**	
Ac. 3.1.1: Undertake institutional assessment and financial partner selection	140,000	0	0	0	140,000	*Financial mapping, due diligence and assessment@80,000 *Stakeholder consultations @60,000
Ac. 3.1.2: Elaborate an operational framework and legal documentation	220,000	0	0	0	220,000	*Community consultations @30,000 *Multi-stakeholder technical working group facilitation @60,000 *Legal advisory and regulatory compliance services @70,000 *Operational framework, governance and accountability documentation @40,000 *Environmental and social safeguard integration and grievance redress design @20,000
Ac. 3.1.3: Capitalize and operationalize revolving adaptation funds	600,000	1,200,000	1,000,000	0	2,800,000	*Fund capitalization transfers to partner financial institutions @2,400,000 *Ring-fenced account establishment and fiduciary compliance auditing @100,000 *Fund administration and portfolio management systems @200,000 *Portfolio performance monitoring and risk management @100,000
Ac. 3.1.4: Conduct community mobilization and beneficiary preparation	0	150,000	150,000	0	300,000	*Community outreach, sensitization campaigns and mobilization @80,000 *Community facilitator training and engagement @40,000 *Beneficiary sensitization workshops @80,000 *Investment proposal development support for eligible applicants @60,000 *IEC materials @40,000
Ac. 3.1.5: Undertake lending operations, disbursement, and adaptive portfolio management	0	160,000	200,000	100000	460,000	*Loan appraisal, portfolio management, screening and eligibility verification @240,000 *Digital disbursement systems and mobile money integration @80,000 *Seasonal lending alignment with agricultural/livelihood calendars @60,000 *Portfolio risk monitoring, adaptive management and reporting @80,000
Ac. 3.1.6: Elaborate monitoring, evaluation, and fund sustainability mechanisms for the revolving fund	40,000	100,000	60,000	60000	260,000	*Revolving fund M&E system design and implementation @90,000 *Regular portfolio performance and compliance reporting @70,000 *Field verification visits and adaptation outcome assessments @60,000 *Fund sustainability planning and post-project exit strategy @40,000
Output 3.2: Financial Institutions and Community Members Trained on Adaptation Finance Integration, Climate Literacy	**280,000**	**180,000**	**320,000**	**80,000**	**860,000**	
Ac. 3.2.1: Deliver an Adaptation Finance Training Programme to Partner Financial Institutions	200,000	0	140,000	0	340,000	*Training curriculum development and materials production @50,000 *Training delivery to partner financial institution staff @100,000 *Climate risk integration and product design workshops @70,000 *Study visits and cross-country peer learning exchanges @70,000 *Certification, post-training coaching and follow-up @50,000
Ac. 3.2.2: Deliver Community Financial and Climate Literacy Training	80,000	100,000	80,000	0	260,000	*Community training delivery @100,000 *Training materials (illustrated, bilingual and locally translated) @30,000 *Climate literacy awareness campaigns and community events @50,000 *Financial literacy sessions @40,000 *Monitoring and knowledge retention assessments @40,000
Ac. 3.2.3: Provide Ongoing Technical Support and Coaching to Partner Institutions	0	80,000	100,000	80,000	260,000	*Ongoing advisory and technical coaching services to partner institutions @100,000 *Technical assistance visits and portfolio review missions @70,000 *Climate product refinement and adaptation advisory support @50,000 *Peer to peer learning exchanges visits @40,000
Component 4: Regional knowledge, learning and institutional strengthening	**425,000**	**748,000**	**535,000**	**555,000**	**2,263,000**	

Outcome 4: ECOVERSE adaptation models are validated, institutionalised in national technical systems, and positioned for replication across African drylands and forest-savanna transition zones	**425,000**	**748,000**	**535,000**	**555,000**	**2,263,000**	
Output 4.1.: Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	**225,000**	**140,000**	**170,000**	**215,000**	**750,000**	
Ac. 4.1.1: Establish and Implement a Structured Adaptation Evidence Programme	145,000	40,000	80,000	155,000	**420,000**	*Evidence project design, framework and methodology consultancy @75,000 *Primary data collection and structured field research @200,000 *Analysis and synthesis of adaptation results and lessons @115,000 *Dissemination workshops, presentations and outreach events @30,000
Ac. 4.1.2: Produce a National Practitioner Reference Library and Integrate into Vocational and Technical School Curricula	0	80,000	70,000	50,000	**200,000**	*Reference material development, writing and editorial review @ 80,000 *Printing and digital publication of practitioner guides @50,000 *Integration with vocational and technical school curricula @50,000 *Distribution, outreach and dissemination campaigns @20,000
Ac. 4.1.3: Design and Operate a Project M&E and Spatial Monitoring System with Periodic National and Regional Baseline Contributions	80,000	20,000	20,000	10,000	**130,000**	*MEL platform development and regional GIS system integration @80,000 *M&E system training for project teams and national partners @30,000 *Periodic baseline contributions, spatial updates and reporting @20,000
Output 4.2: South-South Climate-Resilient Construction Learning and Replication Network Operationalised	**40,000**	**135,000**	**315,000**	**210,000**	**700,000**	
Ac. 4.2.1: Establish an Africa Climate-Resilient Construction Learning Network	40,000	135,000	105,000	100,000	**380,000**	*Network governance structure establishment and coordination @30,000 *Cross-country learning exchanges and technical study visits @90,000 *Network communications platform and knowledge sharing tools @160,000 *Annual network forums and collaborative events @100,000
Ac. 4.2.2: Develop and Disseminate Standardised Construction Replication Toolkits	0	0	110,000	110,000	**220,000**	*Toolkit content development, design, technical production and distribution @120,000 *Translation and localization @40,000 *Pilot testing and validation with partner countries and institutions @40,000 *Final production and distribution @20,000
Ac. 4.2.3: Present ECOVERSE Climate-Resilient Construction Evidence at a Major African Architecture or Urban Planning Forum	0	0	100,000	0	**100,000**	*Conference presentations, exhibition materials and side events @30,000 *Delegation travel, logistics and accommodation @40,000 *High-level networking and partnership facilitation @30,000 *Publications, policy briefs and media outreach @10,000
Output 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established	**160,000**	**473,000**	**50,000**	**130,000**	**813,000**	
Ac. 4.3.1: Produce an Annual State of Community Adaptation Finance in Africa Report	0	120,000	0	120,000	**240,000**	*Primary research, data collection and desk review @90,000 *Report writing, editing and peer review @80,000 *Design, layout, printing and digital publishing @35,000 *Dissemination events and media engagement @35,000
Ac. 4.3.2: Convene High-Level Adaptation Finance Policy Dialogues	0	263,000	0	0	**263,000**	*Event organization, venue and logistics @60,000 *High-level speaker facilitation and coordination @50,000 *Stakeholder travel and accommodation support @123,000 *Policy brief development and post-dialogue dissemination @30,000
Ac. 4.3.3: Develop a Revolving Fund Replication and Capitalisation Strategy	160,000	90,000	50,000	10,000	**310,000**	*Strategy development consultancy and technical writing @160,000 *Stakeholder consultations and multi-country validation workshops @90,000 *Strategy document editing, design and publication @50,000 *Advocacy, outreach and replication partnerships @60,000
Subtotal All components	**3,060,000**	**7,823,000**	**7,590,000**	**2,780,000**	**21,253,000**	
Total Project Execution Costs (REE+EEs)	**707,108**	**498,000**	**434,000**	**380,000**	**2,019,108**	
Project Execution Costs (REE)	295,108	206,000	186,000	165,000	**852,108**	
Regional inception and launch	60,000	0	0	0	60,000	Regional project kick-off workshop and inception meeting, initial work plan and procurement plan, initial RPSC, project philosophy, technical session
Regional coordination and management	71,000	71,000	71,000	87,000	300,000	Salaries, RPSC meetings, coordination missions, inter-country technical supervision visits and field oversight, communication, visibility and knowledge dissemination at regional level
Regional operating costs	71,000	71,000	71,000	34,000	247,000	Regional project office operational costs, office supplies, consumables, administrative materials, bank charges, wire transfer fees, funds management, logistical costs, workshops and inter-country coordination events
Equipment	49,108	20,000	0	0	69,108	IT equipment, furniture…
Regional M&E	44,000	44,000	44,000	44,000	176,000	M&E, ESMP, GAAP monitoring
Project Execution Costs (EEs)	**412,000**	**292,000**	**248,000**	**215,000**	**1,167,000**	

National inception and localisation	50,000	0	0	0	50,000	National project kick-off workshops and inception meetings, initial work plans and procurement plans, initial NPSC, project philosophy, technical sessions
National coordination and management	142,000	142,000	142,000	121,000	530,000	Salaries, NPSC meetings, coordination missions, inter-country technical supervision visits and field oversight, communication, visibility and knowledge dissemination
National operating costs	70,000	70,000	70,000	54,000	260,000	Office operational costs, office supplies, consumables, administrative materials, bank charges, wire transfer fees, funds management, logistical costs, workshops and in country coordination events
Equipment	80,000	40,000	0	0	100,000	IT equipment, furniture…
National M&E	70,000	40,000	36,000	40,000	140,000	M&E, ESMP, GAAP monitoring
Total Project Cost	**3,767,108**	**8,321,000**	**8,024,000**	**3,160,000**	**23,272,108**	
Project cycle management fees (IE)	**548,000**	**409,000**	**512,271**	**508,534**	**1,977,892**	
Project coordination and management fees	191,000	191,000	239,000	191,000	812,000	Salaries, oversight, supervision, technical backstopping, support for RSC meetings and governance processes, technical supervision missions, knowledge management coordination, outreach, visibility and communications representing ECOVERSE at regional and international fora
Baseline	50,000	0	0	0	50,000	Baseline study development
Operating costs	76,000	76,000	57,000	58,000	267,000	Office operational costs, office supplies, consumables, administrative materials, workshops, completion report
Equipment (incl. infrastructure)	100,000	40,000	20,358	0	160,358	IT equipment, furniture…
Evaluations	0	0	75,000	125,000	200,000	Mid-term, final
Audit	40,000	40,000	40,000	72,534	192,534	Interim Unaudited Financial Reports (IUFRs) and annual audits, Final
M&E	24,000	24,000	24,000	23,000	95,000	M&E, ESMP, GAAP monitoring
Fiduciary aspects	67,000	38,000	57,000	39,000	201,000	Project accounts maintenance, bank charges, wire transfer fees, funds management, procurement oversight, logistical costs, grant administration, asset management...
Amount of funding requested	**4,315,108**	**8,730,000**	**8,536,358**	**3,668,534**	**25,250,000**	

H. Disbursement schedule with time-bound milestones.

Milestone / Category	Time-bound milestones	Year 1 Jan–Dec 2027 (USD)	Year 2 Jan–Dec 2028 (USD)	Year 3 Jan–Dec 2029 (USD)	Year 4 Jan–Dec 2030 (USD)	Total (USD)
A. PROJECT INCEPTION and SET-UP (January–June 2027, Months 1–6)						
M1 — Regional & National inception workshops	Grant Agreement signed; RPSC and NPSC constituted; inception workshop held; initial workplan and procurement plan	110,000	0	0	0	**110,000**
M2 — Baseline surveys and technical assessments	Household, ecosystem, and financial baseline surveys completed; GIS mapping finalized; ESMP confirmed operational; GAAP activated	50,000	0	0	0	**50,000**
M3 — Key project staff and consultants recruited	PMUs	628,000	610,000	749,00	399,000	**2,386,000**
B. COMPONENT 1: Integrated Climate-Resilient Infrastructure						
Output 1.1 — Climate-resilient housing / infrastructure constructed or upgraded	Feasibility studies and workshops completed; 3 prototype units under construction by Month 18; 16 units and 8 community structures completed by project close	180,000	930,000	1,260,000	495,000	**2,865,000**
Output 1.2 — Flood-resilient roads, drainage, green corridors	30 km flood-risk mapping complete; 4 road segments rehabilitated by Month 18; 14 segments done; 120,000 trees planted with survival monitoring	290,000	395,000	370,000	150,000	**1,205,000**
Output 1.3 — Solar water systems and rainwater harvesting	Water assessments complete; 4 solar systems operational by Month 18; 12 solar systems + 120 rainwater purification units fully installed by end Year 3	265,000	540,000	295,000	60,000	**1,160,000**
Sub-Total Component 1		**735,000**	**1,865,000**	**1,925,000**	**705,000**	**5,230,000**
C. COMPONENT 2: Integrated Land Management						
Output 2.1 — Agroforestry systems	Land assessments done; 6 nurseries operational by Month 12; 600 farmers trained by Month 18; 2,800 farmers trained; 600 ha rehabilitated	260,000	960,000	745,000	225,000	**2,190,000**
Output 2.2 — Erosion control infrastructure	Hazard maps complete; contour bunds under construction by Month 18; 80 ha rehabilitated; 8 check dams constructed	200,000	805,000	885,000	385,000	**2,275,000**
Output 2.3 — Ecosystem and riparian restoration	Ecosystem assessments done; ANR initiated; 200 ha under restoration by Month 24; 8 CBNRM committees;	60,000	625,000	720,000	250,000	**1,665,000**
Output 2.4 —Water harvesting	60 micro-reservoirs; 100 drip irrigation systems; 80 solar pumping systems	100,000	1,030,000	1050,000	420,000	**2,600,000**
Sub-Total Component 2		**620,000**	**3,420,000**	**3,400,000**	**1,280,000**	**8,720,000**

D. COMPONENT 3: Access to Adaptation Financing						
Output 3.1 — Revolving adaptation finance mechanism	Financial partner due diligence done; framework endorsed; capitalised and lending; operations rolled out; sustainability mechanism established	1,000,000	1,610,000	1,410,000	160,000	**4,180,000**
Output 3.2 — Financial institution and community training	30 financial institution staff trained by Month 18; 1,200 community members trained by Month 24; 60 staff trained; 3,000 community members trained (≥1,500 women)	280,000	180,000	320,000	80,000	**860,000**
Sub-Total Component 3		**1,280,000**	**1,790,000**	**1,730,000**	**240,000**	**5,040,000**
E. COMPONENT 4: Regional Knowledge and Institutional Strengthening						
Output 4.1 — Knowledge hub, evidence, M&E system	M&E platform operational by Month 6; 1st evidence report by Month 24; 8 practitioner documents; 4 vocational schools with integrated content	225,000	140,000	170,000	215,000	**750,000**
Output 4.2 — South-South Learning Network	Network governance established by Month 18; 1 replication toolkit in pilot by Month 24; 20 institutions from ≥4 countries; 2 toolkits disseminated	40,000	135,000	315,000	210,000	**700,000**
Output 4.3 — Climate finance advocacy platform	1st State of Adaptation Finance report by Month 24; 1 policy dialogue by Month 24; 4 annual reports; replication strategy	160,000	473,000	50,000	130,000	**813,000**
Sub-Total Component 4		**425,000**	**748,000**	**535,000**	**555,000**	**2,263,000**
F. KEY M&E MILESTONES						
PPR — Year 1	Submitted to AF by 31 March 2028; covers Jan–Dec 2027 activities, disbursements	0	0	0	0	**0**
PPR — Year 2	Submitted to AF by 31 March 2029; covers Jan–Dec 2028 activities, disbursements	0	0	0	0	**0**
Mid-Term Review	Independent review: July 2029 (Month 30); management response submitted to AF	0	0	0	0	**0**
PPR — Year 3	Submitted to AF by 31 March 2030; covers Jan–Dec 2029 activities, disbursements	0	0	0	0	**0**
PPR — Year 4	Submitted to AF by 31 March 2031; covers Jan–Dec 2030 activities, disbursements					
Final Project Report & Closure	Project closure: December 2030 (Month 48); asset handover and final financial report	0	0	0	0	**0**
Terminal Evaluation	Terminal evaluation: June 2031 (6 months post-closure); report to AF	0	0	0	0	**0**
G. PROJECT EXECUTION COSTS						
Regional Executing Entity (REE)	Regional coordination, management, M&E, operating costs, equipment, audit	295,108	206,000	186,000	165,000	**852,108**
National Executing Entities (EEs) Chad & Togo	National coordination, management, M&E, operating costs, equipment, audit	412,000	292,000	248,000	215,000	**1,167,000**
Sub-Total Execution Costs		**707,108**	**498000**	**434,000**	**380,000**	**2,019,108**
TOTAL PROJECT COST (excl. IE fees)		**3,767,108**	**8,321,000**	**8,024,000**	**3,160,000**	**23,272,108**
Project Cycle Management Fee IE		**548,000**	**409,000**	**512,358**	**508,534**	**1,977,892**
TOTAL AF DISBURSEMENT (Grant Requested)		**4,315,108**	**8,730,000**	**8,536,358**	**3,668,534**	**25,250,000**
Cumulative Disbursement		**4,315,108**	**13,045,108**	**21,581,466**	**25,250,000**	

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

A. Record of endorsement on behalf of the government[62]

Kodou Choukou Tidjani, *General Director* *Agence de la Grande Muraille Verte du Tchad (AGMVT)* *Republic of Chad*	Date*: May 18th 2026*
Méry YAOU, *Director of the Environmental Directorate* *at the Ministry of Environment and Forest Resources of the Republic of Togo*	Date*: July 28th 2025*

B. Implementing Entity certification

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 of the Government of Chad and Togo and subject to the approval by the Adaptation Fund Board, commit to implementing the project 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.

Mr. Nabil BEN KHATRA *– Executive Secretary of the Sahara and Sahel Observatory (OSS) as the Implementing Entity Coordinator*

Date: *May 19 th, 2026*	Tel. : (+216) 71 206 633 Email: nabil.benkhatra@oss.org.tn; boc@oss.org.tn
Project Contact Person: **Mrs. Khaoula JAOUI**	
Tel.: (+216) 71 206 633 Email: khaoula.jaoui@oss.org.tn	

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

Annex 1: Endorsement letters

Republic of Chad
Prime Minister
Ministry of the Environment, Fisheries and Sustainable Development
Secretary General
General Directorate of the Environment
Designated National Authority
N°021/RC/PM/MEFSD/SG/ANGMV/AND/2026

ADAPTATION FUND

Letter of Endorsement by Government of CHAD

The National Designated Authority

N'Djamena, May 18, 2026

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

Subject: Endorsement for "ECOVERSE Project: Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad, Togo and Gabon"

In my capacity as designated authority for the Adaptation Fund in CHAD, I confirm that the above regional 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 CHAD.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Sahara and Sahel Observatory (OSS) and executed by TRIPLE CAPITAL TCHAD and ASSOCIATION POUR LE DEVELOPPEMENT INTEGRE DURABLE ET EQUITABLE (ADIDE).

Sincerely,

Mr. Kodou Choukou Tidjani

Directeur General
l'Agence de la Grande Muraille Verte du Tchad (AGMVT)
l'Agence de la Grande Muraille Verte du Tchad (AGMVT) Qter djari. Rue Andre Mougnan
N'Djamena
Chad
Tel : + 235 662 777 42
Email : agmv.tchad@gmail.com ;
Alternate emails : kodou.cht@gmail.com ;

MINISTERE DE L'ENVIRONNEMENT
ET DES RESSOURCES FORESTIERES

SECRETARIAT GENERAL

DIRECTION DE L'ENVIRONNEMENT

Autorité Nationale Désignée du Fonds Vert Climat

REPUBLIQUE TOGOLAISE
Travail – Liberté – Patrie

N° 004 /DE/AND/FVC

Lomé, le 28 JUIL 2025

Letter of Endorsement by Government of Togo

ADAPTATION FUND

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

Subject : Endorsement for ECOVERSE – Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo.

In my capacity as designated authority for the Adaptation Fund in Togo, I confirm that the above regional project proposal is in accordance with the government's priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change at national and/or regional levels.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by Sahara and Sahel Observatory (OSS) and executed by the non-governmental organization, Sustainable Solutions for Africa (SSA) collaborating with The Directorate of Environment of the Togo's Ministry of Environment and Forestry Resources (MERF); and Les Instituts de Formation en Alternance pour le Development (IFAD) Togo.

Sincerely,

La directrice de l'environnement

Direction de l'Environnement
La Directrice

Méry YAOU

Republic of Chad
Prime Minister
Ministry of the Environment, Fisheries and Sustainable Development
Secretary General
General Directorate of the Environment
Designated National Authority
N°023/RC/PM/MEFSD/SG/ANGMV/AND/2026

ADAPTATION FUND

Letter of Endorsement by Government of CHAD

The National Designated Authority

N'Djamena, May 18, 2026

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

Subject: Endorsement for "ECOVERSE Project: Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad, Togo and Gabon"

In my capacity as designated authority for the Adaptation Fund in CHAD, I confirm that the above regional 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 CHAD.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Sahara and Sahel Observatory (OSS) and executed by TRIPLE CAPITAL TCHAD and ASSOCIATION POUR LE DEVELOPPEMENT INTEGRE DURABLE ET EQUITABLE (ADIDE).

Sincerely,

REPUBLIQUE DU TCHAD
LE DIRECTEUR GENERAL

Mr. Kodou Choukou Tidjani

Directeur General
l'Agence de la Grande Muraille Verte du Tchad (AGMVT)
l'Agence de la Grande Muraille Verte du Tchad (AGMVT) Qter djari. Rue Andre Mougnan
N'Djamena
Chad
Tel : + 235 662 777 42
Email : agmv.tchad@gmail.com ;
Alternate emails : kodou.cht@gmail.com ;

Scanné avec CamScanner

MINISTERE DE L'ENVIRONNEMENT
ET DES RESSOURCES FORESTIERES

SECRETARIAT GENERAL

DIRECTION DE L'ENVIRONNEMENT

Autorité Nationale Désignée du Fonds Vert Climat

REPUBLIQUE TOGOLAISE
Travail – Liberté – Patrie

N° 004 /DE/AND/FVC

Lomé, le 28 JUIL 2025

Letter of Endorsement by Government of Togo

ADAPTATION FUND

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

Subject : Endorsement for ECOVERSE – Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo.

In my capacity as designated authority for the Adaptation Fund in Togo, I confirm that the above regional project proposal is in accordance with the government's priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change at national and/or regional levels.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by Sahara and Sahel Observatory (OSS) and executed by the non-governmental organization, Sustainable Solutions for Africa (SSA) collaborating with The Directorate of Environment of the Togo's Ministry of Environment and Forestry Resources (MERF); and Les Instituts de Formation en Alternance pour le Development (IFAD) Togo.

Sincerely,

La directrice de l'environnement

Direction de l'Environnement
La Directrice

Méry YAOU

Annex 2 ECOVERSE Environmental and Social Management Plan (ESMP)

The purpose of this Annex is to demonstrate the project's compliance with the Environmental and Social and Gender Policies of the Adaptation Fund. It provides an analysis of the potential environmental and social risks of the project's physical activities and highlights opportunities, concluding in an Environmental and Social Management Plan. Its contents will be translated into local language prior to the start of the project, and its key findings and messages will be simplified to enable beneficiary communities to understand them.

Compliance with environmental and social safeguards

Environmental and social safeguards are essential tools to prevent and mitigate the potential for undue and unintended harm that could arise from project activities. In line with the Adaptation Fund's ESP and GP and OSS's Environmental and Social Safeguard Policy, OSS and its partners are required to conduct risk screenings and impact assessments of all activities that have even a negligible risk of causing unintended harm.

To ensure compliance with the Environmental and Social Policy of the Adaptation Fund, all project activities are screened in this Annex against the 15 environmental and social principles, as defined in the Environmental and Social Policy of the Adaptation Fund. Where risks have been identified, this annex analyses the potential for impact and describes the measures that have been built into the project to avoid or mitigate risks and their impacts. Throughout the project formulation phase, investments have been designed in line with the AF ESP and Gender Policy, with environmental and social risks systematically identified, assessed, and integrated into project design.

The analysis presented in this Annex is based on various data from numerous government sources, other secondary sources and where this is not available, primary data gathered by the project formulation team. All investments identified in the project have been developed in consultation with local and national government and target beneficiary communities. The proposed measures to avoid, mitigate and manage environmental and social safeguards risks have also been discussed extensively with local and national government stakeholders and communities.

Please note that the information presented in this Annex is a summary of a broader environmental and social safeguard screening and impact assessment concluded in each of the countries including during the consultations.

Methodology for Risk Significance Assessment

The significance of each environmental and social risk is assessed against the 15 principles of the Adaptation Fund Environmental and Social Policy through a two-dimensional analysis combining impact severity and probability of occurrence. Each dimension is scored on a five-point scale, and the resulting product determines the risk significance category.

Impact severity (scale 1–5) reflects the scale, reversibility and breadth of the potential adverse effect, ranging from 1 (very localised, fully reversible, affecting few persons or no protected receptors) to 5 (widespread, irreversible, affecting many persons or critical receptors). Probability (scale 1–5) reflects the likelihood that the residual risk would materialise after standard project-level mitigation is in place, ranging from 1 (very unlikely) to 5 (almost certain).

The product of the two scores defines the significance category according to the following thresholds: scores of 4 or below indicate Low significance, scores between 5 and 12 indicate Moderate significance, and scores of 15 or above indicate High significance. Activities or sub-projects that would generate any residual risk in the High significance category are excluded under the AF Category A criteria and may not proceed under ECOVERSE.

The risk matrix in Figure 1 below shows the score grid and significance bands.

Figure 1. Risk Significance Matrix (5 × 5)

	Probability →				
Impact ↑	**1 Very low**	**2 Low**	**3 Medium**	**4 High**	**5 Very high**
5 Very high	**5**	**10**	**15**	**20**	**25**
4 High	**4**	**8**	**12**	**16**	**20**
3 Medium	**3**	**6**	**9**	**12**	**15**
2 Low	**2**	**4**	**6**	**8**	**10**
1 Very low	**1**	**2**	**3**	**4**	**5**

Figure 1. Significance bands: Low (score ≤ 4, green); Moderate (score 5–12, amber); High (score ≥ 15, orange).

Table 1. Identification and Significance of Environmental and Social Risks by ESP Principle

The table below presents the inherent risk for each of the 15 ESP principles, before the application of project-level mitigation. Substantiating evidence is drawn from the stakeholder consultations conducted in 2025 and 2026 in the project intervention areas of Chad (N'Djaména 8th and 9th Arrondissements; Mandelia, Kournari, Linia, Mabrio, N'Djaména Koura) and Togo (Avé 1, Zogbépimé, Howuivé, Kévé, Yométchin, Edzi, Zokopé, Agbozomé, Awatome). Country-specific evidence is integrated within each principle's narrative. Mitigation measures designed to reduce these inherent risks are set out in Table 6 of this ESMP.

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
1. Compliance with the Law	ECOVERSE activities have been mapped against an established legal framework in both countries. In Chad, the project is anchored in the new Environmental Protection Law (Loi n° 023/CNT/2024 of 15 October 2024), the EIA Decree (Décret n° 630/PR/PM/MERH/2010), the Water Code (Loi n° 016/PR/1999), the Forest, Fauna and Fishery Resources Law (Loi n° 14/PR/2008), and the Construction and Urbanism Codes (Loi n° 004 and 006/PR/2010). In Togo, alignment is established with the Framework Environmental Law (Loi n° 2008-005), the ESIA Procedure Decree (Décret n° 2017-040/PR), the Water Code (Loi n° 2010-004), the Urbanism Decree (Décret n° 2016-043/PR), and the 2022 Labour Code. African regional standard ARS 1333:2018 governs iCSEB construction in both countries. The inherent risk of non-compliance arises from multiple permitting touchpoints across two countries with different regulatory regimes, and from decentralised enforcement at municipal and prefectural levels which creates some risk of inconsistent interpretation. Specific operational pathways include sequencing risk where works could begin before required municipal authorisations, environmental permits or ESIA clearances are issued, and the need to coordinate cross-border alignment of standards in a regional programme. The	**2 – 3** *(score 6)*	**Moderate**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	risk is rated as moderate impact. Mitigation through the permit register (Annex 2B), pre-works clearance protocols and contractor compliance clauses is set out in Table 6.		
2. Access and Equity	Access and equity risks are substantiated by site-level evidence in both countries. In Togo, stakeholders in Zogbépimé expressed strong anxiety regarding potential elite capture of the limited number of demonstration housing units and rehabilitated market stalls, given high local demand against finite outputs. Remote villages without all-weather road access face seasonal exclusion from training and revolving-fund services. In Chad, demand for green jobs and revolving-fund products in the dense urban environments of N'Djaména's 8th and 9th Arrondissements significantly exceeds project supply, raising the likelihood of selection disputes among internally displaced persons, low-income households and informal settlers. Inherent risk is rated Moderate because, absent affirmative measures, the combination of high local demand, scarce demonstration outputs and seasonal accessibility constraints would likely lead to exclusion of the most vulnerable from project benefits. Mitigation through the Gender Action Plan, transparent eligibility criteria with a focus on the most vulnerable, public posting of beneficiary lists, proactive outreach via community radios and women's associations, and disaggregated MEL is set out in Table 6.	**3 – 3** *(score 9)*	**Moderate**
3. Marginalised and Vulnerable Groups	Vulnerability profiles differ across the two countries but converge on the same risk pattern: structural barriers to participation that, without affirmative measures, would reproduce existing exclusion. In Togo, adolescent girls in Howuivé are marginalised by the absence of safe school latrines, which suppresses school attendance during menstruation; older women in several villages fear digital exclusion from financial services due to high illiteracy. In Chad, female-headed households, internally displaced persons in N'Djaména's peri-urban areas, unemployed youth, the elderly and persons with disabilities raised explicit concerns during consultations about their effective inclusion in project activities. Inherent risk is rated Moderate because, absent adapted participatory methods and targeted outreach, meeting times, locations, communication formats or selection criteria would likely favour men, literate adults, or residents of well-connected localities, perpetuating exclusion. Mitigation through pictogram-based formats, women's and youth associations as outreach channels, minimum representation quotas in user committees, and disaggregated indicators is set out in Table 6.	**3 – 3** *(score 9)*	**Moderate**
4. Human Rights	No human-rights violations were reported during the consultations conducted in either country. ECOVERSE contributes positively to the right to a healthy environment, the right to a safe learning environment and the right to participation through the project's stakeholder engagement framework. Inherent risk is rated Low because no rights-incompatible practice has been identified at design stage. the project's activities advance rights rather than threaten them. Limited residual pathways concern indirect issues such as inadvertent information-access barriers for non-French/Ewe/Arabic speakers and discriminatory contractor labour practices, addressed through Codes of Conduct, multilingual disclosure and the GRM as set out in Table 6.	**2 – 2** *(score 4)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
5. Gender Equality and Women's Empowerment	Gender risks are substantively documented. In Togo, customary tenure systems often restrict women's land ownership; women in Zogbépimé represent 95% of market traders but operate from collapsed market sheds; women across the target villages report a daily water-collection burden of approximately two hours, which the project's water reated measures directly address. In Chad, female-headed households in the 8th and 9th Arrondissements face compounded vulnerability to flooding, with constrained access to credit, training and decision-making fora. Inherent risk is rated Moderate with high probability because the structural gender inequalities documented in both countries mean that, without targeted measures, project benefits would predictably flow disproportionately to men and women's participation in user committees and revolving-fund governance would remain symbolic. Mitigation through the Gender Action Plan (including a women's participation threshold, gender-responsive financial products, female SEAH focal points and sex-disaggregated reporting) is set out in Table 6.	**3 – 4** *(score 12)*	**Moderate**
6. Core Labour Rights	The construction phase of Component 1 is the principal labour-rights interface. In Togo, contractors frequently lack formal occupational health and safety systems, and youth in Kévé called for a 'local-first' hiring policy; community members in Howuivé currently perform hazardous unpaid labour to repair school walls, which the project will replace with paid contractor-led works under formal OHS standards. In Chad, similar capacity gaps exist among small construction firms operating in N'Djaména. Inherent risk of project-induced harm is rated Low. The project's labour interventions are formalising rather than precarising, replacing informal unpaid community labour with regulated contractor employment under the national Labour Codes. Probability of minor OHS incidents during iCSEB block production and borehole drilling is low, and the impact severity per incident is low when standard PPE and contractor protocols are in place. Mitigation through ILO-aligned contractor clauses, OHS protocols, fair-wage commitments and worker grievance pathways is set out in Table 6.	**1 – 3** *(score 3)*	**Low**
7. Indigenous Peoples	No Indigenous Peoples have been identified in the project intervention areas. In Togo, the populations are predominantly Ewe and Adja-Ewe. In Chad, the urban and peri-urban populations of N'Djaména and Chari-Baguirmi are ethnically diverse but do not include groups recognised as Indigenous under the AF ESP. Inherent risk is rated Low. Residual procedural attention is required for transient and seasonally mobile pastoralist groups in Chad, whose movements may intersect with restoration sites and water points; the project will document seasonal mobility patterns during inception and apply Free, Prior and Informed Consent principles to any USP that materially affects pastoralist seasonal access. The risk is rated Low rather than Not Applicable to maintain procedural attention to mobility-rights issues throughout implementation.	**2 – 1** *(score 2)*	**Low**
8. Involuntary Resettlement	No physical displacement is anticipated. Infrastructure under Component 1 (school and market rehabilitations, drainage works, demonstration housing) will be implemented on existing municipal footprints in Togo, on existing public or communal land in Chad, and through partnership with local authorities. All works locations are confirmed at design stage to avoid physical resettlement.	**2 – 2** *(score 4)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	Avé 1 in Togo operates under approximately 95% customary tenure, and N'Djaména's 8th and 9th Arrondissements include informal urban settlements where tenure is contested. Inherent risk is rated Low. The project's design choice to site works on existing public footprints fundamentally avoids displacement; any residual concern relates to potential economic displacement or access restriction in customary-tenure contexts (e.g., restoration sites, contour bunding or urban greening corridors inadvertently affecting access to agricultural plots, pasture, fuelwood collection sites or informal commerce). Impact would be moderate if it occurred, but probability is low because of the existing-footprint design. Mitigation through, participatory site selection and pre-works socio-economic screening of every USP is set out in Table 6.		
9. Protection of Natural Habitats	No project activities are sited within designated protected areas, RAMSAR sites, World Heritage properties or critical natural habitats. Project sites in Togo are in already degraded rural and peri-urban zones; project sites in Chad are in urban, peri-urban and rural-mosaic landscapes that have already undergone substantial anthropogenic modification. Inherent risk of project-induced harm is rated Low. The use of iCSEB technology is itself a habitat-protection measure: by replacing fired-brick construction, the project removes a major driver of localised deforestation associated with brick-kiln fuelwood demand. Limited residual concerns relate to micro-siting of urban green corridors, drainage interventions adjacent to seasonal wetlands, and species selection in restoration plantings; these are addressed through site-level ESIA screening and technical guidelines set out in Table 6.	**2 – 2** *(score 4)*	**Low**
10. Conservation of Biological Diversity	In Togo, the planned reforestation site in Awatome will prioritise the native Khaya grandifoliola;. In Chad, restoration of urban and peri-urban wooded areas must use locally adapted species and avoid cross-contamination from nursery sources. Inherent risk is rated Low. The project is biodiversity-positive by design through restoration, native-species planting and assisted natural regeneration deliver net habitat gains. Probability of minor species-selection or micro-siting issues across multiple restoration USPs is low as is the per-incident impact. Mitigation through native-species lists, certified seed sourcing, pre-planting biodiversity screening and consultation with traditional custodians of sacred biodiversity sites is set out in Table 6.	**1 – 3** *(score 3)*	**Low**
11. Climate Change	ECOVERSE is a pure adaptation project and does not generate significant greenhouse-gas emissions. Embodied-carbon analysis confirms that iCSEB construction has substantially lower lifecycle emissions than conventional fired-brick or cement-block construction. Restoration, agroforestry and assisted natural regeneration activities deliver net carbon sequestration. Solar pumping and rainwater harvesting avoid emissions associated with diesel-pumped or trucked water supply. Inherent risk is rated Low. The project is climate-positive in both adaptation and mitigation dimensions. Limited residual risk relates to slow community uptake of climate-smart practices.	**2 – 1** *(score 2)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
12. Pollution Prevention and Resource Efficiency	Construction activities are the principal pollution interface. In Togo, residents in Agbozomé reported respiratory complaints from dust on unpaved school floors, which iCSEB rehabilitation will address; iCSEB construction itself generates noise and particulate emissions during block production. Borehole drilling generates noise and drilling-mud waste requiring proper management. In Chad, construction of permeable drainage and demonstration housing in dense urban settings raises dust-suppression and construction-waste-handling requirements. Inherent risk of project-induced harm is rated Low. Probability of routine construction nuisance (dust, noise, minor waste) is moderate, but per-incident impact is low, time-bound and fully reversible. The project's design is pollution-improving overall: iCSEB has lower lifecycle emissions and waste than fired-brick alternatives, and improved drainage reduces flood-related contamination. Mitigation through standard contractor clauses (dust suppression, working-hours restrictions, waste segregation, drilling-fluid containment) and site-level USP ESMPs is set out in Table 6.	**1 – 3** *(score 3)*	**Low**
13. Public Health	The project operates in environments with documented public-health vulnerabilities that inform site scheduling and design rather than being created by the project. In Chad, N'Djaména is exposed to recurrent flood-related cholera outbreaks, particularly in the 8th and 9th Arrondissements. In Togo, Zokopé reported widespread open defecation due to absence of latrines, and the influx of external workers in Kévé raises legitimate community concerns regarding STI and HIV transmission. Inherent risk of project-induced harm is rated Low. The project's activities are health-improving: drainage works reduce vector and waterborne-disease habitat, WASH interventions address open defecation, and iCSEB rehabilitation reduces respiratory dust exposure. Limited residual concerns relate to standing water at new boreholes if not properly designed (mosquito vector risk) and worker-community interaction at construction sites; both are moderate-impact-if-they-occurred but low probability with proper design. Mitigation through health-sensitive design standards, seasonal field scheduling, contractor sexual-health awareness sessions and the SEAH protocol is set out in Table 6.	**2 – 2** *(score 4)*	**Low**
14. Physical and Cultural Heritage	Cultural-heritage sites are documented at specific locations. In Togo, sacred forests and shrines in Edzi are located near proposed restoration footprints; the village cemetery in Zogbépimé, considered a sacred site, is exposed to flooding and communities have explicitly requested protective fencing, which the project will provide. In Chad, the urban context of N'Djaména contains historical and religious sites that may intersect with rehabilitation works. No World Heritage properties or sites on the List of World Heritage in Danger lie within the project's area of influence. Inherent risk is rated Low. Damage to a sacred site or religious feature would be a high-impact event, but probability is very low because all known sites are mapped, communities have already flagged sensitive locations during consultations, and the project's interventions are protective in cases such as the Zogbépimé cemetery. Mitigation through pre-works cultural-heritage screening of every USP, mandatory consultation with traditional and religious	**3 – 1** *(score 3)*	**Low**

Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	custodians prior to earth-moving works, and chance-find protocols in contractor clauses is set out in Table 6.		
15. Lands and Soil Conservation	Soil degradation is a documented baseline condition the project addresses, not a condition created by the project. Slopes in the Avé 1 region are losing approximately 30 tonnes of topsoil per hectare per year, and schools in Howuivé and Zogbépimé are sited in low-lying zones prone to siltation. In Chad, the peri-urban areas of N'Djaména and the rural sites in Chari-Baguirmi face compounded pressures from informal land conversion, gully erosion and overgrazing in the Sahelian context. Inherent risk of project-induced harm is rated Low. The project integrates soil conservation techniques through assisted natural regeneration, contour bunding, permeable drainage, agroforestry and check-dam construction. Probability of localised soil disturbance during earth-moving works is non-trivial, but per-incident impact is low, time-bound and reversible. Mitigation through erosion-control clauses in contractor agreements, seasonal scheduling of earth-moving works to avoid the rainy season, and topsoil-erosion monitoring is set out in Table 6.	**1 – 3** *(score 3)*	**Low**

Environmental and Social Risks Description

The ECOVERSE project operates across two contrasting yet interconnected ecological and institutional contexts: the Chari-Baguirmi Province and the urban peripheries of N'Djamena's 8th and 9th Arrondissements in Chad, and the Avé 1 Commune in Togo. The project is provisionally classified as Category B (Moderate Risk) under the Adaptation Fund Environmental and Social Policy (AF ESP) in both countries, consistent with the ESP's risk-based, evidence-driven approach, which requires that safeguarding efforts be commensurate with identified risks and that all 15 ESP principles be assessed across project activities.

The descriptions below present a substantiation of the **inherent risk** for each principle, that is, the risk before the application of project-level mitigation measures. This approach makes the rationale for the mitigation measures set out in Table 6 of this ESMP visible and traceable, and provides a clear baseline against which residual risk will be re-assessed during implementation. Of the 15 principles, four are rated Moderate (Principles 1, 2, 3 and 5) and eleven are rated Low. The narratives are organised per AF ESP principle and grounded in the consultations conducted in 2025 and 2026 and the relevant scientific and policy literature.

ESP Principle 1. Compliance with the Law: Moderate

ECOVERSE operates within complex, multi-layered national legal frameworks across both countries, each with distinct regulatory requirements for environmental assessment, land acquisition, water extraction, construction, and labour. In Chad, the foundational environmental law (Loi n° 023/CNT/2024 of 15 October 2024) mandates Environmental and Social Impact Assessments for projects with significant impacts, while Décret n° 630/PR/PM/MERH/2010 governs ESIA procedures and the requirements for environmental compliance certificates. Water management activities are governed by the Water Code (Loi n° 016/PR/1999, as amended), land tenure by customary and statutory frameworks under Laws No. 23, 24 and 25 of 1967, and labour conditions by the Code du Travail. In Togo, compliance requirements are anchored in Loi n° 2008-005 (Framework Law on the Environment), the Water Code (Loi n° 2010-004), the Land and Property Code (Loi n° 2018-005), the 2022 Labour Code, the Urban Planning Decree (Décret n° 2016-043/PR), and the

Cultural Heritage Law (Loi n° 90-24), with ESIA procedures governed by Décret n° 2017-040/PR.

The principal inherent legal risk for ECOVERSE stems from multiple permitting touchpoints across two countries with different regulatory regimes, combined with decentralised enforcement at municipal and prefectural levels which creates some risk of inconsistent interpretation. In Togo, the Avé 1 Commune (under Loi n° 2019-006 on decentralisation) will exercise oversight over construction activities under Output 1.1 (iCSEB housing and market rehabilitation) and Output 1.2 (permeable road rehabilitation), and has limited technical staff with engineering or environmental expertise. In Chad, the construction of permeable drainage systems (Activity 1.2.2) in the 8th and 9th Arrondissements of N'Djamena requires municipal land occupation permits and technical approvals from the Urban Planning Directorate (under Loi n° 004/PR/2010). Activities with USP status, including water harvesting installations (Output 1.3) and ecosystem restoration (Output 2.3), will only have their legal compliance status confirmed once final sites are determined during implementation, creating a rolling compliance dimension that is actively managed through the pre-screening procedure for every USP. Mitigation measures including pre-works clearance protocols and contractor compliance clauses, are detailed in Table 6.

ESP Principle 2. Access and Equity: Moderate

The principle of access and equity recognises that development interventions can inadvertently reinforce or exacerbate existing social inequalities if the distribution of project benefits is not actively managed. This inherent risk is rated Moderate for ECOVERSE, given the high levels of socio-economic stratification and social exclusion that characterise both intervention contexts. In Togo, approximately 69 per cent of rural households in Avé 1 Commune live below the poverty line, creating fertile conditions for elite capture of targeted project benefits. Community consultations in Zogbépimé in January 2026 explicitly raised such concerns that project benefits could be allocated to politically connected households rather than the most climate-vulnerable families. The pattern of elite capture in community infrastructure programmes is well documented in the literature on social equity in development projects in Sub-Saharan Africa.

Geographic isolation compounds access risk. Villages such as Zokopé in Togo, described by community members as effectively isolated by the absence of all-weather road access, and dispersed rural settlements in Chari-Baguirmi Province in Chad, face structural barriers to accessing training under Component 2 and community finance mechanisms under Output 3.1, where the absence of road access can effectively exclude populations from the project's economic benefits. In Chad, stakeholders in Linia and N'Djamena Koura emphasised that communities in peri-urban areas that are seasonally flooded often cannot participate in consultation or benefit distribution processes due to physical inaccessibility, a direct manifestation of climate vulnerability compounding access inequity. The deployment of the digital cooperative platform under Output 3.1 carries a literacy-conditioned access risk: in villages such as Yométchin and Howuivé in Togo, where high proportions of women are non-literate, text-based digital interfaces would systematically exclude this group from cooperative financial services unless icon and voice interfaces in local language are embedded in the platform design from the outset. Mitigation measures, including the Gender Action Plan, transparent eligibility criteria, public posting of beneficiary lists, proactive outreach via community radios and women's associations, and disaggregated MEL, are detailed in Table 6.

ESP Principle 3. Marginalised and Vulnerable Groups: Moderate

Marginalisation is a structural, not incidental, feature of the communities targeted by ECOVERSE. As the World Bank (2025) has established, rural women in Sub-Saharan Africa are disproportionately affected by climate change because pre-existing gender inequalities simultaneously increase their exposure to climate shocks and constrain their ability to adapt, creating compounded vulnerability profiles that standard project targeting mechanisms often fail to reach. In Togo, stakeholder consultations across the Avé 1 villages confirmed that women are the primary users of community infrastructure (markets, water points, processing units) but are largely excluded from formal management committees. Adolescent girls in Howuivé are systematically marginalised by the absence of safe sanitation facilities in schools; Output 1.1 will replace this gap by providing sex-appropriate latrine facilities. Older women in Howuivé and Yométchin face digital exclusion under Output 3.1 due to high illiteracy rates.

In Chad, the construction and green jobs activities under components 1 and 2 are vulnerable to the same exclusion dynamic: in the 8th and 9th Arrondissements of N'Djamena, female-headed households, internally displaced persons and persons with disabilities face structural barriers to accessing community decision-making processes and public consultations, particularly where meeting formats, times and languages are not adapted to their constraints. The consultations in Chad also confirmed that women are underrepresented in technical services and local governance at every level, reflecting deep-rooted patterns of institutional marginalisation. The inherent risk is rated Moderate because, absent the affirmative measures included in the project design, project benefits would predictably favour men, literate adults and residents of well-connected localities, perpetuating the very exclusion the project seeks to address. Mitigation measures, including pictogram-based formats, women's and youth associations as outreach channels, minimum representation quotas in user committees, and disaggregated indicators, are detailed in Table 6.

ESP Principle 4. Human Rights: Low

The ECOVERSE project does not entail activities that directly compromise human rights. The project's core infrastructure investments directly advance the realisation of rights: Outputs such as solar-powered water access advances the human right to safe water recognised under UN Resolution 64/292 (2010); Component 1 leading to school and health post rehabilitation advances the right to education and to health (most directly in Howuivé, where precarious reed-wall classrooms will be replaced by climate-resilient iCSEB structures); and community finance mechanisms advance the right to economic participation.

The inherent risk of project-induced harm is rated Low. Limited residual pathways concern indirect issues that arise from the broader operational context rather than from project activities themselves: inadvertent restriction of information access for individuals not speaking the predominant languages of the project sites; the possibility that local power structures could suppress dissenting voices during community consultation processes; and discriminatory contractor labour practices. Mitigation measures, including the Codes of Conduct, multilingual disclosure (French plus Ewe in Togo; French plus Arabic in Chad), and an accessible GRM with confidentiality safeguards, are detailed in Table 6.

ESP Principle 5. Gender Equality and Women's Empowerment: Moderate

The intersection of gender, climate change and land rights in both countries is well-evidenced in the literature. Gender discrimination in land rights reduces women's adaptive capacity to climate shocks because it restricts their ability to invest in land improvements, access credit using land as collateral, and make autonomous decisions about land use (Adaptation Futures, 2018; World Bank, 2025). In Togo, approximately 95 per cent of land in Avé 1 Commune is held under customary tenure, and customary law consistently restricts women's independent land ownership and inheritance, despite the formal protections of the Land Code (Loi n° 2018-

005) and the National Gender Policy. This has direct implications for ECOVERSE: women who do not hold formal land title cannot, without targeted measures, access the revolving loans available under Output 3.1, nor can they easily be primary beneficiaries of agroforestry plot allocations under Activity 2.1.3. The legal gap between statutory gender protections and customary practice is well-documented across similar Sub-Saharan African contexts.

Women in both project countries bear a disproportionate burden of unpaid care and domestic labour, including water and fuelwood collection. In Togo, women in Zogbépimé, Ando-Akpévié and Zokopé spend up to two hours per day collecting water from open wells, time that the World Bank (2025) explicitly identifies as a key constraint limiting women's participation in agricultural extension training and cooperative activities. Several activities in the project directly address this burden but requires gender-responsive siting to ensure facilities genuinely serve women's collection routes and household needs. In Chad, stakeholder consultations confirmed that male-dominated community power structures can appropriate the benefits of women-targeted infrastructure investments, a risk particularly acute for the model housing units under Component 1 and the green job creation activities under Component 2. The inherent risk is rated Moderate with high probability because the structural gender inequalities documented in both countries mean that, without targeted measures, project benefits would predictably flow disproportionately to men, women's participation in user committees and revolving-fund governance would remain symbolic, and training schedules would conflict with women's care responsibilities. Mitigation measures, including the Regional Gender Assessment and Gender Action Plan, the 40 per cent women's participation threshold, gender-responsive financial products, female SEAH related measures and sex-disaggregated reporting, are detailed in Table 6.

The project has identified two SEAH (Sexual Exploitation, Abuse and Harassment) risk profiles that may require management. First, the construction of model housing units, school and market rehabilitation works, road and drainage construction, and similar civil-works activities involve labour influx into project communities, with documented elevated risks of transactional sex, harassment of women and girls, and STI/HIV transmission. Second, the operation of the community adaptation finance mechanism under Component 3 involves processes of beneficiary selection and gatekeeping in which transactional pressures and asymmetric power relations can give rise to harassment and exploitation. Both risk profiles will be managed in line with the AF SEAH policy as it becomes operational, complemented by the AF Gender Policy. As an interim measure, all civil-works contracts and EE coordination arrangements include SEAH-sensitive codes of conduct, contractor briefings on SEAH at mobilisation, and operation of the dedicated SEAH-sensitive GRM pathway described below.

ESP Principle 6. Core Labour Rights: Low

The construction and land management activities under Components 1 and 2 are the principal labour-rights interface. The vast majority of construction and agricultural labour in Sub-Saharan Africa occurs within the informal sector, where workers may not be covered by formal contracts, social protection systems or OHS regulations (WHO/ILO Joint Effort on Occupational Health and Safety in Africa, 2024). In Togo, construction of iCSEB model housing units under Activity 1.1.4 in Kévé and Zogbépimé will require both skilled artisans and unskilled labourers; the community consultation specifically highlighted youth demand for a "Local First" hiring policy. The Togolese Labour Code (Loi n° 2021-012) mandates social security registration, but enforcement by local contractors is inconsistent. Community members in Howuivé currently perform hazardous unpaid labour to repair school walls, which the project will replace with paid contractor-led works under formal OHS standards. In Chad, cash-for-work schemes for the construction of contour bunds and check dams and community nurseries involve large numbers of agricultural workers in informal arrangements, where formal protections under the Code du Travail exist but rural enforcement is limited.

The inherent risk of project-induced harm is rated Low. The project's labour interventions are formalising rather than precarising, replacing informal unpaid community labour with regulated contractor employment under the national Labour Codes. Probability of minor OHS incidents during iCSEB block production, construction, solar panel installation and borehole drilling is non-trivial, but the impact severity per incident is low when standard PPE and contractor protocols are in place as per the project design. Mitigation measures, including ILO-aligned contractor clauses, OHS protocols proportionate to each works typology, fair-wage commitments, child-labour prohibitions, and worker grievance pathways, are detailed in Table 6.

ESP Principle 7. Indigenous Peoples: Low

No Indigenous Peoples have been confirmed within the project intervention areas in either country. In Togo, the population of Avé 1 Commune is primarily of Ewe and Adja-Ewe ethnicity; while these groups have strong cultural connections to their landscape, they do not self-identify as Indigenous Peoples. In Chad, the primary intervention areas in Chari-Baguirmi Province and N'Djamena's peri-urban arrondissements are populated predominantly by sedentary, ethnically diverse but non-indigenous communities. The proposal acknowledges that Mbororo Fulani and Toubou communities, which exhibit characteristics that may qualify as Indigenous Peoples (including territorial nomadism, distinct cultural identity and customary land governance), are present in other parts of Chad and may seasonally access areas adjacent to project sites.

The inherent risk is rated Low because Principle 7 is triggered for further assessment on a precautionary basis. Procedural attention is required for transient and seasonally mobile pastoralist groups, whose movements may intersect with restoration sites and water points. Assessment under this principle therefore takes the form of site-level verification at every USP, supplemented by transhumance-corridor mapping for activities under Outputs 2.2 and 2.3.

Where site-level verification at any USP identifies the presence of communities with the characteristics of Indigenous Peoples, including seasonally mobile pastoralist groups, the responsible Executing Entity, under OSS supervision, will conduct a Free, Prior and Informed Consent (FPIC) process before the USP proceeds to implementation. The process will be facilitated independently of the project chain (typically through a competent civil-society organisation or recognised customary representative), conducted in the relevant local language, and documented in writing through a record of consultation, attendance, the substance of the discussion, and the outcome.

ESP Principle 8. Involuntary Resettlement: Low

No activity in ECOVERSE would entail physical displacement. Infrastructure under Component 1 (school and market rehabilitations, drainage works, demonstration housing) will be implemented on existing municipal footprints in Togo, on existing public or communal land in Chad, and through partnership with local authorities. All works locations are confirmed at design stage to avoid physical resettlement.

The inherent risk is rated Low. The project's design choice to site works on existing public footprints fundamentally avoids displacement; any residual concern relates to potential economic displacement or access restriction in customary-tenure contexts. In Togo, approximately 95 per cent of land in Avé 1 Commune is held under customary tenure; in Chad, N'Djamena's 8th and 9th Arrondissements include informal urban settlements where tenure is contested. Customary land rights in Togo, recognised under Loi n° 2018-005, provide a partial protective framework, but statutory title holders may contest customary occupants' claims. Restoration sites, contour bunding, urban greening corridors and check dams could inadvertently restrict seasonal access to plots, particularly where pastoralists and farmers

have overlapping land-use rights. Impact would be moderate if it occurred, but probability is low because of the existing-footprint design and because every USP undergoes pre-works socio-economic screening. Mitigation measures, including the Abbreviated Process Framework set out in Annex 2D, participatory site selection, FPIC documentation, and comprehensive land use and tenure mapping as a precondition for all USPs, are detailed in Table 6.

ESP Principle 9. Protection of Natural Habitats: Low

No legally designated protected areas (national parks, nature reserves or Ramsar wetlands) have been identified within any confirmed project site in either country. Project sites in Togo are in already degraded rural and peri-urban zones; project sites in Chad are in dense urban, peri-urban and rural-mosaic landscapes that have already undergone substantial anthropogenic modification.

The inherent risk of project-induced harm is rated Low. The use of iCSEB technology contribute to habitat-protection: by replacing fired-brick construction, the project removes a major driver of localised deforestation associated with brick-kiln fuelwood demand. Limited residual concerns relate to the micro-siting of urban green corridors, drainage interventions adjacent to seasonal wetlands, and species selection in restoration plantings. The Zio River riparian zone adjacent to the Zogbépimé project area constitutes a semi-natural habitat of local ecological significance, and ecosystem restoration under Component 2 will involve work in areas that include secondary forest patches adjacent to sacred forests in Edzi, where sacred forest soils have been documented to sequester substantial organic carbon and support higher floral diversity than surrounding agricultural land. Activities under USPs whose final sites remain undetermined create a procedural attention point that is managed through habitat sensitivity mapping and an exclusion protocol for high-biodiversity sites at the USP screening stage. Mitigation measures, including site-level ESIA screening, technical guidelines for native-species use, and the exclusion of high-biodiversity sites, are detailed in Table 6.

ESP Principle 10. Conservation of Biological Diversity: Low

The project will establish community nurseries supplying agroforestry, erosion control, ecosystem restoration and urban greening. The CIFOR-ICRAF literature on agroforestry in the West African Sahel highlights that agroforestry, when designed with ecologically appropriate native species, can substantially enhance agro-biodiversity and landscape biodiversity, improve ecosystem services and increase system resilience compared to monoculture systems.

In Togo, community consultations in Edzi identified specific biodiversity values associated with the African Rock Python (Python sebae) and the Nile Monitor (Varanus niloticus), both protected under the Forest Code (Loi n° 2008-009), in areas targeted for reforestation near Awatome. In Chad, restoration of urban and peri-urban wooded areas must use locally adapted species. The inherent risk is rated Low because the project is biodiversity-positive by design: restoration, native-species planting and assisted natural regeneration deliver net habitat gains. Probability of minor species-selection or micro-siting issues across multiple restoration USPs is non-trivial, but per-incident impact is low and reversible. Mitigation measures, including country-specific native-species preference lists, certified seed sourcing, invasive-species pre-screening, pre-planting biodiversity screening for every restoration USP, and consultation with traditional custodians of sacred biodiversity sites, are detailed in Table 6.

ESP Principle 11. Climate Change: Low

The ECOVERSE project is fundamentally a climate adaptation initiative and generates no significant greenhouse gas emissions. All project components are explicitly designed to reduce communities' vulnerability to climate hazards. Chad is among the most climate-vulnerable countries globally; IMF analysis highlights that climate-related shocks already impose substantial macroeconomic costs, with long-term projections suggesting that annual losses could exceed 10 per cent of GDP by 2050 under high-impact scenarios. These impacts are driven by advancing desertification across the Sahel, recurrent flooding, and accelerating soil and vegetation degradation. In Togo, climate variability manifests through increasingly erratic rainfall patterns, prolonged dry seasons and more intense precipitation events, all of which are systematically undermining agricultural productivity and rural infrastructure, particularly in Avé 1 Commune where rain-fed agriculture dominates.

The inherent risk is rated Low. The project's iCSEB technology under Component 1 reduces cement use and associated embodied GHG emissions by approximately 50 per cent compared to conventional masonry construction. Solar-powered water systems eliminate diesel dependency. Restoration, agroforestry and assisted natural regeneration activities deliver net carbon sequestration. Limited residual risk relates to slow community uptake of climate-smart practices. Mitigation measures, including demonstration plots, farmer field schools, the adaptation-evidence learning architecture under Component 4, and low-emission logistics choices in procurement and material transport, are detailed in Table 6.

ESP Principle 12. Pollution Prevention and Resource Efficiency: Low

Construction activities are the principal pollution interface. In Togo, residents in Agbozomé reported respiratory complaints from dust on unpaved school floors, which iCSEB rehabilitation will address; iCSEB block production at the Zogbépimé construction site generates noise and particulate emissions. Borehole drilling generates noise and drilling-mud waste requiring proper management. In Chad, construction of permeable drainage and demonstration housing in dense urban settings raises dust-suppression and construction-waste-handling requirements. Solar battery storage units require hazardous waste management protocols aligned with the Basel and Stockholm Conventions, to which both countries are signatories. Construction waste from drainage and road rehabilitation in N'Djamena's urban arrondissements must be managed in accordance with Décret n° 09-904/PR/PM/MERH/2009 on pollution and nuisance control.

The inherent risk of project-induced harm is rated Low. Probability of routine construction nuisance (dust, noise, minor waste) is high, but per-incident impact is low, time-bound and fully reversible. The project's design is pollution-improving overall: iCSEB has lower lifecycle emissions and waste than fired-brick alternatives, and improved drainage reduces flood-related contamination. Mitigation measures, including standard contractor clauses (dust suppression, working-hours restrictions, waste segregation, drilling-fluid containment), site-level USP ESMPs, sediment control measures in contour bund and check dam design, and proper end-of-life management for solar battery storage, are detailed in Table 6.

ESP Principle 13. Public Health: Low

The project operates in environments with documented public-health vulnerabilities that inform site scheduling and design rather than being created by the project. In Chad, N'Djamena is exposed to recurrent flood-related cholera outbreaks, particularly in the 8th and 9th Arrondissements. In Togo, communities reported widespread open defecation in some villages due to absence of latrines, and the influx of external workers raises legitimate concerns regarding STI and HIV transmission. The literature has firmly established that water infrastructure and land management interventions in tropical Africa, if poorly designed, can create stagnant water bodies that increase the transmission risk of vector-borne diseases.

The inherent risk of project-induced harm is rated Low. The project's activities are design to improve health outcomes: drainage works reduce vector and waterborne-disease habitat, WASH interventions directly address open defecation and waterborne disease, and iCSEB rehabilitation reduces respiratory dust exposure. Limited residual concerns relate to standing water at new boreholes if not properly designed (mosquito vector risk) and worker-community interaction at construction sites. Mitigation measures, including health-sensitive design standards (overflow management and first-flush screens for rainwater harvesting, drainage around tank bases), seasonal field scheduling that takes account of disease-burden patterns, mandatory contractor health awareness sessions, and the SEAH protocol governing worker-community interactions, are detailed in Table 6.

ESP Principle 14. Physical and Cultural Heritage: Low

Cultural-heritage sites are documented at specific locations. In Togo, sacred forests and shrines in Edzi (Avé 1 Commune) are located near proposed restoration footprints under Activity 2.3.2, and the Zogbépimé village cemetery, considered a sacred site, is exposed to flooding; communities have explicitly requested protective fencing, which the project will provide. The literature has documented the profound ecological, social and spiritual significance of sacred forests, which serve simultaneously as biodiversity refugia, community governance centres and repositories of ancestral knowledge across the Ewe, Adja and related cultural groups of plateau Togo. In Chad, no cultural or archaeological sites were identified in the intervention areas during field consultations, though the Loi n° 14-60/1960 on cultural heritage requires standard chance-find procedures for all excavation activities.

The inherent risk is rated Low. Damage to a sacred site or religious feature would be a high-impact event, but probability is very low because all known sites are mapped, communities have already flagged sensitive locations during consultations, and the project's interventions at sites such as the Zogbépimé cemetery are protective rather than disruptive. No World Heritage properties or sites on the List of World Heritage in Danger lie within the project's area of influence. Mitigation measures, including pre-works cultural-heritage screening of every USP, mandatory consultation with traditional and religious custodians prior to earth-moving works, chance-find protocols contractualised with all civil works contractors, and worker awareness training, are detailed in Table 6.

ESP Principle 15. Lands and Soil Conservation: Low

Soil degradation is a documented baseline condition the project addresses, not a condition created by the project. Chad's natural resource depletion is significantly higher than the Sub-Saharan African average, reflecting sustained pressure on land, water and vegetation systems under conditions of climatic stress and rapid population growth. In Chari-Baguirmi Province, sandy Sahelian soils are especially susceptible to wind erosion, low structural cohesion and rapid infiltration-excess runoff under intense rainfall events. In Togo, the ferrallitic red soils of Avé 1 Commune are highly fertile but among the most erosion-susceptible in West Africa when exposed; severe topsoil loss of 20 to 30 tonnes per hectare per year has been recorded on sloped farmland in Zogbépimé, consistent with the wider Zio basin pattern.

The inherent risk of project-induced harm is rated Low. The project contains several soil conservation measures that deliver net positive soil outcomes: assisted natural regeneration, contour bunding, permeable drainage, agroforestry and check-dam construction. The contour bunds and check dams will be designed to engineering and hydrological standards that account for local soil texture, slope gradients and rainfall intensity, since poorly designed structures can fail through overtopping or undercutting. Probability of localised soil disturbance during earth-moving works is non-trivial, but per-incident impact is low, time-bound and reversible. Mitigation measures, including erosion-control clauses in contractor agreements,

seasonal scheduling of earth-moving works to avoid the rainy season, site-specific design of bunds and check dams, and topsoil-erosion monitoring against specific thresholds, are detailed in Table 6.

Project Categorisation

Based on the principle-by-principle assessment above, no inherent risk reaches the High significance threshold. Of the 15 principles, four are rated Moderate (Principles 1, 2, 3, 5) and eleven are rated Low (Principles 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15). The project is provisionally classified as **Category B**, reflecting the presence of moderate, site-specific, reversible inherent risks that are addressable through standard mitigation measures and the ESMP. After application of the mitigation measures set out in Table 6, residual risk is expected to be reduced to Low across all principles. This provisional categorisation will be confirmed for every Unidentified Sub-Project through the screening procedure set out in this ESMP.

The combined risk profile across the ES principles is consistent with the Adaptation Fund classification of Category B: identified potential risks are site-specific, largely reversible, and manageable through proportionate, principle-mapped mitigation measures, and no risk reaches the threshold of significant or irreversible impact that would trigger Category A. The provisional classification will be confirmed or revised, as required, on the basis of cumulative USP screening outcomes reported through the Annual Project Performance Reports (PPRs) submitted to the Adaptation Fund Secretariat.

Unidentified Sub-Projects (USP): Methodology of Impact Assessment and Risk Management

Compliance with AF Policies

All activities implemented under the USP modality will adhere to the AF policies to which the ECOVERSE project is subject. These include:

- **The Adaptation Fund Environmental and Social Policy (AF ESP)**, which sets out the requirements for Implementing Entities to assess and manage environmental and social risks throughout project implementation. The AF ESP defines the 15 Environmental and Social Principles that all AF projects must comply with, as well as the adoption of measures to avoid - or where avoidance is not possible, to minimise or mitigate - those risks. Any USP identified and implemented under ECOVERSE will, without exception, comply with the ES Principles defined in the AF ESP.
- **The Adaptation Fund Gender Policy and Action Plan (AF GP)**, which defines the objectives and principles that AF-funded projects shall comply with in order to uphold women's rights as universal human rights and to attain the goal of gender equality and the equal treatment of women and men. Any USP identified and implemented under ECOVERSE will, without exception, comply with the main principles of the AF GP.

The USP policy for ECOVERSE is further informed and guided by AF Guidance Document on compliance with the ESP and GP of the Fund, and by the Updated Guidance for Implementing Entities on USPs , which establishes the detailed process requirements for proposals containing activities that cannot be fully identified at the time of submission.

Compliance with OSS Environmental and Social Safeguards

The Environmental and Social Safeguards (ESS) for the ECOVERSE project and, inherently, for its USPs, are assured through the OSS Environmental and Social Management System (ESMS), which is grounded in internationally recognised frameworks including the IFC Environmental and Social Sustainability Framework. This ensures that potential risks and impacts are iteratively identified, mitigated, and monitored throughout the project lifecycle.

Environmental and social risk management is completed through two main stages:

- **Stage 1 - Preliminary Risk Screening**: Conducted during project preparation with respect to the 15 principles of the AF ESP, leading to the categorisation of the project according to its environmental and social risk level. ECOVERSE is categorised

as Category B (Medium Risk): identified risks are site-specific, largely reversible, and manageable through proportionate mitigation measures.

- **Stage 2 - Ongoing Risk Screening During Implementation**: Governing all project interventions during the implementation phase, and operationalised through the OSS Risk Management Procedure, in line with internationally recognised standards including ISO 31000:2009 on Risk Management. Operational procedures will be implemented to ensure continuous screening of all project activities and interventions for the identification of arising risks and impacts.

Justification for the use of USPs

The decision not to fully identify a defined subset of project activities at design stage is grounded in specific technical evidence dependencies that cannot be resolved before project inception, and the benefits of this approach clearly outweigh the additional safeguard compliance burden it entails. For infrastructure and land-management activities under Components 1 and 2, the precise siting of permeable roads and drainage layouts, green corridors, bioengineering erosion control structures and ecosystem restoration parcels depends directly on evidence generated through early-implementation technical studies, namely flood risk and hazard mapping, topographic and erosion hazard mapping, and participatory degraded-land assessments, none of which can be conducted to provide the reliable, site-specific results in advance of project start-up. Pre-identifying specific road segments, gullies, or restoration parcels in the absence of this evidence base would risk directing investment to lower-priority or tenure-contested sites, reducing technical adequacy and community ownership, and generating avoidable environmental and social safeguard risk. For the community adaptation finance mechanism under Component 3, a different justification logic applies: the identification of final loanees and sub-project locations is, by design, determined through a community mobilisation process and a locally-led, demand-driven application mechanism, and the framework of admissible activities, loan-size caps, gender quotas and exclusion criteria is fixed at design stage. Pre-selecting beneficiaries at design stage would undermine both the participatory integrity and the financial-inclusion rationale of the mechanism.

Stakeholder consultation was extensively conducted across both countries during project formulation, as per paragraph 15 of the Updated USP Guidance (Decision B.39/52); each USP listed in Table 2 below is justified on the basis of the technical or design-integrity dependency described above. Table 2 sets out for each USP (i) what is fixed at design stage, (ii) what will be determined during implementation, and (iii) the specific reason why design-stage formulation is not feasible or not desirable.

Table 2: USP activity register

Component and Output	Activity	USP Type	What is fixed at design stage	What is determined during implementation	Justification for USP	Responsible entity for ESP/GP screening
Component 1 Output 1.2: Flood-resilient roads, permeable drainage, and green urban corridors	**1.2.2** Design and rehabilitate climate-proofed road and drainage systems	Partially unidentified by location	Intervention typology (permeable roads, vegetated swales, drainage channels); technical standards and materials; target municipalities (N'Djamena	Exact road segments to be rehabilitated; drainage layouts and alignments; final construction footprints	Final prioritisation of road segments depends on flood risk and hazard mapping conducted under Activity 1.2.1 in Year 1; pre-selection without this evidence base risks misallocation of investment and	Executing Entities under OSS no-objection

			districts, Zogbepimé)		avoidable ESP risks	
	1.2.3 Establish green corridors in heat-exposed areas	Partially unidentified by micro-site	NbS typology (tree corridors, shaded public spaces, school/market greening); climate-adapted native species lists; urban/peri-urban focus; target municipalities	Final planting sites and plot selections; corridor alignments; community stewardship arrangements; planting density	Green corridor siting depends on Activity 1.2.1 hazard mapping and community co-design workshops; advance selection risks placing corridors where they generate minimal flood or heat relief benefit	Executing Entities under OSS no-objection
Component 2 Output 2.2: Erosion control infrastructure implemented	**2.2.3** Implement bioengineering and vegetation-based erosion control	Partially unidentified by slope/gully	Bioengineering methods (vetiver hedgerows, gabions, brush layering); admissible species; risk reduction objective; intervention size range per country	Specific slopes and gullies to be treated; final stabilisation layouts; boundaries of intervention zones	Selection of specific gullies depends on topographic and erosion hazard mapping under Activity 2.2.1; advance identification without this data would lack technical rigour and community validation	Executing Entities under OSS no-objection; hazard assessment required prior to screening
Component 2 Output 2.3: Degraded Forest, rangeland, and riparian ecosystems restored	**2.3.2** Implement assisted natural regeneration and enrichment planting	Partially unidentified by parcel	Restoration techniques (ANR, enrichment planting, community reforestation); admissible species portfolios; landscape typologies; target countries and provinces	Exact restoration blocks; parcel boundaries and sizes; land tenure arrangements per parcel	Final parcels depend on degraded land assessments under Activity 2.1.1; early selection risks targeting lower-priority or tenure-contested land and triggering unnecessary land access risks	Executing Entities under OSS no-objection; FPIC process required for all parcels
Component 3 Output 3.1: Revolving adaptation finance mechanism established, capitalised, and operationalised	**3.1.5** Undertake community lending operations	Partially unidentified by beneficiary and site	Eligible activity typologies; maximum and minimum grant/loan sizes; beneficiary selection criteria; gender and equity quotas (minimum 50% women); geographic scope (project municipalities); prohibited uses	Final grantees and borrowers; exact sub-project sites; specific activities to be financed per household or group	Beneficiary identification depends on community mobilisation (Activity 3.1.4) and a demand-driven application process; pre-selecting grantees at design stage would undermine community-led selection integrity and financial	Executing Entities under OSS no-objection; mandatory individual ESP/GP screening checklist per sub-grant prior to disbursement

			aligned with Exclusion List		inclusion objectives	

Fixed framework and exclusion criteria

All USPs included in this project are partially unidentified: for each USP, at least one of activity typology, geographic scope, beneficiary criteria or technical standards is fixed at design stage, as documented in Table 2. The framework of admissible interventions, technical standards, eligible species portfolios, maximum grant sizes and beneficiary selection criteria is set out in Tables 2 and 3 and provides the binding boundary within which USP identification will proceed during implementation. This framework approach is consistent with the partially-unidentified USP type described in the Updated USP Guidance for Implementing Entities, and ensures that environmental and social risk identification, mitigation and management can be operationalised through the four-step USP process described in this ESMP without compromising the technical or participatory rationale that motivates the use of USPs in selected components.

All USPs operate within a clearly defined, non-negotiable implementation framework established at design stage. For each USP, the typology of admissible interventions, technical standards, eligible species portfolios, maximum grant sizes, and beneficiary selection criteria are fixed in advance and may not be revised during implementation without formal no-objection from OSS as Regional Implementing Entity. A project-wide exclusion list is provided in Table 3, defining all categories of activities, location conditions, and social circumstances that are absolutely prohibited across all USPs, regardless of country or implementation context. No USP may proceed to implementation if any exclusion criterion is triggered.

Table 3: Project-Wide Exclusion List

Category	**Excluded activity, location, or condition**	**Applies to**
Land and Physical Displacement	Any activity requiring involuntary resettlement or physical displacement of persons	All USPs
	Any restriction of access to land, water, or natural resources without documented voluntary consent and agreed compensation	All USPs
	Works on private or customary land without written consent of the land user or rights holder	1.2.2, 2.2.3, 2.3.2
Ecosystems and Biodiversity	Any activity in, or immediately adjacent to, legally designated protected areas, national parks, Ramsar sites, or UNESCO World Heritage zones	1.2.3, 2.2.3, 2.3.2
	Conversion or degradation of natural forests, primary vegetation, or wetlands	2.3.2
	Introduction of invasive, non-native, or ecologically unsuitable species	1.2.3, 2.2.3, 2.3.2
	Monoculture plantations replacing multi-species or natural systems	1.2.3, 2.3.2
Infrastructure and Scale	Any large-scale infrastructure or activities classified as Category A under the AF ESP	All USPs
	Any hard engineering works (concrete dams, retaining walls, major drainage canals) not explicitly approved in technical design	2.2.3
	Works in or near human settlements without a prior site-level safety and social risk assessment	2.2.3
Social and Rights-Based	Any activity affecting communities with the characteristics of Indigenous Peoples (per AF ESP) without a completed Free, Prior, and Informed Consent (FPIC) process	All USPs
	Any activity that excludes or disadvantages women, youth, elderly persons, or persons with disabilities from participation or benefit access	All USPs
	Any activity creating or exacerbating risks of gender-based violence, exploitation, or abuse	All USPs
	Sub-grants or loans to political entities, government bodies, or for-profit commercial enterprises	3.1.5
	Sub-grants or loans for activities on the AF Prohibited Practices list	3.1.5
Regulatory and Fiduciary	Any activity for which the required national environmental, land, or construction authorisation cannot be obtained	All USPs

	Any activity exceeding the agreed maximum grant or loan size without prior written no-objection from OSS	3.1.5
	Any activity for which adequate ESP/GP screening cannot be completed due to insufficient site information	All USPs

Procedures for Identification, Assessment, and Validation of USPs

Overall, in the ESMP for the ECOVERSE project, procedures are defined in case significant risks are identified. As such, when impacts or risks are determined, activity-wide E&S assessment will be conducted which, in turn, will lead to the identification of activity-specific E&S management measures that need to be incorporated into the project execution. Identification, treatment and monitoring of identified risk and mitigation measures will be managed using a Risk Register. The process will be governed by the Risk Management Procedure of the AF and OSS.

As part of project development, baseline data was collected and verified through detailed consultations and technical assessments. Early implementation activities, particularly technical hazard mapping studies (Components 1 and 2) and community mobilisation processes (Component 3), will determine the site-specific details required for USP identification. Once these clarifications are established, the responsible Executing Entities (EEs), under OSS oversight, will undertake proportionate environmental and social assessments before any USP proceeds. These assessments are proportionate to the Category B classification and take the form of concise Environmental and Social (E&S) Summary Notes.

Each USP will follow a mandatory four-step process prior to implementation:

- **Step 1 - ESP Screening**: The EE screens the proposed site or beneficiary group against all 15 AF ESP principles using the standardised USP Screening Checklist. Any USP triggering a Category A finding is automatically excluded (Table 4).

- **Step 2 - Impact Assessment**: For every risk identified at Step 1, a commensurate impact assessment is conducted, characterising the impact by nature, magnitude, spatial extent, duration, reversibility, and affected parties. Only USPs assessed as Low to Moderate risk under all 15 principles are retained; higher-risk activities are redesigned or excluded.

- **Step 3 - Mitigation and Management Measures**: Site-specific measures are identified for each impact, following the AF ESP mitigation hierarchy (avoidance to minimisation to management), and verified through gender-disaggregated consultation with affected communities and local authorities.

- **Step 4 - E&S Summary Note and ESMP Integration**: Steps 1-3 are consolidated into a standardised E&S Summary Note, integrated as a USP-specific annex to the project ESMP and incorporated into the activity-level Annual Work Plan and Budget (AWPB). The E&S Summary Note is submitted to OSS for formal written no-objection. No USP may proceed before OSS no-objection is received.

Each Annual Project Progress Report (PPR) will include a dedicated USP section covering all eight mandatory reporting elements, including risks identified, impact assessments conducted, mitigation measures adopted, gender-disaggregated consultation evidence, monitoring indicators, and results. The project Grievance Redress Mechanism (GRM) is operational from project start-up and fully accessible to communities affected by USP activities, with escalation pathways to OSS and the AF Ad Hoc Complaint Handling Mechanism where needed.

Table 4 below sets out the standardised USP screening checklist against the 15 AF ESP principles, to be completed by the responsible Executing Entity for each USP at the time of identification during implementation. The completed checklist shall be annexed to the USP-specific Environmental and Social Summary Note submitted to OSS for formal written no-objection. Any principle for which a 'Yes' response is recorded at Step 1 (ESP Screening) requires a commensurate impact assessment at Step 2 (Impact Assessment) and the

identification of mitigation measures at Step 3 (Mitigation and Management Measures), in line with the four-step USP process described above. A 'Yes' response under any principle that triggers Category A criteria results in automatic exclusion of the USP.

Table 4: USP screening checklist

#	**AF ESP Principle**	**Screening Question**	**Risk Identified? (Yes/No)**	**If Yes: Commensurate Assessment Required**
1	Compliance with the Law	Are all required national permits and environmental authorisations and clearances for this USP site and activity been identified, and is there a documented and credible pathway to obtain them prior to works commencement?		
2	Access and Equity	Is there risk of elite capture or exclusion (geographic or literacy-conditioned) of marginalised groups or households from USP benefits?		
3	Marginalised and Vulnerable Groups	Are elderly-led, female-headed, and disabled households at risk of exclusion from USP participation or benefits?		
4	Human Rights	Are there risks of restricted access to information, suppression of community voice, or reprisals against complainants in connection with this USP or reprisals against complainants?		
5	Gender Equality and Empowerment	Are there gender-specific risks including land access exclusion, GBV potential, or digital exclusion?		
6	Core Labour Rights	Are there risks of OHS non-compliance, child labour, or forced labour or breach of ILO core conventions?		
7	Indigenous Peoples	Are there communities with characteristics of Indigenous Peoples within or adjacent to the USP site?		
8	Involuntary Resettlement	Does the USP site entail physical or economic displacement risk or restriction of access to livelihoods?		
9	Protection of Natural Habitats	Does the site intersect with legally designated protected areas, Ramsar wetlands, natural habitats of recognised conservation value or riparian buffer zones?		
10	Conservation of Biological Diversity	Is there risk of introducing non-native or invasive species, or disturbing protected fauna?		
11	Climate Change	Has the USP design incorporated projected climate change scenarios for the specific country and region?		
12	Pollution Prevention and Resource Efficiency	Does the USP generate hazardous waste, chemical runoff, dust, or noise without confirmed management measures?		

13	Public Health	Are there vector control risks at water-retaining infrastructure sites, or labour influx public-health risks, or other significant negative public-health impacts?		
14	Physical and Cultural Heritage	Are there sacred sites, shrines, cemeteries, or culturally significant vegetation near the USP site?		
15	Lands and Soil Conservation	Does the USP risk soil loss, soil-structure degradation, or accelerated erosion at the site or downstream of it?		

Environmental and social risk management, in line with the ESP and gender policy of the AF

In accordance with the AF's Environmental and Social Policy (ESP), the ECOVERSE project has been provisionally classified as a Category B project, indicating that the project may involve some environmental and social risks, but these are expected to be site-specific, reversible, and manageable with appropriate mitigation measures. Activities such as small-scale construction, rehabilitation of public infrastructure, community-based water harvesting, agroforestry development, and ecosystem restoration may temporarily disrupt local environments or create localized resource-use pressures if not carefully planned and monitored. However, the project does not involve large-scale land conversion, involuntary resettlement, hazardous materials, or irreversible ecological change, and therefore does not trigger Category A requirements.

Social risk prevention will be strengthened through inclusive governance arrangements, gender-responsive beneficiary selection criteria, and mandated minimum representation of women and youth in community adaptation committees. All contractors, extension agents, and implementing partners will operate under Environmental and Social Codes of Conduct, including Occupational Health and Safety standards and conflict-sensitive engagement protocols. Construction and landscape rehabilitation works will follow best-practice erosion control, biodiversity protection, and waste management procedures to minimize temporary environmental disturbances.

A multi-tier Grievance Redress Mechanism (GRM), with local entry points, confidential reporting channels, and escalation pathways to national and regional levels, will ensure that affected individuals can raise concerns safely and equitably. Continuous capacity building will equip community institutions, local government units, and national executing entities to maintain safeguard responsibilities beyond the project period.

Project-Level Grievance Redress Mechanism (GRM)

The ECOVERSE project establishes a dedicated project-level Grievance Redress Mechanism (GRM) to provide all Project-Affected Persons (PAPs), beneficiaries, and stakeholders with an accessible, transparent, fair, and gender-responsive channel to raise concerns related to the project's design, implementation, or impacts, including activities conducted under the USP modality. The GRM is operational from project start-up and is managed by OSS as RIE, which sets up, hosts, and ensures the GRM is impartial, confidential, predictable, and well-publicised in Chad and Togo, including at community level.

The GRM is open to all beneficiaries, project staff, and individuals indirectly affected by project activities, regardless of literacy level, gender, age, or social status. It takes into account the specific needs of vulnerable and marginalised groups, including women, youth, elderly-led and female-headed households, and persons with disabilities, as well as gender-related aspects and environmental and social risks arising from individual activities. A strict no-retaliation policy applies throughout: complainants may request full confidentiality, and any verified act of intimidation or reprisal against a complainant will be treated as a serious safeguard violation, subject to immediate escalation.

Complaint Submission Channels

Stakeholders may submit concerns through multiple channels adapted to the local context:

- Anonymous complaint boxes installed at community level in all project villages in Chad and Togo
- Trained local facilitators in each community, ensuring listening and anonymity for non-literate or non-French/Arabic-speaking residents
- Project hotline and SMS to the ECOVERSE site office(s) and PMU
- Written letter or postal mail addressed to the RPMU, Executing Entities, OSS, or the Adaptation Fund Secretariat
- Verbal submission at project meetings, workshops, or trainings, recorded by the facilitator and logged in the Grievance Register
- Online/email submission to OSS and the Adaptation Fund Secretariat

At the end of each project event, a feedback questionnaire will be administered individually or in groups to collect participant comments and suggestions for continuous improvement.

Three-Tier Escalation Structure

The GRM follows a three-tier escalation process ensuring grievances are resolved as close to their source as possible while providing structured recourse for complex or serious cases.

Table 5: GRM three-tier structure

Tier	Authority	Types of Grievances (indicative)	Target Resolution
Tier 1 - Community	Village Chief / Traditional Authority; Village Development Committee (VDC)	Local land disputes; crop damage from transhumance; noise or nuisance; inter-community friction; beneficiary selection concerns	7 days
Tier 2 - Project PMU	ECOVERSE Project Manager; designated representative	Technical or contractual disputes; labour rights violations; non-payment of workers; cases unresolved at Tier 1	14 days
Tier 3 - National/ International	ANGE (L'agence nationale de gestion de l'environnement, Togo) / DREM (Direction des Ressources en Eau et de la Météorologie, Chad); OSS; AF Ad Hoc Complaint Handling Mechanism (ACHM)	Serious non-compliance with AF principles; human rights violations; cases unresolved or inadequately addressed at Tier 2	30 days

Where the subject of a grievance is a member of a Village Development Committee, a traditional authority, a village chief, or any other person whose role in Tier 1 mediation would create a conflict of interest or expose the complainant to risk of intimidation or reprisal, the complainant may bypass Tier 1 entirely and submit the grievance directly to Tier 2 (RPMU) or, where the complainant prefers, to Tier 3 (national or international level). Anonymous submissions through the anonymous complaint boxes, the hotline, or written postal submission are routed automatically to Tier 2. The Tier 1 bypass is explicitly disclosed to all communities at GRM rollout and at each annual community briefing, and is reinforced in the GRM materials referenced under the language commitment below.

In addition to the three-tier escalation structure described above, the project operates a dedicated SEAH-sensitive pathway for grievances relating to gender-based violence, sexual exploitation, abuse, harassment, or any related conduct. The pathway is designed to apply survivor-centred principles of confidentiality, voluntary engagement, and avoidance of secondary harm. Grievances under this pathway may be submitted through the same channels as other grievances (anonymous box, hotline, written submission, verbal submission to a community facilitator) but are routed directly to the RPMU Gender and Environmental and Social Safeguards Specialist as the designated focal point, bypassing the village-level Tier 1 process. The Specialist coordinates a survivor-centred response, including referral to local

services where the survivor consents (health services, women-led civil-society organisations, police where requested), without requiring disclosure of identity or initiation of any investigation against the survivor's wishes. Confidentiality is strictly preserved: information is shared only on a need-to-know basis and never with the alleged perpetrator. Project staff and contractors who become aware of SEAH allegations are required to refer the matter to the RPMU Gender and Environmental and Social Safeguards Specialist without conducting their own investigation.

Step-by-Step Grievance Procedure

All grievances follow a process outlined below:

1. **Receipt and Registration (Days 1–2):** Complaint received via any channel; recorded in the Grievance Register. Non-literate complainants may lodge grievances verbally through a facilitator.
2. **Acknowledgement (Day 3):** Complainant receives a written receipt or confirmation SMS with a tracking number confirming official registration.
3. **Assessment and Assignment (Day 5):** The PMU evaluates eligibility and assigns the grievance to Tier 1 (localised community issue) or Tier 2 (technical, contractual, or safeguard issue).
4. **Investigation and Resolution (Days 7–14):**Tier 1 - Village Chief convenes a mediation session with notables; Tier 2 - Project Manager or E&S Manager conducts a site visit or document review. Minutes are recorded in the GRM database.
5. **Response and Agreement (Days 17–25):**Proposed resolution is presented to the complainant. If accepted, a Grievance Resolution Form is signed. If rejected, the case is immediately escalated to the next tier.
6. **Closure or Referral (Day 30):** All local complaints targeted for resolution within 30 days. Unresolved Tier 2 cases are formally referred to Tier 3.

Grievance Committee

A Grievance Committee is established within the PMU, responsible for receiving and reviewing complaints, proposing mediated solutions, explaining project impacts to communities, and negotiating corrective actions. Committee composition includes: the ECOVERSE Project Manager; representatives of each Executing Entity; and community representatives. Village-level community representatives actively participate in Tier 1 resolution, acting as the liaison between complainants and the PMU, and contributing context-appropriate solutions.

Tracking, Reporting, and Continuous Improvement

All complaints are recorded in a centralised GRM database maintained by the PMU, with data disaggregated by tier, typology, gender, and resolution status. Quarterly Grievance Status Reports are compiled and annexed to all progress reports submitted to OSS and national regulatory bodies. The PMU Environmental and Social Manager reviews grievance logs monthly to identify recurring issues and implement adaptive management responses in real time.

Escalation

Where a complainant is not satisfied with the outcome at any tier, the matter may be referred directly to the Adaptation Fund Ad Hoc Complaint Handling Mechanism (ACHM).

Sahara and Sahel Observatory Boulevard du Leader Yasser Arafat BP 31 Tunis Carthage 1080 Tunisia Tel: (+216) 71 206 633/634 Fax: (+216) 71 206 636 Email: doleances@oss.org.tn or boc@oss.org.tn	Adaptation Fund Board Secretariat Mail stop: MSN P-4-4-400 1818 H Street NW Washington DC 20433 USA Tel: 001-202-478-7347 Email: afbsec@adaptation-fund.org

Environmental and Social Management Plan

This ESMP has been developed in accordance with the Adaptation Fund Environmental and Social Policy (AF ESP) and its 15 Principles, the AF Gender Policy and Action Plan (AF GP), and the OSS Environmental and Social Management System (ESMS). It applies to all four project components across both countries and incorporates measures applicable to all

identified activities, including activities designated as Unidentified Sub-Projects (USPs). The ESMP will be updated progressively throughout implementation to incorporate USP-specific E&S Summary Notes as these are validated.

Table 6 sets out the Environmental and Social Management Plan for the ECOVERSE project. For each ESP principle, the table identifies the principal risks and impacts that have been screened and assessed in the preceding sections, structures mitigation measures along the AF mitigation hierarchy of avoidance, minimisation and mitigation, sets out the timing or trigger at which each measure is to be applied, designates the named role responsible for implementation, and specifies the indicator and means of verification through which compliance will be tracked. The Plan applies to all four project components across both countries, including activities designated as Unidentified Sub-Projects (USPs); USP-specific E&S Summary Notes will be progressively integrated into the Plan as USPs are validated by OSS during implementation. The total ESMP budget is provided in the budget paragraph that follows the table and is allocated by function rather than by principle, in line with the integrated nature of the safeguard work.

Table 6: Environmental and social risk management and mitigation measures

ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
1. Compliance with the Law	• Risk of non-compliance with national environmental, land, water, labour and construction regulations across two regulatory frameworks • uneven decentralised enforcement.	Avoid / Minimise	• Conduct inception-phase legal gap analysis per country • Identify and obtain all required permits and clearances before works commence • Integrate compliance clauses in all civil-works and service contracts • Apply the legal-screening question of the USP screening checklist to every USP prior to OSS no-objection.	• Inception (gap analysis) • Pre-works (permits, contracts) • Per-USP (screening)	• EEs • Municipal authorities • RPMU	• % of activities with required permits obtained before works commence • % of contracts with embedded compliance clauses • number of non-compliance incidents	• Permit register • contract review • incident log
2. Access and Equity	Elite capture, geographic exclusion of remote villages, and literacy-conditioned digital exclusion of marginalised households from project benefits, including USP-financed sub-projects.	Minimise	• Use transparent and publicly disclosed beneficiary selection criteria • conduct proactive outreach to underrepresented groups including remote settlements • embed icon and voice interfaces in local languages in the Component 3 digital platform • activate the GRM as the channel for exclusion complaints.	• Pre-implementation (criteria) • Continuous (outreach, GRM)	• EE • Community Committees • RPMU Gender and ES Safeguards Specialist	• % of benefits reaching vulnerable households disaggregated by sex, age and location • number of outreach events conducted • number of exclusion-related grievances resolved	• Beneficiary lists • outreach attendance records • GRM register

3. Marginalised and Vulnerable Groups	• Exclusion of women, youth, elderly, persons with disabilities and female-headed households from participation and benefit access	Minimise / Mitigate	• Apply targeting criteria and minimum quotas for vulnerable groups across all activities • ensure participation modalities accommodate non-literate, mobility-constrained and time-constrained participants • develop materials in non-text formats where required.	• Pre-implementation (criteria) • Continuous (participation modalities)	• EE • RPMU Gender and ES Safeguards Specialist	• % of beneficiaries from identified vulnerable groups • % of materials accessible to non-literate participants	• Disaggregated participation registers • materials inventory • activity reports
4. Human Rights	Risks of restricted access to information, suppression of community voice during consultations, and reprisals against complainants.	Mitigate	• Conduct all consultations and operate the GRM in local languages • apply confidentiality and no-retaliation policy • train staff and contractors on rights-based participation • report any reprisal incident immediately to the RPMU and OSS.	• Continuous • Inception-phase training	• RPMU Gender and ES Safeguards Specialist • EE • Local Governance Bodies	• % of information materials available in local languages • number of reprisal incidents recorded • number of grievances handled with full confidentiality	• Materials inventory • GRM register • training records
5. Gender Equality and Women's Empowerment	• Limited control of women over land and productive resources • gender norms restricting participation • risks of GBV and SEAH from labour influx and beneficiary-	Minimise / Mitigate	• Implement the Gender Action Plan • support women-led enterprises and savings groups under Component 3 • require minimum women's representation in governance bodies	• Continuous • Pre-contracting (codes of conduct)	• RPMU Gender and ES Safeguards Specialist • EE	• % of women in leadership roles in project governance • number of women-led initiatives funded • % of revolving-fund loans to women • number of GBV/SEAH incidents reported and resolved	• Governance records • finance records • GBV/SEAH register

	selection dynamics.		• apply GBV and SEAH codes of conduct in all contracts • operate the dedicated SEAH-sensitive GRM pathway (see Item 7).			through the dedicated pathway	
6. Core Labour Rights	• Unsafe working conditions, child labour and forced or unpaid labour risks, particularly in informal construction and seasonal agricultural labour • weak OHS systems among local contractors.	Avoid / Minimise	• Include ILO core labour clauses in all civil-works and service contracts • prohibit child and forced labour • mandate provision of PPE by all contractors • conduct regular labour and OHS inspections	• Pre-contracting (clauses) • During works (inspections)	• Contractors • EE • RPMU	• Number of recorded workplace accidents • number of OHS inspections conducted • number of child-labour or forced-labour incidents identified and addressed	• inspection reports • contractor records • incident log
7. Indigenous Peoples	• Possible impacts on customary land use or seasonal mobility routes of pastoralist groups (Mbororo Fulani, Toubou) in Chad • precautionary site-level verification at all USPs.	Avoid	• Conduct site-level verification of Indigenous Peoples presence at all USP sites prior to validation • apply FPIC procedures where Indigenous Peoples are identified, with independent facilitation, local-language consultation and documented outcome • suspend any USP for which FPIC is not concluded.	Per-USP (screening, FPIC)	• EE • RPMU	• % of USP sites screened for Indigenous Peoples presence • number of FPIC consultations conducted • number of Indigenous Peoples-related grievances recorded and resolved	• USP screening records • FPIC documentation • GRM register

8. Involuntary Resettlement	Risk of economic displacement and restriction of access to land, water and natural resources, particularly in customary-tenure contexts (Togo: 95% Avé 1) and informal urban settlements (Chad: N'Djamena 8th and 9th Arrondissements).	Avoid / Minimise	• Conduct prior land and social screening at every site, including all USPs • confirm land status and use before works commence • obtain written voluntary consent for use of private or customary land	Per-site / Per-USP (screening, consent)	• EE • RPMU	• Zero physical displacement • % of activities with documented land verification completed • number of signed community access agreements • number of access-restriction incidents and mediation sessions	• Land verification records • signed agreements • mediation records
9. Protection of Natural Habitats	• Habitat sensitivity at USP sites is unconfirmed at design stage.Vegetation clearance, bunding, drainage and restoration works may temporarily disturb semi-natural habitats, riparian areas and remnant urban biodiversity patches •	Avoid / Minimise	• Prioritise already-degraded sites • avoid protected and ecologically sensitive areas (exclusion list, Table 3) • conduct ecological screening before works at every site, including all USPs • protect native trees in situ where possible • include habitat sensitivity checks for all USPs.	Per-site / Per-USP (screening)	• EE • Contractors • RPMU	• % of sites verified outside protected and ecologically sensitive areas • number of ecological screenings completed • number of habitat-disturbance incidents documented	• Ecological screening reports • site inspection records
10. Conservation of Biological Diversity	• Risk of invasive or non-native species use through nursery supply chains • monoculture planting • disturbance of protected species (African Rock Python, Nile	Avoid	• Use only approved native or naturalised species lists per country • prohibit invasive species introduction • apply multi-species restoration models • conduct biodiversity checks near sensitive sites	• Pre-implementation (species lists) • Per-site (checks)	• EE • Contractors • RPMU	• % of species sourced from approved native species lists • number of invasive-species incidents • number of biodiversity-sensitive site verifications	• Nursery records • survival monitoring reports • site inspection records

	Monitor, Khaya grandifoliola in Togo).		including Edzi sacred forest area • apply a strict no-kill policy for protected wildlife at all reforestation and bioengineering sites.				
11. Climate Change	• Residual GHG emissions from construction logistics and material transport,	Minimise	• apply climate-proofed standards to housing, drainage, roads, and water systems • require low-emission logistics practices in procurement	• Pre-design • Per-USP (screening) • Procurement	• EE • Contractors • RPMU	• % of infrastructure designs validated • number of infrastructure failures linked to climate-design adequacy	• Design review records • USP screening records • infrastructure performance reports
12. Pollution Prevention and Resource Efficiency	Construction debris, dust, noise, wastewater, sedimentation, agrochemical runoff and improper disposal of site waste, including hazardous waste from solar battery storage.	Minimise / Mitigate	• Prepare site-specific waste management plans for all active sites • contract licensed disposal services • apply dust and noise control • use agroecological practices • establish buffer zones and pollution-control measures for water and soil • apply Basel and Stockholm Convention requirements for solar battery storage.	• Pre-works (plans) • During works (controls)	• EE • Contractors • RPMU	• % of sites with approved Site Waste Management Plans • number of dust, noise or pollution complaints • number of contamination incidents • waste volumes tracked and disposed	• Site Waste Management Plans • complaints log • waste manifests

13. Public Health	• Stagnant water at water-harvesting and check-dam sites increasing malaria and bilharzia risk • STI/HIV risks from labour influx • respiratory health risks from construction dust	Minimise / Mitigate	• Design drainage and water systems to avoid stagnation • integrate first-flush diverters and overflow management on rainwater systems • conduct STI/HIV and hygiene awareness sessions for workers and host communities	• Pre-design • Pre-works (training) • During operation (monitoring)	• EE • Contractors • RPMU	• Number of vector-borne disease incidents reported near project sites • number of STI/HIV awareness sessions delivered	• Health surveillance records • training attendance
14. Physical and Cultural Heritage	• Risks to sacred forests, shrines, cemeteries and culturally significant vegetation, particularly in Togo (Edzi, Awatome, Zogbépime) • risks to unknown archaeological materials at all excavation sites.	Avoid / Minimise	• Conduct participatory cultural heritage mapping with traditional and religious leaders before works at all sites • define exclusion buffers around sacred areas, shrines and cemeteries • apply standard chance-find protocols in all civil-works contracts	• Pre-works (mapping, contracts) • During works (chance-find)	• EE • Contractors • RPMU	• % of works sites screened for cultural heritage • % of contracts with chance-find clauses • number of cultural-heritage incidents managed under protocol	• Heritage mapping records • contract review • chance-find log
15. Lands and Soil Conservation	• Erosion, drainage disruption, soil compaction, nutrient depletion and downstream flooding risks from poorly designed bunds, contour works and restoration measures	Avoid / Minimise / Mitigate	• Use low-impact site preparation • prohibit heavy machinery on steep slopes • integrate contour farming, mulching and cover crops	• Pre-works (studies) • During works (controls) • Post-works (rehabilitation)	• EE • Contractors • RPMU	• % of sites with soil rehabilitation plans • topsoil erosion rate at sentinel sites	• Soil rehabilitation plans • sentinel-site monitoring data

Supervision of Executing Entities and capacity-building for ESP/GP compliance

Under the access modality of the Adaptation Fund, OSS as Regional Implementing Entity is accountable for environmental and social risks generated through project execution by the Executing Entities. The supervision and capacity-building arrangements set out below are designed to discharge this accountability while reflecting the integrated and adaptive nature of safeguard work across two countries and multiple Executing Entities (TCC and ADIDE in Chad; SSA, DE/MERF and IFAD in Togo).

Environmental and social safeguard responsibilities at the level of each Executing Entity are embedded in the Project team rather than allocated to a separate full-time E&S focal point. This arrangement is appropriate to the project's Category B classification, the partially-unidentified character of its USPs, and the relatively integrated activity portfolios of each EE; it also keeps overheads proportionate. The EE is responsible for the day-to-day application of the ESMP, the coordination of USP screening and impact assessment, the supervision of contractor compliance, and the EE-level operation of the GRM. The RPMU Gender and Environmental and Social Safeguards Specialist provides technical support, quality assurance and consolidated reporting across both countries; OSS, as Regional Implementing Entity, retains overall accountability for ESP and GP compliance.

OSS will conduct supervision of Executing Entities on an adaptive basis, calibrated to the active USP pipeline, the level of construction and field activity at any given moment, and any specific safeguard issues raised through monitoring or the GRM. Supervision will combine routine joint monitoring missions, targeted USP supervision (linked to USP validation and to early implementation of validated USPs), desk review of USP screening and impact assessment outputs, review of contractor performance, and ad hoc supervision in response to grievances or incidents. The supervision schedule will be set out in the Project Implementation Manual and adjusted at each Annual Work Plan and Budget exercise. Where supervision identifies that an Executing Entity is not adequately discharging its safeguard responsibilities, OSS may require corrective action plans, additional capacity-building, withholding of disbursements pending compliance, or, in extremis, the reassignment of activities to another Executing Entity, in line with the project's legal agreement.

Capacity-building for EE-level ESP and GP compliance is integrated into the project from inception. At inception, OSS will deliver structured ESP and GP training to all EE Project teams, covering the AF ESP, the AF Gender Policy, the OSS Environmental and Social Management System, the project's ESMP, USP screening and impact assessment procedures, the GRM (including the SEAH-sensitive pathway), and contractor management. Refresher training will be delivered annually or at agreed milestones, with content adapted to lessons learned from supervision and from PPR findings. Civil-works contractors and field facilitators will receive shorter, role-targeted briefings prior to mobilisation. The cost of these capacity-building activities is included in the ESMP budget under the 'Capacity-building and training' line.

Budget for ESMP implementation

The total budget allocated to the implementation of this ESMP is USD 300,000 across the project lifetime, financed within the project's M&E budget lines. This allocation is presented by function rather than by ESP principle, in recognition that safeguard work in this project is integrated across principles and that single-principle costing would not reflect the actual operational structure of the work. The allocation is indicative and may be reallocated across functions during implementation.

Indicative budget allocation by function

Function	Indicative allocation	Notes
ESP/GP screening and impact assessment of USPs (per-USP screening, commensurate impact assessments, OSS no-objection process support)	USD 80,000	Largest single function; covers the full set of USP screenings expected across Components 1, 2 and 3 over project life
Supervision of Executing Entities and adaptive supervision missions by RPMU	USD 60,000	Adaptive frequency; at least includes annual joint missions and targeted USP supervision
Capacity-building and ESP/GP training for EE staff and Contractors at inception and refresher	USD 40,000	Inception training plus refresher; covers both Chad and Togo EEs and contractor briefings
GRM operation, including community-level entry channels, language adaptation and SEAH-sensitive pathway	USD 40,000	Continuous over project life; includes community facilitator stipends, materials and database
Specific safeguard instruments: e.g. FPIC processes (where triggered), participatory cultural heritage mapping, chance-find protocol training	USD 35,000	Triggered measures; allocation reserves capacity for an estimated worst case across both countries
Public disclosure of the ESMP and updates, including translation and community-level disclosure activities	USD 15,000	Initial disclosure plus updates as USPs are integrated
Contingency for unanticipated USP-related assessments and corrective actions	USD 30,000	Covers worst-case USP profile; reallocable with OSS no-objection
Total	USD 300,000	

Environmental monitoring program

The ECOVERSE Environmental Monitoring Program (EMP) provides a systematic framework for tracking the environmental performance of all project activities across Chad and Togo throughout the project lifecycle, in compliance with the AF ESP and national environmental regulations (Loi n°023/CNT/2024 - Chad; Loi n°2008-005 - Togo).

Table 7: Monitoring Parameters and Frequency

Parameter	Method	Frequency	Responsible
Vegetation cover and seedling survival	Field transects; remote sensing	Bi-annual	NEEs; PMU E&S Specialist
Topsoil erosion rate at sentinel sites	Erosion pins; runoff plots	Bi-annual	NEEs; Agricultural Extension Officers
Water table levels	Piezometer readings	Monthly	Water User Committees;
Construction site pollution (dust, noise, waste)	Site inspection checklists	Monthly (active sites)	Contractors; PMU E&S Specialist
Biodiversity - species composition and invasives	Botanical surveys; no-kill records	Annual	NEEs; MERF (Togo); DREM (Chad)
Sacred site and cultural heritage integrity	Field verification	Pre-works and annual	Traditional Authorities; PMU E&S Specialist

ESMP compliance (contractor and sub-project level)	Audit against ESMP checklist	Quarterly	PMU E&S Specialist; NEEs; OSS

Reporting and Adaptive Management

Environmental monitoring data will be consolidated into Quarterly Environmental Monitoring Reports by the PMU E&S Specialist and annexed to all Annual Project Progress Reports (PPRs) submitted to the Adaptation Fund. Any exceedance of agreed environmental thresholds triggers an immediate corrective action notice within 14 days. USP-specific monitoring parameters will be defined within the E&S Summary Note for each sub-project prior to OSS no-objection. OSS will conduct an independent environmental audit at mid-term and project closure.

Annex 3:ECOVERSE Gender Assessment and Gender Action Plan (GAAP)

List of Acronyms

AF	Adaptation Fund	M&E	Monitoring and Evaluation
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women	MEL	Monitoring, Evaluation and Learning
CSO	Civil Society Organisation	NAP	National Adaptation Plan
DRR	Disaster Risk Reduction	NDC	Nationally Determined Contribution
EE	Executing Entity	NIE	National Implementing Entity
ESIA	Environmental and Social Impact Assessment	OSS	Sahara and Sahel Observatory
EWS	Early Warning System	PNEEG	National Policy for Gender Equity and Equality (Togo)
FHH	Female-Headed Household	PMU	Project Management Unit
GAP	Gender Action Plan	PWD	Persons with Disabilities
GAAP	Gender Assessment and Action Plan	RIE	Regional Implementing Entity
GBV	Gender-Based Violence		
GCA	Global Center on Adaptation	SEAH	Sexual Exploitation, Abuse and Harassment
GESI	Gender Equality and Social Inclusion	SLM	Sustainable Land Management
iCSEB	Interlocking Compressed Stabilised Earth Block	WASH	Water, Sanitation and Hygiene
		UNFCCC	United Nations Framework Convention on Climate Change

1. Introduction and Purpose

This document presents the Gender Assessment and Gender Action Plan (GAAP) for the ECOVERSE project “Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo”. The document has been prepared in compliance with the Adaptation Fund (AF) Gender Policy (2016) and the Updated Gender Guidance Document for Implementing Entities (August 2022), and integrates findings from the country-level gender assessments conducted for Chad and Togo.

The ECOVERSE project operates across two countries with contrasting ecological, institutional and socio-cultural contexts but shared climate vulnerabilities. In Chad, interventions target flood-prone urban and peri-urban areas of N'Djamena and surrounding localities (Mandelia, Kournari, Mabrio, Linia Amdjamena Koura, 8th and 9th districts). In Togo, the project covers Zogbépimé and surrounding villages within the Avé 1 Commune (Howuivé, Yométchin, Ando-Akpuivé, Tovégan, Edzi, Zokopé, Awatomé, Agbozomé).

The purpose of this revised regional gender assessment is to:

- Provide a unified analytical foundation for gender-responsive project design across both countries under the revised four-component structure;
- Identify gender-differentiated climate impacts, structural barriers and opportunities for equitable participation;
- Present a consolidated, de-duplicated Gender Action Plan with output-level actions, indicators, targets, timelines, responsibilities and budgets; and
- Ensure full compliance with the AF Gender Policy requirements for fully-developed regional proposals.

2. Methodological Approach

2.1 Sequencing and Alignment with Project Design

Both country-level gender assessments were conducted in advance of and in parallel with the preparation of the fully-developed project proposal, thereby informing gender-responsive design, implementation arrangements, monitoring indicators and budget allocations. In Chad, the assessment was informed by the Climate Gender Vulnerability Assessment for N'Djamena (World Bank, 2022) and the public consultation process conducted for the ECOVERSE Environmental and Social Impact Assessment (ESIA). In Togo, the assessment combined an in-depth desk review of national and sectoral policy documents with participatory field consultations conducted in July 2025 and January 2026 across the project area.

2.2 Analytical Framework

The assessment applies a "do no harm" and "do good" framework. It describes gender differences, analyses gender-differentiated impacts and risks, and ensures that planned adaptation activities do not perpetuate or exacerbate existing gender inequalities. It also identifies opportunities to address harmful gender norms, redress exclusions through targeted measures and promote transformative impact.

In Chad, the analysis is structured around four analytical pillars: (i) institutional arrangements; (ii) leadership and participation; (iii) access to resources; and (iv) social norms, beliefs and perceptions. In Togo, the assessment is organised around three analytical axes: (i) the gender context, including norms, legal framework and sectoral inequalities; (ii) differentiated climate change impacts on gender groups; and (iii) integration of gender considerations into project objectives. Both frameworks are fully compatible with the AF Gender Guidance checklist and are mapped onto the revised four-component structure.

2.3 Intersectionality

Both assessments employ an intersectional approach that examines how gender intersects with age, disability status, socio-economic position, household headship, residential context (urban/peri-urban/rural) and livelihood status. Particular attention is paid to female-headed households, women engaged in informal livelihoods, youth (with gender-disaggregated perspectives), persons with disabilities, elderly persons and residents of informal settlements. In Chad, ESIA data confirmed that approximately 70% of surveyed participants were under 35 years old, underscoring the importance of youth-sensitive approaches. In Togo, consultations revealed that lower literacy levels, reduced access to smartphones and very limited use of formal banking services (less than 2% among women) create compounding barriers.

The Gender and Social Inclusion Specialist position is confirmed as a full-time dedicated role within the RPMU staffing structure, as reflected in the ECOVERSE Full Proposal (Part III, Implementation Arrangements). The ToR requires expertise in: gender-transformative approaches; GESI mainstreaming in climate adaptation; GBV risk management; and AF Gender Policy compliance. This replaces the previous baseline status of 'no dedicated full-time gender specialist currently confirmed in PMU.

2.4 Data Sources

Primary data (Chad): Semi-structured household interviews, focus group discussions, participatory observation exercises and in-depth interviews with key stakeholders through the GCA-led Climate Gender Vulnerability Assessment and the ECOVERSE ESIA process. A total of 613 participants were engaged across consulted localities (346 women / 56%; 267 men / 44%).

Primary data (Togo): Individual interviews with key informants and focus group discussions with women, men and youth across seven villages. Two rounds of consultations engaged a total of 288 participants (180 in July 2025 and 108 in January 2026).

Secondary data (both countries): National policy and legal frameworks, sectoral strategies, UNFCCC National Communications and NDCs, National Adaptation Plans, World Bank country diagnostics, OECD/ODI regional analyses, UN Women and UNDP assessments, and previous gender and climate vulnerability assessments.

3. Gender-Specific Socio-Economic, Political, Cultural and Legal Context

3.1 Key Gender Statistics

Chad

Chad faces some of the most severe gender disparities globally. Women's access to formal education, healthcare and economic opportunity is constrained by deeply entrenched patriarchal norms, institutional fragility and chronic underinvestment. The 2022 Climate Gender Vulnerability Assessment for N'Djamena documents the absence of municipal mechanisms dedicated to addressing gender-differentiated vulnerabilities and the fragmentation of institutional mandates for climate action. Key national-level statistics include persistent gaps in literacy, political

participation and economic inclusion. Sex-disaggregated data at the project-area level (poverty rates, infant mortality, life expectancy) must be collected during the inception phase.

Togo

Togo has made institutional progress in gender equality but inequalities remain pronounced in rural areas. Key statistics include:

- Women's literacy rate: 55.5% compared to 79.9% for men
- Average years of schooling: 3.5 for women versus 6.7 for men
- Maternal mortality rate: approximately 349 per 100,000 live births (2023)
- Women represent only 18.5% of the National Assembly and 28.6% of government (2024)
- Only 9% of rural women own land compared to 40% of men
- 87% of working women are in vulnerable or informal employment versus 62% of men
- Women spend an average of 2 hours per day on unpaid domestic work compared to 30 minutes for men
- Less than 2% of women in the project area use formal banking services

3.2 Legal Status of Women and Applicable Laws

The legal and policy frameworks governing women's rights and gender equality in Chad and Togo provide an important basis for assessing the extent to which gender considerations are integrated into climate adaptation and broader development planning. Both countries have ratified key international conventions and adopted national gender policy instruments as presented in the table below. However, the strength, coherence and implementation of these frameworks differ significantly. While Chad has established a general gender policy framework and committed to international conventions, gender integration in climate governance remains limited and largely declarative. Togo, by contrast, has developed a more comprehensive legal and policy architecture linking gender equality, land rights, family law and climate adaptation, although implementation challenges persist, particularly in rural areas where traditional norms and limited institutional resources continue to restrict women's access to rights and services. These differences mean that the GAP should adopt a differentiated implementation approach: in Chad, emphasis should be placed on institutionalizing gender-responsive climate governance and monitoring, while in Togo, priority should be given to implementation, enforcement, rights awareness and practical access to land, finance and services.

Country	Legal and Policy Framework	International Commitments	Integration of Gender in Climate Adaptation	Key Challenges
Chad	Chad adopted a national gender policy framework in 2011. However, the country does not yet have a comprehensive climate adaptation law.	Chad has ratified international conventions, including CEDAW and the UNFCCC.	Gender integration into climate adaptation remains largely declarative. Gender considerations are not consistently embedded in climate governance, budgeting or monitoring mechanisms.	Limited legal provisions for climate adaptation; weak institutionalization of gender in climate-related planning, budgeting and monitoring; insufficient practical application of gender commitments.
Togo	Togo has a more comprehensive legal and policy framework anchored in the National Policy for Gender Equity and Equality, adopted in 2011 and updated in 2023. This is reinforced	Togo has ratified CEDAW, 1983, the Maputo Protocol, 2005, and relevant ILO Conventions.	Gender is more clearly reflected in national policy and legal instruments, including climate adaptation, land governance and	Implementation remains constrained by traditional norms, low awareness of rights and limited resources for enforcement, especially in rural areas.

	by the Nationally Determined Contribution, the National Adaptation Plan, the 2018 Land Code and the updated Code of Persons and Family, 2022.		family law frameworks.	

3.3 Cultural Norms, Beliefs and Practices

Both countries exhibit deeply rooted patriarchal norms that structure gender relations, although the specific manifestations differ by context.

Chad: Gendered divisions of labour are pronounced, with women primarily responsible for unpaid domestic and care work. Participation in climate-related initiatives often depends on the approval of male household members. In urban N'Djamena, patriarchal structures are reinforced by expectations regarding appropriate roles for women and men. However, the assessment identifies emerging shifts among younger and more educated households.

Togo: Gender roles are strongly shaped by patriarchal norms positioning men as household heads and primary decision-makers over productive and economic resources. Land is largely considered to belong to male lineages. In the project area, women contribute approximately 70% of the agricultural labour force nationally but hold less than 10% of land ownership rights.

4. Differentiated Climate Change Impacts

4.1 Component 1: Impacts on Infrastructure Access and Safety

Women in N'Djamena's flood-prone areas face compounded climate vulnerabilities. During flooding, women, alongside elderly persons, children and persons with disabilities, are more likely to remain in affected neighbourhoods. Between 60 and 75% of respondents in flood-affected areas reported direct socio-economic impacts, with women disproportionately involved in day-to-day crisis management without corresponding representation in disaster preparedness or response committees.

Women face heightened risks of harassment, physical violence and sexual violence when accessing distant or poorly secured water points, especially during water scarcity and flooding. GBV linked to resource access is frequently resolved through customary mediation with limited consideration for the rights and protection of women and girls.

4.2 Component 2: Impacts on Land, Agriculture and Ecosystems

In the Avé 1 Commune, women and youth are disproportionately affected by erratic rainfall, recurrent flooding, prolonged dry spells and rising temperatures. Climate stressors are undermining agricultural productivity, the primary livelihood for nearly the entire population. Women face structural barriers that exclude them from resilience-building opportunities: restricted access to land and financial services; lack of access to modern farming technologies; and limited access to training and cooperative membership.

Across both countries, women play central roles in agriculture, water management, food processing and informal trade, yet their adaptive capacity is systematically constrained by insecure land access, limited financial services, restricted decision-making power, lower educational attainment and heavy unpaid care burdens. Climate shocks intensify these disparities by increasing time poverty, reducing agricultural productivity and destabilising incomes.

4.3 Component 3: Impacts on Livelihoods, Markets and Financial Resilience

The severe degradation of the Zogbépimé market shelter, used almost exclusively by women (over 95% of traders) has directly reduced women's incomes and forced them to travel longer distances to alternative markets. School infrastructure degradation affects girls disproportionately due to the absence of adequate latrines, resulting in menstrual health challenges, absenteeism and dropout. Pregnant women face heightened vulnerability to malaria, waterborne infections and reduced access to prenatal services during flooding.

Financial inclusion is critically low in both countries. In Chad, financial inclusion is below 20% overall, with women facing even greater barriers. In Togo, only 31.5% of businesses are run by women, and 26.5% of female entrepreneurs have legally registered their businesses compared to 72.5% of men.

4.4 Component 4: Impacts on Knowledge, Governance and Policy

Women are underrepresented in formal leadership and technical decision-making positions in both countries. In Chad, leadership positions within municipal services and sectoral departments are predominantly held by men. In Togo, women represent only 18.5% of the National Assembly, and at community level, decision-making over land use and resource allocation is dominated by men.

Despite formal exclusion, women exercise substantial informal leadership in both countries. In Chad, women's associations play a central role in community-based flood response, water management and informal early warning dissemination. In Togo, women dominate small-scale trading and play central roles in food processing and agricultural production. These informal leadership roles represent critical entry points for ECOVERSE to strengthen inclusive climate governance.

5. Access to and Use of Resources

5.1 Land and Productive Assets

In both countries, control over productive assets remains highly gendered. In Chad, men predominantly own and control land, housing plots and major productive assets, while women's access is mediated through male relatives. Customary land governance is dominated by male elders. In Togo, only 9% of rural women own land compared to 40% of men, and women account for just 17% of all registered landowners. The 2018 Land Code emphasises gender equality but implementation is slow.

5.2 Financial Services and Economic Resources

Financial inclusion is critically low. In Chad, financial inclusion is below 20% overall, with women facing even greater barriers. In Togo, women entrepreneurs face higher interest rates and limited access to financial services; less than 2% of women in the project area use formal banking services.

5.3 Water and Essential Services

Women bear primary responsibility for water collection in both countries. In Togo, only 44% of rural populations have access to basic drinking water services and women typically travel 3 to 5 kilometres. In Chad, women are primarily responsible for managing household water storage systems. Water collection exposes women to safety risks, time poverty and health hazards, particularly during climate shocks.

5.4 Information, Training and Technology

Women in both countries face barriers to accessing climate information, training and technology. In Chad, restrictive gender norms, time poverty, limited mobility and low literacy constrain participation in formal adaptation initiatives. In Togo, awareness and training activities are often scheduled during periods when women are engaged in unpaid domestic responsibilities, and lower literacy levels further limit their ability to benefit from written materials or mobile-based advisory services.

6. Gendered Division of Labour

6.1 Unpaid Care and Domestic Work

In Togo, women aged 15 and above spend an average of 2 hours per day on household responsibilities compared to 30 minutes for men. In Chad, women are primarily responsible for water collection and storage, food preparation, sanitation, childcare and care for elderly family members. These responsibilities translate into time poverty that directly constrains participation in ECOVERSE activities.

6.2 Paid Work and Economic Participation

In Togo, women's labour force participation is relatively close to men's (56.1% versus 60.1% in 2024), but 87% of working women are in vulnerable or informal employment. In Chad, women contribute approximately 70% of the agricultural labour force nationally but are concentrated in subsistence production and post-harvest activities.

6.3 Adolescents and Youth

In Chad, participatory exercises with adolescents revealed that girls consistently shoulder longer and more labour-intensive domestic tasks before and after school. In Togo, girls face specific risks including school dropout due to early pregnancy (1,244 girls in 2021) and a lower secondary education completion rate of 59.9% for girls versus 66.9% for boys.

6.4 Implications for ECOVERSE Implementation

ECOVERSE activities risk increasing women's workload if not carefully designed. Specific mitigations include:

- Scheduling training and consultations at times compatible with women's daily routines;
- Providing childcare support during project activities;
- Installing time-saving infrastructure (proximate water points, efficient technologies);

- Actively promoting men's and boys' engagement in unpaid care responsibilities through community sensitisation; and
- Conducting a rapid time-use assessment at baseline and mid-term to track whether project activities are alleviating or inadvertently increasing women's care burden.

7. Gender-Based Power Structures

7.1 Household-Level Decision-Making

In both countries, men generally retain decision-making authority over strategic and high-impact decisions. In Chad, this includes decisions on relocation during floods, protection of assets and livelihood reorientation. In Togo, men control land allocation, crop choices and agricultural income. During consultations in both countries, women reported that participation in trainings or income-generating activities is often conditional on prior agreement from husbands or male relatives.

7.2 Community and Institutional Governance

Women are underrepresented in formal leadership and technical decision-making positions in both countries. In Chad, the GCA assessment documents that leadership positions within municipal services are predominantly held by men. In Togo, gender quotas are inconsistently applied at both national and community levels.

7.3 Women's Informal Leadership

Despite formal exclusion, women exercise substantial informal leadership in both countries through women's associations, community-based flood response groups, water management committees and small-scale trade networks. These informal leadership roles represent critical entry points for ECOVERSE to strengthen inclusive climate governance.

8. Gender-Based Violence and Safety

Both assessments identify GBV as a significant concern that intersects with climate vulnerability and adaptation programming.

Chad: Women face heightened risks of harassment, physical and sexual violence when accessing distant or poorly secured water points. Community-based dispute resolution mechanisms prioritise social cohesion over survivor-centred justice. The ESIA process documented weak formal grievance mechanisms at local level.

Togo: GBV is widespread: in 2022, 2,818 people (85.5% women) were recorded as GBV victims by counselling centres. Nearly one third of Togolese women over 15 have experienced physical or sexual violence, but only 37% sought help from family and 7% sought justice. In schools, 8.5% of girls are victims of sexual violence compared to 2.1% of boys.

ECOVERSE integrates GBV risk mitigation through:

- Safety-enhanced design of all water points and public infrastructure;
- GBV referral protocols established in Year 1 in both countries;
- SEAH prevention codes of conduct included in all bidding documents and contractor agreements;
- Confidential reporting channels for GBV/SEAH cases; and
- Community awareness sessions on GBV prevention across all project sites.

8.1 Linkage with OSS Grievance Redress Mechanism (GRM)

The GBV/SEAH referral protocols are formally linked to the OSS-managed GRM established under the ECOVERSE project. The GBV/SEAH referral pathway constitutes a dedicated survivor-centred sub-channel within the GRM, with separate case management procedures to protect survivor confidentiality and prevent re-traumatisation. OSS shall ensure the GRM is publicised in appropriate languages and formats in all project communities. All GBV referrals shall be reported to the AF using disaggregated, anonymised data in each APPR.

9. Gender Action Plan

9.1 Impact Statement

The ECOVERSE Gender Action Plan aims to ensure that climate adaptation investments in Chad and Togo reduce gender-based inequalities, strengthen women's and youth's adaptive capacity and promote their meaningful participation in decision-making, resource management and governance. The project seeks to contribute to long-term shifts in gender power relations and norms by embedding gender-responsive and gender-transformative approaches across all four project components, ensuring that climate resilience gains are equitable, inclusive and sustainable.

To align with all Unidentified Sub-Projects (USPs), the GAAP will be applied subject to mandatory gender compliance screening before approval, as detailed in the USP Gender Compliance Screening Procedure. This ensures that the GAAP applies to the full scope of project activities, including those designed during implementation.

9.2 Outcome Statement

Women, youth and marginalised groups in ECOVERSE project areas in Chad and Togo report improved access to climate-resilient infrastructure, water services, land, financial services, training and decision-making opportunities, resulting in measurably reduced gender gaps in adaptive capacity and increased economic resilience, as tracked through sex- and age-disaggregated indicators.

Gender Action Plan

Ref.	Component / Area	Gender Gap Identified	Gender-Responsive Action	Indicator(s)	Baseline	Target (End of Project)	Means of Verification	Timeline	Responsible	Budget (USD)
CROSS-CUTTING GENDER ACTIONS										
CC-1	Cross-Cutting Gender Baseline & M&E	Absence of sex-disaggregated baseline data for all key GAP indicators	Conduct gender data baseline study during inception (Month 5–6, Y1); collect all AF-required statistics disaggregated by sex, age and location; repeat at mid-term (Y3)	(1) Gender baseline report completed with AF-required disaggregated statistics (2) Time-use assessment completed (see CC-2)	No baseline study conducted to date; M&E framework not yet operational	Gender baseline report completed by Month 6 (Y1); repeated at mid-term (Y3)	Gender baseline report; mid-term evaluation report; APPRs	Y1 Month 5–6; Y3	OSS/RIE, M&E Team, Gender Specialist	Within M&E / inception budget
CC-2	Cross-Cutting Time-Use Assessment	No systematic measurement of whether project activities increase or decrease women's unpaid care burden	Conduct time-use assessment using 24-hour recall diary method with minimum 60 women and 30 men per country; administer at baseline (Y1) and mid-term (Y3); disaggregate by age, household type and livelihood	(1) Time-use assessment report completed (2) Average hours/day on unpaid work by sex at baseline and mid-term (3) Change in women's unpaid care burden between Y1 and Y3	Women in Togo: ~2 hrs/day unpaid work vs. 30 min for men; Chad project-area baseline: TBC at inception	Time-use assessment completed in both countries at Y1 and Y3; evidence that project activities do not increase women's unpaid care burden	Time-use assessment reports (Y1 and Y3); mid-term evaluation gender chapter; APPRs	Y1 Month 5–6; Y3	Gender Specialist (RPMU), National MEL Officers	USD 6,000 (USD 3,000/country/round × 2 rounds)
CC-3	Cross-Cutting SEAH Prevention	Risk of Sexual Exploitation, Abuse and Harassment (SEAH) by contractors and project staff	Include SEAH prevention clauses and Codes of Conduct in 100% of bidding documents; establish confidential GBV/SEAH reporting channel; train all project staff	(1) % of contracts with SEAH prevention clauses (2) # GBV/SEAH cases reported and safely	0 SEAH clauses in contracts (pre-project); referral pathway not yet established; 0% staff trained	100% contracts with SEAH clauses; 100% of reported SEAH cases safely referred; 100% staff	Procurement records; SEAH incident log (anonymised); training registers; referral pathway documentation; annual compliance audit; APPRs	Y1–Y4 (from project inception)	EEs, Gender Specialist, OSS/RIE	USD 4,000

			on SEAH protocols; link to OSS GRM survivor-centred sub-channel	referred within 48–72 hrs (3) % project staff trained on SEAH protocols (4) Confidential referral pathway operational in each country		trained by end of Y1; referral pathway operational in both countries				
CC-4	Cross-Cutting Gender Specialist	Absence of dedicated full-time gender expertise embedded in the RPMU	Recruit and embed confirmed full-time Gender and Social Inclusion Specialist in RPMU/OSS for entire 4-year implementation period; ToR to require GESI, GBV and AF Gender Policy expertise	(1) Gender Specialist recruited and operational (2) % of APPRs with dedicated gender chapter (3) Annual GAP compliance audit issued	No dedicated full-time gender specialist confirmed in PMU (pre-project)	Full-time Gender Specialist in post by Month 2 (Y1); operational throughout Y1–Y4; 100% APPRs with gender chapter	PMU staffing records; ToR; APPRs; annual GAP compliance audit report	Y1 Month 1–2 (recruitment); Y1–Y4 (operational)	OSS/RIE	Within execution costs (RPMU staffing)
CC-5	Cross-Cutting Gender-Sensitive M&E	M&E framework lacks sex-, age- and disability-disaggregated data collection and reporting requirements	Establish gender-sensitive M&E framework with sex-, age- and disability-disaggregated data collection by Month 3 (Y1); report quarterly; include gender chapter in all APPRs	(1) M&E framework operational with disaggregated data (2) Quarterly progress reports issued with gender data (3) % of project indicators disaggregate	M&E framework not yet operational; 0% of indicators currently sex-disaggregated at project-area level	M&E framework set up and operational by Month 3 (Y1); 100% of GAP indicators sex-disaggregated throughout implementation	M&E framework documentation; quarterly progress reports; APPRs; mid-term and final evaluation	Y1 Month 3 (setup); Y1–Y4 (reporting)	EEs, Gender Advisor, RIE (OSS)	USD 4,000

				d by sex and age						
CC-6	Cross-Cutting USP Gender Screening	Unidentified Sub-Projects (USPs) lack a mandatory gender compliance screening mechanism before approval	Apply USP Gender Compliance Screening Checklist to all sub-project proposals; Gender Specialist issues written Clearance Note before EE submission; OSS retains no-objection right on non-compliant USPs	(1) USP Gender Compliance Screening Checklist adopted (Y/N) (2) % of USPs screened before approval (3) # of USPs returned for corrective action (4) % of approved USPs with ≥40% women beneficiaries	USP screening mechanism: not yet in place (pre-project)	USP Gender Compliance Checklist adopted by Month 4 (Y1); 100% of USPs screened; all non-compliant USPs returned with corrective action requirements	USP screening records; Gender Compliance Clearance Notes; EE approval documentation; APPRs	Y1 Month 3–4 (tool development); Y1–Y4 (application)	Gender Specialist, EEs, OSS/RIE	Within Gender Specialist costs
CC-7	Cross-Cutting Gender Capacity Development	OSS/RIE and executing partners lack a structured formal gender capacity-strengthening plan	Develop and implement formal Gender Capacity Development Plan for OSS staff and all EEs during Y1; conduct annual refresher sessions; report capacity outcomes in all APPRs	(1) Gender Capacity Development Plan formally adopted (Y/N) (2) # OSS and partner staff trained (3) Annual training completion rate (4) Post-training assessment scores	Gender Capacity Development Plan: not yet in place; # staff with gender training: TBC at inception	Plan formally adopted by end of Y1; 100% of target OSS and partner staff trained in Y1; annual refresher sessions completed each year	Gender Capacity Development Plan document; training registers; post-training assessments; APPRs	Y1 (plan + initial training); Y2–Y4 (annual refreshers)	OSS/RIE, Gender Specialist	USD 3,000
COMPONENT 1: Integrated Climate-Resilient Infrastructure										

C1-1	Component 1 Infrastructure Design & Planning	Women, female-headed households (FHH) and persons with disabilities (PWD) excluded from housing and infrastructure design and planning	Ensure ≥40% women, formal FHH prioritisation criteria and PWD representation in all housing design and planning workshops; apply FHH prioritisation for water system access in both countries	(1) % women in housing design and planning workshops (2) % FHH among water system beneficiaries (3) # PWD participants in design workshops	% women in design workshops: TBC (inception baseline); % FHH among water beneficiaries: TBC	≥40% women in design workshops; ≥50% FHH among water system beneficiaries; PWD participation documented in all workshops	Workshop participation registers (sex-disaggregated); beneficiary lists; field supervision reports; APPRs	Y1–Y4	EEs (TCC, ADIDE, SSA, DEMERF), Gender Specialist	USD 23,520
C1-2	Component 1 GBV / Safety at Infrastructure Sites	Women and girls face GBV and safety risks at water points and public infrastructure, particularly during climate shocks	Apply safety-by-design standards (lighting, sightlines, signage) to all water points and public infrastructure; establish GBV referral protocols in both countries by end of Y1 (linked to OSS GRM); conduct community GBV awareness sessions at all project sites	(1) # water points and public facilities with safety-enhanced design (2) GBV referral protocols formally established and linked to OSS GRM (Y/N) (3) # community GBV awareness sessions conducted (4) % of new/rehabilitated infrastructure with safety-enhanced design	0 safety-enhanced water points (pre-project); GBV referral protocols not yet in place; OSS GRM not yet operational	100% of new/rehabilitated water points and public facilities with safety-enhanced design; GBV referral protocols operational in both countries by end of Y1; ≥2 GBV awareness sessions per community per year	Infrastructure design documentation; field inspection reports; GBV protocol documentation; session attendance registers; APPRs	Y1 (protocols, design); Y1–Y4 (awareness sessions)	EEs, Gender Specialist, Local authorities, OSS/RIE (GRM)	Included in infrastructure costs + USD 4,000 (GBV activities)

C1-3	Component 1 iCSEB Training – Women & Youth	Women and youth excluded from iCSEB masonry and construction training; women's economic exclusion from technical roles perpetuates inequality	Include ≥30% women and ≥40% youth in iCSEB masonry and construction training; partner with vocational training institutions using gender-sensitive selection criteria; provide follow-up mentoring for women graduates	(1) % women among iCSEB masonry trainees (2) % youth among iCSEB masonry trainees (3) % women trainees subsequently employed in construction	% women in construction/masonry training: ~0% (pre-project)	≥30% women trainees (≥8–12 women Chad; specified % Togo); ≥40% youth trainees; ≥20% women trainees subsequently employed in construction by Y4	Training attendance registers (sex- and age-disaggregated); vocational partnership agreements; skills assessment records; employment follow-up surveys; APPRs	Y1–Y3	EEs, Vocational training institutions (IFAD-Togo), Gender Specialist	USD 23,520 (shared)
C1-4	Component 1 WASH & O&M Training Scheduling	Gendered time poverty limits women's access to WASH and O&M training; domestic responsibilities create scheduling barriers	Schedule all WASH and O&M training at times compatible with women's domestic routines; provide childcare support during project activities; use multilingual and visual/pictorial materials for low-literacy participants	(1) % of WASH/O&M trainings scheduled outside peak domestic work hours (2) % of activities providing childcare support (3) % of materials available in local languages or visual format (4) % of women completing WASH/O&M training	% sessions appropriately scheduled: TBC; childcare provision: 0% (pre-project); visual materials: 0%	100% of WASH/O&M trainings scheduled appropriately; ≥80% of activities providing childcare; 100% materials in accessible format	Training scheduling records; participant feedback forms; field supervision reports; APPRs	Y1–Y4	EEs, Gender Specialist	Within training costs
C1-5	Component 1 Green	Women underrepresented in urban	Involve women's associations formally in flood-	(1) % of site assessments reflecting	% women in greening committees:	Women's priorities reflected in	Assessment reports (consultation	Y1–Y4	EEs, Gender Specialist	USD 22,340

	Corridor Planning & Management	green corridor planning and management; women's priorities not reflected in site assessments	risk mapping and green corridor management; ensure women's priorities are reflected in ≥70% of site assessments; target ≥40% women in greening management committees	women's stated priorities (2) % women in green corridor management committees (3) # women's associations formally engaged in green corridor governance	TBC (inception); women's priorities in assessments: not yet tracked	≥70% of assessments; ≥40% women in greening and green corridor management activities	process); committee membership lists; field supervision reports; APPRs			
COMPONENT 2: Integrated Land Management for Agricultural, Ecosystem and Water Resilience										
C2-1	Component 2 Women's Land Tenure	Women hold only 9% of land in Togo (17% of registered landowners); women's access to land and agroforestry benefits mediated through male relatives	Provide targeted land tenure support for women; include women formally in land-use planning for agroforestry and restoration; establish ≥2 women-led nurseries per site; provide rights awareness sessions	(1) # women formally participating in land-use planning processes (2) # women-led nurseries established (3) % women with documented improved access to productive land	% women with secure land access: 9% (Togo national); project-area baseline: TBC at inception	≥2 women-led nurseries per site; ≥20% women with improved and documented land access by end of project (Togo)	Land-use planning meeting records; nursery establishment reports; land registration/tenure documentation; mid-term and final evaluation	Y1–Y4	EEs, Community land committees, Gender Specialist	USD 21,630
C2-2	Component 2 Agroforestry & Restoration Training	Women constitute ~70% of the agricultural labour force but are systematically excluded from	Provide targeted agroforestry and land restoration training to ≥50% women; support ≥1 women champion farmer per community; ensure women's formal	(1) % women among agroforestry and land restoration trainees (2) % women	% women in agroforestry training: TBC at inception; women champion farmers: 0% (pre-project)	≥50% women among trainees (Chad); ≥20% women with improved land access	Training attendance registers; cooperative membership lists; field visit reports; APPRs; mid-term and final evaluation	Y2–Y4	EEs, Extension services, Gender Specialist	USD 21,630 (shared)

		agroforestry and land restoration training, decision-making and benefits	representation in agricultural cooperatives	designated as champion farmers (3) % women in agricultural cooperative leadership		(Togo); ≥1 women champion farmer per community				
C2-3	Component 2 Erosion & Land Works – Equity	Women and youth underrepresented in erosion control and land works activities; pay inequity documented between male and female workers	Ensure ≥40–45% women and youth among erosion and slope stabilisation works participants; guarantee female-to-male remuneration ratio of 1:1; document pay equity in all payroll records	(1) % women and youth among erosion/slope stabilisation participants (2) Female-to-male daily remuneration ratio (3) # payroll records with sex-disaggregated data	% women in land works: TBC (inception); remuneration equity: TBC at baseline	≥45% women and youth (Togo); ≥40% women and youth (Chad); female-to-male remuneration ratio = 1:1 confirmed and documented	Works participation registers; payroll records (sex-disaggregated); field supervision reports; APPRs	Y1–Y3	EEs, Community land committees, Gender Specialist	USD 17,870
C2-4	Component 2 Micro-Irrigation – Women Farmers	Women farmers and FHH underserved in micro-irrigation access; women underrepresented in Water User Association (WUA) leadership	Prioritise women farmers and FHH for micro-irrigation access; ensure ≥33% women in WUA leadership; support women-led water governance mechanisms	(1) % women beneficiaries of micro-irrigation systems (2) % women in WUA leadership roles (3) # women-led water governance mechanisms operational	% women in micro-irrigation schemes: TBC (inception); % women in WUA leadership: TBC	≥50% women beneficiaries (Chad); ≥30% women + 20% youth beneficiaries (Togo); ≥33% women in WUA leadership	Beneficiary lists (sex-disaggregated); WUA membership and meeting records; field supervision reports; APPRs	Y1–Y4	EEs, Community water committees, Gender Specialist	USD 17,400
C2-5	Component 2 Ecological	Women's informal and traditional	Document ≥5 women-led and youth-led	(1) # case studies documenting	# existing documented	≥5 validated case studies per country;	Case study documentation reports;	Y2–Y4	EEs, Gender	Within C4 budget

	Knowledge Documentation	ecological knowledge insufficiently documented, validated or integrated into formal restoration processes	ecological restoration case studies per country; integrate into Component 4 regional knowledge platform	women's and youth's ecological knowledge produced (2) % of case studies submitted to and published on the regional knowledge platform	cases: 0 (pre-project)	100% submitted to and published on the regional knowledge platform by Y4	knowledge platform content records; partner acknowledgements; final evaluation		Specialist, OSS/RIE	
COMPONENT 3: Access to Adaptation Financing										
C3-1	Component 3 Women-Targeted Micro-Grants	Women's systematic exclusion from formal financial services (<2% banking in Togo; <20% inclusion in Chad); complex procedures reinforce exclusion	Design accessible, women-targeted micro-grant calls with simplified procedures; establish savings groups with ≥60% women membership; strengthen women's leadership in revolving fund management committees	(1) % micro-grant proposals submitted by women and/or youth (2) % grants awarded to women/youth-led projects (3) % women in revolving fund leadership (4) # savings groups with ≥60% women membership	% grants to women-led projects: TBC (inception); women's banking access: <2% (Togo)	≥40% of grants to women/youth-led projects (Chad); ≥60% of grants to women/youth-led projects (Togo)	Micro-grant application records; grant award documentation; savings group and revolving fund membership/leadership records; APPRs	Y1–Y3	EEs, Municipalities, Gender Specialist	USD 8,460 (Chad) + USD 8,930 (Togo) = USD 17,390
C3-2	Component 3 Women's Business Formalisation	Women's businesses far less likely to be formally registered (26.5% vs. 72.5% for men), reducing	Provide tailored training on formal business registration for ≥50% women entrepreneurs; link with national chambers of commerce and	(1) # women entrepreneurs trained on business registration (2) % increase in formally registered	% formally registered women's businesses: 26.5% (Togo national); project-area baseline: TBC at inception	≥50% increase in formally registered women's businesses from project-area baseline by	Training attendance registers; business registration records; follow-up survey data; APPRs; final evaluation	Y2–Y4	EEs, Municipalities, Women's business networks	USD 6,110

		access to contracts, credit and growth	women's business networks; facilitate access to registration services	women's businesses from project-area baseline		end of project				
C3-3	Component 3 Zogbépimé Market Rehabilitation	Zogbépimé market shelter severely degraded; >95% of traders are women whose incomes and safety are directly affected	Prioritise rehabilitation/construction of Zogbépimé market shelter with gender-safe design standards (lighting, sanitation, secure access); include ≥80% women traders in design consultations	(1) Market shelter rehabilitated or constructed (Y/N) (2) % women traders consulted in design process (3) % women traders using rehabilitated facility post-completion	Market in severely degraded condition; women traders' use rate and income impact: TBC at inception	Market shelter completed by end of Y2; ≥80% of consulted traders are women; women traders' use rate at or above pre-project baseline	Infrastructure completion report; consultation records; trader survey/user feedback; field supervision reports; APPRs	Y1–Y2	EEs, Municipalities, Gender Specialist	Within infrastructure budget
C3-4	Component 3 Youth Financial Inclusion	Youth face high unemployment and limited access to climate-resilient economic pathways; age-disaggregated financial inclusion not yet tracked	Develop dedicated youth economic inclusion pathway within financial literacy/entrepreneurship training; disaggregate all financial inclusion targets by age and sex; link youth to micro-grant and savings mechanisms	(1) # youth (disaggregated by sex) in financial literacy and entrepreneurship training (2) % youth with improved financial inclusion indicators at end of project	% youth with improved financial inclusion: TBC (inception); youth in financial literacy: 0 (pre-project)	≥50% of financial literacy trainees are women and/or youth; ≥20% improvement in youth financial inclusion from baseline	Training attendance registers (sex- and age-disaggregated); financial institution records; participant follow-up surveys; APPRs; final evaluation	Y2–Y4	EEs, Gender Specialist	USD 6,110
COMPONENT 4: Regional Knowledge, Learning and Institutional Strengthening										
C4-1	Component 4 Knowledge Platform –	Women's knowledge and leadership roles under-	Ensure ≥40% of validated case studies on the regional knowledge platform are led by	(1) % of knowledge platform case studies led by or	% case studies focused on women/youth: 0 (platform not yet established)	≥40% of all case studies on the platform focused on	Knowledge platform content and analytics reports; case study	Y2–Y4	OSS/RIE (IE), EEs, Women's organisations	USD 6,110

	Women/Youth Content	documented and underrepresented in ECOVERSE knowledge products	or focus on women/youth; partner with women's organisations for documentation and validation	focused on women/youth (2) # women's organisations formally partnered for documentation		women/youth by end of Y4	documentation; editorial records; final evaluation			
C4-2	Component 4 GESI in Policy Documents	Gender not consistently integrated into ECOVERSE policy guidance documents, implementation manuals and knowledge products	Integrate GESI considerations and sex-disaggregated data requirements into 100% of ECOVERSE policy documents, implementation guidelines, training materials and knowledge products	(1) % of ECOVERSE policy and guidance documents incorporating GESI analysis (2) % of documents incorporating sex-disaggregated data requirements	% guidance documents gender-integrated: 0% (documents not yet finalised)	100% of all ECOVERSE policy and guidance documents gender-integrated by end of Y2	Document review log; gender integration checklist applied to all documents; APPRs; mid-term and final evaluation	Y1–Y2	OSS/RIE (IE), EEs	USD 5,170
C4-3	Component 4 Gender Capacity Development Plan	OSS/RIE lacks a structured, formally adopted gender capacity-strengthening plan for its staff and executing partners	Develop and implement formal Gender Capacity Development Plan for OSS staff and all EEs in Y1; conduct annual refresher sessions; report capacity outcomes in all APPRs	(1) Gender Capacity Development Plan formally adopted (Y/N) (2) # OSS and partner staff trained (3) Annual training completion rate (4) Post-training assessment results	Gender Capacity Development Plan: not yet in place; # staff with gender training: TBC	Plan formally adopted by end of Y1; 100% of target staff trained in Y1; annual refresher sessions completed each year	Gender Capacity Development Plan document; training registers; post-training assessments; APPRs	Y1 (plan + training); Y2–Y4 (refreshers)	OSS/RIE, Gender Specialist	USD 3,000 (new budget line)

C4-4	Component 4 Meaningful Participation – Regional Events	Women and youth underrepresented in regional training and peer-learning; quality of engagement not monitored (quantity only)	Apply minimum ≥40% women and youth quota in all regional events; track quality of participation annually using 1–5 meaningful participation scoring framework (defined in GAAP Section 6)	(1) % women and youth among regional training/peer-learning participants (2) Meaningful participation score (rated 1–5 annually)	% women/youth in regional training: TBC (inception); meaningful participation score: to be established in Y1	≥40% women and youth in all regional events; meaningful participation score ≥3.5/5 in each annual assessment	Event participation registers (sex- and age-disaggregated); participant feedback forms; Gender Specialist annual assessment report; APPRs	Y1–Y4	OSS/RIE (IE), EEs, Gender Specialist	USD 6,580
C4-5	Component 4 Governance – Steering Committees	Women's representation in formal project governance structures not systematically monitored; Chad NSC lacks explicit women/youth seat	Monitor active occupation and participation of women/youth representative seat in Togo NSC; advocate for equivalent seat in Chad NSC during inception; track whether women's contributions reflected in NSC decisions	(1) Women/youth representative seat in Togo NSC occupied by woman throughout implementation (Y/N) (2) Equivalent provision advocated for Chad NSC (Y/N) (3) % of NSC decisions reflecting women's/youth's stated priorities	Togo NSC: women/youth seat formally included in FP; Chad NSC: no dedicated women/youth seat (pre-project)	Women's representative seat actively occupied in Togo NSC Y1–Y4; gender provisions for Chad NSC adopted by end of Y1; ≥50% of NSC decisions reflect women's/youth's documented priorities	NSC meeting minutes; attendance records; decision log with gender annotation; APPRs	Y1 (inception); Y1–Y4 (monitoring)	OSS/RIE, Gender Specialist, EEs	Within Gender Specialist costs

Gender Action Plan Budget Summary

Component	Ref.	Action	Timeline	Responsible	Budget (USD)
Cross-Cutting	**CC-1**	Gender Baseline Study	Y1, Y3	OSS/RIE, M&E Team	Within M&E budget
	CC-2	Time-Use Assessment	Y1, Y3	Gender Specialist	USD 6,000

	CC-3	SEAH Prevention & GBV Referral Protocols	Y1–Y4	EEs, OSS/RIE	USD 4,000
	CC-4	Gender and Social Inclusion Specialist (RPMU)	Y1–Y4	REE	Within execution costs
	CC-5	Gender-Sensitive M&E Framework	Y1–Y4	EEs, RIE	USD 4,000
	CC-6	USP Gender Compliance Screening	Y1–Y4	Gender Specialist, EEs	Within Specialist costs
	CC-7	Gender Capacity Development Plan	Y1–Y4	OSS/RIE	USD 3,000
Component 1	**C1-1**	Inclusive infrastructure design & planning	Y1–Y4	EEs	USD 23,520
	C1-2	GBV safety-by-design & referral protocols	Y1–Y4	EEs, OSS	USD 4,000 + infra costs
	C1-3	iCSEB training – women & youth inclusion	Y1–Y3	EEs, IFAD-Togo	USD 23,520 (shared)
	C1-4	WASH/O&M training scheduling & childcare	Y1–Y4	EEs	Within training costs
	C1-5	Green corridor – women's associations	Y1–Y4	EEs	USD 22,340
Component 2	**C2-1**	Women's land tenure support & nurseries	Y1–Y4	EEs, land committees	USD 21,630
	C2-2	Agroforestry training & champion farmers	Y2–Y4	EEs, extension services	USD 21,630 (shared)
	C2-3	Erosion/land works – pay equity	Y1–Y3	EEs	USD 17,870
	C2-4	Micro-irrigation – women farmers & WUAs	Y1–Y4	EEs, water committees	USD 17,400
	C2-5	Ecological knowledge documentation	Y2–Y4	EEs, OSS	Within C4 budget
Component 3	**C3-1**	Women-targeted micro-grants & savings groups	Y1–Y3	EEs, Municipalities	USD 17,390
	C3-2	Women's business formalisation training	Y2–Y4	EEs	USD 6,110
	C3-3	Zogbépimé market rehabilitation	Y1–Y2	EEs, Municipalities	Within infra budget
	C3-4	Youth financial inclusion pathway	Y2–Y4	EEs	USD 6,110
Component 4	**C4-1**	Knowledge platform – women/youth content	Y2–Y4	OSS/RIE, EEs	USD 6,110
	C4-2	GESI integration in policy documents	Y1–Y2	OSS/RIE, EEs	USD 5,170
	C4-3	Gender Capacity Development Plan	Y1–Y4	OSS/RIE	USD 3,000
	C4-4	Meaningful participation – regional events	Y1–Y4	OSS/RIE	USD 6,580
	C4-5	Governance – NSC women/youth seat	Y1–Y4	OSS/RIE, EEs	Within Specialist costs
TOTAL ESTIMATED GENDER-SPECIFIC ALLOCATION					**USD 216,380**

10. Gaps and Recommendations for Inception Phase

The following actions must be initiated during the project inception phase or no later than the end of Year 1 to ensure compliance with the AF Gender Policy and quality implementation of this GAP.

Priority Actions for Inception (Months 1–6)

- Recruit Gender and Social Inclusion Specialist into the RPMU as a full-time dedicated position (no later than Month 2).
- Conduct gender data baseline study covering all AF-required sex- and age-disaggregated statistics, including the time-use assessment (Month 5–6).
- Establish the gender-sensitive MEL framework, including data collection tools, reporting templates and disaggregation requirements (Month 3).
- Include SEAH prevention clauses in all bidding documents and contractor agreements from inception (Month 1).
- Develop the USP Gender Compliance Screening Checklist and Clearance Note template (Month 3–4).
- Map and establish GBV referral pathways in both Chad and Togo, formally linked to the OSS GRM (Month 4–6).

Priority Actions for Year 1

- Develop the Women's Leadership and Influence Protocol, including mentoring, graduated decision-making responsibilities, and a mechanism to assess whether women's participation is meaningful or tokenistic.
- Develop and adopt the OSS Gender Capacity Development Plan for all OSS staff and executing partners, with annual refresher sessions and reported outcomes in each Annual Project Performance Report.
- Establish GBV referral pathways in both Chad and Togo, coordinating with existing national and local GBV response services. Include explicit budget lines in the revised project budget.
- Conduct a rapid time-use assessment as part of the gender baseline study to capture the gendered distribution of paid and unpaid work in project communities. Repeat at mid-term to assess whether project activities are alleviating or inadvertently increasing women's care burden.
- Ongoing Monitoring and Reporting Requirements
- All project Annual Performance Reports must include a dedicated gender chapter with sex- and age-disaggregated data for all GAP indicators.
- Mid-term evaluation must include a dedicated gender evaluation component with field validation.
- Final evaluation must assess the contribution of ECOVERSE to reducing gender-based disparities in adaptive capacity, with special attention to the merged land management component.

Annex 4 Consolidated ECOVERSE consultation report

Project overview

The consultation materials reviewed for ECOVERSE cover two complementary stakeholder engagement streams. The Chad public consultation report focuses on the Environmental and Social Impact Assessment for intervention areas in Chari-Baguirmi and the city of N'Djaména, while the supplementary consultation report for Togo focuses on infrastructure needs in Zogbépimé and surrounding villages in Avé 1 municipality.

Together, these consultations show broad support for ECOVERSE as a climate adaptation initiative, while also highlighting the need for inclusive implementation, resilient infrastructure, functioning grievance mechanisms, and stronger attention to women, youth, and poor households.

Purpose of the consultations

The Chad consultations were designed to inform the EIES process, document local vulnerabilities, assess social acceptability, identify environmental and social risks, and gather community proposals for integration into project design and the Environmental and Social Management Plan.

The Togo consultations were more targeted and aimed to identify and geolocate priority degraded infrastructures for rehabilitation, especially schools and associated sanitation facilities, using resilient construction approaches such as interlocking compressed stabilized earth blocks.

Geographic coverage

In Chad, consultations covered Mandelia, Kournari, N'Djaména Koura, Mabrio, Linia, and the 8th and 9th arrondissements of N'Djaména.

In Togo, the supplementary consultations took place on 29 and 30 January 2026 across six villages: Zogbépimé, Houvé, Howuiévé, Agbozomé, Awatomé, and Zokopé, while infrastructure identification also included Avédomé.

Consultation approach

The Chad report describes a participatory, inclusive, and iterative approach combining public meetings, thematic focus groups, institutional interviews, and structured household EIES surveys, with discussions conducted in local Arabic and translated into French when needed.

The Togo report used focus group discussions, targeted interviews with local leaders, and field visits with direct observation, GPS georeferencing, and photography of priority infrastructures.

Participation profile

The Chad consultations report a total of 613 participants, including 346 women and 267 men, indicating a comparatively strong level of female participation across sites.

By locality in Chad, participation was reported as follows: Mandelia 77 participants (45 women, 32 men); Kournari 67 (38 women, 29 men); N'Djaména Koura 93 (52 women, 41 men); Mabrio 60 (34 women, 26 men); Linia 74 (41 women, 33 men); 8th arrondissement 112 (63 women, 49 men); and 9th arrondissement with participant figures presented inconsistently in the source table but described as one of the most mobilized urban areas.

The Togo supplementary consultations brought together 108 participants across six villages. Village-level totals explicitly reported in the narrative were Zogbépimé 15, Houvé 27, Howuiévé 17, Agbozomé 17, Awatomé 13, and Zokopé 22 participants.

Main climate and vulnerability issues

Across the Chad sites, stakeholders emphasized recurrent flooding, drought, extreme heat, environmental degradation, food insecurity, conflict over natural resources, and weak formal complaint mechanisms, with urban, peri-urban, and rural areas experiencing different but overlapping forms of vulnerability.

In Togo, climate-related infrastructure degradation was linked mainly to intense rains and flooding, strong winds, drought, and extreme heat. These hazards were shown to damage school roofs and walls, worsen sanitation conditions, interrupt classes, and reduce safety and dignity, especially for girls.

Gender and social inclusion

Both consultation streams point to differentiated impacts on women, girls, youth, and poor households. In Chad, women and youth were identified as among the groups most affected by livelihood degradation and limited access to decision-making, land, and formal grievance channels.

In Togo, women and girls were especially affected by unsafe or absent latrines, hygiene problems, and economic losses linked to degraded market infrastructure in Zogbépimé, where women make up the overwhelming majority of traders.

Implications for project design

The consultations strongly support integrating infrastructure rehabilitation with ecosystem-based adaptation, livelihood strengthening, inclusive governance, and tailored support for vulnerable groups.

Project design should prioritize climate-resilient schools and sanitation, flood and drainage measures where relevant, women and youth access to economic opportunities, formal and accessible grievance mechanisms, participatory monitoring, transparent resource management, and location-specific adaptation packages rather than uniform interventions across all sites.

Consolidated consultation table

Country	Location	Consultation date/period	Participants	Key issues discussed	Implications for project design
Chad	Mandelia	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	77 total, 45 women, 32 men	Climate vulnerability, livelihoods, social acceptability, natural resource pressures, local adaptation needs	Targeted adaptation measures, inclusive implementation, integration into ESMF/ESMP instruments
Chad	Kournari	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	67 total, 38 women, 29 men	Rural vulnerability, agriculture and water stress, expectations for resilient livelihoods, governance concerns	Prioritize resilient livelihood support, natural resource management, and accessible complaints handling
Chad	N'Djaména Koura	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	93 total, 52 women, 41 men	Urban/peri-urban flood exposure, sanitation, social and economic vulnerability, demand for inclusive project delivery	Strengthen drainage, sanitation, social inclusion, and participatory monitoring
Chad	Mabrio	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	60 total, 34 women, 26 men	Lower participation site with climate and livelihood risks similar to rural project areas	Combine adaptation investments with strong local outreach and inclusion measures
Chad	Linia	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	74 total, 41 women, 33 men	Climate shocks, livelihood stress, local proposals on water, ecosystems, and income generation	Support agroforestry, water management, and inclusive livelihood activities
Chad	8th arrondissement, N'Djaména	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	112 total, 63 women, 49 men	High urban participation, flooding, sanitation and governance concerns	Prioritize urban resilience, accountability, and social safeguards

Chad	9th arrondissement, N'Djaména	July 2025 initial phase; Dec 2025-Jan 2026 validation phase	Source table appears inconsistent for totals by sex; locality described among highly mobilized urban sites	Flooding, service deficits, vulnerable groups, and implementation conditions	Validate participant totals before final disclosure and retain focus on urban inclusion and grievance systems
Togo	Zogbépimé	29-30 Jan 2026	15 participants, sex-disaggregated count not stated in extracted text	Market sheds unusable, primary school and sanitation severely degraded, cemetery exposed to flooding, request for cemetery fence and public sanitation block	Rehabilitate school, sanitation, market and protective works; support women traders; integrate flood resilience
Togo	Houvé	29-30 Jan 2026	27 participants, sex-disaggregated count not stated in extracted text	Primary school built with precarious materials, sanitation problems, recurring repair costs, exposure to rain, heat, winds and collapse risk	Build durable school and sanitation with climate-resilient materials and reduced maintenance burden
Togo	Howuiévé	29-30 Jan 2026	17 participants, sex-disaggregated count not stated in extracted text	Flooding, fire risk, dust, unusable latrines, respiratory illness, school interruptions	Rehabilitate classrooms and sanitation; integrate fire safety, drainage, and healthy flooring
Togo	Agbozomé	29-30 Jan 2026	17 participants, sex-disaggregated count not stated in extracted text	Damaged roof, deteriorated walls and floor, no maintenance, need for water, separate latrines, solar lighting and safety measures	Provide complete school rehabilitation package with WASH, lighting, and resilient design
Togo	Awatomé	29-30 Jan 2026	13 participants, sex-disaggregated count not stated in extracted text	Repeated wind and rain damage to school, dusty floors, recurring community repairs	Construct durable school facilities with shading, water access, and safety measures
Togo	Avédomé	Identified during Jan 2026 infrastructure mission	Participant number not separately stated in extracted text	School and sanitation facilities significantly degraded, similar environmental conditions to Awatomé	Include school and sanitation rehabilitation in the Togo package
Togo	Zokopé	29-30 Jan 2026	22 participants, sex-disaggregated count not stated in extracted text	School in advanced degradation, no latrines, rain and wind exposure, dust and open defecation, additional requests for market, water and road improvements	Rehabilitate school and sanitation and consider wider basic service linkages in phased planning

Consolidated recommendations

1. Prioritize climate-resilient rehabilitation of schools, sanitation blocks, and key community or market infrastructure in localities where physical assets are central to resilience outcomes.
2. Build gender-responsive design features into all infrastructure and livelihood components, including separate latrines, privacy and menstrual hygiene provisions, safe access, and dedicated support to women traders and youth employment.

3. Establish accessible, transparent, and formal grievance mechanisms that complement existing customary channels and are safe for women, youth, and vulnerable households.
4. Tailor interventions by territory, with flood management and drainage in exposed urban and low-lying zones, fire and heat risk reduction where temporary materials dominate, and livelihood diversification where climate shocks are eroding incomes.
5. Maintain participatory monitoring, community feedback loops, and transparent communication during implementation to preserve the strong but conditional support expressed in the consultations.

Link to detailed consultation reports including attendance and pictures