ADAPTATION FUND

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: 8/24/2026

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

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A. Innovative solutions to climate change adaptation.

1. 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.
2. ECOVERSE will introduce 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.
3. ECOVERSE will present 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.
4. ECOVERSE will pioneer 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 will enable 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.
5. The project will essentially introduce 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.
6. 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.

B. Project Background and Context:

Geographical location and project sites

7. 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 savannas experience intense runoff, soil erosion, and the disruption of rural connectivity.
8. 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)

9. Chad is one of the Least Developed Countries (LDCs) in the world and is highly vulnerable to climate change. It is also classified as a Fragile and Conflict-affected Situation (FCS) country. The country is recognized as among 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. Rural areas in the country are most at risk from climate change because they are 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.
10. The project sites include two 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.

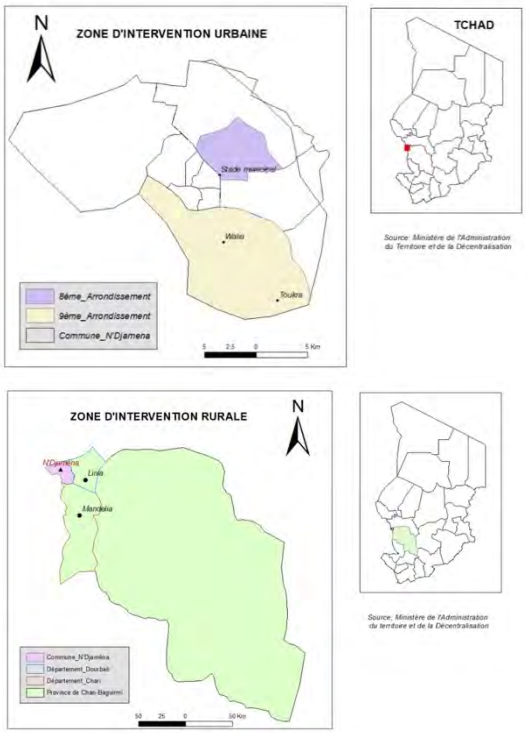


Figure 1: Location of urban and rural project sites in Chad: 8th and 9th District of N'Djaména

11. Both urban and rural areas have been 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.

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

12. 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-savanna transition area. Agriculture is the predominant activity in the area, mostly composed of 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.

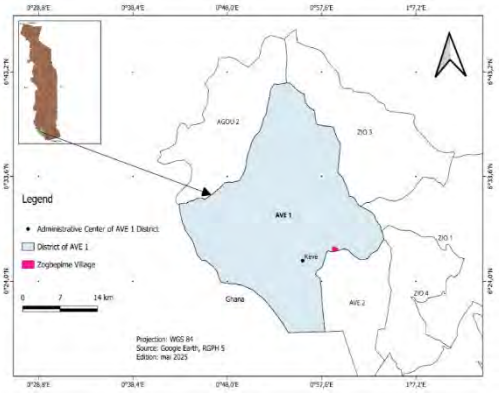


Figure 2: Location of project sites in Togo: Zogbépimé

Climate and weather conditions

13. 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 (projected +2.1°C to +4.3°C by 2080), and severe rainfall variability, all of which are exacerbating water scarcity, desertification, and food insecurity. Rainfall in N'Djaména averages 300–600 mm annually and increasingly arrives in short intense bursts (>30 mm/hour) that overwhelm drainage systems, causing urban flash floods. 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

[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

change is disrupting this pattern, leading to unpredictable rainfall, dry spells during key planting periods, and more intense storms. Mean temperatures in Togo have risen by 1.1°C since 1960 and are projected to rise a further 1.5–2.5°C by 2050. Both countries are grappling with the consequences of rising temperatures and erratic precipitation, which threaten natural ecosystems, infrastructure, and the livelihoods of their most vulnerable populations. Full site-level climate projection data, including RCP scenario analyses, are provided in Annex 9.

14. Both project sites face acute water insecurity. N'Djaména's 8th and 9th districts lack formal water distribution, with fewer than 25% of households accessing piped water; seasonal flooding contaminates shallow wells, while the eight-month dry season depletes them entirely. In Zogbépimé, annual rainfall of 1,000–1,200 mm is lost largely to runoff due to absent water harvesting infrastructure, leaving wells dry from November to March and forcing women and girls to walk 3–5 km daily to fetch water. Full hydrological data are provided in Annex 9.
15. Agriculture is the primary economic activity at both sites and is under severe climate stress. Chad's farming sector employs over 75% of the population yet suffers from land degradation affecting more than 13 million hectares. In Zogbépimé, over 90% of households depend on rain-fed smallholder farming on hillside plots losing up to 30 tonnes of topsoil per hectare annually; women provide the majority of agricultural labor but own less than 10% of land. Detailed land-use and agriculture data are in Annex 9.
16. Forest and biodiversity resources are severely degraded at both sites. In N'Djaména, the near-total removal of shade trees and riparian vegetation has reduced natural flood buffering and intensified urban heat. In Zogbépimé, the forest–savanna mosaic has been heavily fragmented by agricultural encroachment and fuelwood harvesting, with consequent losses of pollinators and soil fauna critical to agro-ecosystem function. Forest cover change data are provided in Annex 9.
17. Infrastructure deficits compound climate vulnerability at both sites. N'Djaména has only 15% of roads paved, no functioning stormwater system in the project districts, and sanitation coverage of 23%. Zogbépimé lacks paved roads entirely; feeder roads become impassable during the rainy season, cutting communities off from markets, healthcare, and schools. Infrastructure indicators are detailed in Annex 9.
18. Both communities face high and compounding socioeconomic vulnerability. Chad ranks 190th out of 191 on the UNDP Human Development Index, with 42% of the population below the poverty line and female literacy at 28%. In Zogbépimé, an estimated 65% of households live below the national poverty line, with persistent gender gaps in land ownership and decision-making further constraining adaptive capacity. Additional country context background is provided in Annex 9.

Climate Change, Drought, Heat Vulnerability and Threats

19. 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. West and Central Africa are projected to experience temperature increases of 2–3°C by 2050 under medium emission scenarios, with heightened risk of agricultural failure, water stress, and heat-related health crises.
20. Chad is highly vulnerable to climate change and ranks among the 10 most climate-vulnerable countries globally. Average temperatures have already increased by 1.2°C since the 1970s, and extreme heat days regularly exceed 44°C. Droughts have become more frequent and prolonged, driving food insecurity and livestock losses. Climate-induced stress on water resources, including the shrinkage of Lake Chad by over 90% since the 1960s, has contributed to displacement and livelihood disruption. Projected warming of +2.1°C to +4.3°C by 2080 is expected to intensify all these pressures.
21. Togo's mean annual temperatures have risen by 1.1°C since 1960, with projections indicating a further +1.5°C to +2.5°C by 2050. Hot days and hot nights have increased by 15.5% and 21.5% respectively. Erratic rainfall is causing both flooding and drought within the same agricultural cycle, affecting a population where over 50% relies on rain-fed agriculture.
22. In N'Djaména and neighboring areas, residents face compounded extreme heat, seasonal flooding, and prolonged drought. Daily temperatures exceed 40°C for several months annually; informal settlements in low-lying areas are inundated during the June–September rainy season, which also contaminates shallow wells. Vulnerability is highest among women, children, and elderly residents who lack access to cooling, healthcare, and evacuation support.
23. In Zogbépimé, erratic rainfall, droughts, and heatwaves disrupt agriculture and livelihoods. Rains increasingly arrive late or cease early, causing crop failure rates of up to 40% in poor years. Dry-season temperatures regularly reaching 38°C accelerate soil moisture loss. These climatic extremes drive seasonal youth out-migration and reduce household food security, particularly in female-headed households.
24. The evidence presented above makes it clear that the communities of N'Djaména and Zogbépimé 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 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 programme operationalizes across four mutually reinforcing components, in two ecologically distinct but strategically complementary country contexts.

C. Project Objectives

25. 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.
26. 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-centered 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.
27. The specific objectives are as follows:
    1. To reduce the exposure of vulnerable communities in N'Djaména and Zogbépimé 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.

D. Project Components and Financing

Table 1: ECOVERSE Programme components and financing

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Integrated approach to climate-resilient infrastructure	Climate-resilient infrastructure constructed or upgraded	Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	2,865,000
	Flood-resilient roads, permeable drainage systems, and green urban corridors implemented		1,205,000
	Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure		1,160,000
Total Component 1			**5,230,000**
2. Integrated Land Management for Agricultural, Ecosystem, and Water Resilience	Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	Landscapes, farms, and water systems are sustainably managed and restored to reduce climate risk and strengthen the productive and ecological resilience of communities	2,190,000
	Erosion control infrastructure implemented across agricultural and risk-prone landscapes		2,275,000
	Degraded forest, rangeland, and riparian ecosystems restored for biodiversity and climate risk reduction		1,655,000

	Community water harvesting, conservation, and irrigation systems strengthened		2,600,000
Total Component 2			**8,720,000**
3. Access to Adaptation Financing	Revolving adaptation finance mechanism established, capitalized, and operationalized	Improved access to and effectiveness of adaptation finance at local level	4,180,000
	Financial institutions and community members trained on adaptation finance integration and climate literacy		860,000
Total Component 3			**5,040,000**
4. Regional knowledge, learning and institutional strengthening	Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	ECOVERSE adaptation models are validated, institutionalized in national technical systems, and positioned for replication across African drylands and forest-savanna transition zones	750,000
	South-South Climate-Resilient Construction Learning and Replication Network Operationalized		700,000
	Climate Adaptation Financing Knowledge and Advocacy Platform Established		813,000
Total Component 4			**2,263,000**
TOTAL (1-4)			**21,253,000**
Project/Programme Execution cost			**2,019,108**
Total Project/Programme Cost			**23,272,108**
Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable): 8.5%			**1,977,892**
Amount of Financing Requested			**25,250,000**

E. Projected Calendar

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

PART II: PROJECT JUSTIFICATION

F. Description of Project Components.

28. Sub-Saharan Africa faces mounting climate threats despite contributing minimally to global emissions. Chad and Togo are among the African countries where climate change is already reshaping daily life. Chad ranks as the world's most climate-vulnerable country on the ND-GAIN index, and Togo sits firmly in the high-need, low-readiness group. Both face the same underlying problems, namely climate-exposed livelihoods, limited institutional capacity, and very little access to adaptation finance, but they experience them in contrasting settings. In Chad, the pressure is concentrated in N'Djaména and the surrounding Chari-Baguirmi region, where extreme heat, flash flooding, and unreliable water supply bear down on a fast-growing urban population. In Togo, it is felt in the rural Plateaux zone around Zogbépimé, where erratic rainfall and slope erosion undermine smallholder farming, much of it led by women.
29. 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 socioeconomic 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.

30. ECOVERSE responds with a single integrated programme that works across both contexts rather than treating them separately. The table below sets out the site-selection criteria and how each site contributes to the wider project.

Table 2: Site selection for Chad and Togo

Selection Criteria	N'Djaména and Chari-Baguirmi Region (Chad)	Zogbépimé – 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°C 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 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 into 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

Theory of Change (ToC)

31. The communities in both countries face one core development problem: Climate change is progressively eroding livelihoods, productive assets, essential services and ecosystem functions of vulnerable communities in Chad and Togo, while their adaptive capacity remains insufficient to protect development gains. ECOVERSE rests on a straightforward proposition: **IF** vulnerable communities in Chad and Togo are supported to reduce their exposure to climate hazards through resilient infrastructure, restore and sustainably manage the land, ecosystems and water resources on which their livelihoods depend, access locally managed adaptation finance, and strengthen the institutional knowledge and capacities needed to sustain and replicate effective adaptation practices, **THEN** they will be better able to protect their livelihoods, productive assets, essential services and natural resources from increasing climate impacts, resulting in reduced climate-related losses, improved food and water security, more resilient local livelihoods and strengthened capacity to anticipate, withstand, recover from and adapt to increasing climate risks, **BECAUSE** these interventions address the interconnected drivers of their vulnerability: high physical exposure and inadequate climate-resilient infrastructure; degradation of land, ecosystems and water resources; insufficient access to adaptation finance; and limited institutional capacity to sustain, replicate and scale effective adaptation solutions, in an integrated and mutually reinforcing manner.
32. Four interconnected drivers sustain the development challenge across the targeted communities: high physical exposure and inadequate climate-resilient infrastructure; degradation of the land, ecosystems and water resources on which livelihoods depend; limited access to financial resources for locally led adaptation; and insufficient institutional capacity, knowledge and mechanisms to sustain and replicate effective adaptation solutions. ECOVERSE responds to these drivers through four mutually reinforcing solutions. Component 1 strengthens the physical resilience of vulnerable communities and essential services to increasing climate hazards; Component 2 strengthens the ecological and productive resilience of the landscapes and natural resources on which climate-sensitive livelihoods depend; Component 3 strengthens the financial capacity of vulnerable households and communities, particularly women and youth, to invest in and sustain locally appropriate adaptation; and Component 4 strengthens the institutional capacity, evidence and learning systems required to sustain effective adaptation approaches and enable their wider replication. Together, these solutions

address the physical, ecological, financial and institutional constraints that currently prevent vulnerable communities from protecting their livelihoods, assets, natural resources and development gains from increasing climate impacts.

The four solutions reinforce one another by simultaneously reducing physical exposure, strengthening the ecological and productive systems that support livelihoods, increasing the capacity of households and communities to finance and sustain adaptation, and creating the institutional conditions for successful approaches to be maintained and replicated. Together, these pathways are expected to reduce recurrent climate-related losses and strengthen the capacity of vulnerable communities to anticipate, withstand, recover from and adapt to increasing climate risks. This causal pathway rests on a set of cross-cutting programme-level risks and assumptions. Principal risks, including climate events exceeding design thresholds, political or security instability, cost inflation, land-tenure disputes, and weak governance of community finance, are managed through the measures detailed in Part III.B, the ESMP in Annex 2, and the monitoring system embedded in Component 4. The assumptions are follow: A1. Climate adaptation and resilience remain government priorities throughout implementation; A2. Institutional continuity, coordination and government support are maintained; A3. Communities remain engaged and adaptation solutions are socially accepted and sustained; A4. Women, youth and vulnerable groups can participate meaningfully and benefit equitably; A5. Local institutions, communities and financial actors retain sufficient capacity and incentives to sustain results; A6. Political, security and macroeconomic conditions permit implementation and regional cooperation; and A7. Climate extremes do not systematically overwhelm the programme's adaptation measures and adaptive-management capacity.

33. ECOVERSE's *paradigm shift* is designed not merely to deliver adaptation outcomes within its project boundaries, but to change the underlying conditions that currently prevent vulnerable communities from sustaining and expanding adaptation gains. At community level, the programme strengthens the capacity of households and community institutions to manage adaptation assets, natural resources and financial mechanisms, reducing dependence on repeated external responses to climate shocks. At institutional level, it strengthens coordination across infrastructure, natural-resource management, finance and knowledge systems, enabling adaptation to be addressed as an interconnected development challenge rather than through fragmented sectoral responses. At policy and systems level, it strengthens the evidence, institutional capacity and mechanisms required to integrate successful adaptation approaches into national systems and facilitate their wider replication across comparable contexts.
34. The regional dimension reinforces this paradigm shift by enabling adaptation approaches to be tested, compared and validated across two contrasting but complementary contexts: the urban and peri-urban Sahelian environment of Chad and the rural forest–savanna transition zone of Togo. Cross-country evidence, institutional exchange and structured learning will enable lessons generated through implementation to inform national adaptation processes and provide transferable knowledge for other countries facing comparable climate and development challenges. The longer-term change sought by ECOVERSE is therefore one in which vulnerable communities are increasingly able to protect their livelihoods, productive assets, essential services and natural resources from increasing climate risks, while the institutional, financial and knowledge systems required to sustain and replicate effective adaptation continue beyond the project period. The ToC diagram in figure 3 below illustrates the relationship between the development challenge, its underlying drivers, the programme solutions, expected changes and long-term results, together with the cross-cutting programme-level assumptions on which this causal pathway depends.
35. The regional design of ECOVERSE is a deliberate strategic choice. Chad and Togo share the same structural climate vulnerability drivers i.e., climate-exposed livelihoods, fragmented institutional capacity, and a severe adaptation finance gap, but present contrasting ecological and socioeconomic conditions: urban Sahelian N'Djaména, subject to extreme heat above 420C, flash flooding, and chronic water stress, and rural savanna Zogbépimé, affected by erratic rainfall, slope erosion, and agricultural disruption. Applying the same integrated adaptation framework across both contexts enables ECOVERSE to comparatively test, refine, and validate climate-resilient infrastructure, agroforestry, and community finance models across two representative African ecological zones, simultaneously generating transferable, policy-relevant evidence that neither country could produce on its own.
36. The regional approach generates clear cost-effectiveness and efficiency gains compared to two separate national projects. Shared investments in the bi-country digital knowledge hub, harmonized monitoring, evaluation and learning (MEL) system, joint safeguards tools, annual Regional Adaptation Academies, and the Africa Climate-Resilient Construction Learning Network serve both Chad and Togo simultaneously and reduce

per-country transaction costs. World Bank evidence on regional programming confirms that pooled technical supervision, training systems, and knowledge products consistently deliver efficiency gains over stand-alone national projects, a principle directly applicable here, where a single regional team, a single reporting architecture, and shared methodological frameworks avoid costly duplication. The iCSEB practitioner library, construction replication toolkits, and the revolving adaptation fund strategy developed under Component 4 function as regional public goods available to both project countries and designed for uptake across the broader Adaptation Fund and GCF portfolio at no additional per-country design cost.

37. Finally, the regional modality enables institutional coherence and cross-country networks that individual national projects cannot sustain. OSS's intergovernmental convening role and AAF's regional mandate allow ECOVERSE to facilitate structured knowledge exchange between ministries, municipalities, extension services, and financial institutions in both countries, harmonizing technical standards for climate-resilient construction and community finance, and systematically translating field experience into national and regional policy guidance. The complementary ecological and governance diversity of Chad and Togo, spanning the Sahelian urban fringe and the West African forest-savanna transition zone, gives ECOVERSE credible demonstration value for replication across other parts of Africa, directly supporting the Adaptation Fund's mandate for transformative, scalable, and regionally relevant adaptation investment.
38. Across all components, ECOVERSE operationalizes the target of at least 40% participation of women and youth in the entire project with 50% in workshops, training and decision-making processes, through a set of concrete measures during implementation, with a focus on engendering the activities. Participant selection will use gender- and age-sensitive quotas embedded in ToRs and MoUs with executing partners, and outreach will be conducted via women's organizations, youth associations and trusted community leaders. Training schedules and locations will be adapted to women's care and market responsibilities, with local-level venues and, where feasible, support for transport and childcare, while monitoring tools will track participation by sex and age so that remedial measures can be taken if the 40% threshold is not met. Women-only sessions will be added where needed and culturally appropriate. For ease of cross referencing the project expected targets at the end of implementation, the components have been broken down specifically for tracking purposes in Table 24 and Section F (Results Framework).
39. The institutional responsibilities governing programme implementation are set out in Table 13 and further specified at activity level below. Where implementation requires permits, technical validation, land or resource-use arrangements, operational agreements, community governance structures, financial agreements or institutional cooperation, these arrangements will be established and documented before the corresponding activity enters full implementation. Existing governmental, local and community institutions will be used or strengthened wherever feasible rather than creating parallel structures. The responsible EEs will ensure that the required arrangements are in place for activities under their responsibility, while the NPMUs will track their establishment and implementation without replacing the execution responsibilities of the designated EEs.

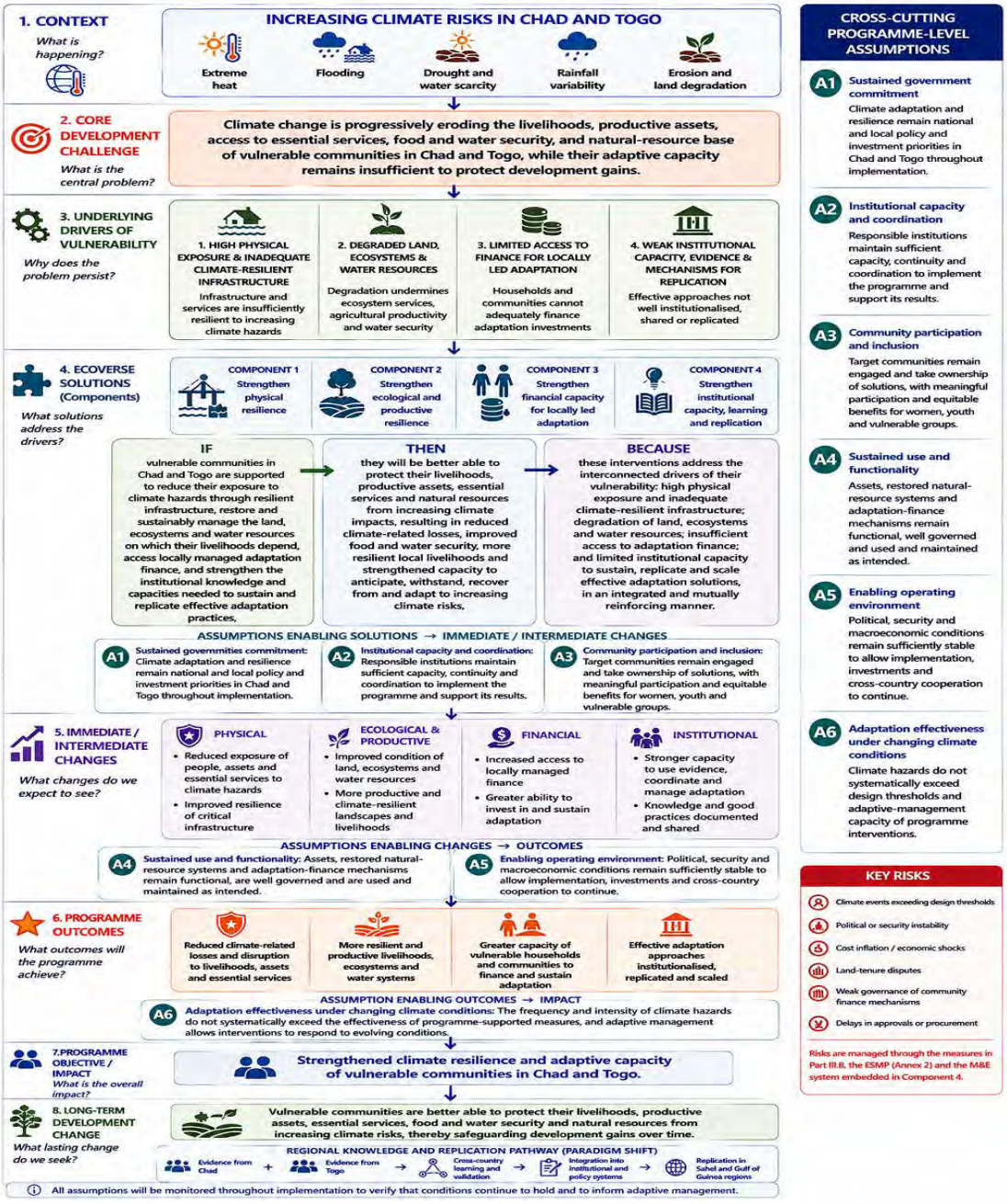


Figure 3: Theory of Change diagram for the ECOVERSE project.

Component 1: Integrated approach to climate-resilient infrastructure

40. 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 neighborhoods 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 Zogbépimé 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 Zogbépimé, to be compared, refined, and transferred across countries. By integrating local materials and labor, 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

41. 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. Resilience among urban and peri-urban communities will be strengthened through integrated packages that combine thermally efficient iCSEB housing and community infrastructure, flood-resilient roads with permeable drainage, urban green corridors and decentralized water systems. Together, these measures reduce physical exposure to heat and flooding, secure access to safe water during dry spells, and improve the reliability of basic services for vulnerable residents. Community maintenance committees and municipal technical services will share operation and maintenance responsibilities, under written plans and budgets, so that these assets continue to function and protect households beyond the project's lifetime.

Output 1.1: Climate-resilient infrastructure constructed or upgraded

42. 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.
43. *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 analyze, including 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.
44. 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 will be ensured through participant-selection criteria incorporated into workshop ToRs and invitations, targeted mobilization

through women's organizations, youth associations, producer groups, community structures and local leaders, and scheduling and venue arrangements designed to minimize barriers to participation. Attendance will be recorded and monitored by sex and age by the responsible EE and NPMU. 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.

45. **Implementation arrangements:** Technical studies, site selection and final designs will be coordinated by the responsible EE with the relevant municipal authorities, decentralised technical services and community structures. Prior to construction, land ownership or recognised use rights, applicable permits and clearances, technical standards, safeguards requirements and responsibilities for subsequent operation and maintenance will be confirmed. Technical designs and site selections will be validated with the competent public authorities before procurement and construction.

46. *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.

47. **Implementation arrangements:** Maintenance arrangements will build on existing community and municipal structures wherever feasible. Each maintenance committee will operate under agreed Terms of Reference defining membership, responsibilities, routine inspection and maintenance schedules, reporting arrangements and links with the relevant municipal or technical services. The maintenance plan for each asset will identify the respective responsibilities of the community structure, local authority and responsible technical service, together with agreed arrangements for financing routine maintenance and escalating major repairs.

48. *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. This target will be secured through dedicated recruitment channels with women's and youth associations, provision of basic toolkits and a modest training stipend to offset opportunity costs, and safety and childcare arrangements at training sites to remove practical barriers to attendance. 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.

49. *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 labor 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.

50. *Activity 1.1.5: Construct/revamp damaged or unsustainable community or socio-economi infrastructure using the iCSEBs technology:* In communities where vital public and 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, strong demand for the rehabilitation of climate-vulnerable community infrastructure emerged consistently through the consultation process conducted in Zogbépimé and surrounding villages in Avé 1. Communities prioritised deteriorated schools, sanitation facilities, market and other essential community infrastructure affected by flooding, intense rainfall, strong winds, heat and related climate stresses, consistent with the climate vulnerabilities identified for the Avé 1 intervention area.The site-identification process included field verification and georeferencing of all identified assets, providing a documented spatial basis for subsequent prioritisation and technical assessment. Four priority assets have been identified in Zogbépimé: the primary school and associated sanitation facilities, the public market shed, the cemetery, and the public sanitation block at the Community Centre. Additional priority infrastructure has been identified and georeferenced in Agbozomé, Avédomé, Awatomé, Houvé, Howuiévé and Zokopé, particularly primary schools and associated sanitation facilities. In addition to the four priority assets identified and georeferenced in Zogbépimé, up to three additional assets will be selected from the georeferenced sites in the surrounding villages during implementation, based on community demand, demonstrated climate vulnerability, technical feasibility and environmental and social screening. This will bring the total to up to seven community infrastructures to be upgraded or rehabilitated under the project in Togo. The final scope of intervention for each selected asset will be confirmed through detailed technical and climate-risk assessments during implementation. 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 over 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 Activity 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

51. This output focuses on enhancing access to the social infrastructure that has been upgraded under Output 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 and contributes to the resilience of the social buildings.

52. *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 analyzing 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.

53. *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 Activity 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.

54. *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 Activity 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.
55. *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. The project 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.
56. **Implementation** arrangements: Construction will proceed only after completion of the required technical validation, safeguards screening, land-use verification and applicable permitting processes. The responsible EE will oversee procurement and technical delivery in coordination with the competent local authorities and decentralised technical services. Upon completion, assets will be formally commissioned and transferred into the agreed operation and maintenance arrangements established with the relevant local authority and/or community structure.

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

57. 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.
58. *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.

59. *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. Training will be conducted on basic repair and 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.
60. *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.
61. 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.
62. Implementation arrangements: Site selection and technical design will be undertaken in coordination with the relevant water services, local authorities and beneficiary communities. Applicable water, land-use and environmental requirements will be verified prior to installation. Where systems are community-managed, existing water-user structures will be strengthened or appropriate management arrangements established before commissioning, with responsibilities defined for operation, routine maintenance, user contributions where applicable, record-keeping and reporting of major maintenance requirements.

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

63. 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.
64. 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.
65. 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.
66. 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 co-financed in part through community adaptation mechanisms under Component 3, and generate comparative field evidence and lessons that feed into Component 4.

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

67. 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.
68. 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. Landscapes, farms and water systems will be made more resilient by deploying climate-smart agroforestry packages, erosion--control structures, ecosystem restoration and small-scale water harvesting and irrigation in a coordinated way across target catchments. These interventions rebuild soil fertility, stabilize slopes, increase water retention and buffer communities against droughts and intense rainfall, while diversifying and stabilizing farm incomes. Farmer training, extension support and community stewardship agreements ensure that these practices are maintained and expanded after project support, so that the ecological and livelihood benefits persist over time.

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

69. 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 supports 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 maximize intervention outreach, delivery and completion.
70. *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.
71. Assessments will be conducted across 600 hectares of agricultural and communal land. Using a combination of satellite imagery analysis, GIS terrain modeling, 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.
72. 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.
73. 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 regional GIS and MEL platform, enabling cross-country comparison of degradation profiles and tracking of restoration progress over the project period.

74. *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.
75. 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 windbreak trees, and urban-compatible fruit trees for streets, markets, schools, and health centers.
76. Each nursery will be run by the community and at least 60% of leadership positions will be held by women and youth. This will be ensured by requiring women's cooperatives and youth associations to co-nominate committee members during nursery establishment, with the process facilitated by gender and social inclusion specialists to counter customary exclusion from resource-management roles. Rural nurseries will be hosted by producer groups and village committees and 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).
77. Each nursery will produce 150,000 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.
78. *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 in both project countries, with a deliberate equity focus on women-headed households and farmers cultivating the most severely degraded plots identified in Activity 2.1.1.
79. A total of 120,000 seedlings will be organized and distributed through established community structures, smallholder 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.
80. 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.
81. 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 MEL platform.
82. *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 behavior change and long-term productivity gains.
83. 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. This target will be met through direct enrolment via women's farmer associations and Farmer Field School networks, scheduling sessions around women's care responsibilities, and delivery through gender-disaggregated sessions facilitated by women trainers and female extension mentors to improve attendance and retention.

84. 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.
85. 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.
86. 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.
87. *Activity 2.1.5: Establish and operate Farmer Field Schools (FFS) and demonstration plots:* 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.
88. 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.
89. Each FFS will host a structured demonstration area divided into clearly labeled 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.

90. 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.
91. Implementation arrangements: Implementation will be coordinated by the responsible EE with relevant agriculture, forestry and decentralised technical services, local authorities, producer organisations and beneficiary communities. Site-level arrangements will document beneficiary participation, land access or use rights where relevant, technical responsibilities and requirements for continued management of supported agroforestry and climate-resilient agricultural systems. Existing producer and community structures will be used or strengthened wherever feasible to support implementation and sustainability.

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

92. 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.
93. *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.
94. In Zogbépimé, 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 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.
95. 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 GIS and MEL platform under Component 4 to enable cross-country comparison of erosion risk profiles and tracking of risk reduction over time.
96. *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.
97. Structures will be constructed using community labor 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.
98. 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.

99. *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.
100. 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).
101. 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 labor 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. As these interventions target land beyond individual farm boundaries, access and permission for structural and planting works will be secured through agreement with the customary land authority or commune administration governing the affected communal or public land. 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.
102. *Activity 2.2.4: Establish erosion monitoring:* In each intervention cluster, 4 community monitors will be selected, with a minimum of 50% 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. This target will be secured through nomination via the women's collectives and youth associations already mobilized under Activity 2.2.3, and by scheduling inspection duties around participants' existing time constraints.
103. 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.
104. 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.
105. *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 10 community maintenance brigades, one in each intervention area, 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. This will be achieved through targeted recruitment via the women's collectives and youth associations already engaged under Activity 2.2.3, and by scheduling brigade workdays around women's caregiving responsibilities.
106. 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.
107. 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 MEL system.

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

108. 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.
109. *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.
110. 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.
111. 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.
112. *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.
113. 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.
114. 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.
115. *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.
116. 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 Zogbépimé, 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). 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.

117. *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.

118. Each CBNRM committee will include a minimum of 40% women and youth in leadership roles, secured through reserved seats in committee bylaws and targeted outreach via women's and youth associations during committee formation. 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.). 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 monitoring and learning system.

119. *Activity 2.3.5: Establish urban green corridors and community reforestation in peri-urban areas:* In peri-urban neighbourhoods of N'Djaména and the market centers of Zogbépimé, 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.

120. Planting will be carried out along roads, around schools and health centers, 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. Planting on road perimeters, school and health centre grounds, and market areas will proceed under authorization from the relevant municipal authority or facility-managing ministry, confirming land-use rights ahead of planting.

121. 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.

122. Implementation arrangements: Restoration sites and approaches will be validated with the competent environmental, forestry and local authorities and participating communities. Site-level arrangements will define access and use rights, restoration responsibilities, protection measures, community stewardship and monitoring requirements. In Togo, DE/MERF will provide governmental leadership, environmental and regulatory anchoring and coordination with relevant public technical services, while SSA will perform the operational functions assigned to it under the programme implementation arrangements.

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

123. 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.

124. *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.

125. 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 GIS and MEL platform as the baseline for tracking water security improvements over time.

126. *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 m³ 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. Land for reservoir and farm pond construction will be secured through formal agreement with the landholder, whether an individual farmer, producer group, or community land authority, confirming access and use rights prior to construction.

127. Construction will use context appropriate designs, including semi-circular bunds, stone lined basins, plastic geomembrane liners, and compacted earth banks, with community labor 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.

128. *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.

129. 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).

130. *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 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.

131. 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 MEL system, reinforcing adaptive management and embedding water infrastructure stewardship within local institutional structures.

132. **Implementation arrangements:** The responsible EE will coordinate site selection and technical design with relevant water and agriculture services, local authorities and beneficiary organisations. Water-user or equivalent community structures will be established or strengthened before commissioning, with agreed responsibilities for operation, maintenance, water management, user contributions where applicable and conflict resolution. Required land-use, water and environmental authorisations will be secured before construction.

Component 3: Access to Adaptation Financing

133. 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.

Outcome 3: Improved access to and effectiveness of adaptation finance at local level

134. 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. It links these technical options to locally driven investment decisions by establishing community-anchored adaptation finance mechanisms. Revolving adaptation funds, savings groups and micro-grant windows enable vulnerable households, producer organizations and water-user groups to finance priority adaptation measures such as repairs to resilient infrastructure, replacement of irrigation components, or expansion of agroforestry plots based on locally defined plans. Training in climate and financial literacy, and partnerships with regulated financial institutions, ensure that these mechanisms remain operational and continue to mobilize resources after project closure.

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

135. The ECOVERSE rural and peri-urban communities 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. Among 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.

136. 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.

137. 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.

138. The fund will operate a tiered interest rate structure aligned with the AF's principle of equitable distribution of benefits to vulnerable communities. A lower concessional tier will serve the most climate-vulnerable and economically marginalized 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.
139. The project recognizes 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 minimize default-driven capital loss; and the development of a structured recapitalization 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.
140. Repayments will be reinvested into the fund, enabling continuous lending cycles and progressive expansion of beneficiary reach, while a structured recapitalization pathway, developed under the sustainability strategy, will ensure long-term continuity of the fund's lending capacity beyond the initial capitalization.
141. 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 finalized 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 iCSEB 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, iCSEB 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 organizations, 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.
142. 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.
143. 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. Recognizing 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 capitalization 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 the 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.

144. 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.

145. **Implementation arrangements:** operationalizing the mechanism depends on formal fund-management agreements with the selected national financial institutions, concluded after the due-diligence and selection process under Activity 3.1.1 and providing for ring-fenced accounts, fiduciary compliance, and clearly defined roles and responsibilities. These agreements, together with the necessary regulatory notifications to the relevant regional regulators (BCEAO in Togo and COBAC in Chad), will be established during implementation and are subject to OSS no-objection. Candidate institutions were identified during project preparation through stakeholder consultations, but no partner is pre-selected; selection follows the structured process (Activity 3.1.1)

146. *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.

147. *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 AF fiduciary standards.

148. 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.

149. *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. 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.
150. *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.
151. *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 maximize the productive impact of adaptation investments and minimize 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.
152. *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. The post-project governance of the revolving fund will be defined through the sustainability strategy, with the governance model selected and formalized 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.
153. **Implementation arrangements:** Operationalisation of the Revolving Adaptation Finance Mechanism will follow a sequenced process comprising financial-sector mapping and due diligence, selection of suitable partner financial institutions, development of the governance and operational framework, establishment of the required legal and contractual arrangements, and adoption of eligibility, appraisal, disbursement, portfolio-management, safeguards, grievance and reporting procedures. Participating financial institutions will operate under formal agreements defining their responsibilities, conditions governing the use of programme resources, reporting obligations, adaptation eligibility requirements and portfolio-performance requirements. Programme resources will be managed through dedicated or ring-fenced arrangements ensuring financial traceability. Governance, resource-recycling and post-project sustainability arrangements will be defined before full operationalisation of the mechanism.

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

154. 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.

155. *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 contextualized 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.

156. *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. This target will be secured through mobilization via existing women's savings groups and youth cooperatives already engaged under Activity 3.1.4, delivery in local languages with pictorial materials to accommodate low-literacy participants, and scheduling aligned with women's agricultural and care-work calendars as identified during stakeholder consultations.

157. *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, informed by structured learning mechanisms and the adaptation training programme, 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

158. This component ensures that the adaptation models demonstrated through ECOVERSE are rigorously evaluated, institutionalized 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.

159. The component is organized 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, proven iCSEB building systems to position climate-resilient construction 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 institutionalization and replication of revolving fund mechanisms beyond Chad and Togo.

160. 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 organization supporting climate resilience across the Sahara and Sahel region, and is aligned with the AAF framework for continental adaptation coordination.

161. Furthermore, reference to the South-South learning and replication network of the project is captured in the regional knowledge and learning architecture, and relevant network partner institutions, which may be represented on the RPSC, whose membership may include but is not limited to key institutions, to strengthen coordination and mutual accountability.

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

162. 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. This outcome sustains and scales successful approaches by transforming field experience into standardized technical tools, curricula and policy inputs. A bi-country digital knowledge hub, regional adaptation academies, communities of practice and targeted evidence products will enable governments, training institutions and practitioners in both countries and beyond to replicate and adapt ECOVERSE models in other Sahelian and forest–savanna contexts. By embedding these tools in national training systems and sector programmes, the project strengthens long-term institutional capacity for climate-resilient infrastructure, land management and adaptation finance.

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

163. 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, maximizing the likelihood that ECOVERSE-validated approaches continue to be taught, referenced, and applied long after project completion.

164. *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 standardized 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 agroecological 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.

165. Each thematic assessment will produce two outputs: detailed technical reports of sufficient rigor for peer review by national technical authorities, and a concise two-page policy brief summarizing 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.

166. *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 agroecological 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.

167. 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.

168. *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.

169. 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.

170. 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

171. This output establishes a structured South-South learning and replication that positions ECOVERSE's iCSEB building systems and associated climate-resilient water infrastructure as scalable, transferable adaptation solutions for African countries facing comparable climate and housing challenges. Construction technologies are a deliberate focus because they are highly transferable: earth-based construction is fundamentally material science and engineering, adaptable across climate zones through adjustments to soil, wall design, ventilation and foundations, while core production skills remain consistent, making it far more replicable than site-specific land-management approaches. Rainwater-harvesting and solar-powered water systems demonstrated under ECOVERSE will be included where participating countries express interest.

172. Operationalizing the network requires specialized technical expertise, distinct from convening and coordination, to enable standardizing iCSEB production and quality control, delivering practitioner and artisan training, and transferring equipment specifications and construction standards across countries. A dedicated technical partner will therefore be engaged, selected through competitive procurement in accordance with the Adaptation Fund's Policies and the procurement rules of OSS and the executing entities. Selection criteria, set out in the procurement documentation, are expected to include demonstrated experience in iCSEB or comparable earth-based construction; a track record of technology transfer and practitioner training; and substantial operational experience in Africa and comparable climate contexts. The approach is well proven: during ECOVERSE's preparation, Hydraform (a construction-technology firm with over three decades of experience across more than 78 countries) provided technical assistance to both Chad and Togo and supported the design of the iCSEB approach, building on its earlier piloting in Togo. This design-phase engagement does not presuppose the selection of any firm for implementation.

173. AAF, as Regional Executing Entity, will lead the network's convening and coordination, hosting the coordination function and leveraging its intergovernmental mandate across the Sahel and West Africa to sustain engagement and continuity. OSS, as Regional Implementing Entity, provides convening authority, oversight, and no-objection on procurement and key appointments.

174. The South-South Climate-Resilient Construction Learning and Replication Network builds on an existing regional network structure, and ECOVERSE's role is to operationalize and expand this pre-existing formal arrangement rather than establish a new institutional mechanism from scratch. This formal linkage is further detailed in Part III.A, Implementation Arrangements, to ensure the accomplishment of Output 4.2 is not compromised by ambiguity over roles between OSS, REEs, and network partner institutions.

175. *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 in the project's demonstrated iCSEB evidence base and OSS's convening role. 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, NDCs, urban resilience strategies, or technical training agendas.

176. The network will meet annually, rotating between participating countries where feasible, 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 analyze 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. The competitively selected technical partner will support preparation of

technical content, practitioner training inputs, and quality-control references for network exchanges. Participating institutions may also be invited to contribute to relevant steering or technical review sessions where this adds value to replication planning and institutional uptake.

177. Network membership will be formalized through a structured expression-of-interest process and a light-touch memorandum of understanding between AAF (as convenor) and each participating country institution, anchored where possible in those countries' national adaptation plans or urban resilience strategies to ensure policy ownership and continuity.

178. *Activity 4.2.2: Develop and Disseminate Standardized 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 organizations 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 modeling 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.

179. 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.

180. *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 iCSEB 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.

181. 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.

182. **Implementation arrangements:** The South-South Climate-Resilient Construction Learning and Replication Network will operate as a structured regional cooperation mechanism coordinated by AAF, as Regional Executing Entity, with participation of the designated national EEs, governmental counterparts, technical and training institutions and selected partner institutions. It will not constitute a new independent legal entity. During programme inception, agreed Terms of Reference will define membership, governance, thematic priorities, annual programming, knowledge-sharing arrangements and responsibilities for convening and follow-up. The network will build on the programme's formal implementation architecture and relevant existing institutional and regional cooperation mechanisms. Where participation of external institutions requires additional formalisation, appropriate MoUs, letters of cooperation or equivalent institutional arrangements will be concluded before substantive joint activities are undertaken.

Output 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established

183. This output captures, analyzes, 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.

184. *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.

185. 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.

186. *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.

187. 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.

188. *Activity 4.3.3: Develop a Revolving Fund Replication and Capitalization Strategy:* Before project completion, this activity will produce a detailed, operationally actionable strategy for replicating and capitalizing 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 capitalization, 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.

189. 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.

G. Economic, social and environmental benefits.

190. 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-centered, 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.

191. ECOVERSE will generate integrated adaptation benefits at both community and regional levels. At the overall project level, ECOVERSE will generate integrated adaptation benefits by addressing the interconnected physical, ecological, financial and institutional drivers of climate vulnerability across Chad and Togo, while developing and demonstrating a replicable model for strengthening climate resilience in rural and peri-urban communities across Africa. The project will directly benefit approximately 80,000 people—45,000 in Chad and 35,000 in Togo, including at least 40,000 women and 15,000 youth—and indirectly benefit a further 300,000 people through more resilient infrastructure and essential services, restored ecosystems and productive landscapes, improved access to adaptation finance, and strengthened institutions. At the regional level, ECOVERSE will test this integrated resilience model across the contrasting Sahelian and forest–savanna contexts of Chad and Togo, generating comparative evidence, practical tools and implementation approaches, while cross-country learning and institutional cooperation will enable site-level experience to inform national adaptation processes and support the wider replication and scaling of climate-resilient rural development approaches across Africa.

192. Equitable distribution of benefits. ECOVERSE will ensure equitable access to benefits through transparent, vulnerability-based selection, prioritising those most exposed to climate risks and with the lowest adaptive capacity, particularly women, youth, persons with disabilities and vulnerable households. Eligibility criteria will be applied by the responsible EEs in consultation with communities and local authorities, while access to benefits will be monitored by sex, age and vulnerability, with corrective measures applied where priority groups are under-represented.

193. *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). 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.

194. The ECOVERSE project will be implemented across urban and peri-urban sites where the interventions will support approximately 1,195–1,900 temporary jobs; 1,260–1,750 sustained livelihood opportunities through improved agricultural production, community enterprises, and adaptation services; and an additional 530–1,040 indirect and induced jobs through local supply chains, transport, processing, and market activities. In total, the project will support an overall employment footprint of approximately 3,000–4,700 jobs and livelihood opportunities. The investments are also expected to generate between USD 1.46 million and USD 2.54[3] million

[3] The estimated annual benefits represent economic benefits to society and local economies rather than financial revenues accruing directly to the project. They include both market and non-market benefits, such as incremental farm income, avoided

in additional economic benefits annually, driven by higher agricultural productivity, expanded irrigated production, increased marketed output, reduced household water expenditures, and productivity gains from time savings. These benefits are expected to stimulate local markets, strengthen rural value chains, increase household purchasing power, and create lasting economic opportunities that enhance community resilience and support inclusive, climate-resilient development.[4]

195. *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 labor. 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 labor 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.

196. *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 neighborhoods, 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.

197. The project has been screened for the risk of unintentionally increasing vulnerability or causing harm to beneficiaries or non-beneficiaries, and no significant maladaptation pathways are anticipated. The interventions are designed to avoid the common maladaptation traps. For example, water-harvesting and irrigation are sized

expenditures, productivity gains, ecosystem services and partially attributable avoided climate-related losses. They should therefore be interpreted as measures of the project's broader economic contribution and social welfare gains rather than direct financial returns.

[4] https://docs.google.com/document/d/1thWHc29qPBy-HXrGn_yIgoz2m6tq6qGg/edit?usp=sharing&ouid=117717201319350068444&rtpof=true&sd=true

and governed through Water User Associations to prevent over-abstraction or groundwater depletion that could disadvantage downstream or non-participating users; restoration and erosion-control works are sited to avoid displacing grazing access or transferring runoff onto neighboring land; and revolving-fund design embeds borrower training, group-solidarity guarantees and equity quotas to avoid over-indebtedness or elite capture. Attention is given to women and to indigenous and/or customary resource users: beneficiary-selection criteria, FPIC-aligned consultation, and participation and leadership targets will be applied so that benefits are not captured by more powerful groups and that customary access rights are respected. Any residual, site-specific risks identified during implementation are managed through the ESMP (Annex 2), including the screening of unidentified sub-projects, with continuous monitoring under all ESP Principles. On this basis, the project is not expected to reduce the adaptive capacity of any group and is designed to be net-positive for the most climate-vulnerable.

Summary of the gender assessment (Annex 3).

198. ECOVERSE works in two countries whose ecological and institutional settings differ sharply, but whose climate vulnerabilities overlap. The regional gender assessment in Annex 3 draws on primary fieldwork in both areas alongside national and regional data, and its main findings on the distinct roles, needs, capacities and knowledge of women and men are summarized below.
199. Roles and division of labor. In both countries women carry most of the productive and reproductive work while men hold most of the formal authority. Women provide around 70% of the agricultural labor force in Chad, concentrated in subsistence and post-harvest activities, and roughly 70% in Togo while holding under 10% of land rights. They also dominate small-scale trade, food processing, water collection and household care. Men control the strategic decisions: land allocation and crop choice in Togo, and decisions on relocation, asset protection and livelihood change during floods in Chad.
200. Differentiated needs. Each component meets needs that fall unevenly on women. Under Component 1, women in N'Djaména's flood zones run day-to-day crisis response yet sit on few preparedness committees, and they face harassment and violence at distant or poorly lit water points. Under Component 2, women in Avé 1 are shut out of resilience-building by insecure tenure and weak access to inputs, technology and cooperatives. Under Component 3, the collapse of the Zogbépimé market shelter, where over 95% of traders are women, cut incomes and forced longer trips to sell, and fewer than 2% of women in that area use formal banking. Under Component 4, women are largely absent from municipal and technical leadership in both countries.
201. Capacities and constraints. Women's adaptive capacity is held back by a consistent set of barriers: land they cannot own or control, financial inclusion below 20% in Chad and near-zero formal banking use among women at the Togo site, lower literacy (55.5% against 79.9% for men in Togo), restricted mobility, and time poverty from roughly two hours of unpaid care a day against thirty minutes for men. Climate shocks deepen each of these by raising care burdens and destabilizing incomes, so the same event leaves women with less room to recover than men.
202. Knowledge resources and informal leadership. Formal exclusion has not pushed women out of leadership. Women's associations run community flood response, water management and informal early warning in Chad, and women anchor trade, food processing and production networks in Togo. These structures, together with women's practical knowledge of water storage and local coping strategies, are the assessment's main entry points for inclusive climate governance, and the project deliberately routes activities through them rather than around them.
203. Evolving dynamics and implications for change. Gender relations in both countries are shifting. The Chad assessment notes movement among younger and more educated households, and Togo's 2018 Land Code recognizes women's land rights even though enforcement lags. These openings give the project room to support change, but they also carry risk: adding training, construction or new committees can lengthen women's working day or raise GBV exposure if designed carelessly. The assessment therefore links specific design choices, including scheduling around women's routines, childcare during activities, proximate and safety-enhanced water points, GBV referral pathways, and minimum participation thresholds for women, to a baseline and mid-term time-use assessment that will show whether the project is easing or adding to women's burden. At regional level, a full-time Gender and Social Inclusion Specialist in the RPMU and a shared, sex-disaggregated monitoring framework hold both countries to the same standard and let lessons move between them. The full analysis, indicators, targets and budgets are set out in the Gender Action Plan in Annex 3.

NB: Annex 8 visualizes the economic, social and environmental benefits of the ECOVERSE Project.

Table 3: Summary of ECOVERSE Project Benefits by Dimension (Economic, Social, and Environmental)

Dimension	Key Interventions	Quantified Benefits / Targets	Priority Groups

Economic	Climate-resilient agriculture, agroforestry, micro-irrigation; iCSEB production, flood-resilient housing construction; climate entrepreneurship support (training, mentorship, micro-grants, revolving savings)	450 ha climate-resilient agriculture established; 30 ha diversified agroecology supporting 150 farmers with ≥20% income gain (~USD 150/household/year); 3,000–4,700 total jobs and livelihood opportunities (1,195–1,900 temporary, 1,260–1,750 sustained, 530–1,040 indirect/induced); USD 1.46M–2.54M additional annual economic benefit	Women (≥50% of direct beneficiaries in Linia/Mandelia; 60% in Zogbépimé), women- and youth-led enterprises
Social	Inclusive governance in adaptation committees and cooperatives; proximate/safe water points; women-led savings groups; training in climate-smart practices, entrepreneurship, financial literacy; youth apprenticeships and leadership roles	Water collection time reduced by up to 2 hours/household/day; minimum 50% female participation in leadership and technical training; improved access to thermally comfortable buildings and secure water points for elderly and persons with disabilities	Women, youth, elderly, persons with disabilities
Environmental	Assisted natural regeneration, agroforestry enrichment, community-led reforestation, slope stabilization; green corridors and permeable drainage in urban/peri-urban zones	>2,000 ha of degraded forests, riverbanks and agricultural land restored; 20 ha restored in Zogbépimé sequestering ~100 tCO_2/year; reduced erosion, improved groundwater recharge, reduced urban heat and flood exposure	Rural and urban/peri-urban communities, biodiversity

H. Cost-effectiveness of the project.

204. ECOVERSE is designed to be both cost-effective and sustainable by prioritizing 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 organizations, and regional platforms. This approach minimizes 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.

205. Across all four components, ECOVERSE prioritizes nature-based solutions, locally sourced materials, decentralized 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.

206. 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.[5] 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.

207. 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,[6] 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.

[5] 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

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

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.[7] 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.[8] 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[9]. This further supports the case 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%.

208. 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, stabilizing 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 inclusive and preventive measures are particularly cost-effective, as they reduce reliance on repeated humanitarian and social protection expenditures following climate shocks.[10]

209. 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 modeling 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 modeling 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.

210. 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, decentralized 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 4: 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 prioritizes 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 [11] and delivers superior indoor thermal performance and enhanced flood resilience. Construction costs are estimated to be 20 to 30% lower than conventional approaches,[12] while maintenance is less expensive as local communities can undertake repairs without specialized contractors. Over the full building lifecycle, iCSEB construction offers a more cost-effective and	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 specialized contractors and imported materials for rehabilitation and reconstruction.

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

[8] 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

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

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

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

[12] 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

	climate-adapted solution for vulnerable households and public facilities.	
Urban flood management and heat reduction (Component 1)	For urban and peri-urban roads and drainage, the project favors 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[13] and reduce surface temperatures by up to 3 to 5°C in hot urban environments. [14] They are estimated to cost up to 70% less than equivalent concrete infrastructure [15] and provide co-benefits for groundwater recharge, biodiversity, and public comfort.	Centralized 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 prioritizes decentralized solar-powered water systems and community-managed rainwater harvesting over fuel-based pumping, water trucking, or large centralized 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.[16] 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.	Diesel pumping and water trucking carry very high recurrent costs, are vulnerable to fuel price volatility and supply disruptions, and are economically unsustainable in the long term. Water trucking costs in humanitarian contexts can reach approximately USD 10 per cubic meter, 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 stabilization, 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.[17]	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.[18] 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-subsidizes 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.

211. 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.

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

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

[15] 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

[16] 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

[17] 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

[18] 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

Table 5: 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 / socioeconomic buildings (iCSEB)	USD 200,000	USD 500 - 1,500	N/A	400 users per facility	20 - 30
Output 1.2 - Permeable drainage, roads, and shaded spaces	Permeable road and drainage (per km equivalent) - Chad only	To be determined during detailed design	To be determined	N/A	N/A	N/A
	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, labor-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 stabilization (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

212. *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.

213. *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[19]. Data and assumptions are drawn from stakeholder consultations with local engineers and from a review of peer-reviewed literature on stabilized 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, including avoided CO_2 emissions valued at the World Bank social price of carbon (USD 35 per tCO_2e)[20] and local employment generated through community-based block production and construction.

Table 6: 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[21]
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[22]
Social price of carbon (minimum value)	35	USD/tCO_2e	World Bank Shadow Price of Carbon Guidance Note (2023)[23]
Additional local jobs created per building	18	jobs	Osei-Tutu et al. (2024), ResearchGate[24]
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

214. 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.

215. *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.

Table 7: Initial costs and annual operating costs per hectare

	Agroforestry (USD)	Monoculture (USD)
Initial installation costs		
Soil preparation	200	275
Seeds and seedlings	275	150

[19] World Bank school construction standards. https://documents1.worldbank.org/curated/en/109291468007863249/pdf/488980PUB0prim101Official0Use0Only1.pdf
[20] World Bank (2023). Shadow Price of Carbon Guidance Note. https://documents1.worldbank.org/curated/en/099553203142424068/pdf/IDU1c94753bb1819e14c781831215580060675b1.pdf
[21] 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
[22] Djossou, A. et al. (2024). Embodied carbon assessment of compressed stabilised earth blocks. MDPI Buildings. https://www.mdpi.com/2075-5309/15/23/4362

[24] 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

Trees (plants and planting)	400	0
Fertilisers and inputs	125	500
Labor	250	200
Mechanization	100	275
Total installation cost	1,350	1,400
Annual operating costs		
Fertilisers	125	550
Labor	200	200
Mechanization 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 8: 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

216. 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 mechanization 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-monetized co-benefits including carbon sequestration, soil fertility recovery, erosion control, and enhanced watershed function that reinforce the investment case further.

217. *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 harmonized 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.[25]

218. The integrated regional design also generates knowledge and replication value that a single-country project could not produce. By operating across two ecologically and socioeconomically 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 the two project countries and contributing to replication across the Adaptation Fund portfolio at no additional cost per country. Given the fragility and conflict-affected context of Chad, the project also emphasizes 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.

219. *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.

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

220. 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 Zogbépimé, 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%.[26] In the target communities, women and girls travel between three and five kilometers to access water during the dry season in the absence of reliable rainwater harvesting systems[27], 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.

221. 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, stabilizing 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.

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

222. 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 T Chad's Tchad Connexion 2030, the National Development Plan (NDP 2025–2030)[28], 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. 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 2021–2025, 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 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)[29], 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.

223. 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

[26] IFAD (2023). Rural Vulnerability Assessment – Plateaux Region, Togo.
[27] 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
28 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
29 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

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. Annex 7 presents the project's consistency with regional, national, and sub-national sustainable development strategies of the project:

Table 9: Regional, national or sub-national sustainable development strategies.

Country / Region	Relevant strategy / plan	Year / Period	Relevant priorities	Consistency with the ECOVERSE project
Chad	Chad's Tchad Connexion 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 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	The project contributes to implementation of NAP priorities by delivering concrete adaptation

			• Water resources management • Resilient agriculture • Disaster risk reduction	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.

J. Alignment with relevant national technical standards

224. 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[30]. A detailed compliance framework, summarized in Table 10 below, maps each applicable standard to the relevant ECOVERSE activities and outlines the corresponding compliance approach.

225. In Chad, the project will comply with the new Environmental Protection Law (Loi n°023/CNT/2024 of 15 October 2024)[31], 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 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

30 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

31 République du Tchad. (2024). Loi n° 023/CNT/2024 portant protection de l'environnement. https://faolex.fao.org/docs/pdf/Cha231452.pdf

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.

226. 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.

227. 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.

228. 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 10: National technical standards applicable to ECOVERSE

Standard / policy	Scope & relevance	Compliance approach	Responsible Agency
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.	Ministry of Environment through the Directorate in charge of Environmental Assessments and Pollution Control (DEELCPN)
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 • Written clearance before works start • Integrate E&S requirements into procurement and supervision.	Ministry of Environment through the Directorate in charge of Environmental Assessments and Pollution Control (DEELCPN)
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	National level: Ministry of Water and Energy

		• Establish O&M and water-quality monitoring procedures for systems supported (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.	Ministry of Environment through the Directorate in charge of Environmental Assessments and Pollution Control
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.	• National level: Ministry of Land Use Planning, Urban Development and Housing through competent technical directorates. • Municipal level: Municipality of N'Djaména and concerned communes.
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 instruments and secure national clearance before works • Integrate mitigation & monitoring measures into ESMP and contractor obligations.	The National Environmental Management Agency (ANGE)
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 prior to works • Monitor implementation with periodic reporting.	Ministry of Environment and Forest Resources
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.	Ministry of Water and Sanitation and pertinent parastatals
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).	Municipal representatives of the Ministry of Regional Planning and Urban Development
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 constructio (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	Technical approval of designs and construction quality control.

K. Project duplication with other funding sources.

229. 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 11: Project duplication/complementarity with other funding sources

Project / Initiative	Areas of Intervention	Relevant Component	Complementarity	No Duplication
N'Djaména Urban Resilience Project (P177044) (World Bank)	N'Djaména – urban resilience, primary and secondary drainage, flood-risk management and urban transport infrastructure.	Component 1: Climate-Resilient Infrastructure	ECOVERSE's permeable community roads, green corridors and climate-resilient iCSEB housing in N'Djamena's 8th and 9th districts and peri-urban Linia and Mandelia provide neighbourhood-scale demonstrations that can inform the design and maintenance approaches of larger drainage and road investments	World Bank-financed works focus on primary and secondary drainage and transport infrastructure, while ECOVERSE targets distinct community roads and neighbourhoods. Site demarcation is confirmed through municipal mapping and GIS screening, ensuring that no AF resources finance infrastructure packages already covered
GEF Water Supply and Sanitation in Chad (GEF ID 10089) (GEF / Ministry of Environment, Water and Fisheries)	Chad – rural water supply and sanitation, climate-resilient water services and strengthening of national water-governance frameworks.	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 using technologies and standards consistent with national WASH policies. The project coordinates with the Ministry of Environment, Water and Fisheries so that ECOVERSE designs and O&M arrangements are aligned with the GEF scheme's norms while focusing on underserved neighbourhoods.	The GEF project focuses on rural populations and national water governance mainstreaming, while ECOVERSE intervenes in specific urban and peri-urban districts of N'djamena and Chari-Baguirmi that are not covered by the GEF scheme. Supply zones for ECOVERSE systems will be validated with the Ministry to avoid overlap with GEF-financed infrastructure, ensuring that AF resources fill last-mile gaps rather than duplicate existing or planned water investments.
World Bank Water Services Enhancement Project, Chad (P507957) (World Bank)	Selected areas of Chad – improvement of water and sanitation services, resilient water infrastructure and strengthening of sector governance and service delivery.	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 and strengthening community stewardship of water infrastructure.	World Bank investments are concentrated in specific service areas identified in the Water Services Enhancement Project, whereas ECOVERSE operates in delimited peri-urban neighbourhoods and communities that are outside those service zones. Site screening and coordination with the national water utility and World Bank country team will confirm that no ECOVERSE water systems are installed where the Bank is already financing similar infrastructure.

GCF USD 100 Million Commitment to Chad (2026) (Green Climate Fund)	Chad – prospective climate-investment pipeline aligned with Chad Connect 2030 and the revised NDC; specific investments and sites to be defined through subsequent GCF programming.	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 pipeline by generating community-scale, locally led adaptation evidence and replicable models for climate-resilient infrastructure, integrated land management and local adaptation finance that can inform GCF project design and targeting	The GCF commitment is a financing envelope and programme pipeline, not a defined site-level operation in ECOVERSE target areas. ECOVERSE will coordinate with the national GCF focal point during inception to ensure that its demonstration sites and approaches are used as inputs to GCF programming, while avoiding any overlap with GCF-financed investments once they are defined. AF resources therefore fund distinct pilot sites rather than co-financing the same activities or locations as GCF projects.
DIZA-Est (Developpement Inclusif des Zones d'Accueil Est) (AFD / Concern Worldwide)	Eastern Chad – livelihoods, economic inclusion and social cohesion for displaced and host communities, including group-based savings and community livelihood mechanisms.	Component 3: Local Adaptation Financing	DIZA-Est piloted inclusive livelihoods, social cohesion and group-based savings mechanisms in displacement-affected areas of eastern Chad. ECOVERSE uses lessons on community group formation, inclusive savings and vulnerable household engagement to design its micro-grant and revolving fund mechanisms under Component 3.	There is no geographic overlap, as DIZA-Est operates in eastern displacement zones while ECOVERSE targets urban and peri-urban communities in N'djamena and Chari-Baguirmi. The projects are complementary in that ECOVERSE adapts tested DIZA approaches to a different socio-spatial context.
DIZA-Sud (Developpement Inclusif des Zones d'Accueil Sud) (AFD / Swiss contact)	Southern Chad – livelihoods and economic integration of displaced and host populations, community enterprises, skills development and savings groups.	Component 3: Local Adaptation Financing	DIZA-Sud supported livelihoods and economic integration of displaced and host populations in southern Chad, including community enterprises and savings groups. ECOVERSE will organise a learning exchange with DIZA-Sud teams to adapt good practice on targeting women- and youth-led groups and on managing community enterprises.	DIZA-Sud is geographically focused in southern regions, not in N'djamena or Chari-Baguirmi. ECOVERSE operates in distinct districts and communes, thereby avoiding duplication of activities and beneficiaries while reusing proven methodologies.
UNDP/GEF Chad National Adaptation Plan Project (GEF-LDCF / UNDP)	National – adaptation planning, institutional capacity development and integration of climate adaptation into national and sectoral planning.	Component 4: Regional Knowledge and Institutional Strengthening	The completed NAP project strengthened national adaptation planning and produced Chadian NAP instruments across key sectors. ECOVERSE builds on this institutional foundation by generating operational evidence from community-level infrastructure and ecosystem-based adaptation in N'Djamena and Chari-Baguirmi that can feed into future NAP revisions.	No duplication exists as the NAP project has closed and focused on planning and capacity development at national level. ECOVERSE operates at implementation scale in specific localities, translating NAP priorities into concrete adaptation measures rather than replicating planning activities.

IFAD / GCF Climate-Resilient Agriculture Project, Chad (IFAD / GCF)	Chad – climate-resilient agriculture, rural livelihoods and agricultural resilience interventions at broader programme scale.	Component 2: Integrated Land Management	The IFAD–GCF project supports national-scale climate-resilient agriculture, while ECOVERSE tests an integrated agroforestry, erosion control and water-harvesting model in the peri-urban and rural fringe of Chari-Baguirmi, generating detailed evidence on small-catchment restoration in a fragile urban–rural interface.	ECOVERSE operates in a delimited set of communities around N'djamena, which are not prioritised in IFAD's main intervention zones. Coordination with IFAD's country team at inception will ensure geographic separation of plots and complementary technical packages rather than parallel support to the same farmers.
UNDP Togo Central Region Climate Resilience Project (USD 6.65M, approved 2025) (UNDP / GEF)	Togo Central Region – landscape restoration, regenerative/climate-smart agriculture and strengthening of landscape-scale resilience across five prefectures.	Component 2: Integrated Land Management	The UNDP project promotes restoration and climate-smart agriculture across five prefectures in the Central region (7,500 ha restoration; 35,000 ha regenerative agriculture), creating a body of experience on landscape-scale planning and governance. ECOVERSE complements this by piloting similar concepts in the forest–savanna transition of Zogbépimé.	ECOVERSE operates in Avé 1 Commune (Plateaux region), outside the Central-region implementation area of the UNDP project. Coordination with the environment and agriculture ministries will ensure no overlapping sites and that ECOVERSE's micro-catchment work is positioned as a distinct demonstration.
FAO/LDCF Coastal Communities Resilience Project, Togo (GEF-LDCF / FAO)	Togo – resilience of coastal and selected rural communities through climate-smart agriculture, natural-resource management and livelihood resilience.	Component 2: Integrated Land Management	FAO-led projects strengthen resilience of coastal and rural communities through climate-smart agriculture and natural resource management. ECOVERSE links to these by harmonising technical packages (e.g., soil and water conservation, agroforestry) and by sharing experience on local climate-finance mechanisms.	FAO projects focus primarily on coastal and selected rural zones, whereas ECOVERSE interventions are confined to Zogbépimé and associated communities in Avé 1. Beneficiary lists and sites will be cross-checked through national coordination mechanisms to avoid overlapping support to the same households.
West Africa Food System Resilience Program, Phase 1, Togo (World Bank)	Togo – food-system resilience, agricultural production and inputs, value-chain development and food-crisis preparedness, including interventions in Savanes, Kara and Centrale.	Components 2 and 3	FSRP supports food system resilience across Togo, including in 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 FSRP's primary food-system mandate, operating in Avé 1 Commune in the Plateaux region. Coordination with the World Bank country team will promote alignment of technical packages and knowledge sharing.	ECOVERSE operates exclusively in Avé 1 Commune in the Plateaux region, where FSRP has limited direct footprint. Geographic targeting and beneficiary lists will be cross-checked with the World Bank team to ensure that ECOVERSE does not finance the same interventions or farmers supported under FSRP, and instead provides complementary adaptation investments in a distinct area.
Great Green Wall (GGW) Regional Initiative (AU / UNCCD / multi-partner)	Sahel and participating countries, including Chad – dryland and landscape restoration, sustainable land management, resilience and restoration policy/coordination.	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. The	GGW provides a regional and national umbrella for restoration but does not itself finance the specific ECOVERSE micro-catchments. ECOVERSE intervention sites are selected outside already-financed GGW blocks, confirmed with national GGW focal structures

			project will share lessons through national GGW structures and regional platforms.	and GIS screening, so AF funds do not duplicate GGW-financed investments.
AFR100 (African Forest Landscape Restoration Initiative) (AU / multi-partner)	Africa-wide – forest and landscape restoration commitments, knowledge exchange, partnerships and mobilisation of restoration action at national and regional levels.	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.	AFR100 does not fund specific site-level interventions in ECOVERSE's target landscapes. ECOVERSE uses AFR100 as a dissemination and replication platform while ensuring that AF resources are focused on concrete restoration and adaptation investments in defined sites in Chad and Togo, with no risk of overlapping finance for the same activities.
REDD+ Forest Landscape Restoration, Togo (GEF / Government of Togo)	Togo – REDD+, forest landscape restoration, sustainable forest management, restoration policy and associated monitoring/MRV at broader landscape and national scales.	Component 2: Integrated Land Management	ECOVERSE's restoration and agroforestry in Zogbépimé (Avé 1 Commune) uses species lists and community-based stewardship approaches aligned with Togo's REDD and forest restoration frameworks. Monitoring data generated by ECOVERSE can support national MRV and landscape restoration targets.	REDD and national FLR programmes work at broader landscape and policy scales and in multiple prefectures, while ECOVERSE focuses on specific micro-catchments in Avé 1 Commune. Plot boundaries are agreed with forestry authorities to avoid overlapping restoration sites.

Further information on the relevant past and ongoing initiatives, including their geographic and thematic areas of intervention, implementation experience and lessons relevant to ECOVERSE design and implementation, is provided in Annex 5.

230. To ensure that no duplication arises during implementation, ECOVERSE will operate under a structured coordination framework embedded in the project's governance and annual work-planning arrangements. The portfolio of related initiatives mapped in Table 11 will be maintained as a living register by the NPMUs and consolidated regionally by the RPMU, updated at least annually ahead of each Annual Work Plan cycle. Complementarity and non-duplication will be a standing review item at RSC sessions at the point of Annual Plan endorsement; in this review, the National Designated Authorities of Chad and Togo (core RSC members with oversight of their respective national climate-finance pipelines) provide the primary safeguard against overlap with concurrently funded interventions.
231. At national level, the PMU in each country will participate in existing sector and climate-finance coordination platforms led by the ministries in charge of environment, water and agriculture, and will establish coordination protocols or MoUs with the principal overlapping initiatives listed in Table 10. These protocols will govern the exchange of GIS data, beneficiary targeting criteria and implementation schedules, and will be used to systematically cross-check planned ECOVERSE investments against the portfolios of other partners.
232. At local level, municipal and commune-level coordination platforms in N'Djaména, Chari-Baguirmi and Avé 1 Commune will include focal points from other projects operating in the same districts or communes, ensuring that micro-catchments, neighbourhoods and user groups are clearly delineated and that infrastructure and service packages are complementary rather than overlapping. This will be reinforced through joint site visits and the joint validation of annual community-level work plans.

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

233. 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.
234. 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.
235. 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. Attention will be given to documenting women's, youths, and indigenous peoples' experiences to ensure inclusive learning.
236. 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.
237. 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: GIS-based interface mapping intervention sites and progress; MEL dashboard tracking outputs, outcomes, and emerging lessons; and a structured knowledge library hosting validated case studies, technical guidelines, training materials, and multimedia content. Content will be updated semi-annually, with priority learning briefs uploaded following major implementation milestones, annual reviews, and mid-term evaluation.
238. 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.

239. 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.
240. 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 of the knowledge generation, learning and dissemination strategy; the following constraints and proposed actions will be considered:

Table 12: Knowledge generation, learning and dissemination strategy, the following constraints, 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.

M. Consultative process.

241. 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.
242. 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.
243. 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.
244. 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. The Togo consultative approach represents a cumulative and gender-

responsive process of engagement combining SSA's established relationship with the communities; mapping of 95 agricultural cooperatives and 38 women's groups across Avé 1; the 2023 socio-economic and ESIA consultations; the project-specific Gender Assessment and Action Plan; and the January 2026 supplementary Adaptation Fund-specific consultations. The latter provided a more targeted and documented layer of engagement, including sex- and age-disaggregated participation, differentiated concerns and direct links between community priorities and project design, rather than constituting a stand-alone consultation exercise. These consultations ensured substantial participation of women across all six consulted villages. The sex-disaggregated consultation records show 53 women participants, representing approximately 49% of participants recorded in the village-level sex-disaggregated data. Women's participation was distributed across all consultation sites: Zogbépimé – 8 women (61.5%); Houvé – 15 women (55.6%); Howuiévé – 9 women (52.9%); Agbozomé – 6 women (35.3%); Awatomé – 5 women (38.5%); and Zokopé – 10 women (45.5%). Women representing various groups were close to half of consultation participants overall, with participation exceeding 50% in three of the six villages.

245. 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 to strengthen transparency, accountability, and local ownership.

246. 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.

247. 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.

248. 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.

249. 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.

250. For each consultation event, Annex 4 (Consolidated Consultation Report) provides a separate entry specifying the participants, the main feedback received, the concrete project outputs and design features that resulted

from each consultation, and the specific gender and vulnerable-group considerations that were raised and how they have been integrated into the project design—as well as full attendance lists, focus group summaries, field photographs, and georeferenced infrastructure data.

251. 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.

252. 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.

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

253. 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.

254. 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 stabilization 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.

255. The requested financing covers the full cost of designing, piloting, institutionalizing, and scaling climate-resilient systems that would not materialize 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 labor, 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.

256. 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 maximizing the adaptation impact of each dollar invested.
257. 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, stabilized 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.
258. 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 13: 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 labor 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 inadequate and urban greening is minimal, increasing health risks and damage to homes, roads, and livelihoods.	Green corridors, permeable pavements, shade trees, and improved micro drainage are established in high-risk neighborhoods 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, stabilizing 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 prioritized 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 prioritize and finance locally led resilience initiatives on a sustained basis.
	Community Participation	Marginalized groups have limited voice in local planning. Adaptation decisions often fail	Inclusive community adaptation committees and leadership training ensure meaningful participation

	and Governance	to reflect gender, age, disability, and social inclusion needs, weakening ownership and long-term sustainability.	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.

O. Project sustainability.

259. 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 presented below:

260. Institutional and policy sustainability: The sustainability of ECOVERSE is anchored in the systematic integration of all four components within existing national, sub-national, 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.

261. 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.

262. Financial and economic sustainability: ECOVERSE's financial sustainability is anchored primarily in locally managed finance and reinvestment mechanisms under Component 3, designed to keep adaptation resources circulating within participating communities beyond project closure. Savings and lending groups, revolving adaptation funds and micro-grants will provide continued access to locally managed capital for eligible adaptation investments, livelihood activities and the maintenance or replacement of small-scale productive assets. These mechanisms will be linked to the community structures responsible for infrastructure, water systems, irrigation, nurseries and ecosystem-management activities under Components 1 and 2, allowing locally generated savings, repayments and livelihood revenues to contribute progressively to recurrent costs and reinvestment. Public financing will play a complementary role, particularly for public infrastructure and services that fall within municipal or sector mandates, with relevant authorities encouraged to progressively incorporate eligible O&M requirements into annual budgets and investment plans. This combination reduces dependence on continued external grant financing while retaining financing and decision-making as close as practicable to the communities managing the adaptation investments.

263. Private-sector engagement and incentives for EbA: ECOVERSE will reinforce this local financing model by developing local markets for climate-resilient products and services. For iCSEB, project-supported construction will generate initial demand while training local artisans and block producers, establishing technical standards and demonstrating the technology. This will create a local supply base able to continue selling block-production, construction, repair and maintenance services to households, local businesses, municipalities and contractors after project closure, generating income that sustains local skills and production capacity. For EbA, private landholders and producers adopting agroforestry, soil and water conservation and restoration practices will benefit from technical assistance, planting material supplied through community nurseries on a limited cost-recovery basis, and access to eligible local adaptation-finance mechanisms under Component 3. These measures reduce initial adoption costs, while more resilient production, improved soil and water conditions and income from agroforestry and other climate-resilient products provide the economic incentive to maintain and expand EbA practices. Community nurseries, producer organisations, artisans and other local service providers will therefore form part of the local economic ecosystem through which adaptation investments can continue and replicate beyond the project period.
264. 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.
265. 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.
266. 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 continues 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.
267. 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).

268. Social Sustainability: ECOVERSE will address structural inequalities by embedding inclusion in project governance, access to benefits and accountability mechanisms, in addition to participation in training. Women, youth, persons with disabilities, displaced persons and other vulnerable groups identified through consultations and safeguards screening will, on a best-effort basis, be represented in relevant community management structures, including CBNRM committees, water-user structures and community adaptation-finance mechanisms, with opportunities to participate in decisions on the prioritization, management and use of project-supported resources. Transparent, vulnerability-based eligibility and selection criteria will be applied to adaptation finance, livelihood support and other targeted benefits to reduce the risk of capture by better-positioned households or groups. Gender-related barriers identified through the Gender Assessment, including unequal access to productive resources, finance and decision-making, will be addressed through the GAAP, including targeted access to project opportunities and strengthened participation of women in community-level decisions. Community infrastructure will also incorporate accessibility considerations for people living with disabilities and other mobility-constrained users. Access to benefits and participation in decision-making will be monitored by sex, age and relevant vulnerability characteristics through the MEL, GAAP and safeguards systems, with corrective measures applied where exclusion or unequal access is identified. The project GRM will provide an additional accessible channel for affected and marginalized groups to raise concerns related to discrimination, exclusion or inequitable access to project benefits.

269. 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.

270. 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. Annex 6 has been included explaining country-differentiated sustainability arrangements to complement project sustainability structured by main intervention.

P. Environmental and social impacts and risks identified.

271. 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 classified as Category B.

272. 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.

273. 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.

274. 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.

275. The project includes a limited number of partially Unidentified Sub-Projects (USPs) under Components 1, 2 and 3, where the activity typology, technical standards and geographic scope are fixed at design stage while the final siting, parcels or beneficiaries are confirmed during implementation. The USPs are needed because the precise location of flood-resilient infrastructure, water-harvesting works and ecosystem restoration parcels depends on flood-risk, hydrological and degraded-land assessments that can only be produced at inception, and the community adaptation finance under Component 3 is by design demand-driven, so fixing sites or beneficiaries now would direct investment by assumption rather than evidence and weaken community ownership. Many of the assessments are also required given the data poor context in both LDC countries. All USPs are of the partially unidentified type, in conformity with AF guidelines, and operate within a fixed framework of admissible interventions, grant and loan caps, and a project-wide exclusion list established at design stage. The full justification for the use of USPs, the four-step ESP and Gender Policy screening process, and the related management and monitoring arrangements are set out in the ESMP (Annex 2).

Table 14: Environmental and social impacts and risks identified

Environmental and Social Principle	No Further Assessment Required	Potential Impacts/Risks and Management Measures
Compliance with the Law		Risk level: Moderate. Principle always applies under the ESP. Potential impacts and risks: works could begin before the required municipal authorisations, environmental permits or ESIA clearances. Permitting requirements span two regulatory regimes and must be confirmed as individual USP sites are identified. Compliance will be managed through pre-works clearance, a permit and license register, contractor clauses, and periodic legal compliance reviews. USP screening will identify and secure the specific permits, licences and ESIA/EIA clearances required for each confirmed site and activity type before works begin.
Access and Equity		Risk level: Moderate. Potential impacts and risks: Geographic isolation, deprivation and unequal access may result in benefits bypassing remote or disadvantaged groups. Risks will be managed through transparent beneficiary selection, targeted outreach, mapping of access barriers and disaggregated participation monitoring. USP screening will confirm at each site that the selected location and beneficiaries do not exclude remote or disadvantaged groups.
Marginalized and Vulnerable Groups		Risk level: Moderate. Potential impacts and risks: Female-headed households, IDPs, persons with disabilities, youth and elderly persons may face barriers to participation and benefits. Managed through inclusive planning, targeted outreach, participation targets and vulnerability-sensitive monitoring. USP screening will identify which vulnerable groups are present at each confirmed site and set site-specific inclusion measures.
Human Rights		Risk level: Low. No significant human-rights risks have been identified. Residual risks include information-access barriers, exclusion from consultations and discriminatory contractor practices. These will be addressed through Codes of Conduct, multilingual disclosure, inclusive consultations and an accessible GRM. USP screening will check each confirmed site for human-rights risks, including language access and contractor conduct, before the sub-project is cleared.
Gender Equity and Women's Empowerment		Risk level: Moderate. Potential impacts and risks: Structural gender inequalities could limit women's participation and access to benefits, cause benefits to flow disproportionately to men, leave women's participation in committees and revolving-fund governance symbolic, and expose women to SEAH or increased unpaid workload. Risks are addressed through the Regional Gender Assessment and Gender Action Plan (Annex 3), participation targets, gender-responsive measures, SEAH provisions and sex- and age-disaggregated monitoring.

		USP gender screening will assess site-specific barriers to women's participation and confirm the applicable GAAP measures for each activity and beneficiary group.
Core Labor Rights		Risk level: Moderate. Principle always applies under the ESP. Potential impacts and risks: Civil works and land-management activities may create OHS, working-condition, discrimination and child-labour risks. These will be managed through ILO-aligned contractor requirements, OHS protocols, fair-wage and non-discrimination provisions, child-labour prohibitions and worker grievance mechanisms. USP screening will assess site-specific labour and OHS risks for each works sub-project and apply contractor labour clauses before works begin.
Indigenous Peoples		Risk level: Low. No Indigenous Peoples have been identified in confirmed intervention areas. Potential impacts and risks: if seasonally mobile pastoralist or other groups meeting the Indigenous Peoples criteria intersect with restoration sites or water points, activities could affect their lands, resources or customary seasonal access. USP screening will nevertheless verify this at site level, particularly where mobile pastoralist groups may be present. If applicable communities are identified, the required assessment culturally appropriate consultation and FPIC process will be completed before activities proceed.
Involuntary Resettlement		Risk level: Low. Physical displacement is not anticipated, as works will primarily use existing public, municipal or communal footprints. Potential impacts and risks: inadvertent restriction of seasonal access to plots, pasture, fuelwood sites or informal commerce in customary-tenure or informally-occupied areas. Residual effects are managed through an Abbreviated Process Framework, participatory site selection and livelihood or access-restoration measures. Potential economic displacement or access restrictions will be screened at USP level and managed through avoidance and livelihood/access restoration measures where required before the sub-project is approved.
Protection of Natural Habitats		Risk level: Low. No protected areas, Ramsar sites, World Heritage properties or critical habitats have been identified within confirmed intervention sites. Potential impacts and risks: works adjacent to seasonal wetlands or species selection in restoration plantings could disturb sensitive habitats. Residual risks will be managed through site screening, avoidance of sensitive habitats and and technical guidelines. USP screening will check each confirmed site against protected areas, Ramsar sites and critical habitats and apply the project exclusion list before clearance.
Conservation of Biological Diversity		Risk level: Moderate. Potential impacts and risks: Restoration, nursery and agroforestry activities may interact with local biodiversity. Risks will be managed through native-species preference, exclusion of invasive species, biodiversity-sensitive site screening and appropriate farmer and contractor training. USP screening will assess biodiversity interactions and species suitability at each confirmed restoration, nursery or agroforestry site.
Climate Change		Risk level: Low. The project is not expected to generate significant GHG emissions and is designed to deliver adaptation and mitigation co-benefits. Potential impacts and risks: Minor construction and transport emissions will be minimized through efficient logistics, appropriate technologies and climate-smart materials. Emissions are minimised through efficient logistics, appropriate technologies and climate-smart materials, and the project is designed for adaptation and mitigation co-benefits. USP screening will confirm that each sub-project's design and materials keep emissions minimal and preserve the intended adaptation co-benefits.
Pollution Prevention and Resource Efficiency		Risk level: Moderate. Potential impacts and risks: Construction and land-management activities may generate dust, noise, waste, runoff and sedimentation. Risks will be managed through construction and waste-management protocols, agroecological pest management, runoff controls and dust suppression, with site-specific ESMPs where required. USP screening will identify site-specific pollution, waste and runoff risks for each construction or land-management sub-project and set control measures before works begin.
Public Health		Risk level: Low. Potential impacts and risks: standing water at new boreholes if poorly designed (mosquito-vector risk) and worker-community interaction at construction sites could create localised public-health and safety risks. The project is designed to reduce existing flood-, water- and sanitation-related health risks. Residual construction, standing-water and community health risks will be addressed through appropriate design, health and safety measures, awareness activities and monitoring. USP screening will assess site-specific construction, standing-water and community-health risks at each confirmed location and set the applicable safeguards.

Physical and Cultural Heritage		Risk level: Low. Potential impacts and risks: earth-moving or construction near sacred forests, shrines or cemeteries could disturb known or previously unrecorded cultural or heritage features. Known culturally sensitive locations can be avoided through site planning. Risks will be managed through site screening, consultation with communities and traditional authorities, avoidance measures and chance-finds procedures. USP screening will check each confirmed site for cultural or heritage features, with chance-find procedures applied before and during works.
Lands and Soil Conservation		Risk level: Moderate. Potential impact and risk: earth-moving and construction activities could cause localised soil erosion, compaction or instability on already-degraded land. Activities interact with already degraded soils and may cause localized erosion, compaction or instability if poorly implemented. Risks will be managed through soil screening, erosion-control measures, appropriate construction standards and rehabilitation of disturbed areas. USP screening will assess soil condition, erosion and slope-instability risks at each confirmed site and specify erosion controls and rehabilitation accordingly.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Project implementation and management arrangements.

276. 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.

277. 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 harmonization, 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.

278. 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. 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. 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 an 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. OSS will also establish, host, and manage the project-level Grievance Redress Mechanism (GRM), ensuring it is accessible, transparent, impartial, confidential, predictable, and publicized 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.

279. 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 harmonization 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 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. For activities relying on pre-existing formal networks or institutional arrangements notably the South-South Climate-Resilient Construction Learning and Replication Network under Output 4.2, the specific roles, responsibilities, and coordination modalities with network partner institutions are described to complement the general EE arrangements set out above. This does not extend to a full activity-by-activity breakdown, as the EEs will identify and formalize operational partners at grassroots level during implementation and report on these arrangements annually through the PPRs. 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

280. 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.
281. *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 operationalization of the Revolving Fund for Adaptation (Component 3) in partnership with qualified national financial institutions.
282. *ADIDE* acts as the local executing entity responsible for field-level implementation and community mobilization 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.
283. 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).
284. *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 operationalization of the Revolving Fund for Adaptation in Togo.
285. *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.
286. *IFAD-Togo* is the project's specialized 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.

287. 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 institutionalization of ECOVERSE-validated approaches within national technical systems.

Governance structure

288. The *Regional Steering Committee (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.

289. 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, Togo and representatives of the Executing Entities. Additional observers may be invited as appropriate, including representatives from relevant regional organizations, civil society networks, women's and youth organizations, 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.

290. 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.

291. To complement the responsibilities identified and specifically referencing component 4 activities that depend on external institutional collaboration such as the adaptation finance policy dialogue functions, implementation will be supported through formal cooperation arrangements, including MoUs, participation letters, or technical partnership agreements, as appropriate. These instruments will clarify but not limit focal institutions, technical roles, participation expectations, and knowledge product use, while preserving clear fiduciary responsibility within the project's approved implementation structure.

292. 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)

293. 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.

294. 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)

295. 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)

296. 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 harmonized 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.

297. 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)

298. 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.

299. 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

300. All EEs 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 EE 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 utilization 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

301. 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.
302. 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.
303. 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

304. 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 organizations 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% of 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 marginalized 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.

ECOVERSE Institutional Roles and Responsibilities for project Implementation:

Table 15: Responsibility Matrix

Entity / Structure	Role and Responsibilities
Regional Implementing Entity (RIE) – OSS *(Does not undertake direct execution of project activities; operational execution remains the responsibility of the REE and*	• Holds overall fiduciary accountability to the Adaptation Fund and oversees project performance across Chad and Togo. • Reviews and approves consolidated national Annual Work Plans and Budgets (AWPBs), Procurement Plans, budgets and progress reports. • Ensures compliance with Adaptation Fund fiduciary requirements, Environmental and Social Policy (ESP), Gender Policy and applicable project agreements.

designated EEs as specified for each activity)	• Provides oversight of environmental and social safeguards, gender commitments, procurement, financial management, monitoring and evaluation, and facilitates independent audits and evaluations. • Establishes, hosts and oversees the project-level Grievance Redress Mechanism (GRM). • Provides quality assurance and technical backstopping to the REE and EEs, including review of technical approaches and implementation performance. • Consolidates and submits required project-level reports to the Adaptation Fund.
Regional Steering Committee (RSC) *(Provides strategic oversight but does not directly execute project activities.)*	• Provides strategic direction, policy oversight and high-level guidance for the regional project. • Reviews and endorses regional and national AWPBs and Procurement Plans prior to approval in accordance with project governance arrangements. • Facilitates coordination between Chad and Togo and addresses strategic or inter-institutional implementation issues requiring regional-level decisions. • Reviews consolidated implementation progress, results, risks, safeguards and gender performance. • Supports alignment of ECOVERSE with national and regional adaptation priorities and promotes institutional ownership of project results.
Regional Executing Entity (REE) – AAF *(For activities executed nationally, AAF provides regional coordination and harmonisation but does not substitute for the designated national lead EE.)*	• Leads execution of regional and cross-country activities assigned to AAF in the activity descriptions, including relevant activities under Component 4. • Leads regional coordination of cross-country learning, knowledge exchange, replication and policy dialogue. • Coordinates implementation approaches across Chad and Togo and promotes consistency in methodologies, MEL approaches, reporting formats and knowledge products. • Consolidates national implementation information and supports regional planning, supervision, adaptive management and reporting. • Provides demand-driven technical and coordination support to EEs and NPMUs where cross-country harmonisation is required. • Reports on regional activities under its responsibility to OSS and ensures compliance with applicable project requirements.
Regional Project Management Unit (RPMU) *(Provides programme-management support to AAF and does not replace the execution responsibilities assigned to AAF or the national EEs.)*	• Supports AAF in the day-to-day coordination and management of regional and cross-country implementation. • Serves as Secretariat to the RSC and follows up on its decisions. • Consolidates information received from the NPMUs for regional planning, monitoring and reporting. • Coordinates regional MEL systems, spatial monitoring, knowledge-management tools and cross-country information exchange. • Develops and disseminates harmonised implementation, monitoring and reporting tools for use across both countries. • Tracks implementation progress and issues requiring regional coordination and supports their resolution by the responsible entities.

National Steering Committees (NSCs)
(Provide strategic and institutional oversight without assuming operational responsibility for project activities.)
	• Provide national-level strategic guidance and facilitate coordination among ministries, local governments, EEs and other participating institutions.
	• Review and endorse national AWPBs, Procurement Plans and implementation priorities.
	• Review national implementation progress, risks, safeguards and gender performance and facilitate resolution of issues requiring government or inter-institutional action.
	• Support alignment of project implementation and results with NAPs, NDCs and national/local development priorities.
	  o **Chad:** chaired by the Ministry responsible for environmental issues, currently the Ministère de l'Environnement, de la Pêche et du Développement Durable (MEPDD)
	  o **Togo:** chaired by the Mayor of Avé 1 Commune.

Chad Executing Entity – Triple Capital Tchad (TCC)	• Acts as Lead Responsible Party for the Chad activities assigned to TCC in Part II.A and as a supporting party for activities where its specialised technical or financial expertise is required.

	• Leads upstream technical structuring and specialised technical execution in Chad, including feasibility and technical studies, infrastructure planning and design, and operationalisation of the adaptation-finance mechanism. • Coordinates implementation of activities under its responsibility with ADIDE, decentralised technical services, local authorities and community structures. • Ensures technical quality and safeguards compliance and is accountable for timely delivery of the activities and outputs assigned to it. • Reports implementation progress, expenditure, risks and results through the Chad NPMU in accordance with its Subsidiary Agreement with OSS.
Chad Executing Entity – ADIDE	• Acts as Lead Responsible Party for the Chad activities assigned to ADIDE in Part II.A and as a supporting party for activities requiring its community-level and field implementation capacities. • Leads community-based and field-level execution in Chad, particularly community mobilisation, environmental and ecosystem restoration, climate-resilient agriculture, natural-resource management and associated community activities. • Leads participatory planning, beneficiary engagement and establishment or strengthening of community structures required for activities under its responsibility. • Coordinates with TCC and relevant national and decentralised technical services where complementary technical expertise is required. • Supports operation, maintenance and community stewardship arrangements for project -supported assets and natural resources. • Ensures safeguards, gender and social-inclusion requirements are applied during field implementation and reports through the Chad NPMU in accordance with its Subsidiary Agreement with OSS.
Togo Lead Executing Entity – Sustainable Solutions for Africa (SSA)	• Acts as Lead Responsible Party for the Togo activities assigned to SSA in Part II.A, with responsibility for national execution and technical coordination of Components 1, 2 and 3 and relevant activities under Component 4. • Leads technical structuring, adaptation design, field execution and coordination of participating institutions and technical services for activities under its responsibility. • Leads the design and operationalisation of the Revolving Fund for Adaptation in Togo. • Coordinates with DE/MERF on environmental, regulatory and institutional aspects of implementation and institutionalisation of results. • Sub-contracts and supervises IFAD-Togo for the specified vocational and technical training activities. • Delivers farmer training on sustainable land management and climate-smart agriculture under Activity 2.1.4. • Supports community financial and climate-literacy training under Activity 3.2.2. • Ensures technical quality and compliance with fiduciary, safeguards, gender and reporting requirements for activities under its responsibility. • Reports national implementation progress, expenditure, risks and results through the Togo NPMU in accordance with its Subsidiary Agreement with OSS.
Togo – Directorate of Environment / MERF (DE/MERF)	• Provides governmental leadership, institutional anchoring and oversight for ECOVERSE implementation in Togo, ensuring alignment with national priorities, environmental and adaptation policies, and applicable regulatory frameworks. • Acts as the principal governmental, environmental and regulatory counterpart, facilitating coordination with relevant ministries, decentralised technical services and local authorities. • Supports field execution where environmental management, ecosystem restoration, regulatory compliance and mobilisation of governmental technical services are required. • Facilitates national ownership and the institutionalisation of ECOVERSE approaches, evidence and results within relevant technical systems and adaptation-planning processes, including the NAP and NDC. • Works in close coordination with SSA, which supports project delivery through the operational and fiduciary functions assigned to it under the agreed implementation arrangements.
Togo – IFAD-Togo (Does not assume responsibilities for field	• Acts as the specialised training delivery partner for the activities specifically assigned to it in Part II.A, under contract with SSA.

execution beyond its specified training mandate.)	• Delivers artisan and mason training on climate-resilient/iCSEB construction techniques under Activity 1.1.3. • Supports integration of ECOVERSE technical content into vocational curricula and training-of-trainers arrangements under Activity 4.1.2. • Coordinates training delivery with SSA and relevant technical and beneficiary institutions. • Reports training delivery, participation and results to SSA for consolidation within project reporting.
National Project Management Units (NPMUs)	• Coordinate day-to-day operational management and follow-up of national implementation without replacing the execution responsibilities assigned to the Lead Responsible Parties. • Coordinate preparation and consolidation of national AWPBs, budgets and Procurement Plans based on inputs from the responsible EEs. • Track each activity against its designated Lead Responsible Party, supporting parties, expected outputs, budget, implementation schedule and results. • Coordinate field-data collection and operation of national MEL and reporting systems, including safeguards, gender and GRM information. • Consolidate quarterly and annual implementation reports for transmission to the RPMU, REE and RIE. • Identify and escalate implementation bottlenecks, delays and risks to the responsible EE and relevant governance structure.
Local Governments and Decentralised Technical Services	• Provide local implementation, regulatory and sectoral support to the Lead Responsible Party for the activities in which they are identified in Part II.A. • Support site identification and validation, participatory planning and mobilisation of local stakeholders within their respective mandates. • Facilitate local permitting, land-use compliance and other applicable regulatory requirements. • Provide sector-specific technical inputs and field supervision in coordination with the responsible EE. • Facilitate linkages between communities, EEs and national institutions. • Participate in agreed arrangements for operation, maintenance and institutional sustainability of project -supported assets where these fall within their mandates.
Community Structures and Beneficiary Organisations	• Participate in implementation of the activities in which they are identified as supporting parties, under the technical responsibility of the designated Lead Responsible Party. • Participate in co-design, site-level planning and implementation of community-based adaptation interventions. • Participate in beneficiary and site-level decision-making, including representation of women, youth and vulnerable groups. • Assume agreed responsibilities for operation, maintenance and stewardship of community-managed infrastructure, water systems, agroforestry, restoration and other programme-supported assets. • Participate in community-based monitoring and provide an accessible entry point to the GRM. • Participate in and, where applicable, contribute to governance of savings groups, revolving adaptation-finance mechanisms and livelihood activities. • Provide feedback on implementation performance, accessibility and sustainability to the responsible EEs and local authorities.

Activity-Level Allocation of Implementation Responsibilities

This complements Table 13: Responsibility Matrix, ECOVERSE Institutional Roles and Responsibilities for project Implementation by identifying the lead and supporting entities for the principal areas of intervention. It should be read together with the detailed activity descriptions in Part II.A. The allocation below does not modify the institutional mandates established in Table 13; rather, it clarifies how those mandates apply at component and intervention level.

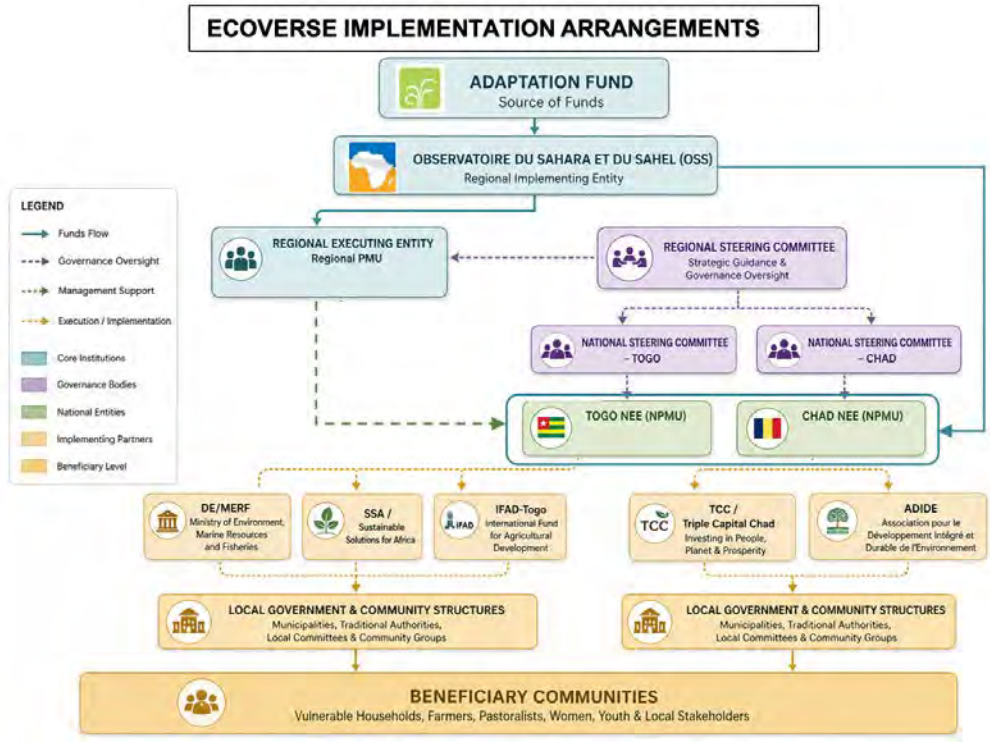
Table 16: Activity-level Responsibility Matrix

Component / Intervention	Chad – Lead Responsible Party	Togo – Lead Responsible Party	Supporting Parties and Specific Roles

Component 1 – Climate-resilient infrastructure and nature-based solutions	TCC, with ADIDE supporting community mobilization and stewardship arrangements	SSA	Local governments and decentralized technical services support site identification and validation, permitting, land-use compliance, sector-specific technical inputs and O&M arrangements. Community structures support participatory design, local implementation and stewardship of community-managed assets.
iCSEB construction and climate-resilient buildings	TCC	SSA	In Togo, IFAD-Togo delivers artisan and mason training on climate-resilient/iCSEB construction under Activity 1.1.3. Local governments and community structures support site-level planning, beneficiary engagement and agreed O&M arrangements.
Climate-resilient roads, drainage and green corridors	TCC	SSA	Municipalities and decentralised public works/urban planning services support site validation, permitting and technical supervision. Community structures participate in local planning and stewardship arrangements.
Climate-resilient water infrastructure	TCC and/or ADIDE, according to the specific activity responsibilities defined in Part II.A	SSA	Relevant water services and local authorities provide sectoral and regulatory support; community and water-user structures participate in planning, management and agreed O&M arrangements.
Component 2 – Land, ecosystem and water resilience	ADIDE, with TCC providing specialised technical support where assigned in Part II.A	SSA	In Togo, DE/MERF provides governmental leadership, institutional anchoring and environmental/regulatory support. Relevant agriculture, forestry, environment and water services provide sector-specific support. Community and producer organisations participate in implementation and stewardship.
Agroforestry and climate-smart agriculture	ADIDE	SSA	Agriculture and forestry technical services and farmer organisations support technical delivery, beneficiary engagement and uptake. In Togo, DE/MERF facilitates relevant governmental and environmental coordination.
Ecosystem and landscape restoration	ADIDE	SSA	In Togo, DE/MERF provides governmental, environmental and regulatory support and facilitates coordination with relevant technical services. Forestry/environment services and community organisations support field implementation and stewardship.

Water harvesting and irrigation	ADIDE and/or TCC, according to the specific activity responsibilities defined in Part II.A	SSA	Water and agriculture services provide sector-specific technical support. Local governments and water-user/community structures support site-level implementation, management and O&M.
Component 3 – Locally led adaptation finance	TCC, with ADIDE supporting community-level engagement where assigned	SSA	Participating financial institutions and community structures/savings groups support delivery and governance of the relevant financing mechanisms within their defined mandates.
Financial and climate literacy	TCC and/or ADIDE, according to the activity allocation in Part II.A	SSA	Participating financial institutions and community structures support beneficiary outreach and financial-literacy activities in accordance with the relevant activity arrangements.
Component 4 – Knowledge, institutional strengthening and regional learning	TCC and/or ADIDE for nationally assigned activities	SSA, with DE/MERF providing governmental leadership, institutional anchoring and support for institutionalisation	AAF leads the regional and cross-country activities assigned to it, including regional harmonisation, knowledge exchange, replication and policy dialogue. IFAD-Togo supports vocational curriculum integration and training-of-trainers under Activity 4.1.2.
Evidence generation and knowledge management	TCC and/or ADIDE for Chad-specific activities	SSA, with DE/MERF supporting governmental uptake and institutionalisation	AAF leads activities designated as regional or cross-country, including consolidation and exchange of evidence. OSS provides quality assurance and programme-level oversight within its RIE mandate.
South–South learning and cross-country exchange	TCC and ADIDE, according to the relevant activity	SSA, with DE/MERF supporting engagement with national institutions	AAF leads regional coordination, cross-country learning, knowledge exchange and replication functions. Relevant national technical institutions participate in learning and knowledge uptake.
Adaptation-finance knowledge, institutional uptake and policy dialogue	TCC and/or ADIDE, according to the relevant activity	SSA, with DE/MERF supporting governmental engagement and institutionalisation	AAF leads regional coordination and policy-dialogue functions assigned to it. Relevant ministries, financial institutions and other national stakeholders support uptake and dissemination within their mandates.

Figure 3: Implementation arrangements of the ECOVERSE project.



B. Measures for financial and project risk management.

305. 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. 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 considering the AF's ESP screening criteria.

Table 17: ECOVERSE Financial and Project risk management

Nbr.	Category	Risk Area	Context Risk	Country	Level	Prob.	Key Mitigation Measures	Responsible
1	Financial	Financial management	Multiple fund flows across RIE, REE and NEEs increase risks of misallocation, idle balances and late reconciliations, especially in remote areas with weak banking.	Chad & Togo	M	M	Financial Management (FM) manual with clear segregation of duties; dual signatories for disbursements > USD 5,000; ceiling-based advances; monthly reconciliations; quarterly financial reviews;	RIE, REE, NEEs, NPMUs

							annual external audits; tranches released only after justification of previous advance.	
2	Financial	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	Financial	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	Financial	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/ Security	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	RIE, REE

							procedures; quarterly review of political context and early dialogue with AF Secretariat if needed.	
6	Political/ Security	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
7	Social/safeguards	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)
8	Social/safeguards	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
9	Social/safeguards	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
10	Social/safeguards	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	NPMUs, NEEs, REE

							national guidance for epidemics.	
11	Climate/ environmental	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 12water designs; climate indicators in routine field reports; climate-related clauses in works contracts.	NPMUs, NEEs, RPMU, RIE
12	Climate/ environmental	Environmental and social safeguards	Civil works and land-based activities may cause local environmental impacts or restrict access for some groups if not screened and managed.	Chad & Togo	M	M	ESP and gender screening for all sub-projects; ESMPs prepared where required; safeguards clauses in contracts; supervision checklists that include E&S items; GRM available before works start; annual ESP compliance review by RIE.	RIE (ESP), NEEs, REE
13	Technical/ uptake	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
14	Institutional	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
15	Institutional	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
16	Institutional	Digital and connectivity	Low access to electricity and internet limits use of the digital knowledge	Chad (H) / Togo (M)	M	H	Use of offline capable data tools; provision of solar-powered tablets to field teams; SMS-based	RPMU, REE, NPMUs

			hub and real-time reporting tools.				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.	

(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

306. In accordance with the AF Environmental and Social Policy (ESP), ECOVERSE has been classified as a **Category B** project. Activities across the four components (including small-scale construction and rehabilitation of climate-resilient infrastructure, community-based water harvesting, agroforestry development, ecosystem restoration, and community adaptation finance) carry some minor site-specific, reversible, and manageable environmental and social risks. The project does not involve large-scale land conversion, involuntary physical resettlement, hazardous materials, or irreversible ecological change, and no activity triggers Category A requirements. A full Environmental and Social Management Plan (ESMP) is provided in Annex 2, including the risk significance matrix, per-principal risk narratives and substantiating evidence, the mitigation and monitoring table (Table 6 of Annex 2).

307. Risk significance methodology. Inherent risks, assessed before the application of project-level mitigation, are scored using a two-dimensional impact × probability matrix (each dimension 1–5), producing scores from 1 to 25. Scores of 4 or below indicate Low significance; 5–12 indicate Moderate; 15 and above indicate High. No activity under ECOVERSE generates a High inherent risk score. Any activity that would do so is excluded under the AF Category A criteria and may not proceed.

308. Summary of risk ratings across the 15 ESP Principles. Eight principles are rated Moderate and seven are rated Low, as summarized below. Detailed narratives and mitigation measures for each principle are provided in Table 1 and Table 6 of Annex 2, respectively.

Table 18: Summary table of risk ratings across 15 ESP principles

ESP Principle	Inherent Risk	Score
1. Compliance with the Law	Moderate	9
2. Access and Equity	Moderate	9
3. Marginalized and Vulnerable Groups	Moderate	9
4. Human Rights	Low	4
5. Gender Equity and Women's Empowerment	Moderate	9
6. Core Labor Rights	**Moderate**	12
7. Indigenous Peoples	Low	2
8. Involuntary Resettlement	Low	4
9. Protection of Natural Habitats	Low	4
10. Conservation of Biological Diversity	**Moderate**	9
11. Climate Change	Low	4
12. Pollution Prevention and Resource Efficiency	**Moderate**	12
13. Public Health	Low	4
14. Physical and Cultural Heritage	Low	4
15. Lands and Soil Conservation	**Moderate**	12

309. Moderate-risk principles: The eight Moderate ratings reflect inherent structural conditions and activity-related risks rather than anticipated significant or irreversible harm. Compliance risk (P1) arises from permitting requirements across two regulatory regimes and will be managed through a permit register and pre-works clearance. Access and equity risk (P2), and risks affecting marginalized and vulnerable groups (P3), arise from geographic isolation, limited project resources and structural barriers to participation. These will be addressed through transparent beneficiary selection, targeted outreach, accessible communication, participation targets and disaggregated monitoring. Gender equity and women's empowerment risk (P5) reflects inequalities in land access, unpaid care and water-collection burdens, access to finance and decision-making. These risks will be managed through the Regional Gender Assessment and Gender Action Plan, women's participation targets, gender-responsive financial products, SEAH provisions and sex- and age-disaggregated reporting. Core labor rights risks (P6), including OHS, working-condition, discrimination and child-labor risks, will be managed through ILO-aligned contractor requirements, Codes of Conduct and worker grievance mechanisms. Risks to

biodiversity (P10) from restoration, nursery and agroforestry activities will be addressed through native-species preference, exclusion of invasive species and biodiversity-sensitive screening. Pollution and resource-efficiency risks (P12), including dust, noise, waste, runoff and sedimentation, will be managed through construction, waste-management and pollution-control protocols. Lands and soil conservation risks (P15), including localized erosion, compaction and instability, will be addressed through soil screening, erosion controls, appropriate construction standards and rehabilitation of disturbed areas.

310. Low-risk principles: The seven Low ratings reflect limited, site-specific and readily manageable risks. No significant human-rights risks have been identified (P4); residual risks relating to access to information, inclusive consultation and contractor conduct will be managed through multilingual disclosure, Codes of Conduct and an accessible GRM. No Indigenous Peoples have been identified in the confirmed intervention areas (P7). Physical displacement is not anticipated because works will primarily use existing public, municipal or communal footprints, while any potential economic displacement or access restrictions will be addressed through avoidance and livelihood or access-restoration measures (P8). No protected areas, Ramsar sites or critical natural habitats have been identified within confirmed intervention sites, and sensitive habitats will be avoided (P9). The project is expected to deliver adaptation and mitigation benefits, with only minor construction and transport emissions anticipated (P11). Public health risks are limited and will be managed through appropriate design, health and safety measures, awareness activities and monitoring (P13). Physical and cultural heritage risks will be addressed through consultation with communities and traditional authorities, avoidance measures and chance-find procedures (P14).

311. Unidentified Sub-Projects (USPs): ECOVERSE includes partially unidentified sub-projects under Components 1, 2 and 3, in accordance with AF Decision B.39/52. The USPs are unidentified only by location, micro-site or beneficiary; their typologies, technical standards, financing caps and exclusion criteria are fixed at design stage. Full identification was not feasible because the siting of flood-resilient roads, drainage and water-harvesting infrastructure under Outputs 1.2 and 1.3 depends on flood-risk and hydrological mapping to be completed at inception. Similarly, the selection of restoration and agroforestry sites under Outputs 2.1 and 2.3 requires participatory land-degradation assessment and tenure verification, while sub-loans and sub-grants under Output 3.1 are demand-driven and require transparent beneficiary mobilization and eligibility screening. These identification activities are scheduled early in implementation and must be completed before the relevant sites or beneficiaries are confirmed. Where national regulations require additional site-specific studies, these will be incorporated into the applicable Annual Work Plan and Budget and implementation schedule. Before implementation, each USP will undergo the mandatory four-step ESP and Gender Policy process comprising risk identification, impact assessment, mitigation design and AWPB integration, followed by formal no-objection clearance from OSS as the RIE. USP-specific risks and mitigation measures will be recorded in the USP activity register and reported through annual Project Progress Reports. The USP activity register and project-wide exclusion list are provided in Tables 1 and 2 of Annex 2.

312. Environmental and social risk mitigation measures. A comprehensive mitigation framework is operationalized through the ESMP (Annex 2, Table 6), which sets out specific measures, responsible parties, timing, and monitoring indicators for each identified risk. The following summarizes the principal mitigation architecture by risk area:

313. For the eight Moderate-rated principles, targeted mitigation is integrated into project design and implementation. Legal compliance risk (P1) will be managed through a permit and licence register, pre-works clearance, contractor compliance clauses and periodic legal reviews. Access and equity risk (P2), and risks affecting marginalized and vulnerable groups (P3), will be addressed through transparent beneficiary selection, targeted and multilingual outreach, accessible communication, participation targets and disaggregated MEL. Gender equity and women's empowerment risk (P5) will be managed through the Regional Gender Assessment and Gender Action Plan, women's participation targets, gender-responsive financial products, gender-sensitive infrastructure siting, dedicated SEAH focal points, Codes of Conduct, confidential GRM pathways and sex- and age-disaggregated reporting. Core labor rights risks (P6) will be addressed through ILO-aligned contractual requirements, OHS protocols, fair-wage and non-discrimination provisions, child-labor prohibitions and worker grievance mechanisms. Biodiversity risks (P10) will be managed through biodiversity-sensitive site selection, preference for native species, exclusion of invasive species and appropriate farmer and contractor training. Pollution and resource-efficiency risks (P12) will be mitigated through construction and waste-management protocols, dust and noise controls, agroecological pest management and runoff and sediment controls. Lands and soil conservation risks (P15) will be managed through soil and erosion screening, appropriate engineering and land-management standards, erosion-control measures and rehabilitation of disturbed areas.

314. For the seven Low-rated principles, mitigation measures are standard and proportionate. Residual human-rights risks (P4) will be addressed through inclusive consultations, multilingual disclosure, non-discrimination requirements, contractor Codes of Conduct and an accessible GRM. Where communities meeting the applicable criteria for Indigenous Peoples are identified, culturally appropriate consultation and FPIC requirements will be applied before activities proceed (P7). Potential economic displacement or restrictions on access to land and resources will be addressed through avoidance, participatory site selection, tenure verification and livelihood or access-restoration measures where required (P8). Natural-habitat risks will be managed through habitat-sensitivity checks, avoidance of protected and sensitive areas and application of the project exclusion list (P9). Minor construction and transport emissions will be minimized through efficient logistics, appropriate technologies and climate-smart materials (P11). Public health risks will be managed through health-sensitive infrastructure design, construction safety measures, community awareness and monitoring (P13). Physical and cultural heritage will be protected through consultation with communities and traditional authorities, avoidance measures, pre-works heritage checks and chance-find procedures (P14).
315. Cumulative and project -level risks, including watershed hydrological balance, landscape biodiversity shifts from large-scale planting, aggregated social equity dynamics across sites, and the long-term operation and maintenance burden on municipalities, are addressed through a project -level cumulative impact matrix with standardized indicators linked to the MEL dashboard and annual RSC review processes (Annex 2).
316. Principles 1, 4 and 6 will be continually monitored throughout project implementation.

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

317. 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.
318. 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, analyze, and report information from project partners and stakeholders to ensure transparency and continuous learning.
319. 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.
320. 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.
321. 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. All M&E indicators will be disaggregated by sex, age, disability status and displacement status, and the Gender Assessment and Action Plan (GAAP) will be monitored as a standalone instrument with its own indicator set reviewed at mid-term and final evaluation.
322. 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 19: 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 including USPs. • 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*	• Developing and implementing the project's operational plan and M&E framework.

monitoring and evaluation activities across the project.	• 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 analyzing 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.

323. *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 M&E framework; and Clarify roles and responsibilities of project partners including those related to ESMP and GAAP monitoring.
324. *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 and will include dedicated protocols for environmental and social safeguard monitoring, USP screening and tracking, and gender-responsive data collection. A centralized monitoring database and digital dashboard will be established to facilitate real-time data entry and reporting across participating countries with modules for ESMP compliance tracking, GRM case management, and GAAP indicator reporting. 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 including safeguard and gender monitoring.
325. *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: Socioeconomic conditions of target communities; Climate vulnerability and exposure; Gender inequalities and social inclusion gaps (including data disaggregated by sex, age, disability and displacement status); Ecosystem conditions and natural resource management practices; and Livelihood opportunities and climate-resilient economic activities; and the status of identified environmental and social risks—together providing a benchmark against which ESMP performance will be measured.

Monitoring and Reporting:

326. 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 as well as the status of ESMP mitigation measures and any environmental or social incidents recorded during the quarter.
327. *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 and contain a dedicated annex on ESMP and GAAP implementation status and GRM activity. 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.
328. 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. It will also assess the effectiveness of ESMP and GAAP implementation and the degree to which environmental, social and gender risks identified at design have been adequately managed. The evaluation will be conducted by an independent consultant.

329. A *final evaluation* will be conducted within 9 months of the termination date 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; and overall performance of the ESMP and GAAP over the project lifecycle. The results of the evaluation will be presented during the project closure workshop and submitted to the AF.
330. 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 including a summary of environmental and social safeguard performance.

Project Grievance mechanism

331. 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.
332. 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.
333. 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.

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334. *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.
335. *Complaint Filing:* Any individual or community 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.
336. *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.
337. *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.
338. 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.

339. 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.
340. Below is the grievance mechanism flow diagram:

Figure 4: Grievance mechanism flow diagram for the ECOVERSE project.



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

341. 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.
342. 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.
343. The ESMP defines site-specific mitigation measures, monitoring parameters, responsible parties, and indicators for each of the 15 AF ESP principles applicable to the project. These parameters are incorporated directly into the M&E Manual and Results Framework so that ESMP compliance is tracked as part of the standard quarterly and annual reporting cycle. National M&E experts are responsible for consolidating environmental monitoring data, including but not limited to vegetation cover and seedling survival, topsoil erosion rates, water quality and water-table levels, construction-site pollution (dust, noise, waste), biodiversity indicators, and sacred-site and cultural-heritage integrity, into quarterly monitoring reports annexed to all Annual PPRs submitted to the AF.
344. Each USP requires a completed ESP screening checklist, a commensurate impact assessment, site-specific mitigation measures, and a validated Environmental and Social Summary Note submitted to OSS for formal written no-objection before implementation may proceed. Once approved, site-specific monitoring parameters are integrated into the project ESMP and the activity-level AWPB and will be reported in the Annual PPR dedicated USP section. USPs that trigger any criterion on the project-wide exclusion list e.g., involuntary resettlement, conversion of natural habitats, impacts on indigenous peoples without FPIC, or large-scale hard engineering works are excluded from implementation.

Social risk monitoring and gender-responsive tracking

345. Social risks including risks of elite capture, exclusion of marginalized groups, gender-based violence and SEAH, and violations of core labor rights will be tracked through a combination of sex and age disaggregated beneficiary monitoring, community participation records, GRM logs, and field supervision missions. GAAP indicators will also be monitored. Minimum representation targets (≥50% women and youth) are tracked through sex and age disaggregated attendance records at all trainings, governance and planning events.

346. All reports submitted to the AF e.g., PPR will include updates in the ESMP section towards 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

347. 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 20: 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	RIE/ REE	15,000																
Design of M&E System and Manual	REE, RIE	35,000																
Assessments including baseline	EEs, RIE	80,000																
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		**990,000**																

Table 21: 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	114,500																
Final evaluation	RIE	138,000																
Project completion report	RIE	70,000																
Final project audit	RIE	30,000																
TOTAL		**352,500**																

NB: Costs related to M&E have been broken down within the RIE and EE managements fees

348. The total budget allocated to monitoring and evaluation activities is estimated at approximately USD 1,342,500, 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 Part II.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 22: 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 including ESMP and GAAP
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, ESMP and GAAP indicators
Baseline studies and assessments	Establish baseline values for indicators	Outcome indicators and impact indicators	Climate vulnerability levels, ecosystem conditions, livelihoods, gender inclusion, ES risk status

M&E digital database and dashboard	Manage and consolidate monitoring data across countries	All outputs and outcomes	Enables integrated tracking of technical, environmental, social and gender indicators
Quarterly M&E meetings and progress reports	Track implementation progress and address operational challenges	Outputs across all components	Monitoring of activity delivery, capacity-building, ESMP compliance status, GRM case resolution
Quarterly field monitoring visits	Verify project implementation on the ground and assess progress	Outputs and outcomes	Ecosystem restoration, climate-resilient livelihood, infrastructure quality, safeguard compliance
Annual joint monitoring missions	Assess progress toward project outcomes and identify implementation issues	Outcome indicators	Climate resilience improvements, ecosystem restoration, institutional strengthening, ESMP compliance
Annual monitoring reports	Consolidate progress reports and track Results Framework indicators	Outputs, outcomes and impact indicators	Annual progress toward AF indicators, ESMP and GAAP performance
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 and safeguard compliance objectives
Mid-term evaluation	Assess progress toward achieving project outcomes and identify adjustments needed	Outcomes	Effectiveness of adaptation and safeguard interventions, progress toward climate resilience and gender equality objectives
Project completion report	Document results, lessons learned and best practices	All outputs and outcomes	Achievement of Results Framework targets, ESMP and GAAP lifecycle performance
Final evaluation	Evaluate overall project impact, effectiveness and sustainability	Impact indicators	Long-term resilience outcomes and sustainability of interventions, ESMP and GAAP final performance
Final project audit	Ensure accountability and compliance with financial procedures	All outputs	Financial accountability and safeguard compliance supporting project delivery

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

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

349. 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 50% 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.

350. **Project Objective:** *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.*

Table 23: ECOVERSE Results Framework

IMPACT

Project Results	Indicator	Disaggregation Categories	Baseline	Mid-term Target	Final Target	Means of Verification – Methods and Sources	Responsible Party and Role	Frequency	Risks, Assumptions, Notes
Impact 1: Strengthened climate resilience and adaptive capacity of vulnerable communities in Chad and Togo	Number of direct beneficiaries supported to strengthen their climate resilience	Country; sex; youth (15–24); vulnerable groups	0 people	48,000 people	80,000 people, comprising 45,000 Chad and 35,000 Togo; ≥40,000 women; ≥15,000 youth	Beneficiary registry; household surveys; geo-referenced intervention records; mid-term and final evaluations	National EEs: verify beneficiary eligibility and results at intervention level. NPMUs: maintain and consolidate sex-, age- and country-disaggregated beneficiary data. AAF: consolidate regional data. OSS: quality-assure and report project -level results to AF.	Continuous registration; quarterly consolidation; annual reporting; MTR/final verification	Risk: severe climate events, political/security disruption. Assumptions: continued government commitment, community participation and implementation continuity.

COMPONENT 1 – Integrated approach to climate-resilient infrastructure

Project Results	Indicator	Disaggregation Categories	Baseline	Mid-term Target	Final Target	Means of Verification – Methods and Sources	Responsible Party and Role	Frequency	Risks, Assumptions, Notes
Outcome 1: Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	Number of target communities with a documented reduction in climate-related disruption of essential services	Country; hazard/service type	0 communities	≥4 communities	≥8 communities	Engineering monitoring; community service-disruption logs; flood/thermal monitoring; beneficiary surveys	TCC (Chad) / SSA (Togo): lead implementation and verify technical performance. Local authorities: maintain service/O&M records. NPMUs: consolidate outcome data. AAF: regional consolidation. OSS: QA and oversight.	Semi-annual; annually reported	Risk: climate extremes exceed design thresholds. Assumption: infrastructure remains functional and O&M commitments are maintained.
Output 1.1: Climate-resilient infrastructure constructed or upgraded	Number of iCSEB residential units constructed and commissioned	Country	0 units	3 units	5 units	Completion certificates; technical inspections; geo-referenced asset register	TCC / SSA: lead technical execution and certify completion. Local authorities: support permitting and inspection. NPMUs: record results.	Quarterly	Risks: material supply and extreme-weather delays. Assumption: designs and permits approved.
	Number of masons and artisans trained and certified in iCSEB and low-carbon construction techniques	Country; sex; youth	0 masons/artisans trained	80 trained (≥40 women/youth)	180 trained and certified (≥70 women/youth)	Training and certification records	TCC / SSA: lead technical execution and certify completion. Local authorities: support permitting and inspection. NPMUs: record results.	Quarterly	Assumption: skilled trainers available; sustained trainee interest.
	Number of community maintenance plans formally adopted and funded	Country	0 maintenance plans adopted	4 adopted and funded	8 adopted and funded	Maintenance plan documents	TCC / SSA: lead technical execution and certify completion. Local authorities: support permitting and inspection. NPMUs: record results.	Quarterly	Assumption: community and municipal commitment to O&M.
	Number of community/public structures upgraded using climate-resilient standards	Country; structure type	0 structures	≥4 structures	≥12 structures	Completion certificates; engineering inspection reports; asset register	Same as above; community structures support site-level verification and agreed stewardship	Quarterly	Same as above
Output 1.2: Flood-resilient roads, permeable drainage systems, and green urban corridors implemented	Kilometres of priority roads rehabilitated/flood-proofed to climate-resilient standards	Country; infrastructure type	0 km	Proposed: ≥4 km	≥14 km	Engineering completion certificates; GIS; municipal road records	TCC / SSA: technical implementation and reporting. Municipal public works services: validate works and maintenance. NPMUs: consolidate.	Quarterly	Risk: extreme rainfall and construction delays. Assumption: municipal maintenance commitments sustained.

	Number of trees established in project-supported green corridors	Country	0 trees	40,000 trees	120,000 trees (80,000 Chad; 40,000 Togo)	Planting records; geo-referenced inventories; 12-month survival assessments	TCC / SSA: implementation oversight. Local authorities/community structures: stewardship and field records.	Seasonal/annual	Risk: drought/tree mortality. Assumption: watering and community stewardship maintained.
Output 1.3: Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure	Number of solar-powered pumping and purification systems installed and operational	Country	0 systems	4 systems	12 systems	Commissioning certificates; operational logs; water-quality testing	TCC/ADIDE (Chad, according to activity allocation) / SSA (Togo): execution and verification. Water services: technical/regulatory support. Water committees: O&M records.	Quarterly	Risks: groundwater stress, vandalism and maintenance gaps. Design service level: ≥8,000 L/day per operational system.
	Number of households trained in WASH practices	Country; sex	0 households trained in WASH	1,500 households (≥750 women)	3,000 households (≥1,500 women)	WASH training records; household survey data	TCC/ADIDE (Chad, according to activity allocation) / SSA (Togo): execution and verification. Water services: technical/regulatory support. Water committees: O&M records.	Quarterly	Assumption: functional community water governance.
	Number of rainwater collection units installed and operational	Country	0 units	60 units	120 units	Installation records; field inspection; asset register	Same responsible entities; community water structures support operation and reporting	Quarterly	Assumption: systems maintained and climatic conditions permit effective use.

COMPONENT 2 – Integrated Land Management for Agricultural, Ecosystem and Water Resilience

Project Results	Indicator	Disaggregation Categories	Baseline	Mid-term Target	Final Target	Means of Verification – Methods and Sources	Responsible Party and Role	Frequency	Risks, Assumptions, Notes
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	Hectares of ecosystems and natural resources brought under protection, restoration or improved climate-resilient management	Country; ecosystem/resource type; protection/restoration/management	0 ha	1,200 ha	3,500 ha: ≥1,800 Chad; ≥1,700 Togo	GIS/remote sensing; field verification; land-management records; ecological monitoring	ADIDE (Chad) / SSA (Togo): lead field implementation/data verification. TCC: specialized technical support where assigned. DE/MERF: governmental/environmental anchoring in Togo. NPMUs: consolidate. AAF: regional aggregation.	Semi-annual GIS updates; annual reporting	Risks: drought, bushfire, land-tenure disputes. Assumptions: community stewardship and access arrangements remain effective.
Output 2.1: Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	Hectares rehabilitated and placed under project-supported agroforestry management	Country	0 ha	300 ha	600 ha	GIS maps; field surveys; agroforestry registers; survival monitoring	ADIDE / SSA: lead establishment and field verification. Relevant agriculture/forestry services provide technical support.	Seasonal; annually consolidated	Risk: seedling mortality/grazing. Assumption: seasonal establishment and community protection maintained.
	Number of community nurseries established and operational	Country	0 community nurseries	6 operational	10 operational	Nursery production records	ADIDE / SSA: lead establishment and field verification. Relevant agriculture/forestry services provide technical support.	Seasonal; annually consolidated	Assumption: community management of nurseries sustained.
	Number of agroforestry seedlings produced and distributed annually	Country; species	0 seedlings produced	120,000 per year	260,000 per year	Seedling production and distribution logs	ADIDE / SSA: lead establishment and field verification. Relevant agriculture/forestry services provide technical support.	Seasonal; annually consolidated	Risk: seedling mortality; grazing pressure.
	Number of farmers trained in agroforestry and sustainable land management (SLM)	Country; sex; youth	0 farmers trained	600 (≥270 women/youth)	2,800 (≥45 women or youth in every 100)	Training attendance lists	ADIDE / SSA: lead establishment and field verification. Relevant agriculture/forestry services provide technical support.	Seasonal; annually consolidated	Assumption: extension support available.
	Number of Farmer Field	Country	0 FFS	8 established	16 established and operational	FFS reports	ADIDE / SSA: lead establishment and field verification. Relevant	Seasonal; annually consolidated	Assumption: farmer participation sustained.

	Schools and demonstration plots established						agriculture/forestry services provide technical support.		
	Number of trained farmers confirmed applying at least one SLM practice	Country; sex	0 (follow-up survey to establish)	Interim follow-up survey	≥1,680 farmers	Post-training follow-up surveys	ADIDE / SSA: lead establishment and field verification. Relevant agriculture/forestry services provide technical support.	Seasonal; annually consolidated	Assumption: adoption sustained beyond training.
Output 2.2: Erosion control infrastructure implemented across agricultural and risk-prone landscapes	Hectares rehabilitated through structural and/or biological soil and water conservation measures	Country; measure type	0 ha	30 ha	80 ha	GIS/erosion maps; engineering inspection; soil/vegetation assessments	ADIDE / SSA: field execution. TCC: specialized engineering support where assigned. Technical services validate works.	Semi-annual	Risk: extreme rainfall damaging structures. Assumption: maintenance arrangements remain functional.
	Number of check dams and water-retention structures constructed	Country; structure type	0 check dams	4	8	Construction and inspection records	ADIDE / SSA: field execution. TCC: specialized engineering support where assigned. Technical services validate works.	Semi-annual	Risk: extreme rainfall damaging structures.
	Number of farmers trained in soil and water conservation (SWC)	Country; sex; youth	0 farmers trained	300 (≥135 women/youth)	600 (≥270 women/youth); follow-up surveys to confirm adoption in ≥360 farmers	Training lists; farmer surveys	ADIDE / SSA: field execution. TCC: specialized engineering support where assigned. Technical services validate works.	Semi-annual	Assumption: continued extension support.
	Kilometres of contour bunds and erosion-control structures established	Country; structure type	0 km	≥4 km	≥10 km	Construction and inspection records; GIS	Same as above	Semi-annual	Same as above
Output 2.3: Degraded forest, rangeland, and riparian ecosystems restored for biodiversity and climate-risk reduction	Hectares restored through ANR, enrichment planting and related ecosystem-restoration measures	Country; ecosystem type	0 ha	200 ha	600 ha	GIS; remote sensing; vegetation surveys; ecological monitoring	ADIDE / SSA: lead restoration. DE/MERF: environmental/regulatory coordination in Togo. Forestry services/community structures support stewardship.	Seasonal; annually reported	Risks: drought, fire, grazing and tenure conflict. Assumption: community protection rules remain effective.
	Number of CBNRM governance structures established and operational	Country	0 CBNRM bodies	4 formed	8 operational with legally recognised structures	Committee registration and governance records	ADIDE / SSA: lead restoration. DE/MERF: environmental/regulatory coordination in Togo. Forestry services/community structures support stewardship.	Seasonal; annually reported	Assumption: effective CBNRM governance.
	Number of riparian buffer sites restored	Country	0 riparian buffer sites	—	≥4 sites restored	GIS and vegetation survey data	ADIDE / SSA: lead restoration. DE/MERF: environmental/regulatory coordination in Togo. Forestry services/community structures support stewardship.	Seasonal; annually reported	Risk: drought/fire limiting regeneration.
	Number of seedlings procured and planted for ecosystem restoration	Country; species	0 seedlings planted	20,000	40,000	Planting records	ADIDE / SSA: lead restoration. DE/MERF: environmental/regulatory coordination in Togo. Forestry services/community structures support stewardship.	Seasonal; annually reported	Risk: seedling mortality.
	Number of peri-urban reforestation sites established	Country	0 sites	2 active	≥4 established	Ecological monitoring; community reports	ADIDE / SSA: lead restoration. DE/MERF: environmental/regulatory coordination in Togo. Forestry services/community structures support stewardship.	Seasonal; annually reported	Assumption: community stewardship.

Output 2.4: Community water harvesting, conservation, and irrigation systems strengthened	Number of project-supported water-harvesting and irrigation systems installed and operational	System type: micro-reservoir/farm pond; drip irrigation; solar pumping	0 systems	15 micro-reservoirs/farm ponds; 40 drip systems	60 micro-reservoirs/farm ponds; 100 drip-irrigation systems; 80 solar-pumping systems	Commissioning records; technical inspections; water-use records	ADIDE/TCC (Chad, according to activity allocation) / SSA (Togo): execution and technical verification. Water/agriculture services and WUAs support operation and records.	Quarterly/seasonal	Risks: drought/groundwater depletion. Assumption: water systems maintained and efficiently used.
	Number of Water User Associations (WUAs) formed and operational	Country	0 formal WUAs	10	≥30	WUA registration and governance records	ADIDE/TCC (Chad, according to activity allocation) / SSA (Togo): execution and technical verification. Water/agriculture services and WUAs support operation and records.	Quarterly/seasonal	Assumption: functional maintenance systems.
	Number of caretakers trained in operation and maintenance (O&M)	Country; sex where collected	0 caretakers trained	≥10	≥30	Training records	ADIDE/TCC (Chad, according to activity allocation) / SSA (Togo): execution and technical verification. Water/agriculture services and WUAs support operation and records.	Quarterly/seasonal	Risk: poor maintenance/turnover.

COMPONENT 3 – Access to Adaptation Financing

Project Results	Indicator	Disaggregation Categories	Baseline	Mid-term Target	Final Target	Means of Verification – Methods and Sources	Responsible Party and Role	Frequency	Risks, Assumptions, Notes
Outcome 3: Improved access to and effectiveness of adaptation finance at local level	Number of community adaptation initiatives financed and remaining operational with documented climate-adaptation and financial-performance evidence	Country; beneficiary group; financing type	0 initiatives	≥20 initiatives	60 initiatives	Revolving-fund portfolio reports; field verification; beneficiary records; case studies	TCC (Chad) / SSA (Togo): lead mechanism implementation and performance reporting. ADIDE: community-level support in Chad. Partner financial institutions: portfolio records. NPMUs: consolidate. AAF: regional reporting.	Quarterly portfolio monitoring; annual reporting	Risks: repayment/income shocks, governance weakness. Assumptions: sustained demand and transparent fund governance.
Output 3.1: Revolving adaptation finance mechanism established, capitalised, and operationalized	Number of partner financial institutions with operational revolving adaptation-fund arrangements	Country; institution type	0 institutions	2 institutions with signed operational frameworks	2 institutions operational	Signed agreements; operational manuals; portfolio-management records	TCC / SSA: lead operationalization and oversight. PFIs: administer financing under agreed arrangements. NPMUs: verify reporting.	Quarterly	Risks: regulatory/fiduciary bottlenecks. Assumption: selected institutions continue to meet applicable requirements.
	Number of adaptation loans or grants disbursed	Country; beneficiary group; financing type	0 loans/grants disbursed	40	80	Loan disbursement and repayment records	TCC / SSA: lead operationalization and oversight. PFIs: administer financing under agreed arrangements. NPMUs: verify reporting.	Quarterly	Risk: slow fund uptake.
	Revolving-fund repayment rate	Country	Not applicable at start (0 loans issued)	—	≥85%	Portfolio management reports; audited financial statements	TCC / SSA: lead operationalization and oversight. PFIs: administer financing under agreed arrangements. NPMUs: verify reporting.	Quarterly	Risk: income shocks reducing repayment.
	Cumulative capital placed into operational revolving adaptation funds	Country	USD 0	USD 1,500,000	USD 2,800,000	Bank statements; audited financial reports; fund accounts	TCC/SSA verify capitalization; PFIs maintain ring-fenced financial records; OSS exercises fiduciary oversight	Quarterly; annual audit	Fiduciary controls and traceability maintained.
Output 3.2: Financial institutions and community members trained on adaptation finance integration and climate literacy	Number of partner-financial-institution staff completing adaptation-finance/climate-risk training	Country; institution; sex where collected	0 staff	30 staff	60 staff (≥2 cohorts per country)	Training records; pre/post assessments; certification	TCC / SSA: coordinate delivery and record results. PFIs: nominate/retain staff. NPMUs verify data.	Per training cycle; annually consolidated	Risk: staff turnover. Assumption: institutional commitment sustained.
	Number of community members completing financial and climate-literacy training	Country; sex; youth/vulnerable group	0 people	1,200 people, including ≥600 women/youth	3,000 people, including ≥1,500 women/youth	Attendance registers; training assessments; beneficiary records	TCC/ADIDE / SSA: community mobilization/delivery according to assigned responsibilities; NPMUs consolidate disaggregated data	Per training cycle	Assumption: target groups remain able and willing to participate.

COMPONENT 4 – Regional knowledge, learning and institutional strengthening

Project Results	Indicator	Disaggregation Categories	Baseline	Mid-term Target	Final Target	Means of Verification – Methods and Sources	Responsible Party and Role	Frequency	Risks, Assumptions, Notes
Outcome 4: ECOVERSE adaptation models are validated, institutionalised in national technical systems, and	Number of national/sub-national institutions formally adopting or referencing ECOVERSE guidance in	Country; scale; institution type	0 institutions	≥4 institutions	≥8 institutions (≥4 per country)	Policy/planning documents; formal endorsements; curriculum records	AAF: coordinates regional evidence/replication. National EEs: facilitate national validation and uptake. DE/MERF: governmental	Annual	Risks: institutional turnover/policy inertia. Assumption: government

positioned for replication across African drylands and forest-savanna transition zones	planning, technical or training systems						anchoring and institutionalization in Togo. OSS: quality assurance.		and institutional commitment sustained.
Output 4.1: Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	Number of validated ECOVERSE adaptation evidence/practitioner reference products produced and disseminated	Product type; thematic area	0 products	2 products	2 validated evidence/practitioner reference products	Published products; validation records; dissemination records	AAF and national EEs: coordinate evidence generation/validation. OSS: QA. Relevant technical institutions validate.	Annual	Risks: data-quality/validation delays.
	Number of vocational/technical institutions formally integrating ECOVERSE technical content into curricula	Country; institution type	0 institutions	2 institutions with integration underway	4 institutions with formally adopted curriculum content	Curriculum documents; institutional endorsement letters	SSA: coordinates Togo implementation. IFAD-Togo: Activity 4.1.2 curriculum integration/ToT within its defined training mandate. Chad EEs coordinate relevant institutions.	Annual	Assumption: technical institutions maintain commitment to curriculum integration.
Output 4.2: South-South Climate-Resilient Construction Learning and Replication Network Operationalised	Number of institutions formally participating in the South–South learning and replication network	Country/institution type	0 institutions	10 institutions	20 institutions	Network membership/governance records; participation registers	AAF: leads network establishment and regional coordination. National EEs and governmental counterparts: facilitate national institutional participation. OSS: QA/oversight.	Semi-annual	Risks: competing institutional priorities/travel constraints. Assumption: peer-country demand for structured learning remains strong.
	Number of standardised climate-resilient construction replication toolkits validated and disseminated	Toolkit/theme	0 toolkits	1 toolkit under pilot validation	2 toolkits validated and disseminated	Toolkit publications; validation reports; distribution records	AAF coordinates regional production; EEs/technical institutions support testing and validation	Annual	Assumption: technical evidence remains sufficient for replication.
Output 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established	Number of State of Community Adaptation Finance in Africa reports produced and disseminated	Report/year	0 reports	2 reports	4 reports	Published reports; dissemination records	AAF: leads regional knowledge product. National EEs/PFIs: provide project evidence. OSS provides QA.	Annual	Risks: data gaps; limited regional participation.
	Number of revolving-fund replication and capitalisation strategies developed and validated	Regional	0 strategies	—	1 developed and validated	Strategy document; validation records	AAF: leads regional knowledge product. National EEs/PFIs: provide project evidence. OSS provides QA.	Annual	Assumption: DFI and peer-country interest in the model.
	Number of high-level adaptation-finance policy dialogues convened	Regional/national	0 dialogues	1 dialogue	1 dialogue	Dialogue proceedings; participant records; policy briefs	AAF: lead convening and policy engagement. National counterparts facilitate participation.	As programmed	Assumption: continued policy interest in locally led adaptation finance.

351. The table below sets out the four applicable AF core indicators, showing baseline values, approval targets, a Year 1 adjustment column, a completion column, gender/youth disaggregation, asset categories, and natural asset protection/rehabilitation targets. Quantitative baselines are set at 0 unless a qualitative AF scoring scale is used, in which case the baseline condition is shown as 1 = no assets / ineffective / fully degraded. Targets are aligned with the project results framework and should be reviewed and confirmed during Year 1 implementation through household surveys, beneficiary registration, technical assessments, and project monitoring records

Table 24: AF Core indicator table for ECOVERSE

AF Core Indicator (CI)	Sub-category / Disaggregation	Baseline	Target at Project Approval	Adjusted Target at Year 1	Actual at Completion
CI-1: Number of Beneficiaries	**Total direct beneficiaries**	0	80,000	To be confirmed (Year 1 baseline study)	To be reported
	Total female direct beneficiaries	0	≥ 40,000 (≥ 50%)	To be confirmed	To be reported
	Total youth direct beneficiaries (age 15–24)	0	≥ 15,000	To be confirmed	To be reported
	Chad Direct beneficiaries	0	45,000	To be confirmed	To be reported
	Togo Direct beneficiaries	0	35,000	To be confirmed	To be reported
	Total indirect beneficiaries	0	300,000	To be confirmed (Year 1 baseline study)	To be reported
	Indirect beneficiaries – Chad	0	~170,000	To be confirmed	To be reported
	Indirect beneficiaries – Togo	0	~130,000	To be confirmed	To be reported
	Female indirect beneficiaries	0	≥ 150,000 (≥ 50%)	To be confirmed	To be reported
	Youth indirect beneficiaries (age 15–24)	0	≥ 60,000	To be confirmed	To be reported
CI-3: Assets Produced, Developed, Improved, or Strengthened	iCSEB climate-resilient housing units produced	0	≥ 5 residential units	To be confirmed	To be reported
	Community structures upgraded (schools and health posts)	0	12	To be confirmed	To be reported
	Road segments rehabilitated or flood-proofed (km)	0 km (est. ~30 km damaged/impassable 4–6 months/year)	≥ 14 km	To be confirmed	To be reported
	Trees planted in green corridors	0 (urban canopy <5% in target districts)	≥ 120,000 trees	To be confirmed	To be reported
	Solar-powered water pumping and purification systems installed	0 (<25% of households with piped water access)	12 systems	To be confirmed	To be reported
	Rainwater collection units installed	0	120 units	To be confirmed	To be reported
	Water harvesting micro-reservoirs constructed	0	60	To be confirmed	To be reported
	Drip irrigation systems installed	0	100	To be confirmed	To be reported
	Solar pumping systems for agriculture installed	0	80	To be confirmed	To be reported
	Community revolving adaptation finance mechanisms operationalized	0	2 (1 per country)	To be confirmed	To be reported
	Community adaptation sub-projects financed and operational	0	60	To be confirmed	To be reported
CI-4: Increased Income or Avoided Decrease in Income	Smallholder farming households with increased or stabilized agricultural income	Est. average USD 200–350/year (Chad); USD 280–420/year (Togo) – to be confirmed at baseline	≥ 2,800 farming households; target ≥ 15% income increase above baseline	To be confirmed (Year 1 household survey)	To be reported
	Households accessing revolving fund loans or grants for climate-resilient livelihoods	0	≥ 3,000 households (≥ 1,500 women)	To be confirmed	To be reported
	Households with stabilized water-dependent income through solar pumping and rainwater harvesting	Water-related crop losses: ~30–50% of potential yield in dry season	≥ 1,200 households with avoided income decrease	To be confirmed	To be reported
	Total targeted households across all income categories	0	≥ 8,000 households	To be confirmed	To be reported
CI-5: Natural Assets Protected or Rehabilitated	Ha rehabilitated (dryland and peri-urban land, Chad)	0 ha (~60% of cultivated land degraded in target zones)	≥ 1,800 ha	To be confirmed (Year 1 GIS mapping)	To be reported
	Ecosystem effectiveness score, Chad *(AF scale 1–5)*	**1** (no restoration underway)	4 (most elements in place and functioning)	To be confirmed	To be reported
	Ha rehabilitated (forest-savanna transition ecosystems)	0 ha (~65% of cultivated land degraded; soil loss ~30 t/ha/year)	≥ 1,700 ha	To be confirmed (Year 1 GIS mapping)	To be reported
	Ecosystem effectiveness score, Togo *(AF scale 1–5)*	**1** (no restoration underway)	4 (most elements in place and functioning)	To be confirmed	To be reported
	Total natural assets protected or rehabilitated	**0 ha**	≥ 3,500 ha	To be confirmed	To be reported

Project results framework including milestones, targets and indicators.

F. Result Framework of the Adaptation Fund

Project Outcomes	Project Outcome Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Outcome 1: Enhanced resilience of vulnerable communities through integrated climate-resilient infrastructure	• Number of target communities with a documented reduction in climate-related disruption of essential services (Final target: ≥8 communities)	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	Indicator 4 (Core Indicator 3): Physical assets improved or constructed to withstand climate variability and change	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	• Hectares of ecosystems and natural resources brought under protection, restoration or improved climate-resilient management (Final target: 3,500 ha – ≥1,800 Chad; ≥1,700 Togo)	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	Indicator 5 (Core Indicator 4): Ecosystems and natural resources brought under protection, restoration, or improved management in response to climate variability and change	8,720,000
Outcome 3: Improved access to and effectiveness of adaptation finance at local level	• Number of community adaptation initiatives financed and remaining operational with documented climate-adaptation and financial-performance evidence. (Final target: 60 initiatives)	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience [# of institutions, disaggregated by scale, by sector, and by type of institution]	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	• Number of national/sub-national institutions formally adopting or referencing ECOVERSE guidance in planning, technical or training systems. (Final target: ≥8 institutions, ≥4 per country)	Outcome 8: Innovation for effective, long-term adaptation to climate change accelerated, encouraged, and enabled to scale up	Indicator 8B: Institutions created and/or enabled that lead on innovation for adaptation to climate change [# of institutions, disaggregated by scale and type of institution]	2,263,000
Total outcome-level grant amount				21,253,000
Project Output(s)	**Project Output Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Component 1				
Output 1.1: Climate-resilient infrastructure constructed or upgraded	• Number of iCSEB residential units constructed and commissioned (Final target: 5 units) • Number of masons and artisans trained and certified in iCSEB and low-carbon construction techniques. (Final target: 180 trained and certified, ≥70 women/youth) • Number of community maintenance plans formally adopted and funded. (Final target: 8 adopted and funded) • Number of community/public structures upgraded using climate-resilient standards. (Final target: ≥12 structures)	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1: Development sector services strengthened to respond to climate variability and change [# of sector services, disaggregated by sector and by scale]	2,865,000
Output 1.2: Flood-resilient roads, permeable drainage systems, and green urban corridors implemented	• Kilometres of priority roads rehabilitated/flood-proofed to climate-resilient standards. (Final target: ≥14 km) • Number of trees established in project-supported green corridors. (Final target: 120,000 trees – 80,000 Chad; 40,000 Togo)	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1: Development sector services strengthened to respond to climate variability and change [# of sector services, disaggregated by sector and by scale]	1,205,000
Output 1.3: Climate-resilient water supply systems established through rainwater harvesting and solar-powered water infrastructure	• Number of solar-powered pumping and purification systems installed and operational. (Final target: 12 systems) • Number of households trained in WASH practices. (Final target: 3,000 households, ≥1,500 women) • Number of rainwater collection units installed and operational (Final target: 120 units)	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1: Development sector services strengthened to respond to climate variability and change [# of sector services, disaggregated by sector and by scale]	1,160,000
Component 2				
Output 2.1: Agroforestry systems established to restore degraded land and strengthen climate-resilient livelihoods	• Hectares rehabilitated and placed under project-supported agroforestry management. (Final target: 600 ha) • Number of community nurseries established and operational. (Final target: 10 operational) • Number of agroforestry seedlings produced and distributed annually. (Final target: 260,000 per year) • Number of farmers trained in agroforestry and sustainable land management (SLM) (Final target: 2,800; ≥45 women or youth in every 100) • Number of Farmer Field Schools and demonstration plots established (Final target: 16 established and operational) • Number of trained farmers confirmed applying at least one SLM practice (Final target: ≥1,680 farmers)	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	2,190,000
Output 2.2: Erosion control infrastructure implemented across agricultural and risk-prone landscapes	• Hectares rehabilitated through structural and/or biological soil and water conservation measures (Final target: 80 ha)	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem /	2,275,000

	• Number of check dams and water-retention structures constructed (Final target: 8) • Number of farmers trained in soil and water conservation (SWC) (Final target: 600; ≥270 women/youth) • Kilometres of contour bunds and erosion-control structures established (Final target: ≥10 km)		natural resource area and by protection, restoration, and management]	
Output 2.3: Degraded forest, rangeland, and riparian ecosystems restored for biodiversity and climate-risk reduction	• Hectares restored through ANR, enrichment planting and related ecosystem-restoration measures. (Final target: 600 ha) • Number of CBNRM governance structures established and operational (Final target: 8 operational with legally recognised structures) • Number of riparian buffer sites restored (Final target: ≥4 sites restored) • Number of seedlings procured and planted for ecosystem restoration (Final target: 40,000) • Number of peri-urban reforestation sites established (Final target: ≥4 established)	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	1,655,000
Output 2.4: Community water harvesting, conservation, and irrigation systems strengthened	• Number of project-supported water-harvesting and irrigation systems installed and operational. (Final target: 60 micro-reservoirs/farm ponds; 100 drip-irrigation systems; 80 solar-pumping systems) • Number of Water User Associations (WUAs) formed and operational (Final target: ≥30) • Number of caretakers trained in operation and maintenance (O&M). (Final target: ≥30)	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management [# of resources, disaggregated by type of ecosystem / natural resource area and by protection, restoration, and management]	2,600,000
Component 3				
Output 3.1: Revolving adaptation finance mechanism established, capitalised, and operationalized	• Number of partner financial institutions with operational revolving adaptation-fund arrangements Final target: 2 institutions operational) • Number of adaptation loans or grants disbursed. (Final target: 80) • Revolving-fund repayment rate (Final target: ≥85%) • Cumulative capital placed into operational revolving adaptation funds (Final target: USD 2,800,000)	Output 2.2: Increased readiness and capacity of national and sub-national entities to directly access and programme adaptation finance	Indicator 2.2: Local institutions receiving funding or other direct support under the locally led adaptation modality [# of institutions]	4,180,000
Output 3.2: Financial institutions and community members trained on adaptation finance integration and climate literacy	• Number of partner-financial-institution staff completing adaptation-finance/climate-risk training (Final target: 60 staff, ≥2 cohorts per country) • Number of community members completing financial and climate-literacy training (Final target: 3,000 people, including ≥1,500 women/youth)	Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience [# of institutions, disaggregated by scale, by sector, and by type of institution]	860,000
Component 4				
Output 4.1: Adaptation Evidence Generated, Nationally Validated, and Integrated into Technical Training Systems	• Number of validated ECOVERSE adaptation evidence/practitioner reference products produced and disseminated. (Final target: 2 validated products) • Number of vocational/technical institutions formally integrating ECOVERSE technical content into curricula. (Final target: 4 institutions with formally adopted curriculum content)	Output 8.2: Innovations identified and piloted which build the adaptation innovation evidence base and institutional capacity	Indicator 8.2: Innovation-focused knowledge products disseminated and/or learning events facilitated that support and enable innovation capacity at a local, national, and/or regional level [# of knowledge products disseminated and/or learning events facilitated]	750,000
Output 4.2: South-South Climate-Resilient Construction Learning and Replication Network Operationalised	• Number of institutions formally participating in the South-South learning and replication network. (Final target: 20 institutions) • Number of standardised climate-resilient construction replication toolkits validated and disseminated. (Final target: 2 toolkits validated and disseminated)	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems	Indicator 8.1B: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit [# of innovations]	700,000
Output 4.3: Climate Adaptation Financing Knowledge and Advocacy Platform Established	• Number of State of Community Adaptation Finance in Africa reports produced and disseminated. (Final target: 4 reports) • Number of revolving-fund replication and capitalisation strategies developed and validated. (Final target: 1 developed and validated) • Number of high-level adaptation-finance policy dialogues convened. (Final target: 1 dialogue)	Output 8.2: Innovations identified and piloted which build the adaptation innovation evidence base and institutional capacity	Indicator 8.2: Innovation-focused knowledge products disseminated and/or learning events facilitated that support and enable innovation capacity at a local, national, and/or regional level [# of knowledge products disseminated and/or learning events facilitated]	813,000
Total output-level grant amount				21,253,000

G. Project detailed budget

Table 24: Detailed budget of the ECOVERSE project.

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	Two country-level technical design assignments × USD 50,000 = USD 100,000, covering engineering, architectural and climate-risk expertise, site verification, participatory design support, preliminary designs, technical specifications and BoQs.
Ac. 1.1.2:Develop community-led maintenance plans for long-term upkeep	80,000	60,000	60,000	0	200,000	*Community maintenance committee formation and facilitation across Chad and Togo @40,000* *Development of formal maintenance plans and manuals @25,000* *Establishment of community maintenance funds and cost-sharing arrangements @46,480* *Training of maintenance committee members, local leaders, artisans and technical officers @35,000* *Monitoring and reporting arrangements @15,000* *Field supervision and follow-up missions @15,000* *Inclusive infrastructure design and planning measures @23,520*
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 for 180 artisans, masons and builders @120,000* *Training materials, manuals and illustrated technical guides @35,000* *60 artisan toolkits, including block moulds, levels, protective gear and basic maintenance tools @80,000* *Vocational training institution partnerships and certification arrangements @40,000* *Practical on-site training integrated into live construction sites @36,480* *Inter-country travel and technical field missions @30,000* *Training certification and documentation @20,000* *Targeted measures supporting participation of women and youth in iCSEB training @23,520*
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, with at least 85% local content @700,000* *Skilled labour and artisan wages for iCSEB construction teams @170,000* *iCSEB block-pressing equipment and machinery @120,000* *Climate-adaptive design features, including elevated foundations, ventilation and rainwater gutters @100,000* *Site preparation and groundworks @80,000* *Engineering supervision, testing and quality control @70,000* *Demonstration-site documentation, commissioning and handover @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 12 priority community and socio-economic structures @480,000* *Skilled labour and artisan wages for iCSEB construction teams @175,000* *iCSEB block production and associated building works @75,000* *Stormwater drainage, sanitation and ventilation upgrades @80,000* *Engineering supervision and quality assurance @50,000* *Community liaison and environmental and social safeguard support @30,000* *Structural documentation, commissioning and handover @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 tools @10,000* *Community hazard-mapping workshops @30,000* *Field surveys and soil-infiltration testing @25,000* *Drainage vulnerability maps and prioritisation 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 and associated works @100,000* *Community labour @80,000* *Construction equipment and 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 climate-resilient native trees and shrubs @80,000* *Planting and establishment works @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 groups @25,000* *Survival monitoring, reporting and GBV/SEAH safety-by-design and referral measures @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	*WASH training delivery for target households and community water users @100,000* *Illustrated and locally appropriate hygiene and O&M materials, including arrangements supporting women's participation @30,000* *Seasonal training and awareness events @60,000* *Community health educator engagement @40,000* *Monitoring and knowledge-retention assessments @20,000* *Travel and field missions @10,000*
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	*Procurement of rainwater collection units contributing to the programme target of 120 systems @220,000* *Storage tanks, ferrocement or lined reservoirs, guttering systems, first-flush filters and overflow channels @95,000* *Local artisan installation labour @35,000* *Site assessment, community consultation and hydrological review @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 and purification units contributing to the programme target of 12 operational systems @300,000* *Solar panels and energy-storage components @80,000* *Installation works and secure protective enclosures @80,000* *Operation and maintenance training @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 delivery for target households and community water users @100,000* *Illustrated and locally appropriate hygiene and O&M materials, including arrangements supporting women's participation @30,000* *Seasonal training and awareness events @60,000* *Community health educator engagement @40,000* *Monitoring and knowledge-retention assessments @20,000* *Travel and field missions @10,000*
Component 2: Integrated Land Management for Agricultural, Ecosystem, and Water Resilience	**620,000**	**3,420,000**	**3,400,000**	**1,280,000**	**8,720,000**	
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	**620,000**	**3,420,000**	**3,400,000**	**1,280,000**	**8,720,000**	
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* *Satellite imagery and GIS terrain modelling @15,000* *Field documentation and reporting @5,000* *Community mapping, GIS mobilisation and field assessment are implemented jointly with Ac. 2.3.1, with no duplicate charging.*
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 @78,370* *Procurement and production of seeds, seedlings and nursery stock for agroforestry, ecosystem restoration and peri-urban reforestation @310,000* *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* *Women's land-tenure support and participation in nursery management @21,630*
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, including hoes, planting bars, pruning tools and fencing materials @200,000* *Distribution logistics and community mobilisation @80,000* *Practical orientation sessions delivered by extension agents @80,000* *Two rounds of post-planting advisory visits @70,000* *Seedling-survival monitoring and rapid-replanting measures @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* *Extension-agent and agroecology-technician support @70,000* *Training materials, illustrated SLM guides and manuals @40,000* *Farmer training sessions @40,000* *Farmer Champion selection, mentoring and certification, including GAAP allocation of USD 21,630 @70,000* *Field supervision and travel missions @40,000* *Training certification and documentation @20,000* *Extension personnel are shared with Ac. 2.1.5 and Ac. 2.3.2 where activities are implemented in the same communities, avoiding duplicate mobilisation costs.*
Ac. 2.1.5: Establish and operate Farmer Field Schools (FFS) and demonstration plots	0	300000	150,000	95,000	545,000	*Establishment of Farmer Field Schools on representative farms @90,000* *Seasonal facilitation and extension-agent support @120,000* *Demonstration-plot materials, inputs and comparative plot establishment @130,000* *FFS facilitator training and capacity building @70,000* *Farmer Champion co-facilitation and peer-learning support @55,000* *Monitoring, performance data collection and FFS documentation @45,000* *FFS graduation and community-recognised certification @35,000*
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 and priority-zone mapping @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	*Construction materials, including stone, compacted earth and perennial grasses @300,000* *Technical engineering design and field supervision @60,000* *Community labour through cash-for-work arrangements with pay-equity provisions, including GAAP allocation of USD 17,870 @300,000* *Construction of contour bunds and stone lines @200,000* *Construction of 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* *Gully stabilisation, fascine 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 assessment 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 integration @30,000* *Training of community-based erosion monitors @30,000* *Quarterly field assessments and data-collection missions @10,000* *Monitoring reports and cross-country data harmonisation @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 @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* *Restoration plans, priority-site lists and technical documentation @15,000* *Landscape GIS analysis, community planning and field mobilisation are undertaken jointly with Ac. 2.1.1, with no duplicate charging.*
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 labor 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 @120,000 (planting stock from Ac. 2.1.2 nursery network), Wetland margin rehabilitation works @120,000; Community labor for planting, maintenance and stewardship @50,000; 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	*Two country-level hydrological and hydrogeological assessment assignments × USD 50,000 = USD 100,000, covering water-needs assessment, site identification, technical feasibility and infrastructure recommendations.*
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 @700,000 Community labour through cash-for-work arrangements, including GAAP allocation of USD 17,400 @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 and supply of drip-irrigation systems @400,000 Procurement and installation of solar-powered pumping systems @500,000 Hands-on training for user households and farmer groups @50,000 Water User Association formation and operational support @100,000 O&M starter kits, spare parts and local supply-chain arrangements @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	*Maintenance toolkits, including gaskets, connectors, filters and basic tools @120,000 Illustrated and locally translated maintenance manuals @60,000 Local Water Caretaker training @60,000 O&M and spare-parts savings arrangements through community savings groups @40,000 Maintenance record-keeping and MEL 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, Capitalized, 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-sector mapping, institutional assessment and due diligence @80,000 Stakeholder consultations with candidate financial institutions, regulators and community stakeholders @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 GRM 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	*Capitalisation transfers to regulated partner financial institutions for eligible adaptation lending, micro-grants and savings-group mechanisms @2,400,000, including GAAP allocation of USD 17,390 Ring-fenced account establishment and fiduciary-compliance auditing @100,000 Fund-administration and portfolio-management systems @200,000 Portfolio-performance monitoring and risk-management systems @100,000*

Ac. 3.1.4: Conduct community mobilization and beneficiary preparation	0	150,000	150,000	0	300,000	*Community outreach, sensitisation and mobilisation campaigns @80,000* *Community-facilitator training and engagement @40,000* *Beneficiary-preparation workshops @80,000* *Support to eligible applicants for adaptation-investment proposal preparation @60,000* *IEC and locally adapted communication materials @40,000*
Ac. 3.1.5: Undertake lending operations, disbursement, and adaptive portfolio management	0	160,000	200,000	100000	460,000	*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*
Ac. 3.1.6: Elaborate monitoring, evaluation, and fund sustainability mechanisms for the revolving fund	40,000	100,000	60,000	60000	260,000	*Community training delivery, including women's business-formalisation and youth financial-inclusion content @100,000, including GAAP allocation of USD 12,220* *Illustrated, bilingual and locally translated training materials @30,000* *Climate-literacy awareness campaigns and community events @50,000* *Financial-literacy sessions @40,000* *Monitoring and knowledge-retention assessments @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 adaptation-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, including women's business-formalisation and youth financial-inclusion content @100,000, including GAAP allocation of USD 12,220* *Illustrated, bilingual and locally translated training materials @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 technical advisory and coaching services @100,000* *Technical-assistance visits and portfolio-review missions @70,000* *Adaptation-finance product refinement and technical support @50,000* *Peer-to-peer learning exchanges @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, institutionalized 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-programme design, methodology and technical framework consultancy @75,000* *Primary data collection and structured field research @200,000* *Analysis and synthesis of adaptation results and lessons @115,000* *Dissemination workshops, technical presentations and outreach @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, technical writing and editorial review @80,000* *Printing and digital publication of practitioner guides @50,000* *Integration of technical content into vocational and technical curricula @50,000* *Distribution, outreach and dissemination @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**	*Development of one regional MEL platform and GIS system, including women and youth monitoring content @80,000, including GAAP allocation of USD 6,110* *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 Operationalized	**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 and coordination, including GESI provisions @30,000, including GAAP allocation of USD 5,170* *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, including GAAP allocation of USD 6,580*

Ac. 4.2.2: Develop and Disseminate Standardized Construction Replication Toolkits	0	0	110,000	110,000	**220,000**	*Development, design and technical production of two replication toolkits @120,000* *Translation and localisation @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-event participation @25,000* *Delegation travel, accommodation and logistics @35,000* *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 supporting four programme reports @90,000* *Report writing, editing and peer review @80,000* *Design, layout, printing and digital publication @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**	*Organisation and logistics for one high-level regional adaptation-finance policy dialogue @60,000* *High-level speaker facilitation and coordination @50,000* *Stakeholder travel and accommodation support @123,000* *Policy-brief preparation and post-dialogue dissemination @30,000*
Ac. 4.3.3: Develop a Revolving Fund Replication and Capitalization Strategy	160,000	90,000	50,000	10,000	**310,000**	*Strategy-development consultancy and technical writing, including gender-responsive capacity-development considerations @140,000* *Stakeholder consultations and multi-country validation workshops @80,000* *Strategy editing, design and publication @30,000* *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**	
Project Execution Costs (EEs)	**713,108**	**495,000**	**410,000**	**401,000**	**2,019,108**	
Project inception and launch	80,000	0	0	0	80,000	*Project kick-off workshop and inception meeting,* *initial work plan and procurement plan,* *initial RPSC and NPSCs, project philosophy,* *technical session (@20,000/EE& @40,000REE)*
Project coordination and management	242,000	177,000	162,000	162,000	743,000	*Salaries @420,000* *Coordination missions @130,000* *Communication, visibility and knowledge dissemination at national and regional levels @193,000*
Project operating costs	123,000	123,000	103,000	89,000	438,000	*Office operational costs @150,000* *Office supplies and consumables @65,000* *Administrative materials @40,000* *Bank charges and wire transfer fees @20,000* *Funds management @30,000* *Logistical costs @63,000* *Workshops and inter-country coordination events @70,000*
Equipment	89,108	45,000	0	0	134,108	*IT equipment (laptops/desktops/UPS) @42,000* *GIS/GPS field devices and software licences @20,000* *Office furniture @37,000* *Printers, scanners, photocopiers @10,000* *Servers/cloud storage for M&E database @15,000* *Communication equipment @10,108*
Project M&E	114,000	84,000	80,000	84,000	362,000	*Design of M&E System and Manual @15,000* *Project Implementation Manual @6,000* *Annual Steering Committee Meetings @70,000* *M&E Digital Database, Dashboard @20,000* *Annual Joint Monitoring Missions @70,000* *Annual Monitoring Reports @59,000* *Quarterly M&E Meetings and Reports @62,000* *Quarterly Field Monitoring Visits and assessments @60,000*
ESMP Monitoring	31,000	31,000	31,000	31,000	124,000	*Supervision missions by EEs @84,000* *USP screening and safeguards documentation @40,000*
GAAP Monitoring	34,000	35,000	34,000	35,000	138,000	*Gender-sensitive M&E @55,000* *SEAH/GBV protocols @43,000* *Time-Use Assessment framework @40,000*
Total Project Cost	**3,773,108**	**8,318,000**	**8,000,000**	**3,181,000**	**23,272,108**	
Project cycle management fees (IE)	**507,750**	**406,250**	**544,608**	**519,284**	**1,977,892**	
Project coordination and management fees	191,000	191,000	239,000	191,000	812,000	*Salaries @400,000* *Oversight @65,000* *Supervision @65,000* *Technical backstopping @90,000* *Support for RSC meetings and governance processes (Annual Regional SC Meetings) @50,000* *Technical supervision missions @80,000*

						Knowledge management coordination @32,000 *Outreach, visibility and communications at regional/international fora @30,000*
Baseline	50,000	0	0	0	50,000	*Baseline study development including Gender Baseline Study @50,000*
Operating costs	76,000	76,000	57,000	58,000	267,000	*Office operational costs @90,000* *Office supplies and consumables @40,000* *Administrative materials @27,000* *Workshops @40,000* *Completion report @70,000*
Equipment (incl. infrastructure)	67,000	40,000	20,358	0	127,358	*IT equipment (laptops/desktops…) @52,000* *Server/cloud infrastructure @22,000* *Office furniture @30,358* *Printers, scanners, photocopiers @8,000* *Video-conferencing and communications equipment @15,000*
Evaluations	0	0	114,500	138,000	252,500	*Mid-term@114,500, final@138,000*
Audit	40,000	40,000	40,000	72,534	192,534	*Interim Unaudited Financial Reports (IUFRs) and annual audits@162,534, Final audit@30,000*
Project M&E	16,000	16,000	16,000	16,000	64,000	*M&E supervision and quality assurance@15,000* *M&E Digital Database, Dashboard @20,000* *Project Implementation Manual @9,000* *Design of M&E System and Manual@20,000*
Project ESMP	6,500	6,500	6,500	6,500	26,000	*ESMP compliance oversight linked to supervision mission conducted yearly and reported in the PPR@26,000*
Project GAAP	1,250	1,250	1,250	1,250	5,000	*GAAP compliance oversight linked to supervision mission conducted yearly and reported in the PPR@5,000*
Fiduciary aspects	60,000	35,500	50,000	36,000	181,500	*Project accounts maintenance @45,000* *Bank charges and wire transfer fees @20,000* *Funds management @30,000* *Procurement oversight @32,000* *Logistical costs @18,500* *Grant administration @21,000* *Asset management @15,000*
Amount of funding requested	**4,280,858**	**8,724,250**	**8,544,608**	**3,700,284**	**25,250,000**	

H. Disbursement schedule with time-bound milestones.

Table 25: Detailed disbursement schedule with time-bound milestones.

	Upon signature of Agreement (year 1) USD	One Year after Project Start (year 2) USD	Year 3 USD	Year 4 USD	Total in USD
Scheduled date	Jan-27	Jan-28	Jan-29	Jan-30	
Project Funds	3,773,108	8,318,000	8,000,000	3,181,000	23,272,108
Implementing Entity Fees	507,750	406,250	544,608	519,284	1,977,892
Total	**4,280,858**	**8,724,250**	**8,544,608**	**3,700,284**	**25,250,000**

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

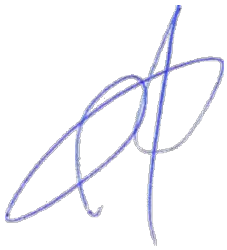
A. Record of endorsement on behalf of the government[32]

Porgo HOUNLY, *Focal point of Adaptation Fund* *at the Environment, Fisheries and Sustainable Development Ministry of the Republic of Chad*	Date*: July 6th 2025*
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: *September 1st, 2026*	Tel. : (+216) 71 206 633 Email: 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.

Republic of Chad
Prime Minister
Ministry of the Environment, Fisheries and Sustainable Development
Secretary General
Agence de la Grande Muraille Verte du Tchad
Designated National Authority
N° 006/RC/PM/MEFSD/SG/AGMVT/DNA/2026

ADAPTATION FUND

Letter of Endorsement by Government of CHAD

The National Designated Authority

N'Djamena, July 11th 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 and Togo"

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. Tahar Allatchi Galma



Focal Point Adaptation Fund
Agence de la Grande Muraille Verte du Tchad (AGMVT)
Quartier N'Djari, Rue Andre Mougnan, N'Djamena, Chad
Tel: +235 92 49 22 95
Email: agmv.tchad@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

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.

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	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).

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.

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

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, pre-works clearance protocols and contractor compliance clauses is set out in Table 6. Always applicable, monitored continuously throughout implementation.	**2 – 3** *(score 6)*	**Moderate**

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Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
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'Djamena'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'Djamena'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 and always applicable, monitored continuously throughout implementation, irrespective of the Low inherent rating.	**2 – 2** *(score 4)*	**Low**

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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 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 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 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 protocols, fair-wage commitments and worker grievance pathways is set out in Table 6 and always applicable, monitored continuously throughout implementation, irrespective of the Low inherent rating.	**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	**2 – 2** *(score 4)*	**Low**

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Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	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'Djamena'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.	**2 – 1** *(score 2)*	**Low**

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Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	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.		
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	**3 – 1** *(score 3)*	**Low**

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Environmental and Social Principle	Identified risk and substantiating evidence	Impact – Probability (1–5)	Significance
	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 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

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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.

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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

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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

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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 precursing, 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

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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 an Abbreviated Process Framework, 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.

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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

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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

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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:

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- **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.

Beyond the technical evidence dependencies described above, the partially unidentified modality is the option that delivers the strongest environmental, social and adaptation outcomes for the activities concerned. Full design-stage identification would commit the project to locations selected before the flood-risk, hydrological, degraded-land and tenure evidence exists, with no room to correct course. The USP approach further enables the project to steer investment away from tenure-contested parcels, ecologically sensitive features and high-exposure locations, as deferral within a fixed framework lowers residual safeguard risk rather than adding to it. For the flood-resilient infrastructure and water-harvesting works under Components 1 and 2, this means each structure is placed where the hazard and hydrology evidence shows it will perform, which maximises adaptation value and avoids stranded assets. For ecosystem restoration and agroforestry under Component 2, participatory parcel selection and tenure verification secure the community ownership and FPIC on which durable restoration depends. For the community adaptation finance under Component 3, demand-led identification is the only modality consistent with the financial-inclusion objective, since it lets the most vulnerable applicants (including women, youth and informal traders) come forward rather than being designated in advance. In each case the flexibility is bounded: the admissible typologies, technical standards, grant and loan caps, beneficiary criteria and the project-wide exclusion list are fixed at design stage and cannot be revised without OSS no-objection, so the safeguard system is fully operable from project start-up and the USP modality introduces no open-ended discretion.

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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 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 Forest, rangeland, and riparian	**2.3.2** Implement assisted natural regeneration and	Partially unidentified by parcel	Restoration techniques (ANR, enrichment planting, community	Exact restoration blocks; parcel boundaries and sizes; land tenure	Final parcels depend on degraded land assessments under Activity 2.1.1; early	Executing Entities under OSS no-objection; FPIC process

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ecosystems restored	enrichment planting		reforestation); admissible species portfolios; landscape typologies; target countries and provinces	arrangements per parcel	selection risks targeting lower-priority or tenure-contested land and triggering unnecessary land access risks	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 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

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

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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.

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- **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.

Continuous applicability of Principles 1, 4 and 6. In line with the AF Environmental and Social Policy and the Guidance for Implementing Entities on compliance with the ESP, Principles 1 (Compliance with the Law), 4 (Human Rights) and 6 (Core Labour Rights) apply to all

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ECOVERSE activities at all times. They are never screened out, and their inherent risk rating does not reduce the monitoring obligation. The same requirement applies to every Unidentified Sub-Project, where compliance with Principles 1, 4 and 6 is verified at screening and then tracked for the life of the sub-project. 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

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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

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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).

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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

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
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	Minimise / Mitigate	• Implement the Gender Action Plan • support women-led enterprises and savings groups under Component 3 • require minimum women's	• 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	• Governance records • finance records • GBV/SEAH register

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
	• risks of GBV and SEAH from labour influx and beneficiary-selection dynamics.		representation in governance bodies • apply GBV and SEAH codes of conduct in all contracts • operate the dedicated SEAH-sensitive GRM pathway (see Item 7).			• number of GBV/SEAH incidents reported and resolved 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	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

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
			documented outcome • suspend any USP for which FPIC is not concluded.				
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

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
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 Monitor, Khaya grandifoliola in Togo).	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 including Edzi sacred forest area • apply a strict no-kill policy for protected wildlife at all reforestation and bioengineering 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
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	Minimise / Mitigate	• Prepare site-specific waste management plans for all active sites • contract licensed disposal services • apply dust and noise control	• 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	• Site Waste Management Plans • complaints log • waste manifests

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
	from solar battery storage.		• use agroecological practices • establish buffer zones and pollution-control measures for water and soil • apply Basel and Stockholm Convention requirements for solar battery storage.			• waste volumes tracked and disposed	
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	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	• 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

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ESP Principle	Risk / Impact	Hierarchy	Mitigation Measure	Timing / Trigger	Responsible (named role)	Indicator	Means of Verification
	materials at all excavation sites.		• apply standard chance-find protocols in all civil-works contracts				
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

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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.

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Indicative budget allocation by function

Function	Amount	Type	Funded via
Supervision of EEs and adaptive supervision missions	60,000	Monitoring	EE execution
ESP/GP screening and impact assessment of USPs	80,000	Monitoring	EE M&E (64,000) + IE M&E (16,000)
Contingency for USP-related assessments	10,000	Monitoring	IE M&E line
ESP/GP capacity building and training for EE staff and contractors	40,000	Implementation	Component activities
GRM operation (community entry channels, language adaptation, SEAH-sensitive pathway)	40,000	Implementation	Component activities
Specific safeguard instruments (FPIC, participatory cultural-heritage mapping, chance-find protocol)	35,000	Implementation	Component activities
Public disclosure of the ESMP and updates, including translation	15,000	Implementation	Component activities
Contingency for USP corrective actions	20,000	Implementation	Component activities
Total ESMP	**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

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to OSS no-objection. OSS will conduct an independent environmental audit at mid-term and project closure.

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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	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	Implementation remains constrained by traditional norms, low awareness of rights and limited resources for enforcement,

[redacted]	2011 and updated in 2023. This is reinforced by the Nationally Determined Contribution, the National Adaptation Plan, the 2018 Land Code and the updated Code of Persons and Family, 2022.		governance and family law frameworks.	especially in rural areas.

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	Within baseline 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	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 on SEAH protocols; link to OSS GRM survivor-centred sub-channel	(1) % of contracts with SEAH prevention clauses (2) # GBV/SEAH cases reported and safely referred within 48–72 hrs (3) % project staff trained on SEAH protocols (4) Confidential referral pathway operational in each country	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 trained by end of Y1; referral pathway operational in both countries	Procurement records; SEAH incident log (anonymised); training registers; referral pathway documentation; annual compliance audit; APPRs	Y1–Y4 (from project inception)	EEs, OSS/RIE	USD 4,000
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)	REE	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 disaggregated by sex and age	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	USD 4,000
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	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)	Gender Specialist, OSS	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

C1-1	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)
C1-2	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 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
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
C2-1	Component 2 Agroforestry & Restoration Training	Women constitute ~70% of the agricultural labour force but are systematically excluded from agroforestry and land restoration training, decision-making and benefits	Provide targeted agroforestry and land restoration training to ≥50% women; support ≥1 women champion farmer per community; ensure women's formal representation in agricultural cooperatives	(1) % women among agroforestry and land restoration trainees (2) % women designated as champion farmers (3) % women in agricultural cooperative leadership	% women in agroforestry training: TBC at inception; women champion farmers: 0% (pre-project)	≥50% women among trainees (Chad); ≥20% women with improved land access (Togo); ≥1 women champion farmer per community	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)
C2-2	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

C2-3	Component 2 Green Corridor Planning & Management	Women underrepresented in urban green corridor planning and management; women's priorities not reflected in site assessments	Involve women's associations formally in flood-risk mapping and green corridor management; ensure women's priorities are reflected in ≥70% of site assessments; target ≥40% women in greening management committees	(1) % of site assessments reflecting women's stated priorities (2) % women in green corridor management committees (3) # women's associations formally engaged in green corridor governance	% women in greening committees: TBC (inception); women's priorities in assessments: not yet tracked	Women's priorities reflected in ≥70% of assessments; ≥40% women in greening and green corridor management activities	Assessment reports (consultation process); committee membership lists; field supervision reports; APPRs	Y1–Y4	EEs, Gender Specialist	USD 22,340
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
C2-4	Component 2 Ecological Knowledge Documentation	Women's informal and traditional ecological knowledge insufficiently documented, validated or integrated into formal restoration processes	Document ≥5 women-led and youth-led ecological restoration case studies per country; integrate into Component 4 regional knowledge platform	(1) # case studies documenting women's and youth's ecological knowledge produced (2) % of case studies submitted to and published on the regional knowledge platform	# existing documented cases: 0 (pre-project)	≥5 validated case studies per country; 100% submitted to and published on the regional knowledge platform by Y4	Case study documentation reports; knowledge platform content records; partner acknowledgements; final evaluation	Y2–Y4	EEs, Gender Specialist, OSS/RIE	Within C4 budget
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 access to contracts, credit and growth	Provide tailored training on formal business registration for ≥50% women entrepreneurs; link with national chambers of commerce and women's business networks; facilitate access to registration services	(1) # women entrepreneurs trained on business registration (2) % increase in formally registered women's businesses from project-area baseline	% 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 end of project	Training attendance registers; business registration records; follow-up survey data; APPRs; final evaluation	Y2–Y4	EEs, Municipalities, Women's business networks	USD 6,110
C3-2	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
C3-2	Component 3 Youth Financial Inclusion	Youth face high unemployment and limited access to climate-resilient economic	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	Y2–Y4	EEs, Gender Specialist	USD 6,110

		pathways; age-disaggregated financial inclusion not yet tracked					surveys; APPRs; final evaluation			
COMPONENT 4: Regional Knowledge, Learning and Institutional Strengthening										
C4-1	Component 4 Knowledge Platform – Women/Youth Content	Women's knowledge and leadership roles under-documented and underrepresented in ECOVERSE knowledge products	Ensure ≥40% of validated case studies on the regional knowledge platform are led by or focus on women/youth; partner with women's organisations for documentation and validation	(1) % of knowledge platform case studies led by or focused on women/youth (2) # women's organisations formally partnered for documentation	% case studies focused on women/youth: 0 (platform not yet established)	≥40% of all case studies on the platform focused on women/youth by end of Y4	Knowledge platform content and analytics reports; case study documentation; editorial records; final evaluation	Y2–Y4	OSS/RIE (IE), EEs, Women's organisations	USD 6,110
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
C4-2	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
C4-3	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	Within gender capacity development plan (GCDP)
C4-3	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	Within baseline 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	USD 4,000
	CC-6	USP Gender Compliance Screening	Y1–Y4	Gender Specialist	Within Specialist costs
	CC-7	Gender Capacity Development Plan	Y1–Y4	Gender Specialist, OSS	USD 3,000
Component 1	**C1-1**	Inclusive infrastructure design & planning	Y1–Y4	EEs	USD 23,520
	C1-1	iCSEB training – women & youth inclusion	Y1–Y3	EEs, IFAD-Togo	USD 23,520 (shared)
	C1-2	GBV safety-by-design & referral protocols	Y1–Y4	EEs, OSS	USD 4,000 + infra costs
	C1-3	WASH/O&M training scheduling & childcare	Y1–Y4	EEs	Within training costs
Component 2	**C2-1**	Women's land tenure support & nurseries	Y1–Y4	EEs, land committees	USD 21,630
	C2-1	Agroforestry training & champion farmers	Y2–Y4	EEs, extension services	USD 21,630 (shared)
	C2-2	Erosion/land works – pay equity	Y1–Y3	EEs	USD 17,870
	C2-3	Green corridor – women's associations	Y1–Y4	EEs	USD 22,340
	C2-4	Micro-irrigation – women farmers & WUAs	Y1–Y4	EEs, water committees	USD 17,400
	C2-4	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
	C3-2	Zogbépimé market rehabilitation	Y1–Y2	EEs, Municipalities	Within infra budget
	C3-2	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
	C4-2	Meaningful participation – regional events	Y1–Y4	OSS/RIE	USD 6,580
	C4-3	Gender Capacity Development Plan	Y1–Y4	OSS/RIE	Within GCDP
	C4-3	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

Project Title: **ECOVERSE – Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes in Chad and Togo**

Country(ies) / Region(s): **Chad and Togo**

Implementing Entity: **Sahara and Sahel Observatory**

Consultation Report Title: **Stakeholder supplementary consultation focused on infrastructure in Zogbépimé and its surrounding areas, Avé 1 municipality (Togo)**

Date: **January 2026**

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1. Introduction

1.1. Context

Climate change is increasingly affecting the functioning of infrastructures in Africa. Rainfall patterns are becoming more irregular but more intense, flooding events are increasing, drought periods are lengthening, and temperatures are rising. As a result, climate change represents a major challenge for the development of Sub-Saharan African countries, particularly for rural communities.

The ECOVERSE project (Enhancing Community Resilience to Climate Extremes Across Diverse African Landscapes) in Chad and Togo is therefore implemented in a context marked by the intensification of climate hazards and their growing impacts on infrastructures, livelihoods, and the well-being of rural and peri-urban communities. In Togo, and more specifically in Zogbépimé and its surroundings areas, in Avé 1 Municipality, these impacts are reflected in the progressive degradation of essential community infrastructures, notably markets sheds, women's processing/work centers, shared storage facilities, cooperative meeting halls, health outposts, or primary learning spaces, thereby increasing the vulnerability of populations already exposed to poverty, food insecurity, and gender inequalities.

As part of the preparation of the full ECOVERSE project proposal, an initial community consultation mission was conducted in July 2025 to identify the needs, vulnerabilities, and adaptation priorities of local communities. The results of this mission highlighted the strategic importance of community infrastructures as a central lever for climate resilience and for reducing social and gender inequalities. However, the need to further deepen the identification of priority infrastructures to be rehabilitated, led to the organization of targeted supplementary consultations.

This report presents the results of infrastructure identification, georeferencing, and stakeholder consultations in order to inform the planning and operational implementation of the rehabilitation activities planned under the ECOVERSE project in Togo.

1.2. Objectives

The overall objective of the mission is to identify and geolocate priority infrastructures that are dilapidated or non-durable in Zogbépimé and its surrounding areas, in order to plan their rehabilitation using the interlocking compressed stabilized earth blocks (iCSEBs) technology under the ECOVERSE project. Specifically, this additional consultations aims to:

- identify and georeference existing priority community or socio-economic infrastructures damaged and unsustainable;

- collect information on the current condition of the infrastructures concerned;
- collect information from stakeholders on their needs regarding access to local resources and infrastructures;
- gather the perceptions, needs, and suggestions of the various stakeholders, while systematically integrating gender, social inclusion, and community governance dimensions into the rehabilitation initiatives for these infrastructures.

2. Methodology

2.1. Overall consultation approach and prior engagement

Long-standing engagement with the project communities. The consultation methodology builds on SSA's long-standing working relationship with communities and local stakeholders in Avé 1, particularly in Zogbépimé and surrounding villages, through its ongoing activities in the area. This established presence has enabled continuous engagement with community leaders, local authorities, agricultural cooperatives, women's groups and other community-based structures, and has provided a strong understanding of local priorities, livelihood systems and stakeholder dynamics.

The January 2026 consultations therefore did not constitute the first engagement with the targeted communities. A socio-economic investigation and consultation process had already been undertaken in the project area in 2023 as part of the ESIA, examining community organisation, economic activities, infrastructure conditions, gender disparities and climate vulnerabilities. Those consultations identified, among other priorities, the importance of using local labour, developing youth skills in climate-resilient construction, and strengthening women's participation in agricultural production and processing.

The methodology for the January 2026 mission was consequently designed as a supplementary and targeted consultation process, building on this earlier engagement while generating additional information specifically required for the preparation of the ECOVERSE Adaptation Fund project.

2.2. Stakeholder mapping and gender-responsive identification

Stakeholder mapping and representation. Building on its established presence in Avé 1, SSA developed a detailed mapping of organised stakeholders across the intervention area. The available register for Avé 1/Kévé identifies 95 agricultural cooperatives comprising approximately 1,399 members, covering agricultural production, livestock, processing and other livelihood activities.

In addition, the stakeholder mapping identified 38 organised women's groups across the six cantons of Avé 1, comprising 12 groups in Kévé, 7 in Assahoun, 5 in Ando, 8 in Tovégan, 2 in Edzi and 4 in Dzolo. This mapping provided a broader basis for identifying the organised structures through which women participate in community, productive and livelihood activities across the Commune.

Gender-responsive stakeholder identification. The identification of women for consultation was not limited to a small number of formally designated organisational representatives. Women participating in the consultations included individual members drawn from the broader landscape of mapped women's groups, agricultural cooperatives and other community structures, thereby capturing experiences and priorities across different livelihood activities, villages and socio-economic settings.

The mapping of 38 women's groups across all six cantons demonstrates that women's organised participation in Avé 1 extends substantially beyond the organisations or individuals represented at any single consultation event. The consultation approach therefore sought broad individual participation rather than relying exclusively on a small number of organisations to speak collectively on behalf of women in the intervention area.

Stakeholder identification and engagement were also informed by the project-specific Gender Assessment and Action Plan (GAAP). The assessment identifies structural constraints affecting women in the project area, including unequal access to land, finance, productive assets and decision-making; concentration in vulnerable and informal employment; and disproportionate unpaid domestic and care responsibilities. It also confirms women's central role in agricultural production, storage, processing and marketing. These findings informed both the composition of the consultations and the attention given to differentiated gender concerns.

This approach is aligned with the Adaptation Fund Gender Policy and implementing guidance, which emphasize meaningful and comprehensive gender-responsive stakeholder engagement and consideration of the differentiated experiences, vulnerabilities, capabilities and knowledge of women and girls, men and boys, and diverse groups within communities.

2.3. Purpose and scope of the supplementary consultations

Against this background of established community engagement, stakeholder mapping, earlier socio-economic consultations and gender assessment, SSA, in coordination with AAI, undertook targeted supplementary consultations on 29–30 January 2026 specifically to strengthen the preparation of the ECOVERSE Adaptation Fund project.

The consultations were designed to:

- deepen and validate community priorities and needs relevant to the proposed project;
- identify and assess climate-vulnerable community infrastructure;

- understand the level of degradation and exposure of identified infrastructure to climate hazards;
- document differentiated vulnerabilities and concerns affecting women, men, youth and other vulnerable groups;
- understand local governance, infrastructure-management and maintenance arrangements;
- assess the participation of women and youth in relevant community decision-making structures; and
- determine how the proposed ECOVERSE interventions could respond to locally identified priorities and vulnerabilities.

The supplementary consultations covered six villages—Zogbépimé, Houvé, Howuiévé, Agbozomé, Awatomé and Zokopé—while infrastructure identification extended to a seventh village, Avédomé. The localities visited and infrastructure identified are presented in the annexed figure.

2.4. Consultation and data-collection methods

The consultation mission applied a participatory, inclusive and gender-sensitive approach and combined several complementary qualitative and field-based data-collection methods over the two-day mission.

Focus Group Discussions (FGDs). Focus-group discussions were organised with members of local communities, including women, men and youth from different age groups and socio-economic backgrounds. These discussions were used to identify priority infrastructure, assess its level of degradation, understand its importance for community livelihoods and access to essential services, analyse the impacts of climate hazards on its functionality, and document differentiated impacts and priorities affecting women, youth and vulnerable groups.

Targeted stakeholder interviews. Interviews were conducted with community leaders and key local resource persons, including village chiefs and members of Village Development Committees (VDCs). These discussions provided additional information on local governance mechanisms, infrastructure ownership and management, maintenance practices, community decision-making processes, and the participation of women and youth in those processes.

Field visits, direct observation and georeferencing. The consultation process was complemented by direct visits to the infrastructure and sites identified by communities. Field observations were used to document physical condition, visible degradation and exposure to relevant climate hazards, including flooding, strong winds and drought. The identified infrastructure was georeferenced, with GPS coordinates and photographic

documentation collected to provide a verifiable spatial and visual record of the sites considered during project preparation.

The combination of community discussions, interviews and physical site verification allowed information obtained through one consultation method to be compared and validated through the others and provided a stronger basis for linking community priorities to potential project interventions.

2.5. Participant selection, inclusion and informed participation

Participants were identified to capture perspectives from different community groups and livelihood contexts within the ECOVERSE intervention area. The principal participation criteria were:

- being a woman, man or young person aged 18 years or older;
- residing within the ECOVERSE project area, including Zogbépimé and surrounding villages; and
- being available to participate in interviews and/or focus-group discussions.

Particular attention was given to the participation of women and youth and to capturing differentiated perspectives across the communities. As described above, women were identified through the broader community and organised stakeholder landscape, including women's groups, agricultural cooperatives and other community structures, rather than through reliance on a small number of organisational representatives.

Participants were informed in advance of the purpose of the consultations, the intended use of the information collected and their right to free and informed consent before participating.

This inclusive approach is particularly relevant to the Adaptation Fund's requirement that stakeholder consultation take account of gender considerations and environmental and social risks throughout project preparation.

2.6. Participation and sex-disaggregated representation

The consultations held on 29–30 January 2026 brought together 108 participants across the six consulted villages.

The sex-disaggregated consultation records document 53 women participants, representing approximately 49% of the participants recorded in the village-level sex-disaggregated data. Women participated in consultations in all six villages, as follows:

- Zogbépimé: 8 women (61.5%);
- Houvé: 15 women (55.6%);
- Howuiévé: 9 women (52.9%);

- Agbozomé: 6 women (35.3%);
- Awatomé: 5 women (38.5%); and
- Zokopé: 10 women (45.5%).

Women therefore represented close to half of participants overall, with female participation exceeding 50% in three of the six villages. The consultation records also provide age-disaggregated information, allowing participation by women, men and different age groups to be documented at village level.

The participation of women in these consultations should be understood within the broader framework of women's organised participation in Avé 1. The 38 mapped women's groups across the six cantons, together with women participating through agricultural cooperatives and other community structures, constitute a broader stakeholder base than the participants attending the two-day supplementary mission. The consultation mission therefore provided one targeted channel within a wider and continuing engagement process.

2.7. Analysis of differentiated concerns and integration into project design

Data collected through structured consultation guides, stakeholder interviews and field observations were consolidated and analysed using qualitative and descriptive methods to inform project intervention planning.

Particular attention was given to identifying differentiated concerns affecting women, girls, youth and other vulnerable groups. The consultations documented, among others:

- livelihood losses associated with degraded market infrastructure;
- inadequate sanitation, hygiene and privacy facilities affecting women and adolescent girls;
- deterioration of school infrastructure;
- increased burdens associated with accessing services and maintaining community assets; and
- safety and mobility concerns.

These findings were not treated solely as consultation observations. They were used to inform the identification and design of relevant ECOVERSE interventions. The village-level consultation matrix therefore links stakeholder groups and concerns raised during consultation with the corresponding implications and project design responses, providing traceability between consultation findings and the proposed activities.

The findings of the supplementary consultations were also considered alongside the project-specific Gender Assessment and Action Plan and the earlier socio-economic and ESIA consultations. This provided several complementary channels through which women's

needs, vulnerabilities, capacities and priorities could inform project design, rather than relying on a single consultation event or a limited number of representative organisations.

2.8. Cumulative nature of the consultation methodology

Overall, the Togo consultation methodology represents a cumulative, participatory and gender-responsive process of engagement, combining:

1. SSA's long-standing engagement and established working relationships with communities and local stakeholders in Avé 1;
2. detailed stakeholder mapping covering 95 agricultural cooperatives with approximately 1,399 members and 38 organised women's groups across all six cantons of Avé 1;
3. the 2023 socio-economic investigation and ESIA consultation process;
4. the project-specific Gender Assessment and Action Plan; and
5. the 29–30 January 2026 supplementary Adaptation Fund-specific consultations, comprising FGDs, targeted interviews, field observations, GPS georeferencing and photographic documentation.

The January 2026 consultations should therefore not be considered a stand-alone consultation exercise, but rather a targeted additional layer of engagement undertaken specifically for the ECOVERSE Adaptation Fund project. They strengthened the existing consultation record by providing more detailed site-level information, sex- and age-disaggregated participation data, differentiated concerns and direct traceability between community priorities and project design.

This cumulative approach is consistent with the Adaptation Fund's emphasis on stakeholder consultation throughout project preparation and on meaningful, comprehensive and gender-responsive engagement rather than participation as a one-off exercise.

3. Consultation Findings

3.1. Identification and assessment of infrastructure' conditions

3.1.1. Zogbépimé

The community consultation conducted in Zogbépimé made it possible to identify several priority infrastructures that are severely degraded and require urgent rehabilitation. The infrastructures concerned mainly include the market shelters, the primary school and its sanitation facilities, and the cemetery. The market shelters, which are key infrastructures for local economic activities and particularly for women, are in a very poor condition and are currently unusable. Their deterioration severely disrupts trading activities, which are the main source of household income, forcing the population, especially women, to travel long distances to access other markets, resulting in financial losses and increased security risks.

Similarly, the primary school and its sanitation facilities are affected by advanced degradation and have become unusable, leading to hygiene and public health problems, as well as a lack of privacy, particularly for adolescent girls. Past flooding events and strong winds have worsened the situation and contributed to temporary closures. The cemetery is also exposed to flooding and constitutes a major concern for the community. In total, 15 participants were consulted in Zogbépimé (see annex). Through the village chief, the consulted participants expressed the urgent need to construct a fence around the cemetery, as well as a public sanitation block at the Community Center.

Figure 1 presents the number of participants disaggregated by gender and age. Figures 2, 3, and 4 present selected photographs of the identified infrastructures, including the primary school and the cemetery, along with their geographic coordinates.

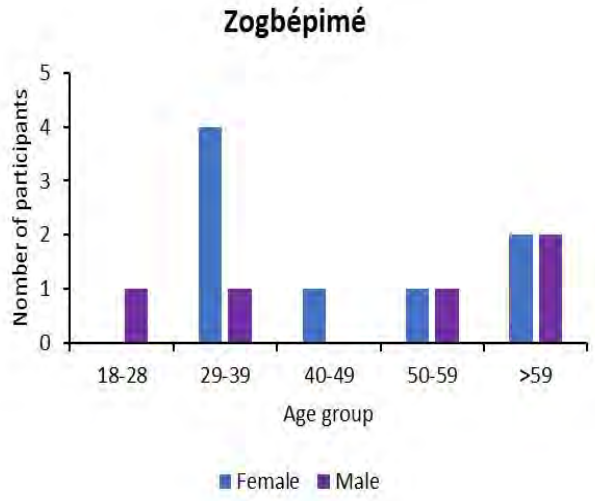


Figure 1: Participants in community consultations in Zogbépimé

The condition of the primary school and its sanitation facilities



Figure 2: Primary School of Zogbépimé and its sanitation facilities

Figure 2: Buildings (a and b); sanitation facilities (c and d)

- **The Cemetery**



Figure 3: Cemetery of Zogbépimé

- **The public market**



Figure 4: Market of Zogbépimé

3.1.2. Houvé

The consultation conducted in Houvé identified the primary school as the only priority infrastructure requiring urgent rehabilitation. This infrastructure is mainly used by children, who are also the group most affected by its degraded condition. The school is in a very poor state, with buildings constructed in an improvised manner using precarious materials such as reed walls. These structures are highly vulnerable to climate hazards, including heavy rainfall, strong winds, heat, and fires, leading to water infiltration, roof damage, and a constant risk of collapse. As a result, children are exposed to harsh weather conditions during classes, which compromises their safety and the continuity of learning. The sanitation facilities, which are either dilapidated or non-existent, also pose serious hygiene and public health problems, as well as a lack of privacy, particularly for adolescent girls.

In response to this situation, the community has implemented local initiatives, notably the regular production of reed walls to replace damaged ones. These repairs carried out approximately twice a year at an average cost estimated at 725.54 USD[1] FCFA, remain ineffective and temporary, as the materials deteriorate rapidly under the effects of heavy rain events, or heat.

These findings are the result of a consultation conducted through a focus group bringing together a total of 27 participants, including the village chief and his notables (Figure 5).

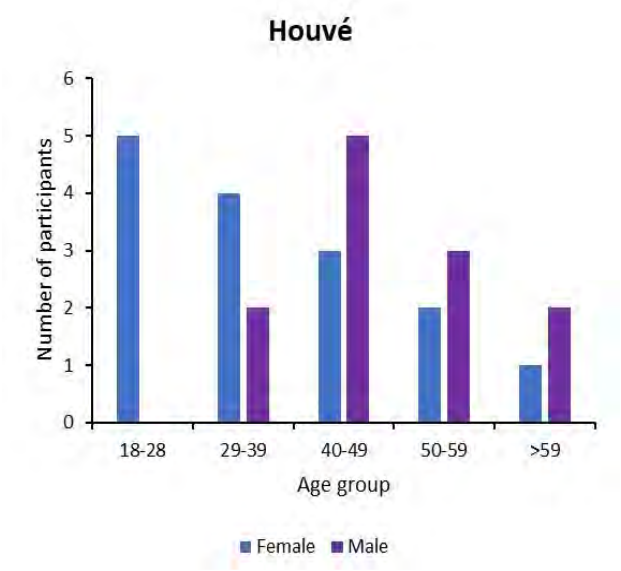


Figure 5: Participants in community consultations in Houvé

Figure 6 presents selected photographs of the Houvé primary school.

- **The condition of the primary school and its sanitation facilities**

Figure 6: Primary School of Houvé and its sanitation facilities. Buildings (a and b) and sanitation facilities (c and d)





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Howuiévé

In Howuiévé, the consultation identified the village primary school as the priority infrastructure requiring urgent rehabilitation. Pupils, who therefore constitute the group most affected by its degraded condition, are exposed to multiple risks. Some school buildings are constructed with reed walls, a precarious and flammable material, while the sanitation facilities are unusable. The non-cemented floor generates significant dust, causing respiratory infections (e.g. Pneumonia, Acute bronchitis) among pupils. In addition, during heavy rainfall, some classrooms are flooded, leading to frequent interruptions of classes. Children are exposed to intense rainfall, strong winds, and fire risks, particularly during the dry season. The impacts are mainly related to safety and health. These include the risk of collapse of the reed walls, fires, open defecation due to the very poor condition of the sanitation facilities, lack of hygiene, and absence of privacy for adolescent girls. Such conditions severely compromise the quality of learning and the health of pupils. The community has mobilized on several occasions, notably after fires destroyed school buildings two years ago, which made it possible to construct one permanent building, while other classrooms remain made of reed walls. This current solution remains insufficient and not durable given the level of risk. In total, 17 participants took part in the consultation (Figure 7). Figure 8 presents selected photographs illustrating the condition of the school and its sanitation facilities.

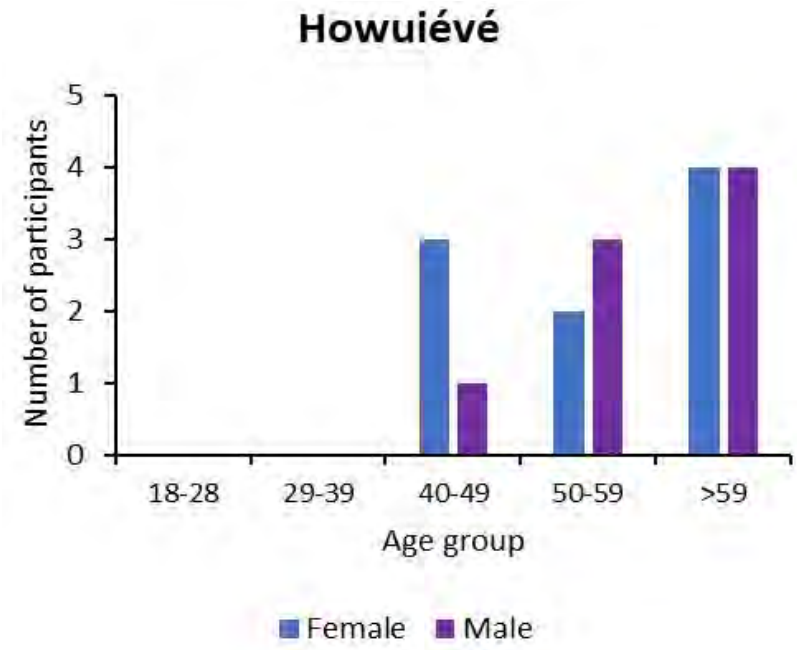


Figure 7: Participants in the community consultation in Howuiévé

• **The condition of the primary school of de Howuiévé**



Figure 8: and b)

Figure 8: Howuiévé Primary School and its sanitation facilities; school buildings (a and sanitation blocks (c and d).

3.1.3. Agbozomé

The school of the village was identified as the priority infrastructure requiring urgent rehabilitation in Agbozomé. It shows a significant level of degradation, with at least one damaged building. The roof is partially defective, leaving openings that expose pupils to heavy rainfall, strong winds, and sunshine. The walls are deteriorating due to weather conditions, and the non-cemented floor generates dust, causing infections and health problems among children. These conditions frequently lead to interruptions of classes and severely limit access to quality education. The current state of the infrastructure poses ongoing safety risks for all pupils, related to building degradation and unfinished works.

No repair or maintenance activities have been carried out over the past twelve months. Consequently, the needs expressed focus on the complete rehabilitation of the roof, walls, and floor, access to water, construction of separate latrines, installation

of solar lighting and safety devices, as well as the adoption of resilient construction solutions, such as the technologies promoted by the ECOVERSE project, in order to ensure a safe, durable, and learning-friendly school environment.

During the consultation in this village, 17 persons participated in the discussions, including the village chief and his notables (Figure 9). The condition of the school is illustrated in Figure 10.

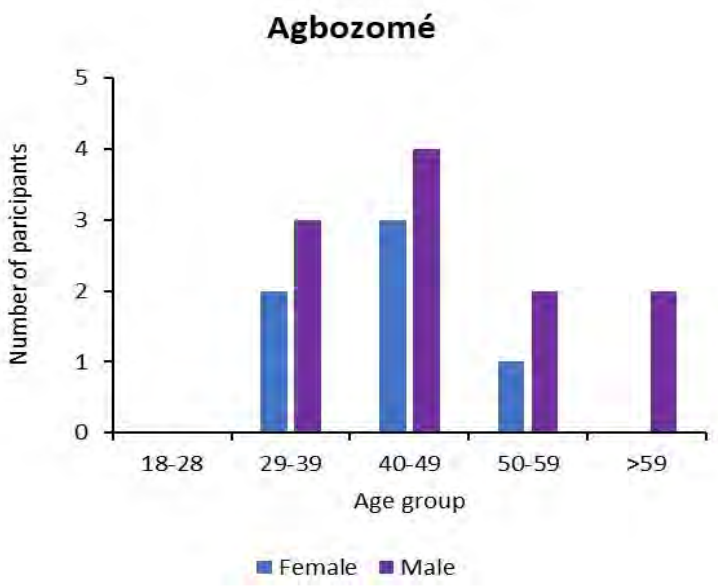


Figure 9: Participants in the community consultation in Agbozomé

- **The condition of the primary school of Agbozomé**



Figure 10: Primary school of Agbozomé

3.1.4. Awatome and Avédomé

Avédomé and Awatomé are two neighboring villages with nearly identical environmental conditions. Following the consultation, their primary schools were identified as infrastructures requiring urgent rehabilitation. Both schools are in a state of significant degradation. According to participants, strong winds and heavy rainfall have repeatedly torn off roofs and destroyed temporary walls. The floors are dusty, causing infections and health problems among pupils, particularly in Avédomé. In addition, high fire risks linked to vegetation fires during the dry season expose children to permanent insecurity.

The community regularly mobilizes to carry out repairs, which are undertaken approximately once a year, particularly at the beginning of the rainy season. The needs expressed include the construction of permanent school buildings, integration of shading, access to water, solar lighting, and appropriate safety measures. These improvements aim to ensure a safe, climate-resilient learning environment that supports children's well-being.

In total, 13 persons were consulted in Awatomé (Figure 11). Figures 12 and 13 illustrate the condition of the schools in Awatomé and Avédomé.

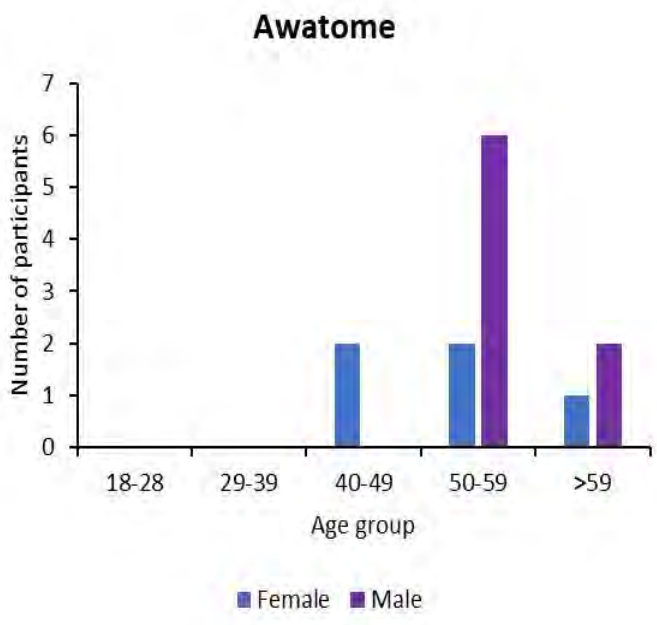


Figure 11: Participants in the community consultation in Awatome

- **The situation of the primary school of Awatome**



Figure 12: Primary school of Awatomé

The situation of the primary school of Avédomé

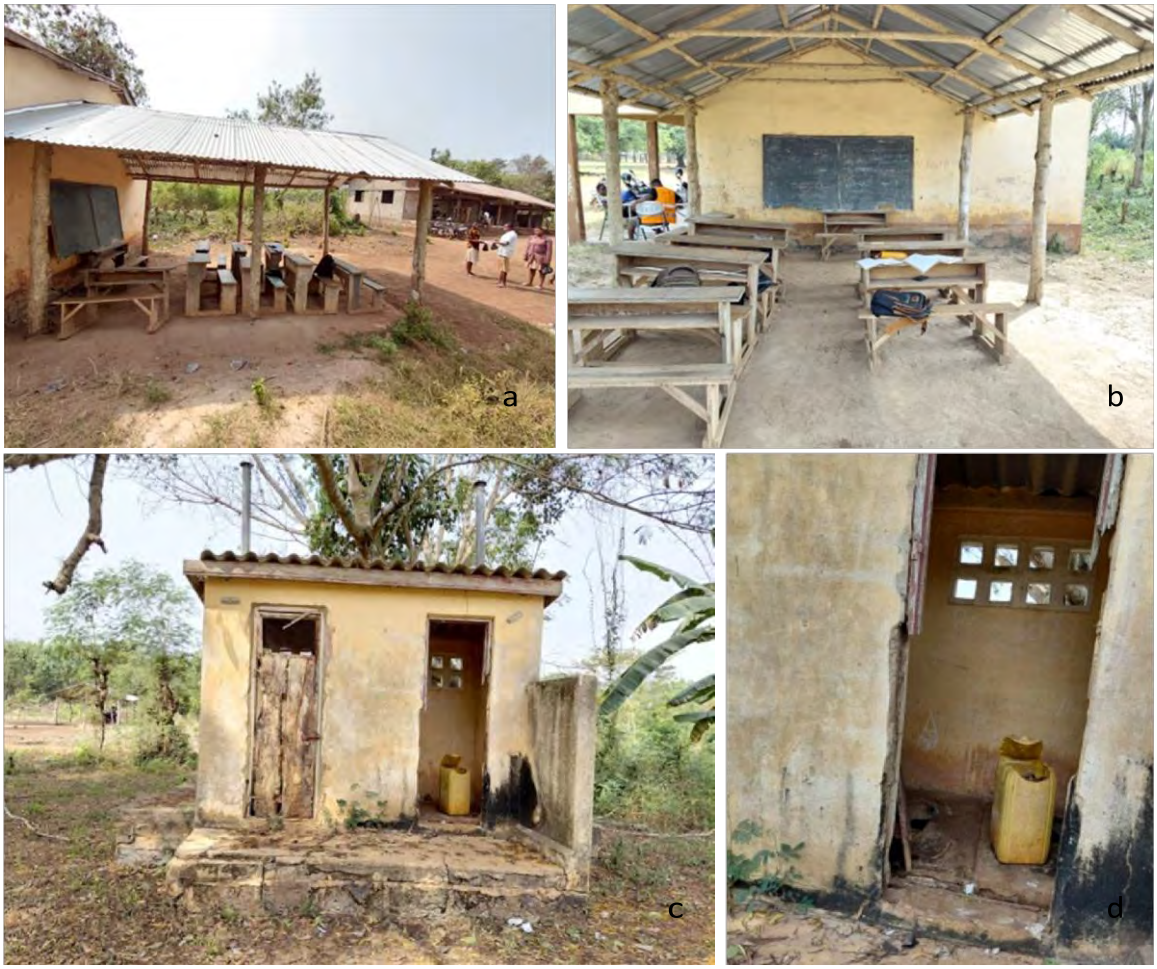


Figure 13: Avédomé Primary School and its sanitation facilities; school buildings (a and b) and sanitation blocks (c and d).

3.1.5. Zokopé

The village school in Zokopé emerged as the priority infrastructure requiring urgent rehabilitation following the focus group conducted with the local population. The school is in an advanced state of degradation. One of the buildings is enclosed with reed walls featuring irregular openings, and sanitation facilities are non-existent. Classrooms are highly exposed to heavy rainfall and strong winds, resulting in water infiltration and frequent interruptions of classes. Dust generated by the construction materials and the floor affects pupils' health, while the absence of latrines leads to open defecation, creating serious hygiene and public health problems, as well as a lack of privacy for adolescent girls. The needs expressed include the complete rehabilitation of school buildings, durable restoration of roofs, construction of separate gender-sensitive latrines, and the integration of safety measures.

A total of 22 participants attended the focus group (Figure 14).

It should be noted that almost all consulted communities unanimously emphasized the importance of using climate-resilient construction technology based on interlocking compressed stabilized earth blocks (iCSEBs) promoted by the ECOVERSE project, in order to transform degraded infrastructures into safe, durable spaces adapted to climate constraints. Figure 15 illustrates the condition of the school.

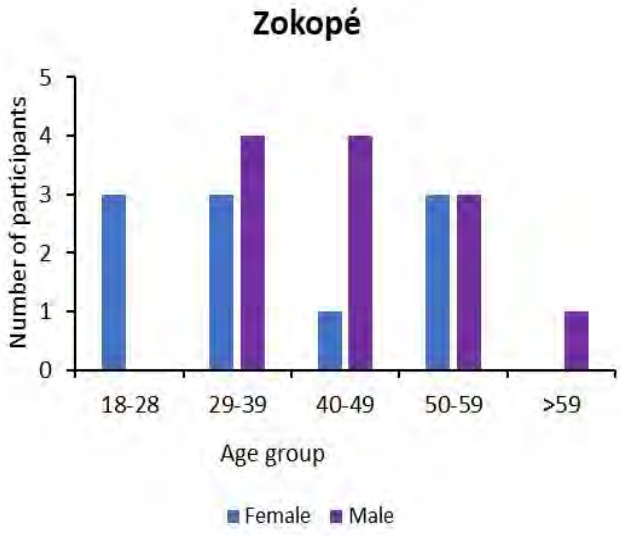


Figure 14: Participants in the community consultation in Zokopé





Figure 15: Primary school of Zokopé

3.2. Climate impacts on infrastructure degradation

Across the six localities where consultations were conducted, school infrastructures were identified as the highest priority and as being particularly affected by degradation linked to intense rainfall events, strong wind and drought events. However, Zogbépimé stands out due to the presence of additional economic and community infrastructures that are also severely impacted, including the market shelter, public latrines, and the cemetery. This situation extends the effects of climate change beyond the education sector alone. Table 1 summarizes the vulnerability of these infrastructures to climate hazards.

Table 1: Vulnerability of infrastructures to climate hazards

Village	Infrastructures	Climate Factors	Other structural factors
Zogbépimé	School, market shed/bait, cemetery, public sanitation facilities	Flooding	Unsuitable design
Houvé	Primary school	high winds	Precarious materials, costly and recurring repairs

Howuiévé	Primary school	Drought leading to fires floods	Undeveloped soils
Agbozomé	Primary school	Winds and rain,	Lack of maintenance
Awatomé and Avédomé	Primary school	High winds,	Lack of maintenance
Zokopé	Primary school	Winds, rainfall,	Lack of latrines and inadequate design

The dominant climatic hazards identified and their degradation mechanisms are as follows:

3.2.1. Intense rains and flooding

Infrastructures identified at Zogbépimé and Howuiévé are the most affected by the floods, linked to the establishment of infrastructure in low-lying areas and the lack of drainage. Rainfall leads to the collapse of buildings, accelerated deterioration of latrines and promotes health risks (defections in the open air). In Agbozomé and Zokopé, the rains mainly cause repeated interruptions of classes due to water infiltration in the classrooms.

3.2.2. High winds

Infrastructures identified at Houvé, Agbozomé, Zokopé and Howuiévé are strongly affected by the strong winds that regularly tear off the roofs and destroy the walls made of fences. These localities have a high dependence on temporary materials, which makes the degradation cyclical and recurrent, with frequent repairs (1 to 2 times/year).

3.2.3. Drought and extreme heat

Howuiévé and Zokopé are particularly exposed to fires linked to drought. The use of flammable racks by residents as a temporary solution in the absence of walls for school buildings directly exposes schools and students to fire risks, with total destruction as seen in Howuiévé in the past. In addition, excessive heat also accentuates thermal discomfort, reducing concentration and school attendance.

3.2.4. Differentiated impacts on populations

In the six localities of the municipality of Avé 1, the degradation of infrastructure under the effect of climate change has differentiated impacts according to social groups.

- Children are the most affected, due to the critical state of schools: frequent interruptions to classes, exposure to the weather, risks of collapse, fire or respiratory diseases related to dust and humidity.

- Girls suffer specific impacts accentuated by the absence or deterioration of school latrines, leading to problems of hygiene~~, menstrual health,~~ safety and school dropout.
- Women, particularly in Zogbépimé, are also affected economically, with the deterioration of the market shed reducing their income and increasing distances and risks related to business activities.

More broadly, all communities are facing increased pressure on local resources, with repeated and temporary repairs that deplete financial capacities and increase collective vulnerability to climate hazards. Table 2 presents the differentiated impacts of climate change on the populations benefiting from these infrastructures.

Table 2: Differentiated impacts of climate change on populations benefiting from these infrastructures

Affected groups	**Types of impacts observed**	**Localities mainly concerned**
Children	Interruptions to classes, physical insecurity, exposure to rain, wind and heat, respiratory and waterborne diseases related to floods	All the villages (Zogbépimé, Houvé, Howuiévé, Agbozomé, Awatomé, Zokopé)
Girls	Lack of privacy, hygiene and menstrual health problems, risk of dropping out of school	Zogbépimé, Howuiévé, Zokopé, Awatomé
Women	Reduced incomes, longer commercial distances, overload of community work	Zogbépimé mainly
Local communities	Depletion of financial resources, dependence on temporary repairs, increased vulnerability to climatic hazards	All villages

3.3. Gender and social inclusion

In all villages, the deterioration of infrastructure affects women, girls, men and boys differently, due to distinct social and economic roles.

Women and girls appear to be the most vulnerable groups, in terms of the priority infrastructure identified (schools, public and school latrines, economic areas). They are more exposed to health risks related to unsanitary conditions (stagnant water, defections in the open air), because of their role in water management, family hygiene and child care.

Girls in school are strongly impacted by the absence or deterioration of school latrines, particularly in Zogbépimé, Hohuivé, Awatomé and Zocopé. The lack of separate, safe and functional facilities affects their menstrual hygiene, safety and school attendance, increasing the risks of absenteeism and dropping out. In Zogbépimé, for example, the deterioration of the market shed has a direct impact on women (more than 95% are traders), who are the main users of this infrastructure. The loss of this economic space leads to a decrease in income, a longer distance travelled to sell products and an increased exposure to climate and security risks. In the other villages, although the direct economic impacts are less pronounced, women bear an increased workload of community work, including maintenance, cleaning and temporary repairs to schools. Table 3 summarizes these differentiated observations.

Table 3: Observations related to gender and social inclusion impacts by village

Village	**Dominant gender impacts**	**Most affected groups**
Zogbépimé	Market-related loss of income, lack of adequate school latrines	Women traders, girls
Houvé	Precarious school infrastructure, indirect impacts through education	Children, girls
Howuiévé	Fire and flood risks, unusable latrines	Girls, women, children
Agbozomé	Educational deterioration, female participation in management	Children, women
Awatomé and Avédomé	Repeated repairs carried out by the community	Women, children
Zokopé	Lack of latrines, insecurity and hygiene problems	Girls, women

3.4. Livelihoods and economic vulnerability resulting from climate-induced infrastructure deterioration

3.4.1. Impact on education

The deterioration of school infrastructure is one of the main factors of socio-economic vulnerability in the medium and long term. Classrooms built of precarious materials (racks, straws) or partially damaged are highly exposed to rain, strong winds and heat, leading to frequent interruptions of classes, a decline in the quality of education and an increase in school absenteeism. In Howuiévé, Houvé, Awatomé and Zokopé, the risk of collapse and fire has sometimes led to temporary school closures. The absence or deterioration of school latrines, particularly in Zogbépimé, Howuiévé and Zokopé,

accentuates school dropouts, especially among girls, compromising local human capital in the long term.

3.4.2. Impacts on market access and other income-generating activities

The economic impacts are particularly marked in Zogbépimé, where the deterioration of the market shed is severely disrupting commercial activities, the main sources of income, especially for women. The loss of this space leads to lower incomes, longer distances to other markets, and increased exposure to climate and security risks. In the other villages, although economic infrastructure is less present, the deterioration of schools and climate instability indirectly affect income-generating activities through the repeated mobilization of households for community work, reducing the time devoted to productive activities.

3.4.3. Climate-related impacts on public health, and cultural dignity

The deterioration of infrastructure has significant effects on public health. Unprotected school buildings (walls and soils) promote children's exposure to respiratory diseases, moisture-related infections and dust. The absence or unusability of latrines leads to defections in the open air, increasing the risk of waterborne diseases and environmental contamination. In Zogbépimé and Howuiévé, flooding is exacerbating health risks, while bush fires and extreme heat, particularly in Awatomé and Hohuiévé, are exacerbating health vulnerabilities.

3.4.4. Costs related to local rehabilitation initiatives

Faced with the inadequacy of the interventions of the local authorities, the communities have set up local rehabilitation initiatives, which are often costly and not sustainable. In Houvé, the main repairs were the repair and replacement of school screening/protective structures, and were carried out about twice a year at an estimated cost of 725.54 USD[2] per intervention. In Howuiévé, community contributions reached about 1451.08 USD after destruction linked to the fires. The main repair was related to the rehabilitation of school infrastructure damaged by fire (the roofing and timber used for the construction). In Zokopé, annual or semi-annual repairs represent recurrent costs (181.38 to 544.15 USD) that deplete local financial resources, increasing households' economic vulnerability and limiting their ability to invest in more resilient livelihoods. The main repair was related to the rehabilitation of school infrastructure damaged by fire (the roofing and timber used for the construction).

3.5. Institutional capacity and governance

The persistent deterioration of infrastructure in the six villages reveals structural limitations of local governance and institutional capacity to plan, maintain, and rehabilitate climate-resilient public works. In all six localities, the priority infrastructure identified (schools, market shed, sanitary facilities, etc.) suffers from a lack of

preventive maintenance, poor anticipation of climate risks and insufficient technical and financial resources at the municipal and decentralised level.

The local management mechanisms, namely the Primary School Management Committee (COGEP) in Awatomé, the Parents' Association (APE) in Houvé and Zokopé, the Village Development Committee (CVD) in Zogbépimé, Howuiévé and Agbozomé, are functional and play a key role in community mobilization, routine maintenance and emergency repairs. This local governance demonstrates active social capital, with a notable participation of women and young people, particularly in Howuiévé, Agbozomé and Awatomé. However, these structures have limited mandates, insufficient technical skills and limited access to public funding, which limits them to temporary solutions (repairs with racks, straw roofs), without the capacity for structural transformation.

The lack of structuring public investment and effective coordination mechanisms between the communities, the municipality of Avé 1 and the sectoral technical

[2] 1USD = 551,31 Franc CFA on February 11, 2026 (https://www.bceao.int/fr/cours/cours-de-referencedes-principales-devises-contre-Franc-CFA)

services contributes to the reproduction of vulnerabilities. In several villages (Houvé, Zokopé, Awatomé), the same infrastructure is repaired repeatedly after each extreme climatic event, reflecting a weak integration of climate resilience into local planning and multiplied costs estimated at a cumulative average of 1081.31 USD for all these localities. In addition, the state of deterioration of infrastructure illustrates a reactive and community-based governance rather than preventive, strategic and institutional. This context highlights the need for the ECOVERSE project to strengthen local institutional capacity, improve multi-stakeholder coordination and integrate climateresilient building standards in order to transform current responses into sustainable, equitable and inclusively governed solutions.

Finally, the consultations show an active participation of women in local management mechanisms (COGEP, APE, CVD), particularly in Howuiévé, Agbozomé, Houvé and Awatomé. However, their attendance rate (estimated at 100%) contrasts with speaking out (about 70%) and considering the solutions they propose in the final decisions taken (about 20%). Nevertheless, they contribute financially and materially to emergency repairs and play a central role in community mobilization and support for rehabilitation work by performing tasks such as drawing water, transporting materials (sand, straw, etc.). As a result, their involvement is often limited to execution, while strategic decisions and access to external resources remain predominantly dominated by men.

3.6. Financial inclusion and ECOVERSE's role in access to finance

The consultations reveal a low level of formal financial inclusion of communities, characterized by limited access to microfinance institutions, bank credit, and public infrastructure financing mechanisms. Residents rely mainly on informal solidarity mechanisms (community contributions, tontines) to access savings and loans, while meeting the needs of infrastructure rehabilitation. These schemes, although indicative of strong social capital, remain insufficient and poorly adapted to finance sustainable and climate-resilient investments.

However, their direct access to credit remains limited by a lack of collateral, low incomes and a lack of knowledge of formal financial tools. In addition, interest rates of 2.5% for 90.69 USD over a period of time considered too short (03 months; equivalent to an annualized rate of approximately 10%) is also a perceived as a discouraging factor and obstacle[1]. This situation forces communities to prioritize low-cost temporary repairs, perpetuating a cycle of economic and infrastructural vulnerability.

In this context, the ECOVERSE project can play a major catalytic role in strengthening community financial inclusion. Through support for appropriate financing mechanisms (community resilience funds, catalytic grants through the creation of a microfinance institution), ECOVERSE can facilitate access to structuring financial resources with a particular focus on women and youth. Finally, by combining financing, technical assistance and resilient building (iCSEBs) technologies, ECOVERSE has the potential to transform existing community initiatives into sustainable investments, thereby strengthening communities' financial autonomy, infrastructure resilience and local capacity to cope with climate shocks in an inclusive and sustainable way.

3.7. Social dynamics and access to resources

The consultations revealed that regarding land ownership, women are largely excluded from formal ownership; the majority do not have land titles, although some may inherit land (a practice that varies between villages). The issue of access to land remains a major obstacle to their economic autonomy. National legislation stipulates that girls have the same right to land inheritance as boys, which was also alleged by the chiefs of the six villages consulted. However, in real practice, restrictions are still significant.

Concerning work and income, women are heavily involved in agriculture (notably chili cultivation in several villages), but they are predominantly confined to direct marketing activities (without processing, over 90%), thereby limiting the value-added of their labor. The burden of unpaid domestic work for women (ranging from 4 to over 12 hours per day) is considerably higher than that for men, which reduces their availability for other economic or community activities.

Across all the consulted villages, literacy in French and smartphone ownership are lower among women (40% for French usage; 60% smartphone ownership) compared to men (75% for French usage; 80% smartphone ownership), which could pose an obstacle to their digital financial inclusion without specific support. This illustrates the observed low rate of formal bank account ownership, especially among women (less than 2%), while access to local tontines and microfinance institutions is more widespread (approximately 35%).

As a result, respondents expressed a high and shared interest in innovative, inclusive and locally accessible financing mechanisms, such as the Digital Financial Cooperative promoted by ECOVERSE. Expectations are indeed on easier access to credit, community savings, financing of micro-projects and resilient infrastructure, with particular attention to women, youth and vulnerable groups. ECOVERSE is thus seen as a potential lever to strengthen financial inclusion, transparency and the economic autonomy of communities, while supporting more structured and sustainable local governance.

[1] Information collected in the field (from the interviewees)

4. Other Concerns

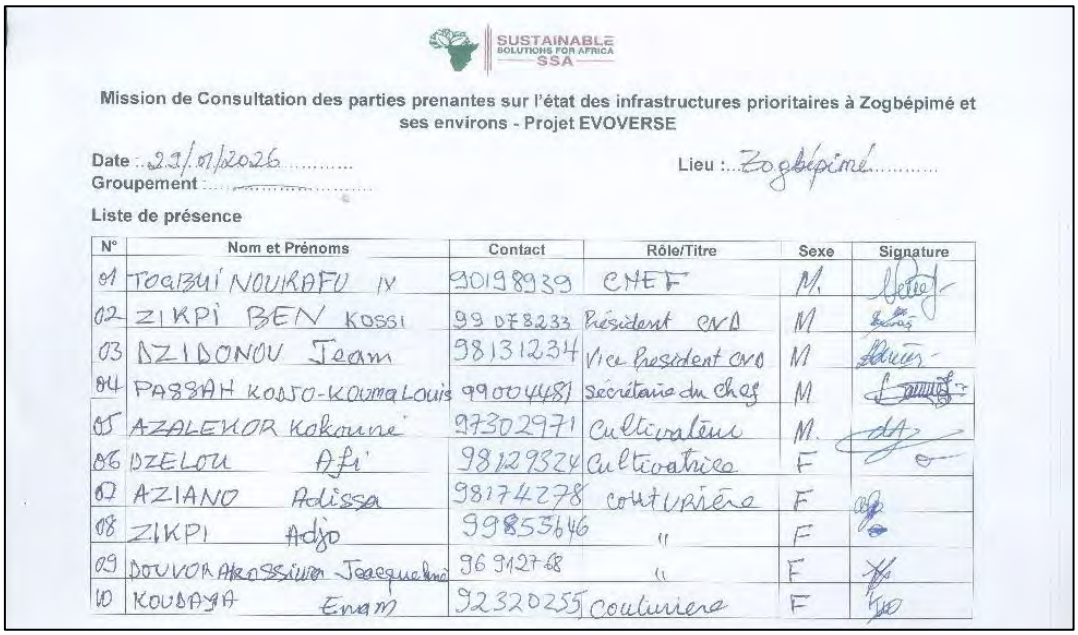
In addition to the priority infrastructure identified, the communities consulted made additional suggestions specific to their local needs, some of which were identified as urgent.

In Zogbépimé, they propose to fence off the dispensary to strengthen security and resilience to flooding, while those in Houvé want to build a block of public toilets, which will be maintained by the authorities and village community management commissions. Respondents in Howuiévé suggest the restoration of the village's solar power plant offered by EDF (Electricité de France) to improve public lighting and facilitate children's education. It is the only source of energy supplying the village with electricity but destroyed by lightning. In Zokopé, they expressed broader needs, including the construction of a market, the installation of drinking water infrastructure and the renovation of the road. On the other hand, Agbozomé and Awatomé did not make any additional comments or suggestions. These demands illustrate the diversity of infrastructure priorities beyond schools, including sanitation, energy, and basic economic amenities.

Annexes

Annex 1: Stakeholder Consultation Participant List

- **Zogbépimé**



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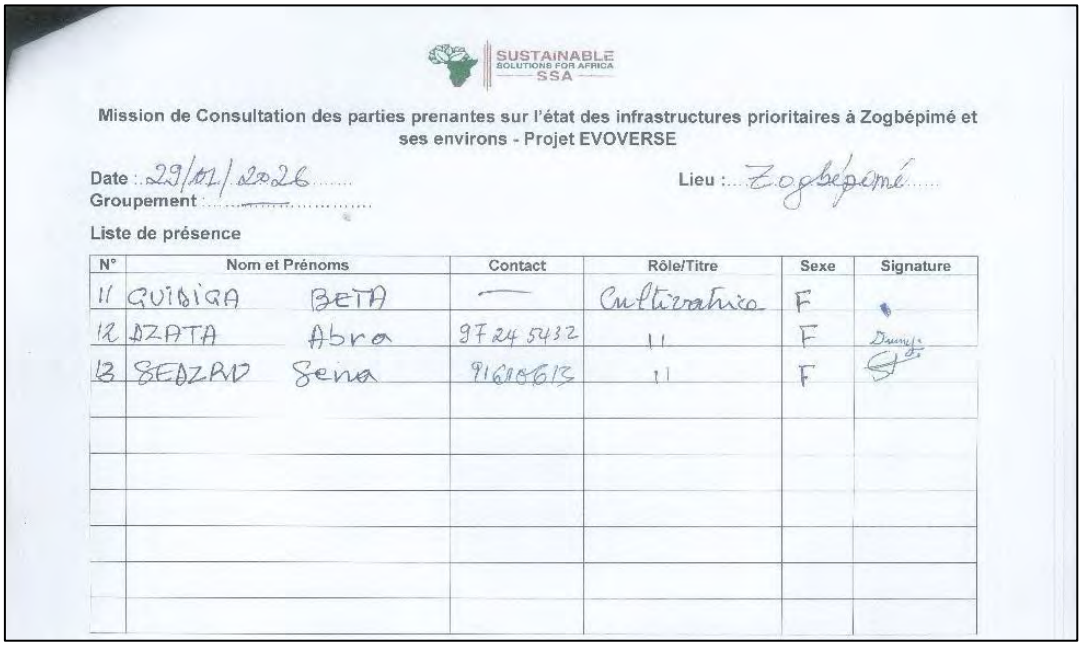
Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 29/01/2026 Lieu : Zogbépimé

Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
01	TOGBUI NOUKAFU IV	90198939	CHEF	M.	
02	ZIKPI BEN KOSSI	99 078233	Président CVD	M	
03	AZIDONOU Jean	98131234	Vice Président CVD	M	
04	PASSAH KOSSO-KOUMA Louis	99004481	Secrétaire du Chef	M	
05	AZALEKOR Kokouvi	97302971	Cultivateur	M.	
06	DZELOU Afi	98129324	Cultivatrice	F	
07	AZIANO Adissa	98174278	couturière	F	
08	ZIKPI Adjo	99855646	"	F	
09	DOUVON Akossiwa Jacqueline	96 91 27 68	"	F	
10	KOUDAYA Enam	92320255	couturière	F	



SUSTAINABLE SOLUTIONS FOR AFRICA SSA

Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 29/01/2026 Lieu : Zogbépimé

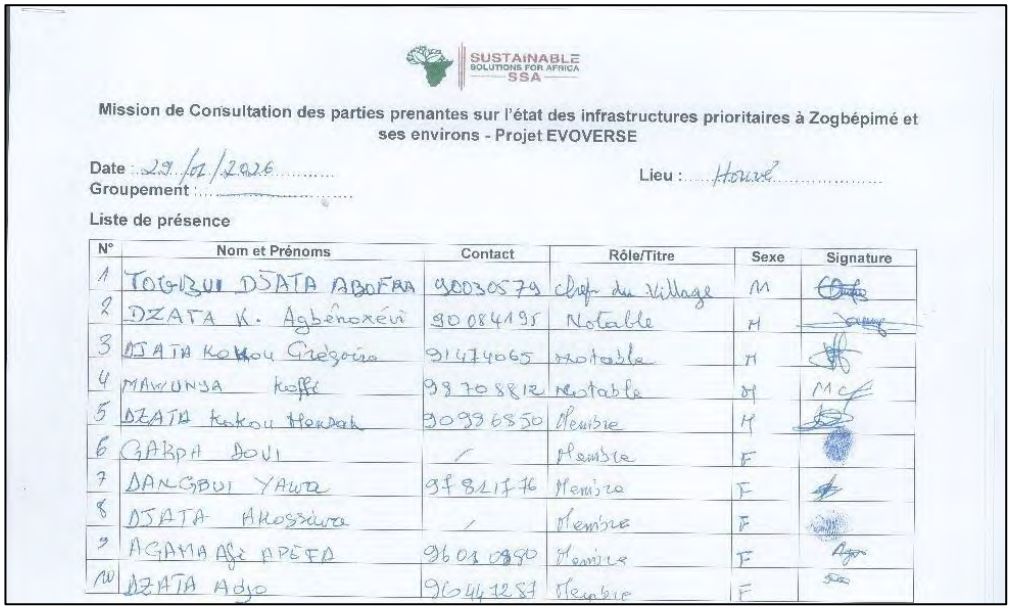
Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
11	GUIDIGA BETA	—	Cultivatrice	F	
12	DZATA Abra	97 24 54 32	"	F	
13	SEDZRO Sena	91616613	"	F	

- **Houvé**

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SUSTAINABLE SOLUTIONS FOR AFRICA SSA

Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 29/01/2026 Lieu : Houvé

Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
1	TOGBUI DJATA ABOFRA	90030579	chef du village	M	
2	DZATA K. Agbénoxévi	90084195	Notable	H	
3	DJATA Kokou Grégoire	91474065	notable	H	
4	MAWUNYA Koffi	93708812	Notable	H	
5	DZATA Kokou Herbak	90936550	Membre	H	
6	GAKPA Dovi	/	Membre	F	
7	DANGBUI YAWA	97821776	Membre	F	
8	DJATA Akossiwa	/	Membre	F	
9	AGAMA Afi APETA	96030890	Membre	F	
10	DZATA Adjo	96441287	Membre	F	



SUSTAINABLE SOLUTIONS FOR AFRICA SSA

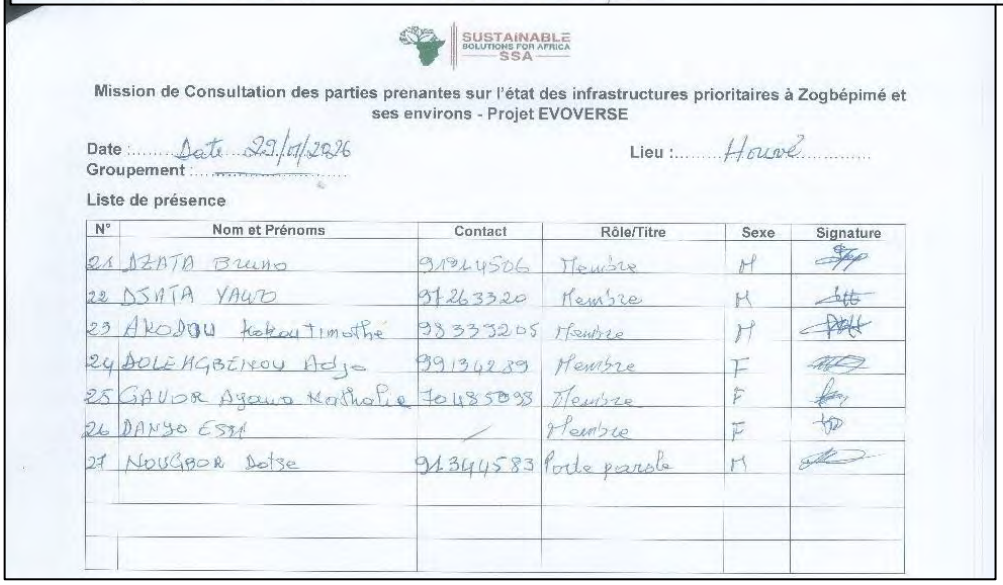
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Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
11	LABOU Adjo	/	Membre	F	
12	ADENYO Afi	97125752	Membre	F	
13	NOUASSI Afi	/	Membre	F	
14	KOGBE Abra	/	Membre	F	
15	DJATA Abra	/	Membre	F	
16	GAKpa Adjo	/	Membre	F	
17	NOUGBO Atsou	/	Membre	H	
18	DJATA AGBEKo	97109023	secrétaire du chef	H	
19	MOKLI Ama Mawuena	99466650	Gendarmerie des femme	F	
20	DJANTA kokouvi	93017623	Gongonneur	H	



SUSTAINABLE SOLUTIONS FOR AFRICA SSA

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Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
21	DZATA Bruno	91924506	Membre	H	
22	DJATA YAWO	97263320	Membre	H	
23	AKODJO Kokou Timothé	93333205	Membre	H	
24	DOLEAGBENOU Adjo	99134289	Membre	F	
25	GAVOR Agawu Nathalie	70485098	Membre	F	
26	DANYO ESSA	/	Membre	F	
27	NOUGBOR Dotse	91344583	Porte parole	H	

- **Howuiévé**

SUSTAINABLE SOLUTIONS FOR AFRICA SSA

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Date : 29-01-2026 Lieu : Howuiévé

Groupement : —

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
1	Togbui Komi DZOKPE	90139249	Chef du village	M	
2	Figba Komla Gbeklu	99 91 4449	Notable à la chefferie	M	
3	Kowu Kofi Mensah	90 91 45 64	Secrétaire	M	
4	Kesse Yao Thomas	79 71 3817	Président CVD	M	
5	Legba Aku	96 92 88 57	Cultivatrice	F	
6	Tsipotu Mawulom	7061 2448	Menagère	F	
7	Gbeklu Dogbeda	99 45 89 17	Menagère	F	
8	Galley Akossiwa	99 03 59 54	Cultivatrice	F	
9	Aoleti Enyovi	96 69 58 52	Cultivatrice	F	
10	Aboly Carolina	96 80 33 03	Cultivatrice	F	

SUSTAINABLE SOLUTIONS FOR AFRICA SSA

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Groupement : —

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
11	Ahama Atsupi	36 36 77 64	Menagère	F	
12	Akpoto Mawulawoe	79 26 76 40	Menagère	F	
13	Ahiakpa Etsé	79 56 91 04	Notable à la chefferie	M	
14	Adabra Raphaël	—	Gongoneur	M	
15	Ameko Koffi	98 52 11 57	Maçon	M	
16	Adokovi Claudine	99 98 01 14	Menagère	F	

- **Agbozomé**

SUSTAINABLE SOLUTIONS FOR AFRICA SSA

Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 30/01/2026 Lieu : Agbozomé
Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
1	Hodi Kossi	92677096	chef du village	M	
2	Aziawolatpa Michel	71869548	culturiculteur	M	
3	Mawuenyega Yokou	70397679	Tailleur	M	
4	Assagba Afi	92958109	Culturicultrice	F	
5	Gomela Komlété	90290114	Macon	M	
6	Aziavé Kossi	91241056	Tailleur	M	
7	Amoglélé Akou	97205389	Culturicultrice	F	
8	Kouabe Jawavi	96313712	Culturicultrice	F	
9	Gomela Kossi	90111459	culturicultur	M	
10	Gomelo Loumessi	99406696	Culturicultrice	F	

SUSTAINABLE SOLUTIONS FOR AFRICA SSA

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Date : 30/01/2026 Lieu : Agbozomé
Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
11	Aziakomé Akoss	98288443	culturicultrice	F	
12	Bétakou Komi	99895650	culturicultur	M	
13	Jigba Abra	97710186	culturicultrice	F	
14	Efia Kossi	91924511	Menuisier	M	
15	Mawuenyega Atsou	70401176	culturicultur	M	
16	Agbadzi Atsuto	99831431	CYD	M	
17	Agbobla Komi	//	culturicultur	M	

- **Zokopé**



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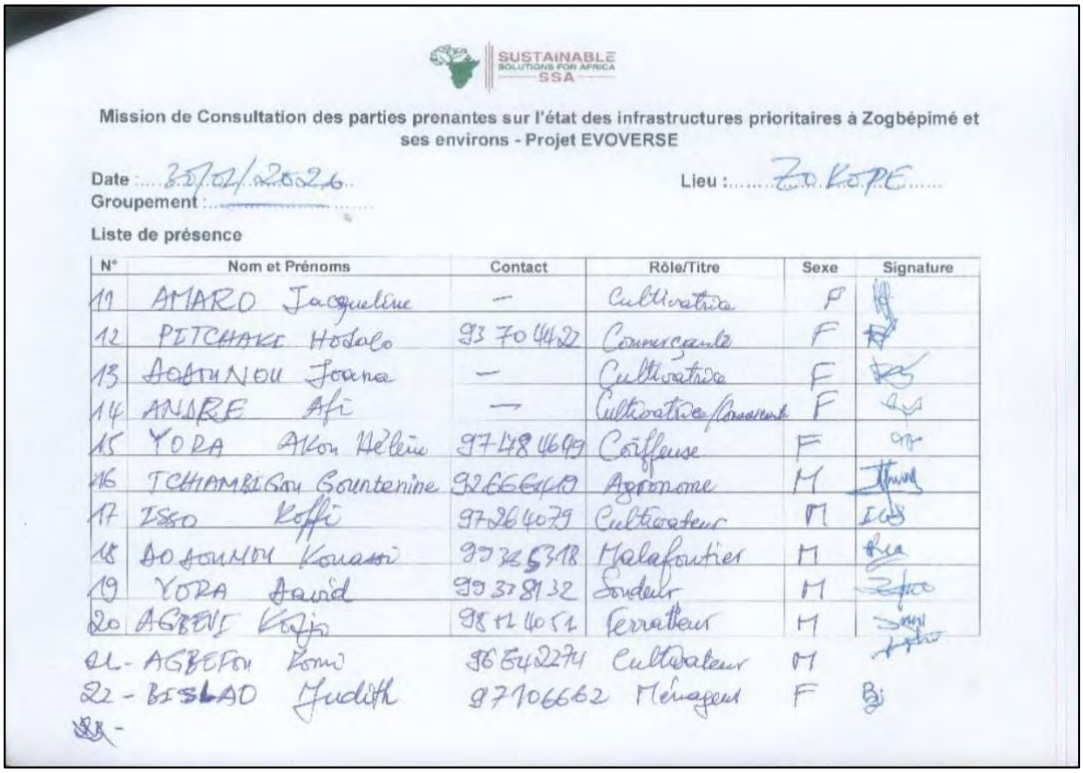
Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 30/12/2026 Lieu : ZOKOPE

Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
1	DODOUNOU Komi	91 31 89 20	Chef de village	M	
2	NAKPASSE Koudjo	97 05 18 76	Chef des représentants famille	M	
3	ASSAGBA Kouma	99 61 15 87	Chef des représentants famille	M	
4	ASSAGBA Amenti	91 85 13 45	Chef CVD	M	
5	YORA ALI	98 79 68 44	Vice-chef CVD	M	
6	GNOYE Kekou	72 12 97 74	Cultivateur	M	
7	AHEKOUSSI Olivia	99 48 88 20	Cultivatrice	F	
8	AGBEADEMA Amé	79 64 37 22	Cultivatrice	F	
9	ATSIVON Epé	97 48 22 46	"	F	
10	PATCHARE Tchalalo	97 48 22 53	" Commerçante	F	



SUSTAINABLE SOLUTIONS FOR AFRICA SSA

Mission de Consultation des parties prenantes sur l'état des infrastructures prioritaires à Zogbépimé et ses environs - Projet EVOVERSE

Date : 30/12/2026 Lieu : ZOKOPE

Groupement :

Liste de présence

N°	Nom et Prénoms	Contact	Rôle/Titre	Sexe	Signature
11	AMARO Jacqueline	—	Cultivatrice	F	
12	PETCHAKE Hodalo	93 70 44 22	Commerçante	F	
13	AGBANOU Joana	—	Cultivatrice	F	
14	ANDRE Afi	—	Cultivatrice/Couturière	F	
15	YORA Akon Hélène	97 48 46 09	Coiffeuse	F	
16	TCHAMBIGOU Gountenine	92 66 64 40	Agronome	M	
17	ISSO Koffi	97 26 40 79	Cultivateur	M	
18	DOSSOUVI Kouassi	99 36 53 18	Maçon/Tailleur	M	
19	YORA David	99 37 81 32	Soudeur	M	
20	AGBEVI Kofi	98 42 40 51	Ferrailleur	M	
21	AGBEFOU Komi	96 54 22 74	Cultivateur	M	
22	BISLAO Judith	97 70 66 62	Ménagère	F	
23					

Annexe 2: Photos with women groups during consultations in 2025 and 2026









Annex 3: Photos of dilapidated infrastructure

- **Zogbépimé**
  - Primary school and its sanitation facilities



















- Cemetery









- Public market







- **Avédomé and its sanitation facilities**













- **Awatomé : Primary school**











• **Houvé: Primary school and its sanitation facilities**



















- **Howuiévé: Primary school and its sanitation facilities**

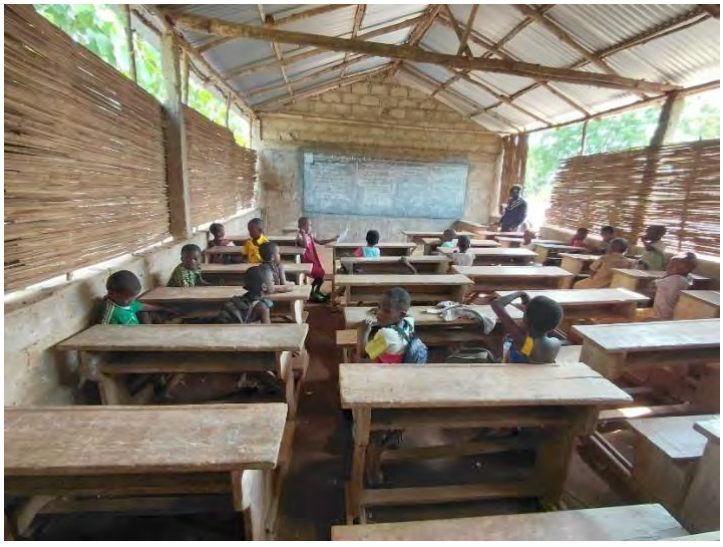


















• **Zokopé : Primary school and its sanitation facilities**











Annex 3: Photos of consultations

- Agbozomé





• Awatomé







• Houvé







• Howuiévé





• Zogbépimé





• Zokopé



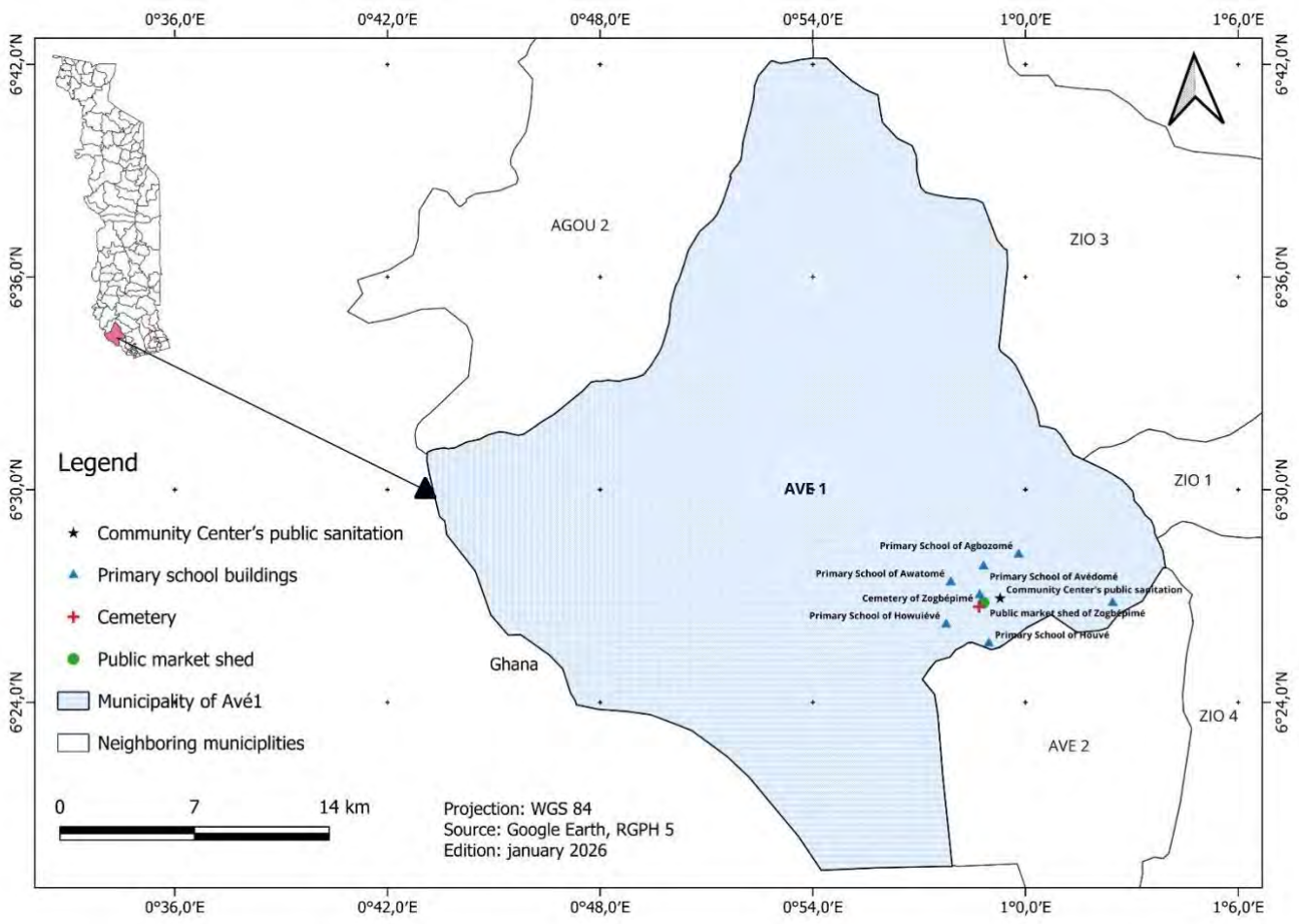




Annex 4: Georeferenced infrastructures identified per locality

Village	Identified Infrastructure(s)	Geographic Coordinates
Agbozomé	Primary school buildings	06°28'10.4'' N 0°59'48.3'' E
Avédomé	Primary school buildings and its Sanitation facilities	06°27'50.4'' N 0°58'48.9'' E
Awatomé	Primary school	06°27'23.4'' N 0°57'53.3'' E
Houvé	Primary school buildings and its sanitation facilities	06°25'39.8'' N 0°58'57.8'' E
Howuiévé	Primary school buildings and its sanitation facilities	06°26'12.0'' N 0°57'45.7'' E
Zogbépimé	Primary school buildings and its sanitation facilities	06°27'01.7'' N 0°58'42.3'' E
	Cemetery	06°26'41.9'' N 0°58'41.1'' E
	Public market shed	06°26'48.6''N 0°58'49.0'' E
	Community Center's public sanitation block	06°26'56,0'' N 0°59'16.9'' E
Zokopé	Primary school buildings	06°26'48.2'' N 01°02'27.3'' E

Annex 5: Infrastructures Location map



Annex 5 Detailed description of related initiatives and justification for non-duplication

The complementary table below linked to table 9 provides further details on the related initiatives identified in Chad and Togo. For each project or programme, it summarises the implementing entity, target population, implementation timeline and locations, main interventions, and key lessons learned, together with a concise justification for the 'no duplication' statement. This expanded information demonstrates that ECOVERSE is designed to build on and complement existing investments while targeting distinct communities, intervention types and geographic areas, thereby avoiding duplication and maximising synergies across the climate-finance portfolio in both countries.

Detailed description of related initiatives and justification for non-duplication

Project / initiative	Entity	Timeline and locations	Target population	Main interventions implemented	Lessons learned relevant to ECOVERSE	Justification for no duplication
N'Djaména Urban Resilience Project (P177044), Chad	Government of Chad (municipal authorities) / World Bank	2023–2029; selected districts of N'Djaména focusing on primary drainage, road corridors and critical public infrastructure	Urban households and businesses exposed to recurrent flooding and poor drainage in targeted N'Djaména districts	Construction and rehabilitation of primary and secondary drainage and roads; large-scale flood-management infrastructure; strengthening municipal flood-risk management and urban planning capacities	Large-scale infrastructure must be complemented by community-level drainage maintenance, household-scale flood-proofing and participatory mapping to ensure equitable access and long-term maintenance; integration of solid-waste management is critical for drainage performance	P177044 finances primary and secondary infrastructure, while ECOVERSE focuses on distinct community roads, micro-drainage, green corridors and climate-resilient housing in specific neighbourhoods of the 8th and 9th districts and peri-urban Linia and Mandelia GIS-based site screening and municipal mapping ensure no overlap in financed works
GEF Water Supply and Sanitation in Chad (GEF ID 10089)	Ministry of Environment, Water and Fisheries / GEF	Ongoing; rural and small-town areas in selected regions of Chad	Rural and small-town households lacking reliable water supply and sanitation services	Construction and rehabilitation of rural water points; small-town water and sanitation systems; strengthening national water governance and regulation	Standardisation of water-supply technologies and service models, the importance of clear O&M arrangements and water committees, and the need to align with national water-quality standards and regulations	The GEF project focuses on rural and small-town systems and national governance; ECOVERSE's solar-powered water systems and rainwater harvesting units operate in underserved urban and peri-urban communities in N'Djaména and Chari-Baguirmi Supply zones are agreed with the Ministry to avoid overlap with GEF-financed infrastructure
World Bank Water Services Enhancement	National water utility and relevant ministries / World Bank	Ongoing; selected regions and service areas in Chad identified in the project design	Households and enterprises connected to improved piped water	Upgrading and expansion of water and sanitation infrastructure; institutional reforms and	Enhancing utility performance and governance improves service reliability, but	ECOVERSE installs community-managed rainwater harvesting and solar water pumping

Project, Chad (P507957)			and sanitation services in targeted regions	capacity-building for the water utility and sector regulators	last-mile access and community stewardship remain gaps, especially in informal and peri-urban settlements	systems in peri-urban N'Djaména districts outside the World Bank project's service areas Site screening and coordination with the utility and World Bank team confirm that ECOVERSE does not finance infrastructure already covered by P507957
GCF USD 100 million commitment to Chad (2026)	Government of Chad with GCF	From 2026; national-level programme pipeline aligned with Chad Connect 2030 and the revised NDC	National institutions and populations benefiting from forthcoming GCF-financed programmes	Development and implementation of large-scale climate-resilient investments (to be defined) in priority sectors such as agriculture, water, energy and infrastructure	Early engagement with communities and piloting locally led approaches improves the design and targeting of large-scale programmes; robust local evidence helps prioritise investments and avoid top-down designs that miss ground-level needs	The GCF commitment is a financing envelope and pipeline, not a defined project with sites overlapping ECOVERSE operates in specific communities in N'Djaména, Chari-Baguirmi and Avé 1 Commune and will feed evidence into GCF programming via the GCF focal point, while avoiding co-financing of the same site-level investments
DIZA-Est – Développement Inclusif des Zones d'Accueil Est	AFD / Concern Worldwide	2018–2024; displacement-affected reception zones in eastern Chad	Displaced populations and host communities in eastern Chad	Livelihoods and social cohesion support; group-based savings and credit; basic community infrastructure in displacement settings	Inclusive community-based savings models and group formation work well in fragile contexts when combined with intensive facilitation and conflict-sensitive approaches, especially for women and youth	DIZA-Est is confined to eastern reception zones; ECOVERSE operates in N'Djaména and Chari-Baguirmi ECOVERSE reuses DIZA-Est methodologies for group formation and inclusive finance but applies them to climate-adaptation investments in geographically and thematically distinct settings
DIZA-Sud – Développement Inclusif des Zones d'Accueil Sud	AFD / Swisscontact	2018–2024; reception and host areas in southern Chad	Displaced persons and host communities in southern Chad	Livelihoods, skills development and community enterprises; savings groups and social-cohesion activities	Group-based economic initiatives can improve resilience when combined with tailored support to women and youth and	DIZA-Sud works in southern regions; ECOVERSE sites are in N'Djaména and Chari-Baguirmi There is no overlap in locations or

					strong local governance arrangements	beneficiary groups, and ECOVERSE simply adapts tested inclusive-finance approaches to climate-adaptation purposes in other parts of the country
UNDP–GEF National Adaptation Plan Project, Chad	UNDP / Ministry of Environment	2019–2024; national coverage with activities based in N'Djamena	National and sectoral institutions responsible for adaptation planning and budgeting	Preparation of the NAP framework; climate-risk assessments; integration of adaptation into sector plans and budgets; capacity-building	Clear sectoral priorities and institutional mandates exist but need field-level feedback and operational evidence to inform future NAP updates and investment choices	The NAP project is completed and focused on upstream planning and capacity-building; it did not implement local-scale adaptation measures in ECOVERSE sites ECOVERSE now operationalises NAP priorities in selected communities and channels lessons back into national planning without duplicating NAP activities
IFAD–GCF Climate-Resilient Agriculture Project, Chad	IFAD / national agriculture and rural development services	From 2025; rural production zones across selected regions	Smallholder farmers and rural households dependent on rain-fed agriculture and livestock	Climate-resilient agriculture packages; farmer-field-school extension; value-chain support; climate-risk management at farm and landscape level	Farmer-field-school and group-based extension models increase adoption of climate-smart practices; combining agronomic support with tenure clarity and gender-responsive farmer organisation strengthens sustainability and equity	ECOVERSE operates in a delimited peri-urban and rural fringe around N'Djaména (Chari-Baguirmi) that is not prioritised under the IFAD–GCF project Coordination at inception will ensure separation of plots and beneficiary groups and complementary technical packages rather than overlapping support
West Africa Food System Resilience Program (FSRP), Togo	World Bank / Government of Togo	Phase 1 from 2022; Savanes, Kara and Centrale regions and selected value chains nationwide	Farmers, value-chain actors and institutions in Togo's food system, especially in northern and central regions	Agricultural input and advisory support; value-chain investments; food-crisis preparedness and regional risk-sharing mechanisms	Food-system resilience programmes benefit from complementary ecosystem-based adaptation measures and community-level finance, which are often outside their core mandate but critical for sustainability of productivity gains	ECOVERSE is located in Avé 1 Commune in the Plateaux region, where FSRP has limited direct footprint Beneficiary lists and locations will be cross-checked with the World Bank country team to ensure ECOVERSE does not finance the same

						farmers or interventions, but instead provides complementary adaptation investments
UNDP Togo Central Region Climate Resilience Project	UNDP / ministries of environment and agriculture	2025–2030; five prefectures in Togo's Central region (approx. 7,500 ha restoration; 35,000 ha regenerative agriculture)	Smallholder farmers and communities in Central region landscapes	Landscape-scale restoration; regenerative agriculture; multi-stakeholder land-use planning; climate-risk management	Effective landscape restoration requires strong local land-use governance, integration of income-generating activities and multi-actor coordination	ECOVERSE works in Zogbépimé, Avé 1 Commune in the Plateaux region, which is outside the Central-region implementation area ECOVERSE functions as a micro-catchment demonstration aligned with national approaches, with no overlapping sites or farmer groups
REDD and Forest Landscape Restoration programmes, Togo	Government of Togo / GEF and partners	Ongoing; multiple regions including selected forest–savanna transition zones	Communities and stakeholders in forest and savanna landscapes	Policy and institutional frameworks for REDD; protection and restoration of forest landscapes; MRV systems and community forest management	Community-based forest management and clear benefit-sharing mechanisms are key for long-term stewardship; project-level monitoring must align with national MRV requirements	ECOVERSE's restoration plots in Avé 1 are selected and designed with the forestry administration to avoid overlap with REDD-financed sites Monitoring data are shared with national MRV systems, making ECOVERSE a complementary demonstration rather than a duplicate of REDD activities
FAO / LDCF rural and coastal resilience initiatives	FAO / governments of Chad and Togo / LDCF	Ongoing; specific coastal and rural zones in both countries	Rural and coastal communities facing climate-related livelihood and ecosystem risks	Climate-smart agriculture, water management, natural-resource governance and livelihood diversification in selected areas	Technical packages must be tailored to local conditions and coupled with strong extension and community institutions to sustain adoption; alignment with national strategies improves coherence	FAO / LDCF projects operate in coastal and rural zones distinct from ECOVERSE's target areas in N'Djaména, Chari-Baguirmi and Zogbépimé Through national coordination platforms, sites and beneficiaries will be screened to ensure ECOVERSE investments complement rather than duplicate FAO-supported interventions

Great Green Wall (GGW) regional initiative	AU / UNCCD / national GGW structures	2007–ongoing; Sahelian belt including Chad	Communities and ecosystems in GGW priority corridors	Large-scale restoration and sustainable land-management programmes in GGW corridors; policy and coordination support	Restoration programmes benefit from clear, tested field methodologies and robust community engagement models to achieve scale and durability	GGW provides an umbrella and finances specific blocks in priority corridors; ECOVERSE micro-catchments are selected outside already-financed GGW blocks Site selection is validated with GGW focal structures and GIS screening, so AF funds do not duplicate GGW-financed investments
AFR100 (African Forest Landscape Restoration Initiative)	AU / NEPAD / multiple partners	2015–ongoing; continental, with national commitments for Chad and Togo	Countries and institutions committed to restoring degraded forest landscapes	High-level political and technical platform for forest and landscape restoration pledges, knowledge exchange and resource mobilisation	Continental and national restoration commitments need concrete, well-documented field demonstrations to validate approaches and inform scaling pathways	AFR100 does not finance specific site-level interventions in ECOVERSE landscapes ECOVERSE contributes restoration evidence and tools from Chad and Togo to AFR100 learning processes, while AF resources remain focused on defined local interventions with no overlapping finance.

Annex 6 Country-level sustainability arrangements and responsibilities for Part II.K

The table below provided country-differentiated sustainability arrangements to complement Part II K, structured by main intervention

Intervention	Responsible entity post-project	Mechanism for continuity	Formal agreements
iCSEB housing & infrastructure (Chad)	Triple Capital Tchad + Municipality of N'Djamena / Chari-Baguirmi Province	Trained artisan networks continue production commercially; maintenance protocols embedded in municipal public works manuals; iCSEB standards integrated into national building codes via DNAT	Formal Sub-Grant Agreement Triple Capital Tchad. MOU with Municipal authorities to be signed by Year 1.
iCSEB infrastructure & water systems (Togo)	SSA + DEMERF + IFAD	DEMERF integrates iCSEB standards into national technical standards; IFAD embeds water system O&M into vocational training curricula; WUAs manage solar water systems via user-fee pooling	Sub-Grant Agreement with SSA/DEMERF/IFAD. MOU with Avé 1 Commune. Water system handover agreement with registered WUAs by Year 3.
Climate-smart agriculture & agroforestry (Chad)	Triple Capital Tchad + Producer organisations + Extension services (ONDR)	Farmer Field Schools become permanent community learning sites under ONDR extension mandate; agroforestry cooperatives self-sustaining through market linkages; land management agreements with private landowners	MOU with ONDR extension services for embedding FFS into national extension system to be signed Year 1.
Agroforestry & water harvesting (Togo)	SSA + DEMERF + Women's cooperatives	DEMERF integrates demonstration results into NAP implementation; cooperatives self-sustaining through certified market linkages; WUAs manage drip irrigation through user-fee pooling	Agreement with DEMERF for continuation of agro-meteorological monitoring. WUA governance charters registered at commune level by Year 2.
Revolving Adaptation Fund (both countries)	Partner MFIs (1 per country, selected under Activity 3.1.1) + Community finance committees	Ring-fenced fund capital remains with partner MFI post-project under a legally binding fund governance agreement; repayments recycled into continued lending; MFI sustainability strategy finalised no later than end of Year 3	Formal fund management agreements between AAF/EEs and partner MFIs, including ring-fenced accounts, fiduciary compliance obligations, and post-project governance provisions. Agreements to be established during Activity 3.1.1 (Year 1).
Knowledge hub, MEL system, practitioner library	OSS (regional) + National vocational training institutions (Chad and Togo)	MEL and GIS systems designed for handover to EEs and commune authorities using low-cost tools; practitioner reference libraries embedded in vocational and technical training curricula; OSS maintains regional data repository	MOUs with vocational institutions in both countries for curriculum integration, to be signed by Year 2. MEL handover plan established during Activity 4.1.3.
South-South Construction Learning Network	EEs + Hydraform (technical)	Network institutionalised within AAF's regional mandate; annual meetings self-financed by member country contributions after project close; toolkits distributed	Network governance charter to be signed by member countries by Year 3. Partnership agreement between EEs and Hydraform already in place.

Annex 7 Regional, national or sub-national sustainable development strategies for Part II.E

The table below presents the key strategies, plans and frameworks with which ECOVERSE is aligned, identifying for each the relevant priorities addressed and the specific goals, objectives or pillars directly supported by the project's interventions.

Country / Region	Relevant strategy / plan	Year / Period	Relevant priorities	Consistency with the ECOVERSE project	Specific Goal / Objective / Pillar Supported by ECOVERSE
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.	• Pillar 2: Sustainable territorial development; • Pillar 3: Climate-resilient economic transformation; • Pillar 4: Reduction of territorial inequalities and poverty
	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.	• Strategic Objective 1: Strengthen resilience of vulnerable populations; • Strategic Objective 2: Mainstream adaptation into sectoral planning; • Strategic Objective 3: Promote locally-led adaptation solutions.
	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.	• Strengthening national climate information and knowledge systems • Improving institutional capacities for climate monitoring, reporting and adaptation planning • Enhancing coordination mechanisms for climate change adaptation
	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.	• Strengthen the resilience of vulnerable populations and livelihoods to climate change • Enhance the adaptive capacity of agricultural and pastoral production systems • Promote sustainable management and restoration of natural resources and ecosystems • Improve water security and resilience to climate variability and extreme events • Strengthen institutional capacities for climate adaptation planning and implementation
	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 or improving land productivity and ecosystem services.	• Objective 1: Restore degraded lands; • Objective 2: Improve ecosystem productivity; • Objective 3: Reduce land degradation risks

	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.	• Strategic Goal 2: Ecosystem restoration; • Strategic Goal 3: Sustainable use of biodiversity; • Strategic Goal 4: Community participation in conservation.
	National Gender Policy	2019-2023 (extended through implementation frameworks)	• Gender equality • Women's economic empowerment • Participation in decision-making • Access to productive resources	The project includes dedicated participation targets, women-focused adaptation finance windows, leadership strengthening and access to climate-resilient livelihood opportunities.	• Women's economic empowerment; • Equal participation in decision-making; • Improved access to productive resources
	Schema directeur de l'eau et de l'assainissement (SDEA) 2003-2020	Ongoing national update	• Water security • Sustainable water resource management • Improved access to water services • Climate resilience of water systems	The project contributes through decentralized solar-powered water systems, rainwater harvesting, watershed restoration, groundwater recharge and climate-resilient water management solutions.	• Improve access to sustainable water services • Strengthen Integrated Water Resources Management (IWRM) • Increase resilience to droughts and floods
	Schema national d'amenagement du territoire (SNAT) 2014–2035	Adopted in 2019	• Balanced territorial development • Spatial distribution of infrastructure and services • Territorial resilience to climate and environmental risks • Sustainable urbanization • Territorial cohesion	The project contributes to the implementation of the SNAT by strengthening climate-resilient urban and peri-urban infrastructure, improving access to basic services, restoring degraded ecosystems and supporting integrated territorial planning approaches that enhance resilience and reduce territorial inequalities.	• Improve spatial equity in access to infrastructure and services • Strengthen territorial resilience to climate change and environmental degradation • Support sustainable urban and peri-urban development
	Charte de l'Eau	Adopted in 2012	• Sustainable water management • Water security • Sustainable water resource management • Improved access to water services • Climate resilience of water systems	The project will be implemented in compliance with the water charter including through activities that contributes to groundwater recharge (EBA and resilient agroforestry).	• Strategic Objective 1: Strengthen resilience of vulnerable populations; • Strategic Objective 2: Mainstream adaptation into sectoral planning;

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.	• Strategic Axis 2, Pillar 1: Resilience of agriculture, forests and land systems; • Strategic Axis 2, Pillar 2: Climate-resilient water resources management; • Strategic Axis 2, Pillar 3: Resilient, low-carbon human settlements and infrastructure.
	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.	• Strategic Axis 3, Objective 1: Access to basic services and resilient local infrastructure; • Strategic Axis 3, Objective 2: Inclusive, job-creating territorial development for youth and vulnerable groups; • Strategic Axis 3, Objective 3: Strengthened local governance and reduced spatial inequalities.
	Nationally Determined Contribution (NDC), updated	2021	• 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.	• Adaptation Axis 1: decentralized renewable energy access • Adaptation Axis 2: Resilience of agriculture, forestry and other land uses; • Adaptation Axis 3: Integrated and sustainable water resources management; • Adaptation Axis 4: Adaptive capacity of human settlements and infrastructure.
	National Adaptation Plan (NAP)	2018	• 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.	• Strategic Axis 2, Priority Sector 1: Agriculture and food systems resilience; • Strategic Axis 2, Priority Sector 2: Water resources and integrated water management; • Strategic Axis 2, Priority Sector 3: Human settlements and climate-resilient infrastructure; • Strategic Axis 2, Priority Sector 4: Land use, forestry and ecosystem management; • Strategic Axis 3: Mobilization of adaptation finance and community-based resilience investments.
	REDD+ Strategy 2020-2029/ Forest and Landscape Restoration Framework	2020-2029	• 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.	• Strategic Axis 1: Promotion of climate-smart agriculture with reduced pressure on forests; • Strategic Axis 2: Sustainable forest management and restoration of forest resources and carbon stocks;

					• Strategic Axis 3: Reduction of pressure on wood energy through sustainable biomass and renewable energy; • Strategic Axis 4 cross-cutting
	National Biodiversity Strategy and Action Plan (NBSAP)	2021-2030	• 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.	• Strategic Goal 2: Ecosystem restoration; • Strategic Goal 3: Sustainable use of biodiversity; • Strategic Goal 4: Community participation in conservation.
	Strategic Plan for Universal Access to Drinking Water and Sanitation in Togo	2022–2030	• Drinking water access • Sanitation and hygiene • Stormwater and flood-risk management • Water and sanitation governance and community participation	The project supports Togo's Strategic Plan for Universal Access to Drinking Water and Sanitation by expanding safe water access, improving sanitation and hygiene services, strengthening flood-risk management, and enhancing local governance and community capacity for sustainable water and sanitation management	• Program 1 Rural Water Supply • Program 2 Peri-urban Water Supply • Program 6 Basic Sanitation and Hygiene • Program 8 Drainage and Flood-Risk Management • Program 9 Sector Governance
	National Action Plan for the Water and Sanitation Sector (PANSEA)	2021–2025	• Integrated water resources management • Drinking water access • Hygiene and sanitation • Wastewater and stormwater management • Water and sanitation sector governance	The project supports PANSEA 2021–2025 by expanding access to safe drinking water, sanitation and hygiene services in underserved rural and peri-urban areas through decentralized water supply and WASH solutions. It also contributes to integrated water resources management, stormwater management and stronger sector governance through erosion-control measures, nature-based solutions, and capacity-building for local authorities and communities	• Priority Area 1 IWRM • Priority Area 2 Drinking Water Access • Priority Area 3 Sanitation and Hygiene behaviour change reducing water-related diseases; • Priority Area 4 Drainage and Stormwater) • Priority Area 5 Sector Governance
	National Energy Compact for the Republic of Togo	2025–2030	• Universal electricity access • Renewable energy generation and storage • Clean cooking solutions • Energy sector governance and private sector participation	The project supports Togo's National Energy Compact (Mission 300) by expanding access to decentralized renewable energy through solar-powered water supply systems and other off-grid solar applications for rural and peri-urban communities. It also contributes to clean energy access, climate-resilient basic services, and strengthened local capacities for managing decentralized renewable energy systems	• Strategic Pillar 3 Decentralized Renewables and Last-Mile Access • Strategic Pillar 4 Clean Cooking • Strategic Pillar 5 Sector Governance and Finance
	National Electrification Strategy of Togo	2018–2030 (vision 2030 for universal access)	• Universal electrification • Grid, mini-grid and off-grid electrification • Rural last-mile energy access	The project supports Togo's National Electrification Strategy by expanding access to decentralized renewable energy through off-grid solar systems for water supply and social infrastructure in underserved rural and peri-urban areas. It also contributes to inclusive electrification by strengthening local capacities	• Off-Grid and Mini-Grid Pillar • Last-Mile Access Pillar • Governance and Investment Pillar

			• Electrification planning, regulation and PPP investment	and promoting productive uses of energy for climate-resilient water management and agriculture	
	National Renewable Energy Action Plan (PANER) of Togo	2015–2020–2030	• Renewable energy scale-up • Grid-connected and off-grid renewable energy • Sustainable biomass use • Renewable energy governance and financing	The project supports Togo's National Renewable Energy Action Plan by expanding the use of off-grid solar energy for water supply and social infrastructure in rural and peri-urban areas. It also contributes to sustainable biomass management through agroforestry interventions and strengthens local capacities to manage decentralized renewable energy solutions and integrated water-energy-land systems	• Target Area 1 Off-Grid Solar Scale-Up • Target Area 2 Sustainable Biomass • Target Area 3 Regulatory and Institutional Framework
	Agricultural Policy and Strategic Plan for Agricultural Transformation in Togo (PA-PSTAT 2030)	2016–2030	• Sustainable agricultural production and value addition • Agricultural inputs and infrastructure • Climate-smart agricultural innovation and training • Agricultural governance, agropoles and inclusive value chains	The project supports Togo's Agricultural Policy and Strategic Plan for Agricultural Transformation by promoting climate-smart agriculture, soil and water conservation, agroforestry, small-scale irrigation, and climate-resilient rural infrastructure. It also strengthens agricultural innovation, farmer capacity, producer organizations, and local governance for sustainable agriculture and landscape restoration	• Strategic Axis 1 Production and Value Addition • Strategic Axis 2 Production Factors and Infrastructure • Strategic Axis 3 Innovation and Training • Strategic Axis 4 Governance and Support Instruments
	National Policy on Gender Equity and Equality	2011–ongoing	• Gender equality and social norm change • Women's economic empowerment • Equal access to basic social services • Women's leadership, rights and protection • Gender mainstreaming in institutions and planning	The project supports Togo's National Policy on Gender Equity and Equality by promoting women's economic empowerment, leadership and participation in decision-making, while ensuring equitable access to resources, services and project benefits. It also strengthens gender mainstreaming through inclusive project design, implementation and monitoring, with a focus on women's leadership in community and local governance structures	• Strategic Objective 2 Women's Productive Capacity • Strategic Objective 3 Equal Access to Basic Services • Strategic Objective 4 Participation and Leadership • Strategic Objective 5 Institutional Integration
	Framework Law on Spatial Planning and Territorial Development	2016–ongoing	• Balanced territorial development • Sustainable land-use planning • Participatory local and territorial development	The project supports the Framework Law on Spatial Planning and Territorial Development by promoting sustainable land and natural resource management, climate-resilient territorial development, and ecosystem restoration in rural and peri-urban areas. It also strengthens local governance and planning capacities to integrate climate resilience and sustainable land use into territorial development processes	• Territorial Principle 1 Balanced Spatial Development • Territorial Principle 2 Rational Land and Resource Use • Territorial Principle 3 Participatory Territorial Governance

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.	• Strategic Intervention Axis 2 resilient food systems, ecosystems, water systems and low-carbon development • Strategic Intervention Axis 3 resource mobilization, inclusive participation, capacity development and institutional learning
	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.	• Specific Objective 2: Capacity to anticipate and manage climate risks; • Specific Objective 4: Capacities for climate action; • Specific Objective 5: Cooperation and solidarity on climate change; • Specific Objective 6: Innovative climate finance approaches.
	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.	• Goal 1: Implementation of forest and landscape restoration measures; • Goal 2: Documentation and replication of restoration practices and results to support 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.	• Objective 1: Desertification control through agroforestry and sustainable land management; • Objective 2: Ecosystem and land restoration in dryland and semi-arid contexts; • Objective 3: Resilient livelihoods through livelihood diversification.

Annex 8 Visual summary of Economic, social and environmental benefits for Part II.C

The table below provides a consolidated overview of the economic, social, gender and environmental benefits expected from ECOVERSE, highlighting the key interventions and measurable outcomes that contribute to enhanced climate resilience and sustainable development across target communities.

Benefit Dimension	Key Project Interventions	Expected Benefits	Indicative Targets / Results
Economic Benefits	Climate-smart agroforestry, soil conservation, water-efficient irrigation systems, climate-resilient agriculture, community nurseries, iCSEB production, flood-resilient housing, climate entrepreneurship support	Increased agricultural productivity and income; diversified livelihoods; reduced climate-related losses; strengthened local markets and adaptation enterprises; job creation and skills development	• 450 ha of climate-resilient agriculture established in Chad • 30 ha of agroecology systems established in Togo • 150 farmers supported in Togo (60% women) • ≥20% increase in household income (≈ USD 150/year per household in Togo • New jobs generated through green infrastructure, nurseries, housing construction and ecosystem restoration
Social and Gender Benefits	Inclusive governance mechanisms, community adaptation committees, vocational training, women-led cooperatives, savings groups, climate entrepreneurship support, improved water access, accessible public infrastructure	Enhanced social inclusion and community cohesion; strengthened decision-making power of women and marginalized groups; reduced unpaid care burden; improved access to services; increased youth employment and leadership opportunities	• Minimum 50% female participation in leadership, training and technical activities • At least 50% of direct beneficiaries in Chad are women • Water collection time reduced by up to 2 hours per household per day in Togo • Increased participation of youth, elderly persons and persons with disabilities in adaptation planning and implementation
Environmental Benefits	Assisted natural regeneration, agroforestry enrichment, reforestation, slope stabilization, green corridors, permeable drainage systems, ecosystem restoration	Restored ecosystem health and biodiversity; improved soil fertility and water retention; reduced erosion and land degradation; enhanced climate regulation and landscape resilience; reduced flood and heat stress risks	• More than 2,000 ha of degraded forests, riverbanks and agricultural lands restored • 20 ha of degraded land restored in Togo • Increased vegetation cover, groundwater recharge, biodiversity and pollinator habitats

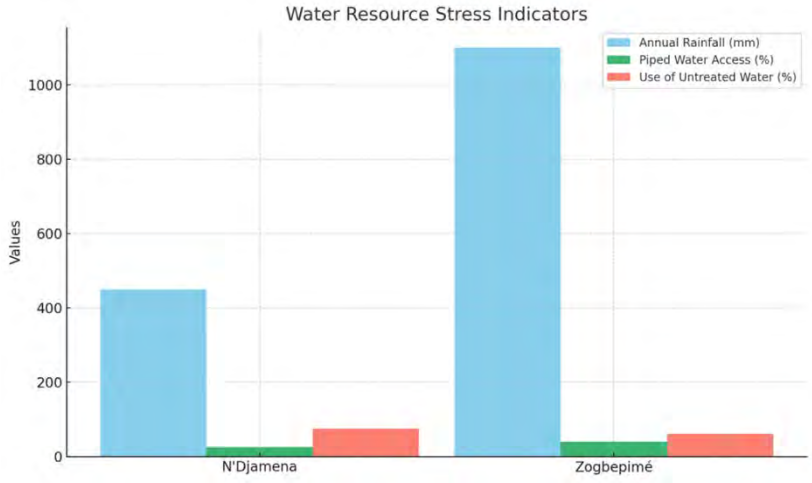
Annex 10: Country Context Background

This annex provides the detailed supporting evidence underpinning the project's Background and Context (Part I. A). It covers water resources, agriculture and land use, biodiversity and forest ecosystems, infrastructure, population and socioeconomics, and granular climate projection data for both project countries and sites. Summary paragraphs in the main proposal text cross-reference this annex.

Water resources

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.

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.



Water Resource Stress Indicators

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.

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.



Togo: River System and Rural Water Supply Points

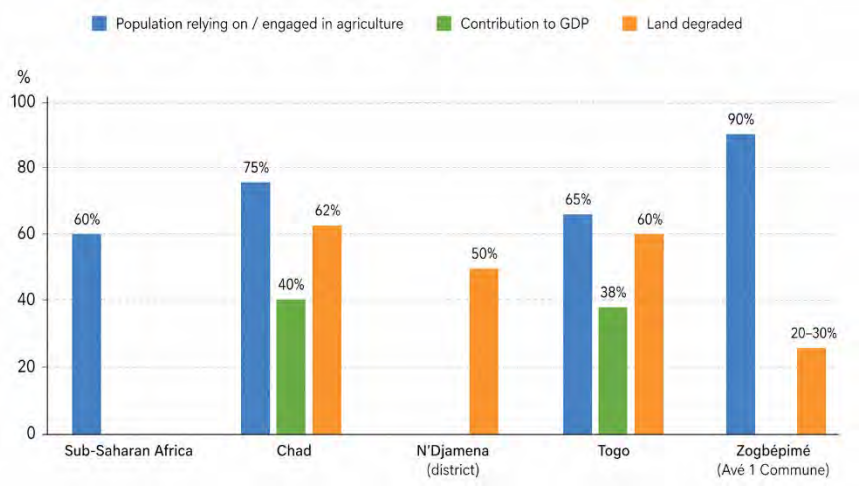
Agriculture and Land use

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.

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.

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.

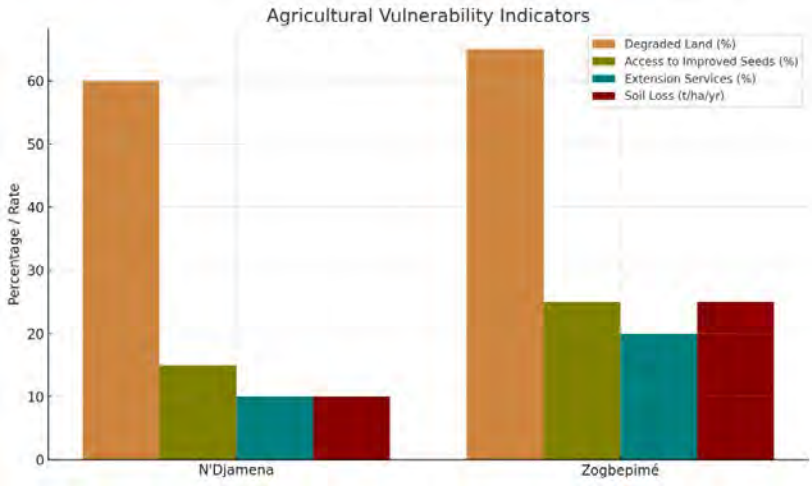


Key agriculture indicators across Sub-Saharan Africa, Chad, N'Djaména , Togo, and Zogbépimé (%)

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.

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

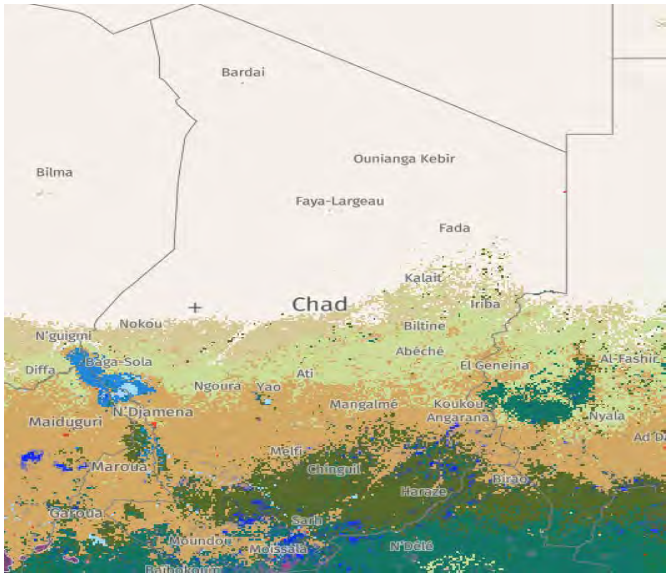
Land degradation levels remain high in both locations, estimated at approximately 60% in N'Djaména and slightly higher in Zogbépimé (around 65%). Zogbépimé records higher access to improved seeds and extension services, at about 25% and 20% respectively, compared to 15% and 10% in N'Djaména . Soil loss 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.



Agricultural Vulnerability Indicators

Biodiversity and Forests Ecosystems

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[1]. 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 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[2].



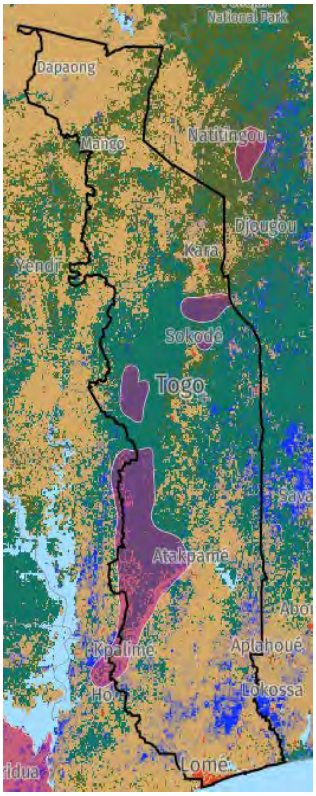
Multi-layer Map of Forest Cover, Biodiversity Hotspots, and Land Cover Dynamics in Chad (Source: https://gfw.global/0O2U1M)

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.

[1] IPBES Global Assessment Report on Biodiversity and Ecosystem Services (2019) – https://ipbes.net/global-assessment
[2] CBD Aichi Target 11 Dossier – Chad – https://www.cbd.int/pa/doc/dossiers/chad-abt11-country-dossier2021.pdf

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[3]. 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.

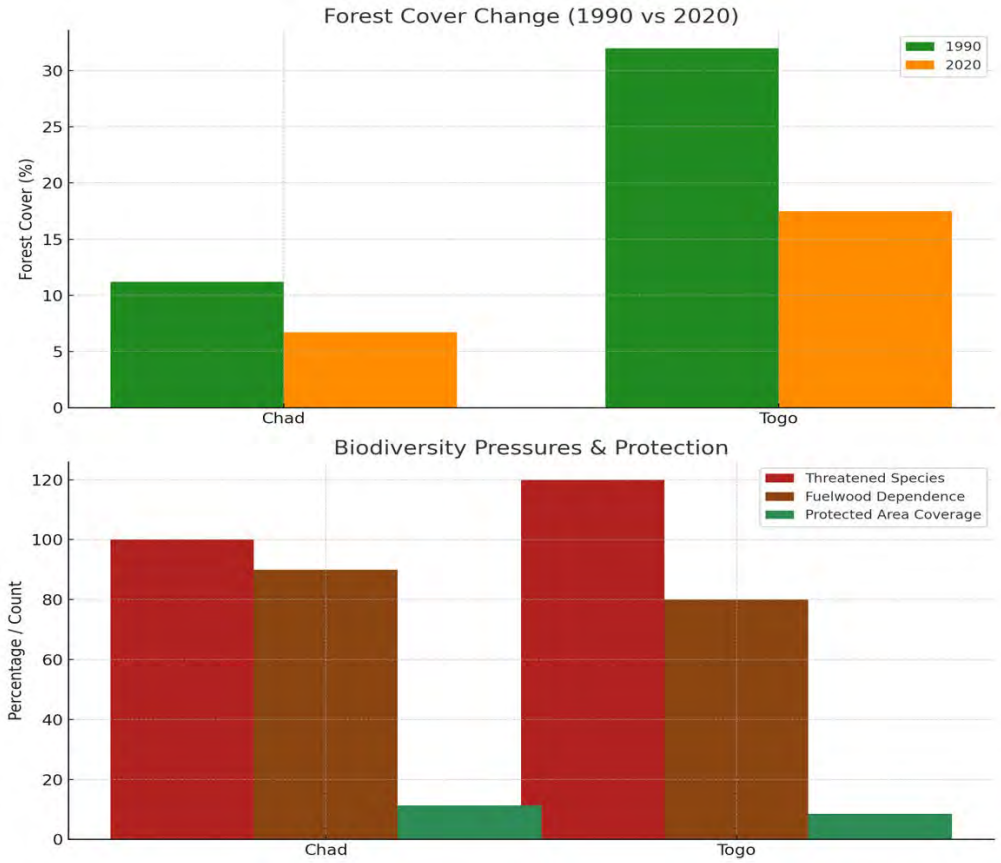
In N'Djaména and surrounding areas, biodiversity and forest ecosystems are severely depleted. The 8th and 9th districts are largely urbanized, with very limited natural vegetation remaining. However, remnants of riverine vegetation along the Chari and Logone floodplains still support pockets of native 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.



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

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, Isoberlinia doka, and Vitellaria paradoxa*, much of the natural vegetation has been cleared for subsistence farming, leaving behind fallow shrubland and degraded patches[4]. 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.

[3] CBD Country Profile – Togo – https://www.cbd.int/countries/profile/?country=tg
[4] Forest-Cover Change and Land Use Study in Togo – https://www.mdpi.com/2073-445X/11/11/1889



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

Infrastructure and Urban Environment

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[5]. 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[6]. 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[7].

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[8]. According to the World Bank, only 15% of roads in N'Djaména are paved, and most neighbourhoods lack functioning stormwater systems[9]. 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[10].

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

[5] UN-Habitat. (2022). World Cities Report 2022: Envisioning the Future of Cities. https://unhabitat.org/wcr/
[6] WHO/UNICEF JMP. (2021). Progress on household drinking water, sanitation and hygiene 2000–2020. https://washdata.org/
[7] IPCC. (2022). Sixth Assessment Report: Urban Systems and Settlements – Chapter 8.
[8] World Bank. (2022). Chad Country Profile: Urban and Infrastructure Indicators. https://data.worldbank.org/country/chad
[9] UN-Habitat. (2020). N'Djaména City Profile and Urban Vulnerability Assessment.
[10] Global Facility for Disaster Reduction and Recovery (GFDRR). (2021). Chad Urban Flood Risk Assessment.

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.

Togo's urban population is growing at over 3.8% annually, with increasing pressure on cities such as Lomé, Kpalimé, and Tsévié[11]. 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[12]. 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[13].

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[14]. 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

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[15]. Despite economic progress in some areas, over 400 million people remain in extreme poverty, and approximately 80% of workers are engaged in informal employment[16]. 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[17].

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[18]. 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[19]. Illiteracy is high, particularly among women, with female literacy at just 28%, compared to 48% for men[20]. 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

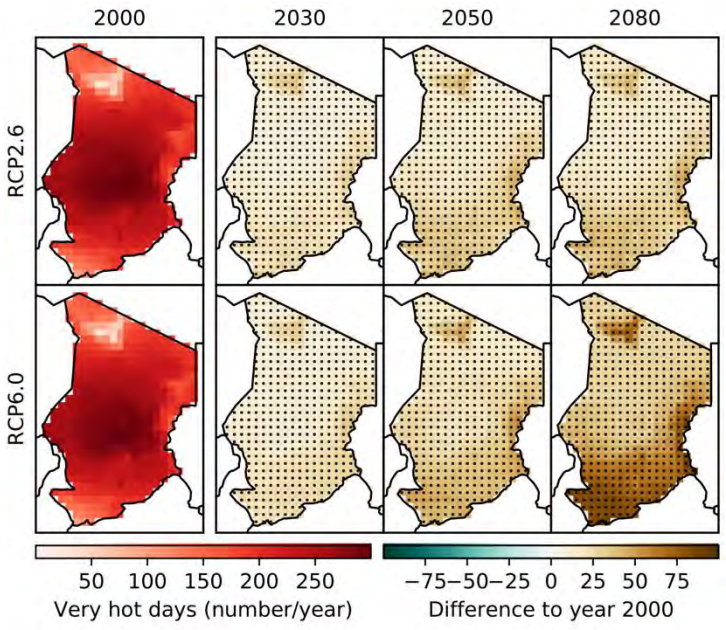
[11] World Bank. (2022). Togo Urbanization Review: Building Cities for Growth and Inclusion. https://documents.worldbank.org
[12] African Development Bank (AfDB). (2019). Togo Urban Sector Review and Infrastructure Needs.
[13] Government of Togo. (2021). Plan National d'Aménagement du Territoire (PNAT) – Avé Prefecture.
[14] Government of Togo. (2021). Plan National d'Aménagement du Territoire (PNAT) – Avé Prefecture.
[15] United Nations Population Division (2023). World Population Prospects. https://population.un.org
[16] World Bank (2023). Poverty and Shared Prosperity Report. https://www.worldbank.org/en/publication/poverty-and-shared-prosperity
[17] African Union (2022). African Gender Scorecard.
[18] World Bank Open Data. Chad and Togo Country Indicators. https://data.worldbank.org
[19] UNDP (2023). Human Development Report. https://hdr.undp.org
[20] UNESCO Institute for Statistics (2022). Education Indicators for Chad and Togo.

drinking water[21]. 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.
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[22].
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.
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

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[23]. Increasing global temperatures have led to more frequent and prolonged droughts, reduced rainfall reliability, and intensified heatwaves[24]. 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, 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.

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



Chad RCP scenario

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[25]. 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[26]. 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[27]. 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[28].

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.

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[29].

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 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

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

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).
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[30]. 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.
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[31]. 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.
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.
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.
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.

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