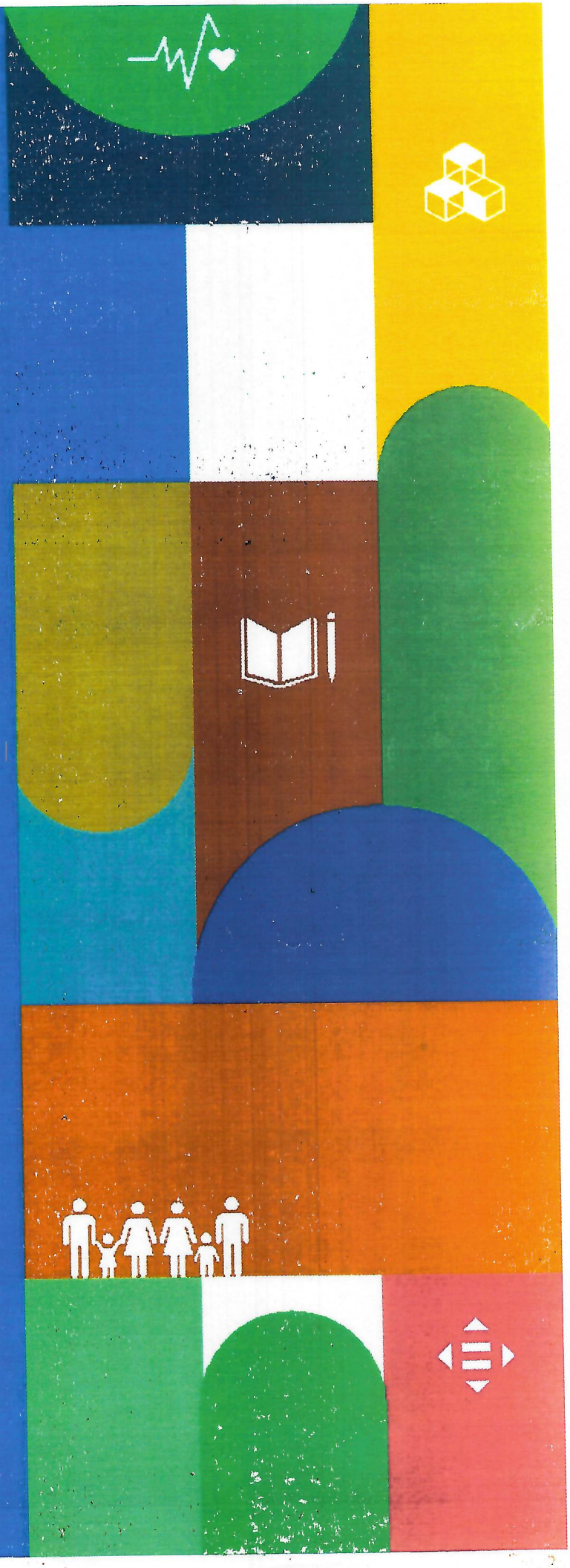
JOINT
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FUND

Joint Programme Document:

Validating competitive, resilient sustainable livelihood solutions in agro sectors in Chad



JOINT SDG FUND

COVER PAGE

MPTFO Project Reference Number	
Country	Chad
Territorial/Geographic Focus	*Hadjer Lamis, Lac and Kanem provinces*
Joint programme title:	**Validating competitive, resilient sustainable livelihood solutions in agro sectors in Chad**
Duration:	*24 months*
Anticipated start and end dates:	*01/2026 to 31/2027*
Short description:	The resilience solutions to be validated by this pilot project are designed to address core issues of low productivity agriculture, vulnerability to climate uncertainties, un-valorized ancestral foods, and rural populations locked in poverty. The complex and interconnected problems and issues require a territorialized value chain strategy focusing on selected products adapted to the new climate and terroir, while supporting the emergence of high value-added processed products that strengthen the visibility of "Made in Chad" and stimulate local economic development. The transformational approach proposed is based on entrepreneurial value chain innovators connecting upstream networks of small holder farmers, fishermen, herders, and seasonal contract farmers and downstream urban and global niche markets for high value-added transformed products compatible with limited infrastructure and very high logistics costs. The current request for grant funding for the first 2 years has been sized to minimal size which can lead to a proof-of-concept stage of novel solutions proposed but still have a critical mass, standards and quality requirements for market testing. Once derisked with the economic incentive requested, the Zara Agro Chad cooperative and Verdura NGO catering for Agro Value chains and Spirulina respectively will pitch for equity from food security funds, venture capital funds and impact investors. In parallel to the equity round expected to last for 1 year, the cooperative and NGO will be restructured into private companies or SPVs and focus on consolidating their role as supply chain integrator, improving revenue streams, and enhancing their financials towards bankability, which is essential to support a dynamic local economic fabric. During this phase the process of scaling across Chad and the Sahel landscapes around lake Chad will be initiated though engagement with GCF to pitch for concessionary finance for replication of the model of territorialized value chains centered around local entrepreneurs and additional products which have potential for high value transformation for urban and niche export markets. The theory of change in section 2 details the dual supply interventions to validate innovation, resilience solutions and demand stimulation through connections to markets and showcasing successful empowerment of rural populations to move out of poverty and insecurity. The 5 four mains thematic areas of vulnerability which the projects seeks to address through innovative resilient solutions by validating the following: (i) enhancing food and nutrition security by valorizing and marketing traditional food crops and ancient cereals in niche urban and global markets, (ii) Demonstrating the technical and economic feasibility of sustainable energy

	for productive use agro transformation including desiccant wheel dehumidifiers in remote off grid areas, (iii) demonstrating that adaptation to uneven rain distribution is possible through water efficient irrigation, smart agriculture and selection of resilient cultivars, (iv) demonstrating that agro ecological practices enhance soil organic carbon, soil health and productivity, and that biochar from agro waste and invasive species and for soil enhancement enhances climate resilience and contributes to long term carbon sequestration; and (v) strengthen local governance and coordination capacities for territorial economic development by supporting multi-stakeholder platforms, training local actors in participatory planning, monitoring and evaluation, and integrated value chain management, in order to maximize socio-economic impact and the sustainability of interventions. The pilot stage will pave the way with preliminary groundwork for addressing key priority issues affecting Chad which are transhumant-sedentary farmer conflicts and eutrophication of lake Chad with floating vegetation. This will be achieved by demonstrating superior value that can be derived from grass fed milk/butter/ghee from cattle and value-added recycling of animal waste as the 2 key drivers for sedentarisation of a more sustainably sized herd of cattle while generating sustainable livelihoods for traditional herders and urban cattle owners. A key contribution will be to showcase the critical need to build community resilience through interconnected value chains and synergies to offset the current competitive and conflictual mindsets. While the project positively impacts 15 out of the 17 SDGs either directly or indirectly through spillover effects, the 5 key SDG targets are detailed in the Joint Programme profile section. The pilot project will play a strategic role in the catalyzing interventions in the NDC and National Development Plan of Chad. Successful implementation of the innovative concepts in the challenging socio-economic and logistics context of Chad will contribute to derisk scaling across the Soudano-Sahelian landscapes which are among the most impacted by climate change, the most vulnerable populations with the lowest adaptation capacities.
Joint Programme team:	
Resident Coordinator	Dr. François Xavier BATALINGAYA Email : francois.batalingaya@un.org
Joint Program RCO focal point	Yahaya BALIMA, Chef de Bureau/Chargé de Planification Stratégique Email : yahaya.balima@un.org
Lead PUNO JP Focal point	Aristide ONGONE OBAME, FAO Representative Email : Aristide.Ongone@fao.org
PUNO 2 JP Focal point	Francis JAMES, UNDP Representative Email : francis.james@undp.org
Total budget:	**2,086,964 USD**
Source of funds:	SDG Fund
UN Joint SDG Fund	2,086,964 USD
PUNO 1 FAO co-financing	20,250,913 USD
PUNO 2 UNDP co-financing	16,975,535 USD
Legal context	The joint programme is based on the United Nations Sustainable Development Cooperation Framework (UNSDCF) signed between the

Government of Chad and the United Nations system for the period 20242026. This framework constitutes the legal basis for the relationship between the Government and each participating UN organization, supplemented, where applicable, by specific cooperation or assistance agreements.-2026. This framework constitutes the legal basis for the relationship between the Government and

DECLARATION OF COMMITMENT AND SIGNATURES

By signing this Joint Programme document, all signatories commit to work together in a spirit of partnership to achieve the results identified in the results framework, work plan and budget.

Co-Chairs of JP Steering Committee

Government representative	**UN Resident Coordinator**
Name of Ministry or Department:	*Name :* **Dr. François Xavier Batalingaya**
Signature	*Signature*
Date 5/3/2026	*Date* 3/3/2026

Participating UN Organizations

Name of Representative: **Francis JAMES**	*Name of Representative:* **Aristide ONGONE OBAME**
Signature	*Signature*
Name of Organization: UNDP	*Name of Organization:* FAO
Date 25/02/26	*Date* 25/02/2026

Non-UN Partners *(as applicable)*

Name of Representative: **Hassan TOUKA**	*Name of Representative* FATIME BABA MALLAH
Signature	*Signature*
Name of Organization: Zara Agro Chad cooperative	*Name of Organization:* VERDURA NGO
Date 26-02-2026	*Date* : 26/02/2026

JOINT SDG FUND

JOINT PROGRAMME PROFILE

Contribution to Cooperation Framework Outcome(s) and Output(s)	**Outcome 2: FOOD SYSTEMS** **Output 2.2**: Populations have enhanced technical capacities, productive assets, livelihoods, and innovative technologies for the sustainable transformation of agro-silvo-pastoral and fisheries systems, as well as strengthened resilience to climate change and other shocks. **Outcome 3: GOVERNANCE, PEACE AND SECURITY** **Output 3.1**: State institutions, civil society organizations, and populations—particularly the most vulnerable—have improved knowledge and technical capacities for increased participation in strengthening mechanisms for conflict prevention and management, social cohesion, and national unity. **Outcome 4: INCLUSIVE ECONOMIC GROWTH** **Output 4.2**: Public institutions and the private sector have enhanced institutional and technical capacities to promote entrepreneurship—especially among youth and women—develop promising value chains, support digital transition, and improve access to renewable energy and innovative financing for inclusive, sustained, and sustainable economic growth.
SDG Targets directly addressed by the Joint Programme	**SDG 1:** End poverty in all its forms everywhere **SDG 2:** End hunger, achieve food security and im-proved nutrition, and promote sustainable agriculture **SDG 7:** Ensure access to affordable, reliable, sustainable, and modern energy for all **SDG 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all **SDG 16**: Promote peaceful and inclusive societies for sustainable development, provide ac-cess to justice for all and build effective, accountable and inclusive institutions at all levels
Expected key results of the Joint Programme	**Result 1**: Export of "Made in Chad" products **Result 2**: Improvement of community-level nutrition **Result 3**: Strengthening of social cohesion and local economic development
	The 3 Key result areas above focus on achievement of SDGs targeted. Annex 6 Excel provides a detailed chain of results diagram of the current baseline and barriers. It shows that to achieve the 'Made in Chad' label, 2 additional requirements are (i) technical solution to address infrastructure challenges and (ii) climate resilient agriculture solutions
Anticipated direct beneficiaries	Zara Agro cooperative Verdura NGO +500 household
Anticipated financial leverage	The total amount in USD - Co-funding (within the JP budget): 0 USD - Co-financing (parallel to JP budget): USD
The secondary focus on SDG Transitions in the JP	☐ Digital Transformation ☐ Decent Jobs and Universal Social Protection ☒ Energy Access and Affordability ☐ Transforming Education

☒ Climate, Biodiversity, Pollution

JOINT PROGRAM DESCRIPTION

1. Baseline and Situation Analysis

Chad is a landlocked country with persistent vulnerability from multiple drivers. Current challenges include Climate change severely impacting rural farmers and transhumant herders; Fragility from a history of internal conflicts, governance issues, and insecurity; Remote landlocked location with limited infrastructure modes leading to high logistics and trade costs; Lack of local capacity to develop resilient models for sustainable livelihoods; Untaped demographic dividend and unemployed youth and Rural exodus and emigration of talent.

The highest population density on Tchad is in a climate transition zone between the Congo Forest Basin, and the Sahel-Saharan zone plagued by the irreversible advance of the desert but endowed with land favourable to agriculture, agro-forestry and pastoral activities. It is however impacted by a Sahelian climate with a poor distribution of rainfall in time and space. Only 12% of Tchad's 39 million hectares of arable land, One year out of 3 there is deficit of cereals (rice, maize, millets, sorghum, wheat). During severe drought years, the population in northern areas faces acute food insecurity and nearly 29% of the population is malnourished. The soil in Chad has a low productivity especially in the central and northern parts, with soil Organic carbon (SOC) between 0.08 and 0.65 % and Nitrogen levels between 0.04 to 0.09 %. The sandy soil with very low carbon is vulnerable to erosion, leaching of nutrients and impacts from climate change making agricultural yields, and productivity a challenge for the country's economy.

The livestock herd is continuously growing, exceeding the carrying capacity of pastures. Overgrazing drives degradation of pastoral lands, and further reduction in biomass and soil carbon. These dynamics also exacerbate conflicts between farmers and herders, resulting in loss of lives. Moreover, during the rainy season, waterlogged soils and the presence of the tsetse fly make it unsuitable for cattle to graze on the lush grasses.

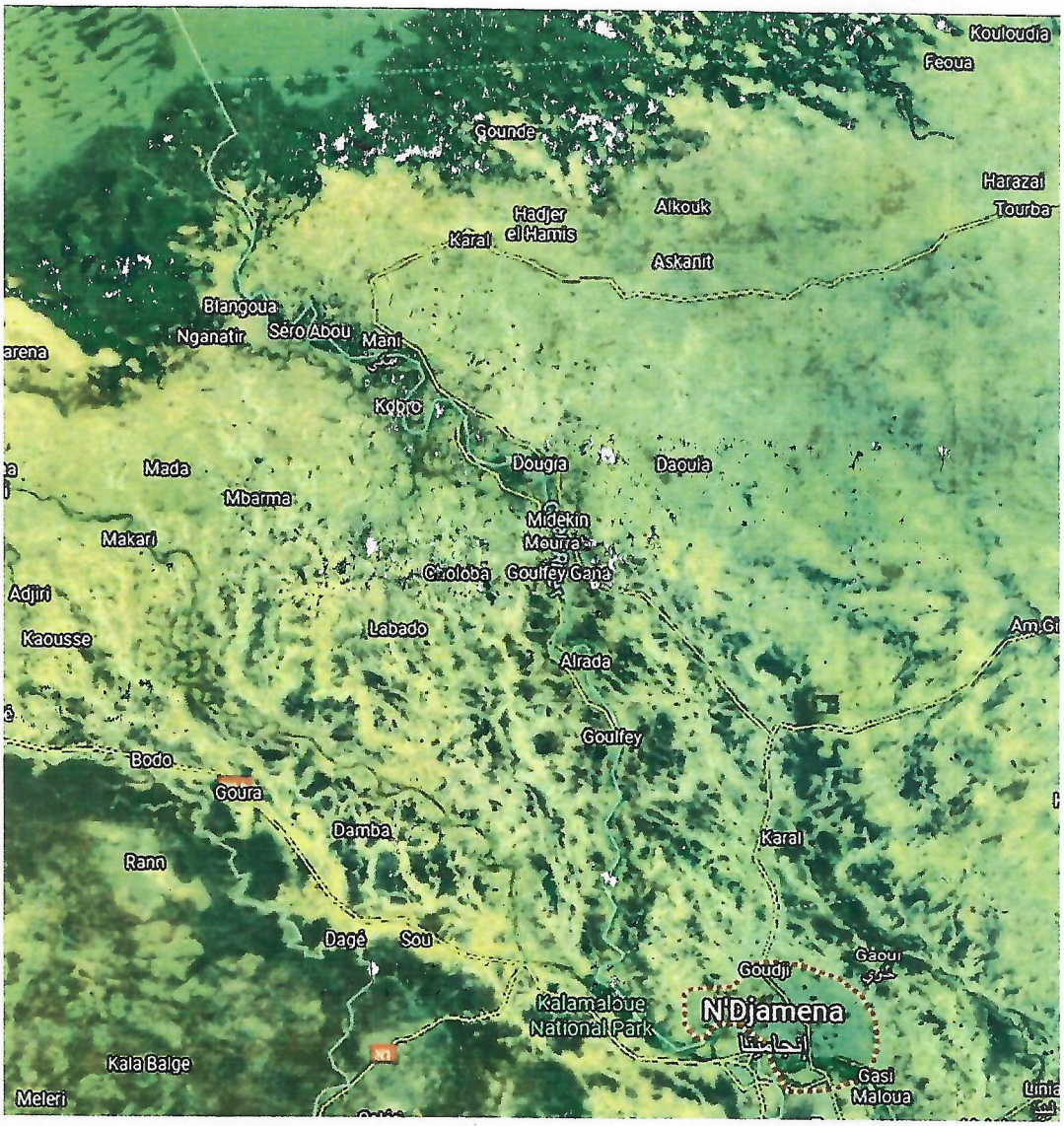
Only a small fraction of credit goes to agriculture perceived as high risk by banks. Interest rates in the range of 13 to 16% and the need for collateral severely limit the access to credit for small farmers. Annex 7 on responses to full feedback highlights the need to enhance value addition in the agro sectors and develop a market driven pull for quality specialty products to incrementally enhance the bankability of agro projects, attracting local, regional and foreign investments.

Access to electricity is very low, at only 12% for the country, much lower in rural areas and limited to standalone systems and mini grids which do not provide the tiers of access required for productive use and transformation of Agro products. The predominantly fossil generation with high logistics costs and limited installed capacity leads to one of the highest cost of electricity in Africa at 0.38 EUR per KWh.

Dihé is the local name for an algae or group of algae that belongs to the family Oscillatoriacea, Genus Oscillatoria, subgenus Arthrospira platensis. The local algae Dihe (Oscillatoriacea, Genus Oscillatoriais) grows in shallow water in the provinces of Lake and Kanem and has been traditionally harvested, sold and consumed. An EU-funded project introduced harvesting, drying and packaging techniques that led to the development of four types of dihé, namely dihé powder, cake, spaghetti and capsule (400 tons annually) within 15 wadis. Numerous challenges are drying up of wadis, lack of control of growth factors in a natural environment, product quality not guaranteed, problematic packaging, hygiene practices are not fully mastered. Consequently, the emerging informal groups remain fragile and cannot effectively engage with consumers and buyers.

Specificities of the target areas

The project is located in a high potential area located some 80 Km from the main markets in N'Djamena and accessible by future fluvial navigation networks to lake Chad with regional markets in Nigeria, Cameroun, and Niger. Water from river Chari is available for irrigation during the dry season. Annex 8 shows the proximity of the target region to the lake, on the path of part of the transhumant cattle moving along the Sahel to Southern areas of Chad



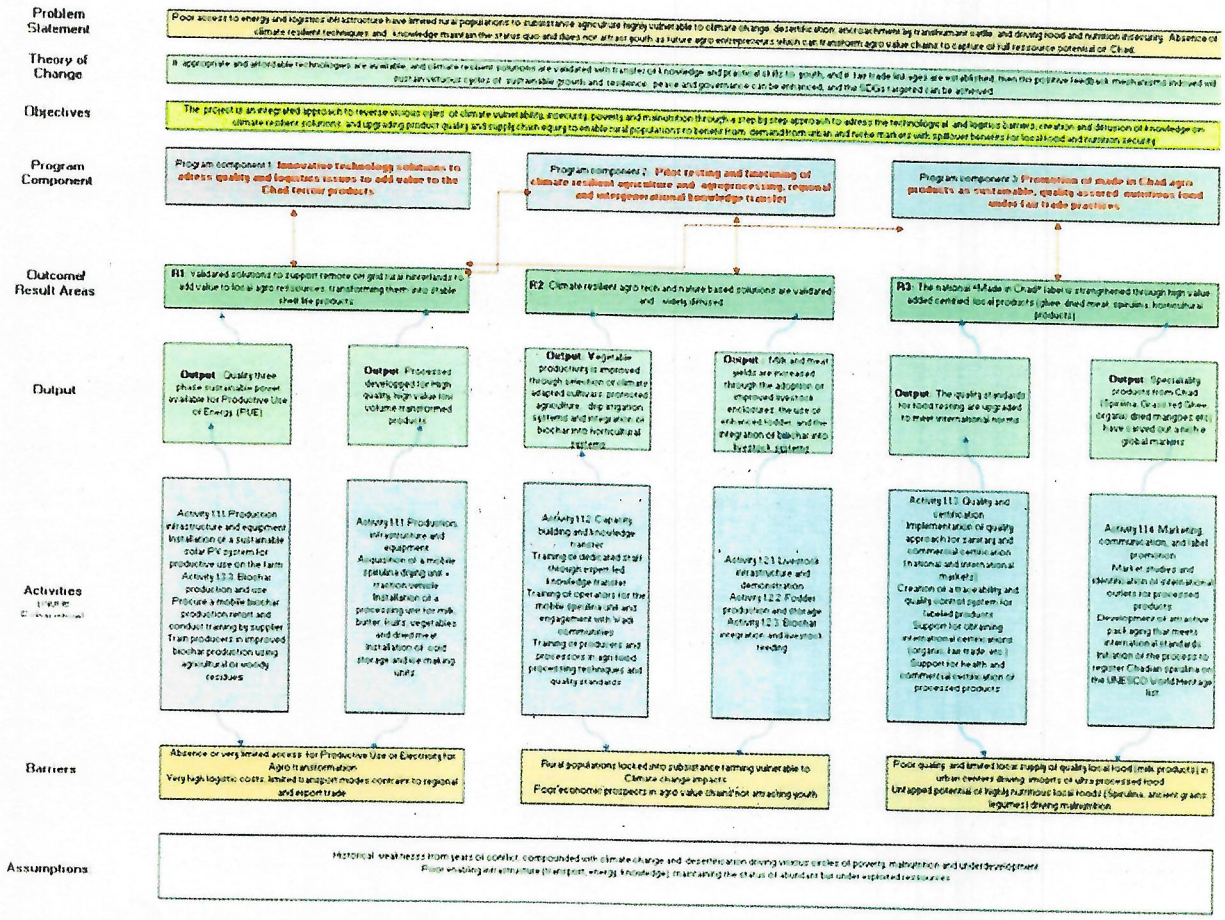
2. Programme strategy and Theory of Change

2.1. Theory of Change

The pilot project aims to validate transformative solutions to strengthen climate resilience, improve nutrition, and stimulate local economic development through integrated value chains in the agriculture, livestock, and agro-processing sectors in Chad. It is based on a **systemic model** combining catalytic supply and demand interventions to transform the local agri-food and socio-economic system while contributing

notably to SDGs 1,2, 7, 8, and 16.

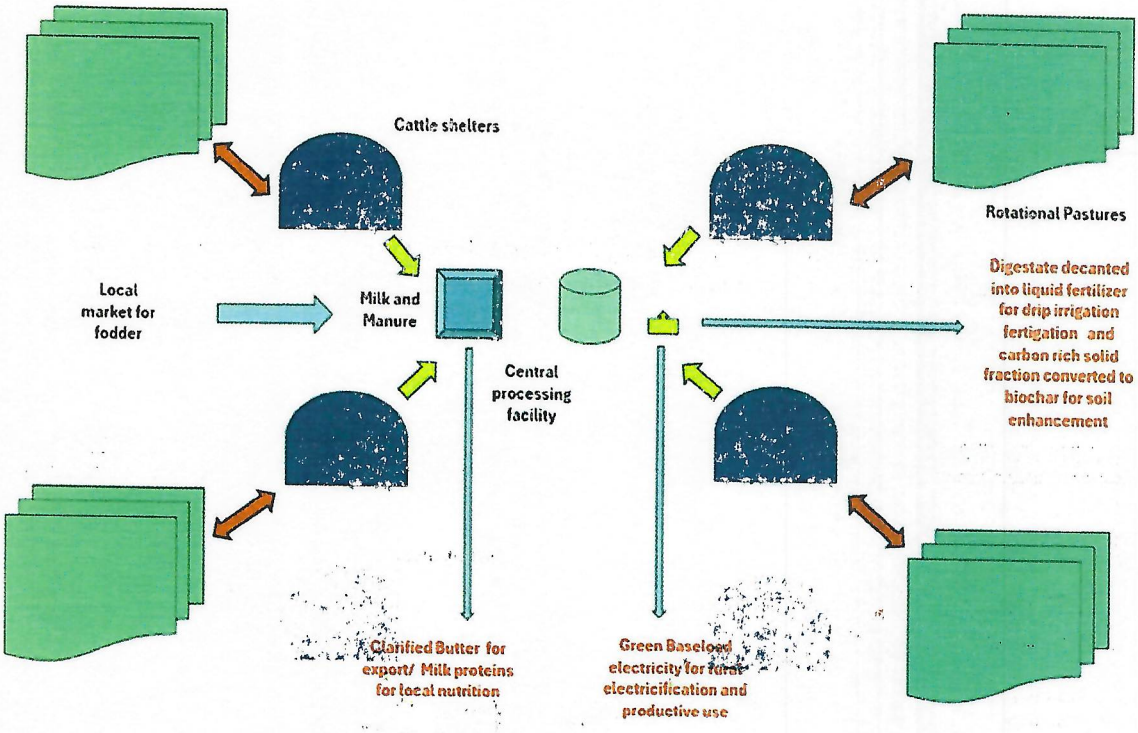
Due to the significant barriers and climate vulnerabilities of the current baseline, high level impacts and goals of food and nutrition security, peace, governance, social cohesion can only be achieved if a structured approach is adopted to identify, validate and diffuse solutions. The chains of results diagram below provides an overview of the linkages between baseline and barriers through the projects interventions to the program components as prerequisite conditions



Please refer to Annex 6 for a more readable Excel file

- Transformation of agricultural and pastoral value chains (**Outcome 1: "Made in Chad" exports**) :
  - Supply-side interventions focus on establishing a multi-product agro-processing center and local production units (milk, meat, spirulina, vegetables) linked to urban and export markets;
  - Integrated transhumant livestock management will be supported through enriched pastures and rotational grazing systems to ensure sustainable access to natural resources, improve milk/meat yields (+30%), and enhance carbon sequestration through biochar integration;
  - Production and processing infrastructure (mobile spirulina drying unit, processing centers, solar mini-grid) improves product quality (+50% for spirulina) and increases producer incomes while fostering economic sustainability;

- These interventions contribute to strengthening the "Made in Chad" label (**Output 1.1**), increasing agricultural and livestock yields (**Outputs 1.2 and 1.3**), and promoting carbon sequestration and soil health (**Output 1.4**).



- Improvement of nutrition and dietary practices (**Outcome 2: Community nutrition**):

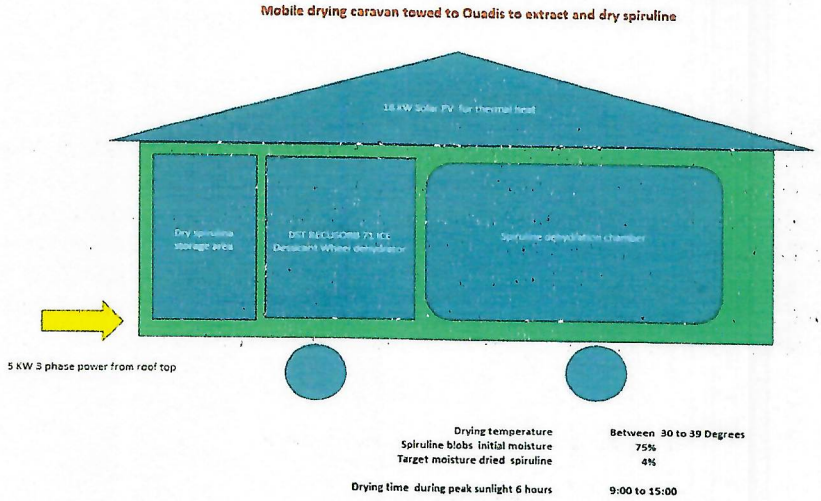
  - Processing high-quality local products and their adoption by target households will promote the consumption of nutritious products such as spirulina, milk, meat, ghee, and vegetables;
  - Awareness campaigns, training, and practical workshops will reach at least 1,000 households, increasing the share of improved products in their diets from 5% to 10% (**Output 2.1**);
  - This approach links nutritional improvement, local product valorization, and economic inclusion, creating a sustainable synergy between production, processing, and consumption.

- Strengthening social cohesion and local economic development (**Outcome 3: Cohesion and local development**)

  - Local coordination and support for SMEs/cooperatives will enable the creation of multi-stakeholder dialogue platforms and local governance structures to regulate resource access and commercial exchanges (**Outputs 3.1 and 3.2**);
  - Mediation mechanisms and the formalization of producer-trader contracts will strengthen trust and reduce conflicts between transhumant herders and sedentary farmers (**Outputs 3.3 and 3.4**);

- These interventions support social and economic resilience by consolidating inclusive and sustainable local value chains.

The project introduces several catalytic innovations to maximize systemic impact. The use of biochar enriched with nutrients from agricultural and livestock residues will improve soil fertility, increase crop yields, and enable permanent carbon sequestration, providing both environmental and economic benefits. The deployment of solar-powered mini-grids and efficient irrigation systems will allow reliable water and energy supply for agro-processing and production, reducing dependence on fossil fuels and encouraging adoption of climate-smart agriculture practices. In the Spirulina sector, the project will test an integrated production model with international certification and the potential for UNESCO World Heritage listing, creating export opportunities and promoting women's economic empowerment. These innovations act as leverage points that enhance the effects of the pilot interventions and support broader adoption by other actors and institutions.



These transformations are **aligned with key SDGs**, notably: SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), and SDG 16 (Peace, Justice and Strong Institutions).

2.2 Description of the Transformative impact

By the end of the programme, Chad will have a tested and scalable model of integrated agro-pastoral systems, **combining climate-resilient agriculture, livestock management, and agro-processing.** Rural communities will experience improved food security and nutrition, increased incomes, reduced resource-based conflicts, and enhanced resilience to climate change. The project will leave a lasting catalytic impact by demonstrating how technological innovation, social inclusion, and environmental sustainability can transform local food systems and create value-added export opportunities under the "Made in Chad" brand.

- **Strengthening the "Made in Chad" national label**

Through local processing of livestock and agro-products, Chad will produce high-value goods such as ghee, whey protein, dried meat, gelatine, dried fruits and vegetables, biofertilizers, and spirulina—moving beyond live animal exports. This will increase export revenues, reduce reliance on oil, and generate sustainable income for producers. Livestock already accounts for 53% of national GDP; industrializing by-products will

further integrate milk, meat, and manure into local value chains, minimizing waste and increasing profitability.

Spirulina as a strategic product
Spirulina is a micro-algae rich in protein, iron, vitamin B12, and antioxidants. It is in high demand on international markets, especially in Europe, Asia, and North America. According to FAO, 450g of spirulina can sell for up to USD 66 on the U.S. market. By locally transforming spirulina into powder or tablets, Chad can position its products as organic superfoods, strengthening its export presence and reinforcing the "Made in Chad" label.

Vegetable production as an economic lever
Vegetable farming already contributes 17.44% to Chad's GDP. Drip irrigation around spirulina ponds enables continuous vegetable production, boosting local supply and export opportunities to neighboring countries. Using digestate from manure biodigesters for fertigation in drip irrigation enriches local crops, increasing the yield of nutritious fruits and vegetables. Local production reduces reliance on food imports and strengthens household nutritional sovereignty.

- **Improving community nutrition**

Access to nutritious products such as milk, butter, whey and meat from the integrated system enhances the availability of protein-rich and micronutrient-dense foods. Spirulina is recognized as a high-quality nutritional food, containing up to 70% protein and essential micronutrients. FAO promotes its production and use; China has declared it a national interest food; WHO calls it "the best food for humanity in the 21st century"; UNESCO considers it "the ideal and most complete food of tomorrow." Most NGOs strongly recommend its production and consumption. Integrating vegetable farming increases the availability of fresh produce, improving the nutritional quality of meals in rural communities.

- **Strengthening social cohesion and local economic development**

The project promotes cooperation between transhumant herders and sedentary farmers around shared resources, fostering peaceful coexistence and reducing resource-based conflicts. By supporting local economic coordination structures, entrepreneurship, and community-led governance mechanisms, the intervention strengthens social cohesion, enhances local livelihoods, and integrates herders and farmers into sustainable value chains. These systemic changes build resilient, inclusive, and economically vibrant rural communities capable of sustaining and scaling the project's impact.

The installation of a sustainable solar photovoltaic system for productive use on the farm will not only enhance agricultural production and processing, but also create a local energy hub that serves the community. The productive services enabled by the system (irrigation, pumping, drying, processing) will directly benefit households and small producers in the village by generating new local jobs, strengthening value chains, and stimulating the village economy. This infrastructure will therefore help increase community resilience while promoting more sustainable and inclusive economic development at the local level. Beyond solar energy, **the programme generates numerous multiplier effects for rural communities.** It creates sustainable jobs for youth and women through agro-processing, milk collection, compost and biogas centre management, while also strengthening local skills in cultivation, drying, water management, and marketing. It contributes to climate change mitigation through carbon sequestration, reduced methane emissions, and manure valorisation, while diversifying incomes and enhancing community resilience. The programme also supports agro-pastoral policies, rural electrification through biogas-powered mini-grids, and the recognition of transhumant knowledge to strengthen social cohesion. It promotes sustainable practices among herders, reduces resource-based conflicts, and facilitates the adoption of new technologies for herd tracking and product marketing. Finally, it fosters cooperation between herders,

farmers, processors, and distributors, develops public-private partnerships, and supports regional coordination to secure herd mobility and harmonize pastoral policies.

The programme is closely aligned with Chad's national development priorities, creating a strong foundation for sustainable and inclusive rural development. It supports the **National Development Plan (PND)** by promoting local processing of agro-pastoral products to increase value-added and incomes (Program 7), improving nutrition through milk, meat, and derivative products (Program 8), and establishing multi-stakeholder platforms to strengthen local coordination and resolve conflicts (Program 14).

It also contributes to the National Food Systems Roadmap (FRNSA) by valorizing agro-pastoral products such as dried meat, clarified butter, biogas, spirulina, and vegetables, integrating herders and farmers into sustainable local value chains, and reinforcing local capacities through agro-processing centers. In line with the Nationally Determined Contributions (NDCs), the programme reduces greenhouse gas emissions, promotes biomethane production from manure, enhances soil carbon sequestration through enriched biochar, and minimizes nutrient runoff and methane emissions from livestock.

Through the National Adaptation Plans (NAPs), the programme fosters income diversification for herders and farmers, improves management of natural resources such as water, pastures, and fodder trees, and stabilizes agro-pastoral systems to reduce rural vulnerability. It also supports the National Biodiversity Strategies and Action Plans by promoting indigenous fodder trees, reducing ecosystem pressure through rotational grazing, and valorizing traditional transhumant knowledge in natural resource management.

By integrating these multiple policy objectives, the programme embodies a cross-sectoral approach that strengthens coherence between agriculture, livestock, energy, and environment, supports Chad's international commitments (Agenda 2030, Paris Agreement, Biodiversity Convention), and promotes peace and social cohesion by including pastoral communities in development planning.

Key pillars of transformative change	Key elements of the joint programme demonstrating transformative change
Integration	- Cross-sectoral alignment: Combines agriculture, livestock, energy, water, and environment into a unified system. - Value chain connectivity: Links production, processing, distribution, and consumption to maximize efficiency and reduce waste. - Stakeholder inclusion: Engages communities, governments, private sector, and civil society in co-design and co-implementation.
Scale	- Replicability: Models are designed to be adapted and expanded across regions with similar conditions. - Economies of scale: Larger systems reduce per-unit costs and increase profitability (e.g., centralized drying units, shared solar infrastructure). - Policy leverage: Scaled interventions attract national attention and funding, influencing broader reforms.
Speed	- Rapid prototyping: Pilot units (e.g., mobile drying caravans) allow quick testing and iteration. - Technology deployment: Solar PV, GPS tracking, and digital platforms accelerate implementation and monitoring. - Agile governance: Decentralized decision-making and flexible partnerships enable swift responses to local needs.
Sustainability	- Environmental resilience: Circular resource use (e.g., manure to biogas, digestate to fertilizer) reduces emissions and regenerates ecosystems. - Economic viability: Income diversification through agro-processing and

Key pillars of transformative change	Key elements of the joint programme demonstrating transformative change
	export strengthens household and national economies. - Social equity: Focus on women, youth, and marginalized groups ensures inclusive benefits and long-term stability.
Local context-specific	- Cultural relevance: Builds on traditional knowledge (e.g., transhumance, indigenous fodder trees) and respects local norms. - Geographic adaptation: Tailors systems to climate, terrain, and resource availability (e.g., ouadis, solar exposure). - Community ownership: Empowers local actors to lead, manage, and sustain interventions beyond external support.

3. Financing Food Systems

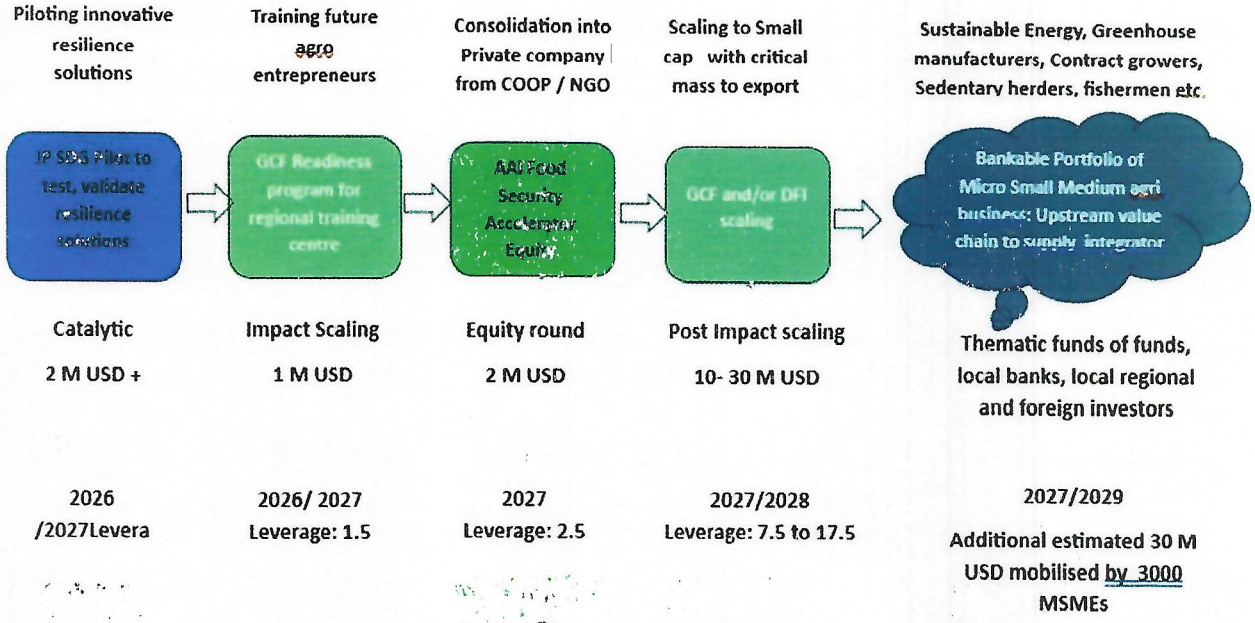
Due to the weaknesses of the local financial systems highlighted in section 1 Baseline and Situation Analysis, a 5-stage approach is planned to develop a portfolio of bankable agro value chains and business models which can be sustained by access to global markets for high value products and attract local, regional and foreign investments.

The catalytic investment by JP SDG to pilot resilience solutions is expected to trigger a cascade of impact investment starting with a GCF readiness grant of 1 M USD to leverage the innovation platform at Zara Agro tech to be developed through the JP project for knowledge transfer and hands on residential training of local and regional agro entrepreneurs, young graduate from vocation and academic streams.

Discussions are ongoing with AAI Food security Accelerator for an equity investment of 2 M USD to transition from Cooperative and NGO status to a bankable private corporate structure. These three partially overlapping initial phases will create the critical mass in technical and financial capacity for the emergence of a value chain aggregator to empower a network of upstream agro entrepreneurs to tap into high value regional and global export markets in the difficult context of remote landlocked hinterlands with poor infrastructure and high logistics costs.

The network of alumni of the training center will be further supported by the aggregator through contract growing and forward buying arrangements to derisk equity and debt funding for the development of a network of local and regional suppliers, growers and service providers.

The leverage of JP SDG catalytic investment is expected to mobilize up to 35 M USD by 2028 and to derisk and drive another 10 M USD from thematic funds of funds, commercial banks and NBFI's to support a network of MSMEs agribusiness with the business ecosystem and agro value chains developed.



The proposed spirulina and agro-pastoral transformation model are designed to mobilize significant financing, targeting a minimum leverage ratio of 1:5 through a multi-tiered partnership strategy. The pilot phase is supported by **seed funding from the Joint SDG Fund**, which de-risks early-stage infrastructure investments (e.g., boreholes, solar PV systems, mobile drying units) while providing technical assistance and capacity building for local communities and cooperatives.

Communities and cooperatives actively contribute through labor, land access, and local governance, while local savings groups reinvest profits from agro-processing and spirulina production into maintenance and expansion. This approach ensures strong local ownership and project sustainability.

To scale up the pilot phase, **Chad plans to mobilize Green Climate Fund (GCF) financing**, enabling replication of the model in other areas, expansion of production units, strengthening of local value chains, and increased market access for high-value agro-pastoral products. GCF support will complement national and private contributions, creating a robust blended finance model that strengthens rural livelihoods while promoting climate-smart production practices.

In addition, a **specific outcome on local economic development (Outcome 3)** has been integrated in this pilot phase to create financing opportunities and connect communities and economic actors to investment. This framework also sets the stage for testing a **Payment for Ecosystem Services (PES) financing mechanism** under Output 1.4. The mechanism incentivizes communities to adopt sustainable land and livestock management practices by rewarding carbon sequestration, biodiversity conservation, and soil fertility improvements. In particular, the project will test a PES model based on the production and application of biochar. With the support of Zara Agro and PES expert, this model will allow for the precise quantification of sustainable carbon sequestration in soils and provide financial incentives to farmers who adopt these practices. The PES mechanism will demonstrate how financial incentives can be integrated into local agro-pastoral value chains, providing replicable and scalable solutions for sustainable food systems.

By combining seed funding, community contributions, GCF investment, and the PES mechanism, this programme establishes a comprehensive financing model capable of scaling transformative agro-pastoral interventions, strengthening local capacities, and generating measurable development impacts beyond the

duration of the joint programme. The pipeline of validated bankable business models generated will pave the way for the 5th round of small ticket size equity and debt investments.

4. Partnerships and stakeholder engagement

The **United Nations Resident Coordinator (RC)** will lead political engagement at the highest level with the government and other stakeholders; **UNDP and FAO** will lead technical engagement at the level of the **Minister of Agriculture** and with all partners involved in the programme's implementation.

The **Partnership and Stakeholder Engagement Strategy** for the Joint Programme (JP) under the Point Program designed to ensure inclusive, accountable, and high-impact implementation. The JP will be anchored within the Ministry of Agriculture, which will serve as the lead implementing body and policy steward.

A **National Steering Committee (NSC)** will be established, cochaired by the Ministry of Agriculture and the UN Resident Coordinator.

The financial partners include the **Joint SDG Fund** for initial financing, the **Green Climate Fund (GCF)** for scaling up, as well as local and private contributions through cooperatives and savings groups. These combined resources support the deployment of infrastructure, the strengthening of local capacities, and the implementation of the **Payment for Ecosystem Services (PES)** mechanism, promoting the adoption of sustainable agro-pastoral practices and the generation of additional income.

The programme also relies on **other strategic partnerships** to enhance its reach and impact. UN agencies (FAO and UNDP) provide technical support on nutrition, food systems, climate-smart agriculture, energy, biodiversity, and governance. CSOs/NGOs, such as VERDURA and Zara Agro, contribute to the integration of transhumant communities and the implementation of spirulina and vegetable production. Private companies and agro-processors support market access, product transformation, and the commercialization of "Made in Chad" products, while renewable energy firms assist with the deployment and maintenance of solar infrastructure.

At the **local level**, the programme fosters community engagement in line with **Outcome 3 on local economic development**, creating opportunities for local investment, strengthening cooperatives, and linking communities to financing mechanisms. This ensures that interventions are participatory, locally owned, and generate tangible socio-economic benefits in rural areas.

5. Towards the Right to Adequate Food for All and Leaving No One Behind

The Joint Programme (JP) is grounded in the UNSDG operational guide on *Leaving No One Behind* and the CFS Voluntary Guidelines on the Right to Adequate Food, Gender Equality, and Youth. It aims to transform Chad's food system by directly benefiting marginalized groups while increasing their agency and inclusion.

- **Focus on marginalized groups**

The JP prioritizes rural and urban poor, smallholder food producers, women, youth, and transhumant communities – many of whom face overlapping vulnerabilities. Using an intersectional lens, the programme will:

- Support women-led cooperatives in spirulina and vegetable production;

- Provide youth training in agro-processing, solar energy maintenance, and digital marketing;
- Integrate transhumant herders into value chains via meat, milk, and manure transformation;
- Improve access to nutritious foods for urban poor through local distribution networks;
- It will strengthen local governance by involving these marginalized groups in community dialogue and coordination platforms, promoting their participation in local decision-making on resource management and economic development.

These actions align with the CFS Voluntary Guidelines on the Right to Adequate Food, and contribute to the realization of key human rights mechanisms: International Covenant on Economic, Social and Cultural Rights (ICESCR); Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW); Convention on the Rights of the Child (CRC); UN Declaration on the Rights of Indigenous Peoples (UNDRIP); Universal Periodic Review (UPR) recommendations for Chad.

- **Focus on gender equality**

The Joint Programme is primarily focused on technical and infrastructure activities (agro-processing, irrigation, biogas, pilot farms), which explains why most Gender Markers are 1 or 2. However, several activities are specifically designed to promote gender equality:

- Ensuring that 50% of beneficiaries are women;
- Supporting women's access to finance, land, and technology;
- Including women in decision-making bodies at local and national levels;
- Promoting gender-sensitive value chains in spirulina, dairy, and horticulture.

These actions reflect the CFS Guidelines on Gender Equality and the empowerment of women and girls in food security and nutrition, ensuring that the programme contributes concretely to reducing inequalities despite its technical focus.

- **Focus on youth empowerment**

Youth will be empowered through:

- Vocational training in agro-processing, solar energy, and digital tools;
- Inclusion in cooperatives and market networks;
- Participation in local governance structures.

This aligns with the CFS Voluntary Guidelines on Youth, promoting their role as agents of change in food systems.

- **Participation and Agency**

The JP ensures meaningful participation by:

- Establishing community platforms for dialogue and feedback;
- Training marginalized groups in advocacy and policy engagement;
- Embedding local ownership through territorial governance and cooperative leadership.

These mechanisms ensure that rightsholders are not only beneficiaries but co-creators of the food system transformation.

List of marginalized and vulnerable groups	Dedicated JP Output
Women and girls	Output 1.1; 2.1 and 3.2

List of marginalized and vulnerable groups	Dedicated JP Output
Children	Output 2.1
Youth	Output 1.1; 1.3 and 3.2
Persons with disabilities	Output 2.1; 3.1 and 3.4
Older persons	Output 3.1
Indigenous peoples	Output 1.2; 1.3 and 3.3
Other groups: transhumant communities	Output 1.2 and 3.3
Other groups: rural poor	Output 1.3 and 2.1
Other groups: urban poor	Output 2.1

6. Challenges and Risks

External Factors				
Categories	**Description**	**Impact**	**Mitigation**	**Risk owner**
Political Risk	Upcoming shifts in leadership may alter national priorities or delay policy approvals	Disruption in government engagement and decision-making	Secure cross-party support and formalize commitments through inter-ministerial agreements	Ministry of planning
Natural Disasters and Climate Shock	Floods, droughts, or locust invasions could damage infrastructure and disrupt production cycles	Delays in spirulina pond setup, crop loss, and reduced community participation	Climate-resilient infrastructure, early warning systems, and flexible implementation timelines	Ministry of Environment and UNDP
Economic Instability and Inflation	Currency fluctuations or rising costs of imported equipment may affect budget execution.	Reduced purchasing power and delays in procurement	Prioritize local sourcing, include contingency buffers in budget, and engage financial institutions for hedging support	Ministry of Finance and UN Agencies
Regulatory Changes	Shifts in land tenure laws or export regulations may affect access to resources and markets	Legal uncertainty for cooperatives and agro-processors	Legal advisory support and policy dialogue platforms	Ministry of Agriculture and FAO/UNDP
Internal Factors				
Categories	**Description**	**Impact**	**Mitigation**	**Risk owner**
Institutional Capacity Limitations	Limited staffing and technical expertise at local government and cooperative levels	Slower implementation and reduced quality of service delivery	Capacity-building programs, embedded technical advisors, and peer learning exchanges.	UNDP, FAO and Local Councils.
Political Will and Coordination Gaps	Fragmented inter-ministerial coordination may hinder strategic alignment.	Duplication of efforts and misaligned investments.	Strengthen the National Steering Committee and empower the National Convenor with cross-sectoral	Prime Minister's Office and National Convenor.
Budget Constraints and Delays	Delayed disbursement of funds or limited absorption capacity.	Missed milestones and reduced community trust.	Phased budgeting, real-time financial tracking, and flexible fund reallocation mechanisms	UN Agencies and Ministry of Finance.
Stakeholder Engagement Challenges	Low participation from marginalized groups due to mistrust or logistical barriers.	Reduced ownership and sustainability of interventions	Use of community facilitators, mobile outreach units, and inclusive communication strategies.	Local NGOs and CSOs.

7. Sustainability plan and exit strategy

A Structured approach is planned with clear targets and Milestones as detailed in the table below.

Discussions have been engaged for a GCF readiness grant and an AAI FSA equity investment which will both be triggered by the approval of JP SDG catalytic investment and start up. As stage 3 moves into implementation there will be early engagement with GCF and other DFIs to raise 10 to 30 M USD for replication of the territorialized value chain piloted in Lake Chad-Chari- N'Djamena to other regions in Chad. The final stage dependent on the development of a few agro value chain integrators with critical mass to export will drive the emergence of some 3000 agri business related MSMEs to supply the integrators with produce, equipment and services.

Stage	Source of Investment	Amount targeted M USD	Pipeline status and timeline	Milestones and triggers	Impact and beneficiaries reached
1	JP SDG	2 +	Q1 2026	Approval from JP SDG	Impact and beneficiaries in Annex 2 Integrated results framework
2	GCF Readiness	1	Q3 2026	Approval by GCF/Gov of Chad	The regional training centre is expected to receive cohorts of 15 trainees for 1 month, with an annual target of 150 regional agro entrepreneurs trained.
3	AAI FSA	2	Q1 2027	Approval by AAI FSA	This expansion phase will lead to extension of sourcing to fully cover the targeted region from lake Chad and Chari River to N'Djamena, to supply a significant share of N'Djamena food supply and to initiate exports
4	GCF /DFI	10 to 30	2027 -2028	Approval by GCF/DFI boards	This phase will broaden the value chain beyond the initial region to reach regional and export markets and to support the local business ecosystem of resilient agro technology solutions and services. An expansion to 2 additional regions including Logone river region is expected.
5	Banks, Thematic funds, private equity, FDI	10	2027- 2029	Pipeline of bankable project ready in Chad	An estimated number of 3000 MSME agro entrepreneurs in Chad and the region are expected to mobilise 30 M USD investment through bankable business cases.

The sustainability of the Joint Programme (JP) relies on a coherent articulation between community empowerment, institutional anchoring, and financial viability, ensuring that results continue well beyond the JP and Common Fund support. From the outset, the pilot phase is designed to progressively transfer skills, responsibilities, and governance mechanisms to local actors so that agro-pastoral value chains can operate autonomously and sustainably.

At the community level, sustainability is ensured through the gradual appropriation of technical, organizational, and economic innovations by cooperatives, women's groups, spirulina-producing communities in the ouadis, and horticultural producers. Training, practical demonstrations, community-based management of infrastructure, and support to local private actors guarantee that the capacities needed for maintenance, processing, and marketing remain anchored locally. The Local Economic Development Committees established in the intervention areas play a central role in this sustainability process: they coordinate initiatives, lead territorial planning, mediate potential resource-based conflicts, and structure multisectoral dialogue. FAO consolidates technical capacities, while UNDP strengthens local economic governance and commercial relations. Zara Agro and Verdura continue to act as value-chain integrators and economic mentors, and local authorities commit to embedding JP mechanisms into their planning practices.

At the institutional level, the sustainability strategy aims to anchor the JP innovations within national policies already under implementation, including the National Development Plan (PND), NDCs, the National Food Systems Roadmap, the National Adaptation Plans, and the National Biodiversity Strategy. The National Steering Committee - chaired by the Ministry of Agriculture - ensures political and technical ownership of the introduced models, from certification and traceability systems to integrated agro-pastoral models and the PES mechanism. Sectoral ministries will continue applying standards, supervising technical components, and incorporating JP approaches into national support frameworks for producers. UN agencies will accompany the transition by providing methodological support, capitalizing on results, and transferring operational tools.

Financial sustainability is secured through several complementary mechanisms. The economic viability of "Made in Chad" value chains - such as dried meat, ghee, certified spirulina, biofertilizers, and irrigated horticultural products - ensures regular revenue streams after the JP ends. Community reinvestment mechanisms, fed by cooperative margins, infrastructure management schemes, and savings systems, consolidate the autonomy of local actors. The Payment for Ecosystem Services (PES) mechanism - whose methodology, certification systems, and tools will be finalized during the JP - will continue operating independently of initial funding, providing a new revenue stream linked to carbon storage, sustainable pasture management, and the use of biochar. In parallel, the financial structuring of Zara Agro and Verdura as bankable enterprises, combined with private investment mobilization efforts, will attract capital to expand the value chains, while the preparation of a GCF funding proposal will pave the way for national-scale replication.

The exit strategy is therefore based on the consolidation of autonomous actors, functional institutional mechanisms, and economically viable value chains. It assumes continued national commitment, accessible and stable markets, and the capacity of local structures to maintain the coordination mechanisms established during the JP. Once these conditions are met, the JP will be able to phase out gradually, leaving behind a fully integrated, replicable, and self-sustaining system capable of expanding without external support.

8. Management arrangements

The Joint Programme will be implemented within a structured governance and coordination framework aimed at ensuring strategic oversight, operational efficiency, and alignment with the respective mandates of the Participating UN Organizations (PUNOs). The management arrangements described below complement, without replacing, the protocols and internal policies specific to each organization.

- **Sterring Committee (COPIL)**

A National Steering Committee (NSC) will be established to provide strategic guidance, ensure accountability, and oversee the overall implementation of the programme. In accordance with the UNSDG Guidance Note on Joint Programmes, the Steering Committee will be co-chaired by the Resident Coordinator (RCO) and the Minister of Agriculture. The NSC will include the following members:

- Ministry of Finance: oversight of fiscal alignment and co-financing;
- Ministry of Livestock and Animal Production: coordination of livestock and agro-pastoral interventions, technical guidance, and alignment with national livestock strategies;
- Ministry of Environment and Climate Change: alignment with NDCs, National Adaptation Plans, and biodiversity strategies;
- Ministry of Energy: coordination of renewable energy components;
- Ministry of Commerce and Industry;
- Chamber of Commerce, Industry, Agriculture, Mines, and Handicrafts;
- Resident Coordinator Office (RCO);
- UNDP;
- FAO;
- Zara Agro Chad Cooperative;
- Verdura;
- Representatives of NGOs/CSOs involved in implementation.

The Steering Committee will meet quarterly, with additional sessions convened as needed. It will review progress reports, approve annual work plans and budgets, address implementation challenges, and ensure alignment with national priorities and the UNSDCF outcomes.

- **Joint programme team**

The JP Team will be responsible for day-to-day coordination and implementation of programme activities. It will comprise technical focal points from PUNOs, a dedicated JP Coordinator, and representatives of implementing partners and other stakeholders. The JP Coordinator will act as the main liaison between the Steering Committee and the implementing partners, ensuring timely execution of activities and reporting. The team will meet twice per month to review progress, coordinate inputs, and address operational issues. Roles and responsibilities will follow standard Terms of Reference, with no major deviations.

- **Implementing Partner**

The programme will be implemented by two UN implementing partners: FAO and UNDP. Procedures applied will be those of the implementing partners. The implementing partners may delegate responsibility for certain activities to one or more responsible actors, such as NGOs or CSOs, for effective on-the-ground implementation.

These management arrangements are designed to promote transparency, accountability, and collaborative decision-making, ensuring that the Joint Programme delivers impactful and sustainable results in line with the UNSDCF and the Sustainable Development Goals.

9. Monitoring, accountability, financial management, and public disclosure

Reporting on the Joint SDG Fund will be focused on concrete results and grounded in evidence. The RCO focal point and lead PUNO is responsible for coordinating and drafting a concise annual report (using the Fund Secretariat template/guidance), which is submitted to the Joint SDG Fund Secretariat through the RC by January 31st of the following year. Additionally, a final narrative report must be prepared and submitted to the Joint SDG Fund Secretariat through the RC no later than two (2) months after the operational closure

of the Joint Programme activities.

The JP Steering Committee, co-chaired by the RC, is mandated to oversee and monitor the implementation of the joint programme, with the involvement of Joint SDG Fund Secretariat to which it must submit data and information upon requested. Additionally, the Joint SDG Fund Secretariat may request additional insights, such as policy papers, value-for-money analysis, case studies, infographics, or blogs/articles, as needed.

PUNOs will be required to include information on complementary funding received from other sources (both UN cost sharing, and external sources of funding/financing) for the activities supported by the Fund, including in kind contributions and/or South-South Cooperation initiatives, in the report.

PUNOs at Headquarters level shall provide the Administrative Agent with the following statements and reports prepared in accordance with its accounting and reporting procedures, consolidate the financial reports, as follows:

Annual financial reports as of 31st December each year with respect to the funds disbursed to it from the Joint SDG Fund Account, to be provided no later than four months after the end of the applicable reporting period; and a final financial report, after the completion of the activities financed by the Joint SDG Fund and including the final year of the activities, to be provided no later than 30 April of the year following the operational closing of the project activities.

The JP will be using a pass-through fund management modality where UNDP Multi-Partner Trust Fund Office will act as the Administrative Agent. The programmatic UN entity of the Facility shall assume full programmatic and financial accountability for the funds disbursed to it by the Administrative Agent of the Joint SDG Fund (Multi-Partner Trust Fund Office). Such funds will be administered by each UN Agency, Fund, and Project in accordance with its own regulations, rules, directives and procedures. The entity shall establish a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent.

A minimum of 5% of the JP budget is allocated for monitoring, reporting, evaluation, audit and communications. Indirect costs of the Participating Organizations recovered through project support costs will be 7%, with exception of WFP and UNHCR which should be 6,5%. All other costs incurred by each PUNO in carrying out the activities for which it is responsible under the Fund will be recovered as direct costs. Procedures on financial transfers, extensions, financial and operational closure, and related administrative issues are stipulated in the Operational Guidance of the Joint SDG Fund. PUNOs and partners must comply with Joint SDG Fund brand guidelines, which includes information on donor visibility requirements.

ANNEX 1: Mapping of related projects, investments and other development initiatives

Name of project / investment / initiative	Relevance for the JP	Lead actors and partners	Budget and funding source	Timeframe	Status
Projet GCP /GLO/1170/GCR Augmenter les co-investissements public-privé pour l'action climatique dans les systèmes agroalimentaires	The GCP project emphasizes strong private sector involvement in climate action investments within agri-food systems. The JP also focuses on the private sector through innovative initiatives."	FAO, Ministry of Environment, Private sector	200 000 USD. GCF	Mar 2024-August 2027	On going
Projet GCP /INT/1347/GCF BABY02 - CHAD: Scaling-Up Resilience in Africa`s Great Green Wall (SURAGGWA)	"The GCP project emphasizes technological innovations for adaptation, particularly by promoting non-timber forest products. The JP also highlights a non-timber forest product, such as spirulina. These two projects are complementary."	FAO, Ministry of Environment, Great Green Wall	15 000 000 USD. GCF	Jul 2025-jul 2035	On going
GCP/CHD/040/LDF **Strengthening agro-ecosystems' adaptive capacity to climate change in the Lake Chad Basin (Lac, Kanem, Bahr El Ghazal, and part of the Hadjer-Lamis Province)**	The GCP project Improved governance at the provincial level to identify, prioritize, monitor, and evaluate climate change adaptation strategies and measures. It also works to improve the agricultural and fodder production and market development for sesame, spirulina, dried vegetable products, fodder and other livestock feed with strong participation of women and youth.	FAO, Ministry of Agriculture, Oxfam	4 050 913 USD. GEF	Jan 2026-Dec 2029	On going
GCP/GLO/1288/EC **New Aquatic Food Value Chains development for sustainable healthy diets for the most vulnerable in fragile contexts (NAVAC)**	"The GCP project is developing knowledge bases on aquatic foods and their by-products, with a particular focus on their use in the prevention and response to food and nutrition crises."	FAO, Ministry of Agriculture	1 000 000 USD. UE	Jul 2025-jul 2030	On going
Projet Stabilization	The project operates within the area covered by the Joint Programme, strengthening socioeconomic infrastructure and supporting community livelihoods.	UNDP, Ministry of Plan	8 000 000 USD	2020-2027	On going
Projet PBF	The project operates within the Joint Programme area, notably by distributing energy kits and supporting the integration of women who are victims of violence."	UNDP, Ministry of Plan	1 500 000 USD	2023-2027	On going
Projet EW4ALL GCF "Advancing Early Warning Systems for All"	The project will strengthen early warning capacities and community resilience to climate change shocks.	UNDP, Ministry of Environment	3 500 000 USD	2026-2030	On going
Projet Food System	This project implements agroecological and regenerative approaches to restore degraded lands and strengthen the resilience of food systems, aligning with the SDG Fund's agricultural innovation project by promoting sustainable and inclusive value chains for local communities.	UNDP, Ministry of Environment	3 975 535 USD	2026-2031	On going

ANNEX 2: Integrated results framework, work plan and budget

Joint Programme Outcomes			
Outcome 1. Export of "Made in Chad" products			
Outcome indicator 1.1: Volume of exported goods (units/year)	**Baseline:** 0	**Target:** dried meat: 100-200 kg; Ghee: 10-20 kg; Spirulina: 50-100 kg /year	**Means of verification:** report
Outcome indicator 1.2: Number of products certified with "Made in Chad" label	**Baseline:** 0	**Target:** 3 (dried meat, spirulina, ghee)	**Means of verification:** report, certification report
Outcome 2. Improvement of community-level nutrition			
Outcome indicator 2.1: Percentage of households consuming improved affordable spirulina regularly	**Baseline:** 5%	**Target:** 10%	**Means of verification:** Survey
Outcome indicator 2.2: Percentage of diets from nutrient dense foods such meat offals, milk, fermented milk whey etc. regularly among poor target households	**Baseline:** 10 %	**Target:** 20 %	**Means of verification:** Survey
Outcome 3. Strengthening of social cohesion and local economic development			
Outcome indicator 3.1: Participation rate of diverse community groups in pastoral perimeter management	**Baseline:** 0	**Target :**10%	**Means of verification:** Survey
Outcome indicator 3.2: Degree of integration of communities into sustainable local value chains	**Baseline:** 0	**Target:** 3	**Means of verification:** Survey

Joint Programme Outputs			
Outcome 1. Export of "Made in Chad" products			
Output 1.1. The national label "Made in Chad" is strengthened through high value-added processed local products (ghee, dried meat, spirulina, horticultural products)			
Output indicator 1.1.1: Number of products labeled and marketed under 'Made in Chad'	**Baseline**: 0	**Target:** Minimum doubling of the value	**Means of verification:** Value chain analysis, certification report
Output indicator 1.1.2: % increase in the quality of spirulina produced	**Baseline**: 0	**Target:** +50 % in quality	**Means of verification:** Production reports, quality analyses
Output indicator 1.1.3: Number of production units equipped with renewable energy infrastructure	**Baseline**: 0	**Target:** 3	**Means of verification:** Installation and exploitation report
Output 1.2. Milk and meat yields are increased through the adoption of improved livestock enclosures, the use of enhanced fodder, and the integration of			

biochar into livestock systems			
Output indicator 1.2.1: % increase in milk and meat yields in targeted farms	**Baseline**: 0	**Target:** +30 %	**Means of verification:** Livestock technical reports, field surveys
Output 1.3. Vegetable productivity is improved through the use of drip irrigation systems and the integration of biochar into horticultural system			
Output indicator 1.3.1: % increase in vegetable crop productivity	**Baseline:** 0	**Target:** +10 %	**Means of verification:** Agricultural reports, field surveys
Output 1.4. Carbon sequestration and soil health are enhanced through the implementation of PSE practices			
Output indicator 1.4.1: Tonnage of carbon sequestered per hectare or per integrated system	**Baseline:** 0	**Target:** +10 %	**Means of verification:** Environmental studies, technical reports
Outcome 2. Improvement of community-level nutrition			
Output 2.1. Household nutrition is improved through the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables measured as % of the diet among poor target households			
Output indicator 2.1.1: % of poor households' diets incorporating improved products	**Baseline:** 5 %	**Target:** 10 %	**Means of verification:** Nutrition surveys, field reports
Output indicator 2.1.2: Number of households trained and sensitized on nutrition and sustainable food production	**Baseline:** 0	**Target:** 1000 households	**Means of verification:** formation report, survey
Outcome 3. Strengthening of social cohesion and local economic development			
Output 3.1. Coordination of local economic development is strengthened at the community and territorial levels			
Output indicator 3.1.1: Number of functional local economic coordination structures (committees or multi-stakeholder platforms)	**Baseline:** 0	**Target:** 3	**Means of verification:** Minutes monitoring reports
Output 3.2. Promotion and support of entrepreneurship, PME/PMI, and economic interest groups are strengthened			
Output indicator 3.2.1: Number of PME/PMI and business groups supported through technical assistance, training, or financing	**Baseline:** 0	**Target:** 25	**Means of verification:** training report, beneficiary registers
Output 3.3. Social cohesion is strengthened through mediation and intercommunity dialogue sessions around local resources and economic activities			
Output indicator 3.3.1: Number of dialogue sessions organized and number of participants	**Baseline:** 0	**Target:** 10 sessions, 300 participants	**Means of verification:** session report, participant list
Output 3.4. Social cohesion is strengthened through formal contracts for supply / exchange of products			
Output indicator 3.4.1: Number of formal contracts signed between producers and traders.	**Baseline:** 0	**Target:** 2	**Means of verification:** Copies of contracts, official registers

Joint Programme Work Plan and Budget	Geographic focus	Start	End	PUNO	SDG Targets	Gender Equality Marker	QCPR function	UNDG Cat.	Budget (US$)
Outcome 1. Export of "Made in Chad" products									
Output 1.1. The national label "Made in Chad" is strengthened through high value-added processed local products (ghee, dried meat, spirulina, horticultural products)									
Activity 1.1.1. Production, infrastructure and equipment									
Installation of a processing unit for milk, butter, and dried meat	Douguia	Jan-26	Sept-26	FAO	9	1	6	3	170,000
Acquisition of a mobile spirulina drying unit + traction vehicle	Douguia	Mar-26	Sept-26	FAO	7	1	6	3	150,000
Installation of a sustainable solar PV system for productive use on the farm	Douguia	Jan-26	Sept-27	UNDP	8	1	6	3	450,000
Activity 1.1.2. Capacity building and knowledge transfer									
Training of dedicated ZAT staff through expert-led knowledge transfer	Douguia	Juil-26	Déc-27	FAO	1,2,3	1	4	1	40,000
Training of operators for the mobile spirulina unit and engagement with Wadi communities	Douguia	Mar-26	Sept-26	FAO	1,2,3	1	4	4	24,000
Training of producers and processors in agri-food processing techniques and quality standards	Douguia	Juil-26	Dec-26	FAO	2,4	1	4	4	5,000
Activity 1.1.3. Quality and certification									
Implementation of quality approach for sanitary and commercial certification (national and international markets)	Douguia/ N'Djamena	Aug-26	Jul-27	FAO	9	1	2	4	15,000
Training of producers and processors in quality standards	Douguia/ N'Djamena	Mar-26	Aug-26	FAO	4	1	4	4	5,000
Creation of a traceability and quality control system for labeled products	Douguia/ NDjamena	Apr-26	Sept-26	FAO	9	1	2	4	10,000
Support for obtaining international certifications (organic, fair trade, etc.)	Douguia/ NDjamena	Aug-26	Aug-26	FAO	8	1	2	4	10,000
Support for health and commercial certification of processed products	Douguia/ NDjamena	Apr-26	Nov-26	FAO	9	1	2	4	5,000
Activity 1.1.4. Marketing, communication, and label promotion									
Market studies and identification of international outlets for processed products	Douguia/ NDjamena	Apr-26	Sept-26	UNDP	8	1	4	4	10,000

Joint Programme Work Plan and Budget	Geographic focus	Start	End	PUNO	SDG Targets	Gender Equality Marker	QCPR function	UNDG Cat.	Budget (US$)
Development of attractive packaging that meets international standards	Douguia/ NDjamena	Juil-26	Dec-26	UNDP	8	1	4	4	10,000
Communication and awareness campaigns on the "Made in Chad" label targeting consumers and producers	Douguia/ NDjamena	Nov-26	Apr-27	UNDP	8	1	5	4	5,000
Initiation of the process to register Chadian spirulina on the UNESCO World Heritage list	N'Djamena	Mar-26	Dec-26	FAO	1,2,3	1	1	4	35,000
								Total Output 1.1	**944,000**
Output 1.2. Milk and meat yields are increased through the adoption of improved livestock enclosures, the use of enhanced fodder, and the integration of biochar into livestock systems									
Activity 1.2.1. Livestock infrastructure and demonstration									
Establish pilot demonstrations of improved livestock enclosure systems	Douguia	Jan-26	Dec-26	FAO	15	1	6	3	15,000
Activity 1.2.2. Fodder production and storage									
Train producers in the cultivation, harvesting, and preservation of fodder (hay, silage)	Douguia	Jul-26	Nov-26	FAO	12	1	4	4	5,000
Set up community fodder storage units	Douguia	Jul-26	Jul-27	FAO	12	1	6	3	10,000
Activity 1.2.3. Biochar integration and livestock feeding									
Train communities use of biochar as cattle feed and bedding in cattle night shelters	Douguia, Lake regions	Jul-26	Mar-27	FAO	12	1	4	4	5,000
								Total Output 1.2	**35,000**
Output 1.3. Vegetable productivity is improved through the use of drip irrigation systems and the integration of biochar into horticultural systems									
Activity 1.3.1. Agricultural infrastructure and irrigation									
Install protected agriculure with climate control systems	Douguia	Jan-26	Sept-26	FAO	13	1	6	3	230,957
Install drip irrigation systems in horticultural areas	Douguia	Jan-26	Sept-26	FAO	13	1	6	3	230,000
Activity 1.3.2. Training and knowledge transfer									
Train vegetable growers in the use, maintenance, and optimization of irrigation systems	Douguia	Jun-26	May-27	FAO	13	1	4	4	40,000
Dedicated ZAT staff training and expertise transfer	Douguia	Jul-26	Dec-27	FAO	1,2,3	1	4	1	40,000
Train vegetable growers in agroecological techniques and sustainable soil management	Douguia	Aug-26	Apr-27	FAO	12	1	4	4	10,000
Activity 1.3.3. Biochar production and use									
Procure a mobile biochar production retort and conduct	Douguia	Jan-26	May-27	FAO	9	1	6	3	42,193

Joint Programme Work Plan and Budget	Geographic focus	Start	End	PUNO	SDG Targets	Gender Equality Marker	QCPR function	UNDG Cat.	Budget (US$)
training by supplier									
Train producers in improved biochar production using agricultural or woody residues	Douguia, Lake regions	Juil-26	Feb-27	FAO	2	1	4	4	10,000
Activity 1.3.4. Monitoring and evaluation									
Collect data on the impact of irrigation and biochar on productivity	Douguia	Apr-26	Nov-27	FAO	2	1	3	4	10,000
								Total Output 1.3	**613,150**
Output 1.4. Carbon sequestration and soil health are enhanced through the implementation of PSE practices									
Activity 1.4.1. Integration of PES practices into farming systems									
Integrate fodder into enclosures to improve soil fertility and identify agricultural practices eligible for payment under PES	Douguia / N'Djamena	Mar-26	Déc-26	UNDP	2	1	4	4	10,000
Activity 1.4.2. Training and capacity building									
Train livestock farmers in pasture management and area rotation to maximize vegetation regeneration and carbon sequestration, while raising their awareness of PES	Douguia / N'Djamena	Mar-26	Déc-26	UNDP	2	1	4	4	10,000
Activity 1.4.3. Methodology and certification									
Develop the methodology and certification to convert sustainable biomass into carbon credits and implement PES to remunerate producers	N'Djamena / Douguia	Mar-26	Oct-27	UNDP	13,17	1	4	4	30,000
Activity 1.4.4. Awareness and communication									
Organize awareness workshops on PES, carbon certification, and economic and ecological benefits	N'Djamena / Douguia	Mar-26	Déc-26	UNDP	13,17	1	4	4	10,000
								Total Output 1.4	**60,000**
								Total Outcome 1	**1,652,150**
Outcome 2. Improvement of community-level nutrition									
Output 2.1. Household nutrition is improved through the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables									
Activity 2.1.1. Training and capacity building									
Train households and producers on the use and preparation of improved products (spirulina, milk, meat, ghee, vegetables) and their nutritional benefits	N'Djamena, Douguia / Kanem	Jan-26	Oct-27	FAO	2	1	4	4	20,000
Activity 2.1.2. Awareness and communication									

Joint Programme Work Plan and Budget	Geographic focus	Start	End	PUNO	SDG Targets	Gender Equality Marker	QCPR function	UNDG Cat.	Budget (US$)
Develop and distribute educational materials (posters, brochures, radio programs) on good dietary practices	N'Djamena, Douguia / Kanem	Jan-26	Oct-27	FAO	2	1	5	2	15,000
Activity 2.1.3. Monitoring and evaluation									
Conduct M&E of household dietary practices, collect data on product consumption and dietary diversity, and measure the impact of training and campaigns on nutritional habits.	N'Djamena, Douguia / Kanem	Jun-26	Déc-27	FAO	2	1	3	4	10,000
								Total Output 2.1	**45,000**
								Total Outcome 2	**45,000**
Outcome 3. Strengthening of social cohesion and peacebuilding									
Output 3.1. Coordination of local economic development is strengthened at the community and territorial levels									
Activity 3.1.1. Establishment and operationalization of local economic coordination mechanisms									
Establish or strengthen local economic development coordination committees	Douguia / N'Djamena	Mar-26	Jun-26	UNDP	8,16	2	2	4	10,000
Train committee members on participatory planning, monitoring and evaluation	Douguia / N'Djamena	Aug-26	Mar-27	UNDP	8,16	1	4	4	5,000
Activity 3.1.2. Multi-stakeholder planning and dialogue									
Organize quarterly multi-stakeholder coordination meetings (local authorities, producers, NGOs, private sector)	Douguia / N'Djamena	Apr-26	Déc-27	UNDP	8,16	1	5	4	12,000
Develop and implement local economic action plans aligned with regional priorities	Douguia / N'Djamena	Juil-26	Déc-27	UNDP	8,16	1	2	4	10,000
Activity 3.1.3. Monitoring and reporting of local initiatives									
Establish a monitoring system for local economic initiatives (dashboards, monthly reports)	Douguia / N'Djamena	Sept-26	Déc-27	UNDP	8,16	1	3	4	5,000
								Total Output 3.1	**42,000**
Output 3.2. Promotion and support of entrepreneurship, PME/PMI, and economic interest groups are strengthened									
Activity 3.2.1. Identification and mapping of local economic actors									
Map and identify PMEs, cooperatives, and economic interest groups	Douguia / Kanem	Mar-26	Jun-26	UNDP	8,16	1	3	4	8,000
Activity 3.2.2. Capacity building for entrepreneurs and groups									
Organize training on business management, accounting, marketing, and access to finance	Douguia / Kanem	Apr-26	Déc-26	UNDP	8,16	1	4	4	10,000

Joint Programme Work Plan and Budget	Geographic focus	Start	End	PUNO	SDG Targets	Gender Equality Marker	QCPR function	UNDG Cat.	Budget (US$)
Activity 3.2.3. Support to formalization and market access									
Provide technical support for formalization of enterprises and groups (registration, certification)	Douguia / Kanem	Juil-26	Déc-27	UNDP	8,16	1	4	2	8,000
Organize B2B meetings and local fairs to connect producers and traders	Douguia / Kanem	Aug-26	Déc-27	UNDP	8,16	1	4	4	5,000
								Total Output 3.2	**31,000**
Output 3.3. Social cohesion is strengthened through mediation and intercommunity dialogue sessions around local resources and economic activities									
Activity 3.3.1. Dialogue and mediation on shared resources									
Organize intercommunity dialogue sessions on resource sharing and economic activities	Douguia / N'Djamena	Aug-26	Mar-27	UNDP	16	2	4	4	10,000
Activity 3.3.2. Awareness and knowledge sharing									
Raise awareness among populations about the ecological and social benefits of Agro ecological practices, carbon farming	N'Djamena, Douguia	Nov-26	Jun-27	UNDP	16	1	4	4	5,000
Organize exchange visits between communities to share successful experiences	N'Djamena, Douguia	Apr-26	Oct-27	UNDP	16	1	5	5	5,000
								Total Output 3.3	**20,000**
Output 3.4. Social cohesion is strengthened through formal contracts for supply / exchange of products									
Activity 3.3.4. Formalization and governance of local commercial relations									
Facilitate drafting and signing of producer-trader contracts	Douguia / N'Djamena	Janv-26	Déc-27	UNDP	8,16	1	5	4	8,000
Conduct awareness sessions on rights and obligations in contracts	Douguia / N'Djamena	Feb-26	Déc-27	UNDP	8,16	1	4	4	5,000
Establish a local mediation support mechanism for contract disputes to ensure trust and compliance	Douguia / N'Djamena	Mar-26	Déc-27	UNDP	8,16	1	2	4	5,000
								Total Output 3.4	**18,000**
								Total Outcome 3	**111,000**
								Total Outcomes	**1,808,150**
								Project Management Cost UN (8%)	**144,652**
								Total Direct Costs	**1,950,434**
								Indirect Costs (7%)	**136,530**
								TOTAL Project Costs	**2,086,964**

Joint SDG Fund Indicators

Global indicator		2026 Target	2027 Target
S.2.1.	Number of people benefiting from food systems transformation levers and activities to improve food security and nutrition outcomes	200	500
S.2.2.	Amount of additional financing leveraged for food systems transformation initiatives	0	15 000 000
S.2.3.	Number of new and improved evidence-based food systems policies/strategies developed and implemented	2	5
S.2.4.	Number of farmers and producers adopting innovative and sustainable food production practices	100	300

ANNEX 3: Budget per UNSDG Categories

UNSDG BUDGET CATEGORIES	PUNO 1: UNDP		PUNO 2: FAO		TOTAL	
	Joint SDG Fund (USD)	PUNO Contribution (USD)	Joint SDG Fund (USD)	PUNO Contribution (USD)	**Joint SDG Fund (USD)**	**PUNO Contribution (USD)**
1. Staff and other personnel	0		80,000		**80,000**	
2. Supplies, Commodities, Materials	0		15,000		**15,000**	
3. Equipment, Vehicles, and Furniture	680,957		615,000		**1,295,957**	
4. Contractual services	191,000	0	219,000	0	**410,000**	**0**
5.Travel	5,000		0		**5,000**	
6. Transfers and Grants to Counterparts	0		0		**0**	
7. General Operating and other Direct Costs	70,157		74,320		**144,477**	
Total Direct Costs	**947,114**	**0**	**1,003,320**	**0**	**1,950,434**	**0**
8. Indirect Support Costs	66,298	0	70,232	0	136,530	0
TOTAL Costs	**1,013,412**	**0**	**1,073,552**	**0**	**2,086,964**	0

ANNEX 4: Gender Equality, Human Rights, Peace markers

Gender Equality Marker

Joint Programme Outputs	GEM Score	Justification
Output 1.1. The national label "Made in Chad" is strengthened through high value-added processed local products (ghee, dried meat, spirulina, horticultural products)	GEM 1	The output promotes women's economic empowerment by integrating women producers and processors into value-added supply chains (dairy, spirulina, vegetables). Trainings and improved processing infrastructure create targeted opportunities for women-led microenterprises.
Output 1.2. Milk and meat yields are increased through the adoption of improved livestock enclosures, the use of enhanced fodder, and the integration of biochar into livestock systems	GEM 1	Women involved in small-scale livestock management benefit from improved fodder, feeding, and enclosure techniques, helping reduce labor burdens and increasing productivity for female producers. Activities ensure women's participation in training and demonstration sites.
Output 1.3. Vegetable productivity is improved through the use of drip irrigation systems and the integration of biochar into horticultural systems	GEM 1	Vegetable production is a sector where women are heavily represented; irrigation systems and climate-smart horticulture directly improve women's agricultural productivity and income. Capacity-building sessions intentionally include women farmers to enhance their technical skills.
Output 1.4. Carbon sequestration and soil health are enhanced through the implementation of PSE practices	GEM 1	Women livestock keepers and farmers gain access to PES-related training and benefit from potential carbon revenue streams. Awareness activities encourage women's participation in carbon governance and sustainable land management.
Output 2.1. Household nutrition is improved through the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables	GEM 2	Nutritional trainings specifically address women as primary caregivers responsible for food preparation, enhancing their knowledge of high-nutrient products (spirulina, milk, vegetables). Improved dietary practices directly target women and girls' nutritional needs, yielding gender-responsive outcomes.
Output 3.1. Coordination of local economic development is strengthened at the community and territorial levels	GEM 1	Local coordination bodies promote women's inclusion in planning and decision-making processes. Training committee members ensures that women participate in governance and influence local economic development priorities.
Output 3.2. Promotion and support of entrepreneurship, PME/PMI, and economic interest groups are strengthened	GEM 2	This output directly supports women-led businesses, cooperatives, and informal groups by providing training on business management, access to finance, and formalization processes. Activities remove structural barriers for women entrepreneurs and advance gender-responsive local economies.
Output 3.3. Social cohesion is strengthened through mediation and intercommunity dialogue sessions around local resources and economic activities	GEM 2	Women play a key role in peacebuilding within agro-pastoral communities; dialogue sessions and mediation mechanisms ensure women's voices are included in conflict resolution. Awareness activities intentionally engage women in ecological and social transition processes.
Output 3.4. Social cohesion is strengthened through formal contracts for supply / exchange of products	GEM 1	Formalizing producer-trader contracts improve transparency and protects vulnerable groups, including women traders and processors. Awareness sessions on rights and obligations increase women's ability to negotiate and secure fair market access.

Human Rights Marker

Joint Programme Outputs	HR Marker	Justification
Output 1.1. The national label "Made in Chad" is strengthened through high value-added processed local products (ghee, dried meat, spirulina, horticultural products)	1	The output indirectly supports human rights by improving equitable access to economic opportunities for vulnerable groups, including small-scale producers. While it promotes fairness and non-discrimination in value chain participation, human rights are not the primary focus of the intervention.
Output 1.2. Milk and meat yields are increased through the adoption of improved livestock enclosures, the use of enhanced fodder, and the integration of biochar into livestock systems	1	Activities improve livelihoods for smallholder livestock keepers and promote non-discriminatory access to extension services. Although the output contributes to basic economic rights (livelihoods, decent work), it does not explicitly address human rights mechanisms or accountability structures.
Output 1.3. Vegetable productivity is improved through the use of drip irrigation systems and the integration of biochar into horticultural systems	1	The output enhances the right to food and economic inclusion by improving household resilience through sustainable vegetable production. However, it does not directly address human rights principles such as participation, grievance mechanisms, or duty-bearer accountability.
Output 1.4. Carbon sequestration and soil health are enhanced through the implementation of PSE practices	2	The PES mechanism contributes to equitable benefit-sharing and supports environmental rights, especially for smallholder farmers.
Output 2.1. Household nutrition is improved through the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables	2	This output directly contributes to the realization of the right to adequate food and nutrition. Activities target vulnerable households, promote non-discrimination, and incorporate participation of rights-holders (especially women and children) in nutrition awareness campaigns. It also strengthens community capacities to claim basic nutritional rights.
Output 3.1. Coordination of local economic development is strengthened at the community and territorial levels	2	The output reinforces participation and inclusion principles by ensuring vulnerable groups take part in local decision-making bodies. It also contributes to transparency and accountability in local planning processes, aligning with a rights-based approach.
Output 3.2. Promotion and support of entrepreneurship, PME/PMI, and economic interest groups are strengthened	1	While fostering equitable access to economic opportunities, the output predominantly focuses on capacity-building and business formalization.
Output 3.3. Social cohesion is strengthened through mediation and intercommunity dialogue sessions around local resources and economic activities	3	The output strongly aligns with human rights principles by fostering inclusive participation, peaceful coexistence, and community dialogue. It addresses rights to security, participation, and non-discrimination, and strengthens local mechanisms to prevent conflict, protect vulnerable groups, and ensure accountability.
Output 3.4. Social cohesion is strengthened through formal contracts for supply / exchange of products	2	Formalizing producer–trader contracts enhance transparency, fairness, and access to justice for small-scale producers.

Sustaining Peace Marker

Joint Programme Outputs	HR Marker	Justification
Output 1.1. The national label "Made in Chad" is strengthened through high value-added processed local products (ghee, dried meat, spirulina, horticultural products)	1	The output indirectly contributes to peace by creating economic opportunities that reduce competition over scarce resources. However, peacebuilding is not the primary objective and no explicit conflict-sensitive mechanisms are embedded.
Output 1.2. Milk and meat yields are increased through the adoption of improved livestock enclosures, the use of enhanced fodder, and the integration of biochar into livestock systems	1	Improving productivity can reduce tensions linked to resource scarcity, but the activities remain primarily technical and do not directly target conflict drivers or social cohesion mechanisms.
Output 1.3. Vegetable productivity is improved through the use of drip irrigation systems and the integration of biochar into horticultural systems	1	The output enhances livelihoods and reduces stress linked to food insecurity, which indirectly supports stability. Yet, there is no deliberate engagement with conflict dynamics or peacebuilding structures.
Output 1.4. Carbon sequestration and soil health are enhanced through the implementation of PSE practices	1	The PES mechanism may reduce conflicts over land and natural resources by creating incentives for sustainable management. However, sustaining peace is not a central focus.
Output 2.1. Household nutrition is improved through the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables	1	Better nutrition strengthens resilience and reduces vulnerabilities that can contribute to tensions, but there is no direct peacebuilding intent or engagement with conflict drivers.
Output 3.1. Coordination of local economic development is strengthened at the community and territorial levels	2	This output directly contributes to sustaining peace by supporting inclusive, participatory, and transparent local governance structures. These platforms help manage disputes, coordinate resource use, and build trust between farmers and herders.
Output 3.2. Promotion and support of entrepreneurship, PME/PMI, and economic interest groups are strengthened	1	While economic empowerment contributes to stability, the output does not directly address conflict dynamics or include targeted peacebuilding interventions. The contribution to peace is indirect.
Output 3.3. Social cohesion is strengthened through mediation and intercommunity dialogue sessions around local resources and economic activities	3	This is a core peacebuilding intervention. It directly aims to reduce farmer–herder conflicts, strengthen trust, facilitate mediation, and create mechanisms for peaceful dispute resolution. Activities explicitly tackle conflict drivers and contribute to both immediate and long-term social cohesion.
Output 3.4. Social cohesion is strengthened through formal contracts for supply / exchange of products	2	Formalizing market relationships reduces disputes, enhances trust, and provides predictable economic interactions. It contributes meaningfully to conflict prevention by addressing structural drivers of tension, though peacebuilding is not the sole or primary objective.

ANNEX 5: Overview of the Communications and visibility plan

The Joint Programme (JP) will be presented as a pilot transformative initiative aimed at strengthening Chad's food systems by promoting sustainable agro-pastoral practices, improving nutrition, and supporting local economic development. The programme emphasizes innovation, inclusion of marginalized groups (women, youth, and transhumant communities), and the "Made in Chad" national label, positioning the JP as a model for sustainable food systems and climate-resilient livelihoods.

The first objective is to raise awareness among rural communities and cooperatives about sustainable food systems and improved nutrition. To achieve this, the JP will develop and distribute educational materials, organize training and awareness sessions, and promote the consumption of enhanced products such as spirulina, milk, meat, ghee, and vegetables. Monitoring will be done through surveys and community dashboards, with FAO, UNDP and local cooperatives responsible for implementation.

The second objective is to promote the visibility of the "Made in Chad" label and processed products among national and international consumers and market actors. The JP will create promotional materials, participate to commercial events, run campaigns on local media and social networks, and train producers on communication and marketing best practices. UNDP with FAO in partnership with cooperatives, will coordinate these activities.

The third objective is to strengthen strategic communication and cooperation among partners, including UN agencies, government counterparts, donors, and media. The JP will organize information and coordination workshops, produce regular bulletins and reports, maintain a dedicated information platform, and ensure SDG Fund visibility in line with branding guidelines. RCO and JP Coordinator will oversee these activities.

The budget for communication is included in the project's direct costs, both at the PMC level and in the direct costs of outcomes.

ANNEX 6: Chain of results diagram (Excel)
ANNEX 7 Feedback from the technical evaluators on the Chad JP prodoc and clarifications from project team
ANNEX 8 Location of Pilot farm in Dougia 86 Km North East of N'Djamena
ANNEX 9: Baseline data on food and nutrition, supply and status
ANNEX 10: Global demand for high potential products from Chad
ANNEX 11: Capacity statements from Zara Agro and Verdura