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United Nations Development Programme

Country/Region/Global: Zimbabwe
Initiation Plan

Project Title:	Building Resilience and Enhancing Food Security of Drought-Affected Smallholder Farmers
Expected UNSDCF/CPD Outcome(s):	**Outcome 2:** By 2026, all people in Zimbabwe, especially the most vulnerable and marginalised, benefit from greater environmental stability and robust food systems in support of healthy lives and equitable, sustainable and resilient livelihoods.
Expected CPD Output(s):	**OUTPUT 2.1.** Enhanced resilience and livelihoods of vulnerable people, communities and regions in Chivi and Mwenezi districts of Zimbabwe **OUTPUT 2.2** Tools and mechanisms applied to enable evidence-based, risk-informed planning, prevention and preparedness for climate hazards by smallholder farmers and supporting institutions. **OUTPUT 2.3.** Solutions scaled up for sustainable management of natural resources, ecosystem services, chemicals and waste management
Initiation Plan Start/End Dates:	March 2025 to March 2026
Implementing Partner:	Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD)

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Total resources required	6,000,000
Total allocated resources:	1,500,000
• Regular	_____
• Other:	
○ Donor	Japan
○ Donor	_____
○ Government	_____
Unfunded budget:	4,500,000
In-kind Contributions	_____

Programme Period:	March 2025-March 2026
Quantum Project Number:	01004007
Quantum Output Number:	
Gender Marker:	GEN 2

Brief Description

This Initiation Plan aims to build the resilience of smallholder farmers in Zimbabwe by enhancing food security through climate-smart agriculture and technological innovation. With a catalytic investment of US$1.5 million from the Japan Supplementary Budget, the intervention will support the production of drought-tolerant traditional grains, mitigate crop losses caused by quelea birds through drone technology, and promote innovative tools like hydrogels to improve soil moisture retention. The project will also strengthen farmer capacities, especially women and youth, through training and entrepreneurship support.

This one-year intervention will serve as a springboard for scaling climate-resilient agricultural solutions and is aligned with the Zimbabwe UN Sustainable Development Cooperation Framework (2022–2026) and the UNDP Country Programme Document. It is expected to catalyse further investment and support from partners, including the private sector, Japanese agencies, and other development stakeholders.

Signed by UNDP:

Lealem Berhanu Dinku DRR (P)

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28-Apr-2025

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I. PURPOSE AND EXPECTED OUTPUT

Zimbabwe is grappling with the compounded effects of frequent droughts and climate change, most recently highlighted by the severe El Niño-induced drought in 2024. This event devastated agricultural production, depleted water sources, pastures, and caused significant livestock losses. According to the Zimbabwe Livelihoods Assessment Committee (ZimLAC) Rural Livelihoods Assessment Report 2024, 57% of the rural population face cereal insecurity during the peak hunger period, more than double the previous year's figures. The majority of rural households depend on rain-fed agriculture, making them particularly vulnerable to erratic rainfall and climate change.

In response to the changing climate, the government launched a traditional grains initiative to support the adoption of climate-smart crops such as sorghum and millet. However, even these traditional grains have struggled due to sparse and erratic rainfall patterns, often followed by unusually long dry spells, inducing stress on the crops. Additionally, the losses caused by pest birds, particularly Quelea birds, have exacerbated food insecurity. According to the Ministry of Agriculture, about 40% of millet and sorghum crops are damaged by Quelea birds annually. These birds have a remarkable breeding capability, with a single pair producing up to three chicks three times a year. They fly in swarms of millions, with a swarm capable of eating enough grain in a single day to feed a family of six for a year. Currently, the only effective control method is spraying with Fenthion, a toxic pesticide with adverse human, livestock, and environmental impacts.

However, quelea control is only one part of the problem. In addition to controlling quelea birds, there is a pressing need for technologies that improve soil water retention during dry spells, and innovations that enable rural communities to grow more nutritious grains per unit area planted. Effective soil water retention technologies can help maintain soil moisture between erratic rainfall periods, ensuring better crop growth and resilience. Furthermore, enhancing the nutritional quality and yield of grains can significantly improve food security and nutrition for rural households. In April 2024, the Government of Zimbabwe declared the El Nino induced drought a national disaster. The Government of Japan launched a call for proposals through its supplementary Budget in July 2024. UNDP responded to the call and successfully ubmitted a proposal which was approved and received funding of USD 1.5 million. This initiation Plan will transition into the Nature Climate and Energy Portfolio that seeks to catalyse viable climate action, ecosystem conservation, and sustainable energy for inclusive, resilient growth. It also aligns with national strategies to promote traditional grains and complements ongoing initiatives by UNDP and the government. The Initiation Plan integrates pest control with other technological interventions to mitigate agricultural production challenges in selected districts. The initial funding from the Japanese Embassy will cover two districts of Chivi and Mwenezi districts. The Initiation Plan creates synergies with various initiatives supported by Japan and other donors, focusing on food security and agricultural sustainability. By leveraging technological innovations, it aims to provide a holistic approach to building resilience and enhancing the food security of smallholder farmers through climate-smart agriculture and crop loss reduction using innovative technology solutions. The Initiation Plan builds on the work done under the Accelerator Lab where a collaboration between UNDP and PEGARA, a Japanese company, has introduced drone technologies in quelea bird control. The piloted technology will be implemented in selected irrigated and non-irrigated fields in Chivi and Mwenezi districts.

The priorities of the proposed project align with the Zimbabwe United Nations Sustainable Development Cooperation Framework (ZUNSDCF), which articulates the strategic engagement of the United Nations Country Team (UNCT) in Zimbabwe to support the country in achieving the Sustainable Development Goals (SDGs). The proposal is anchored on the UNDP Zimbabwe CPD Planet pillar on strengthening environmental protection, climate resilience and natural resources management for a sustainable balance between people, planet and prosperity. It feeds into CPD Outcome: By 2026, all people in Zimbabwe, especially the most vulnerable and marginalised, benefit from greater environmental stability and robust food systems in support of healthy lives and equitable, sustainable, and resilient livelihoods and implemented under UNDP Zimbabwe CPD OUTPUT 2.1. on enhanced resilience and livelihoods of vulnerable people, communities and regions.

The project's overarching goal is to improve food security and build resilience among Zimbabwe's rural communities by promoting sustainable agricultural practices and addressing key challenges related to climate change, crop damage, and inefficiencies in farming practices. The project will be implemented in Masvingo Province in the two districts of Chivi and Mwenezi, targeting 10,000 people.

Result Areas and Expected Outputs

The proposed initiation plan provides a critical framework for responding to the immediate needs of drought-affected smallholder farmers in Zimbabwe, while laying the groundwork for a comprehensive programme that addresses the complex challenges of climate change, food insecurity, and rural poverty. Aligned with the United Nations Sustainable Development Goals (SDGs), this initiative will primarily contribute to

- SDG 13 (Climate Action),

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- with positive ripple effects on SDGs 1 (No Poverty),
- 2 (Zero Hunger), 5 (Gender Equality),
- 8 (Decent Work and Economic Growth), and
- 17 (Partnerships for the Goals).

By supporting drought-affected smallholder farmers in adopting climate-resilient agricultural practices and leveraging drone technologies to control Quelea birds, this initiative will:

- Enhance the resilience of smallholder farmers to climate-related shocks and stresses
- Improve food security and nutrition among rural communities
- Reduce crop losses and improve agricultural productivity
- Promote the use of innovative technologies, such as drones, to address agricultural challenges

This project will serve as a catalytic intervention, demonstrating the effectiveness of climate-resilient agricultural practices and drone technologies in improving food security and rural livelihoods. By showcasing the impact and potential of this approach, we aim to attract additional funding from donors, governments, and private sector partners to scale up similar activities in Zimbabwe and beyond.

The project's catalytic potential lies in its ability to:

- Demonstrate the effectiveness of innovative technologies, such as drones, in addressing agricultural challenges
- Showcase the impact of climate-resilient agricultural practices on food security and rural livelihoods
- Establish a model for replication and scaling up in other regions and countries
- Attract additional funding and resources to support the scale-up of similar activities

By leveraging the catalytic potential of this project, we can unlock additional resources and support to address the complex challenges facing smallholder farmers in Zimbabwe and beyond, ultimately contributing to a more resilient and food-secure future. Hence, the project will have the following results and outputs:

Output 1: Increased production of drought-tolerant crop varieties for improved yields and nutrition: The project will promote the cultivation of drought-tolerant and short-season varieties of traditional grains such as sorghum, pearl millet, and finger millet and other climate-resilient crops such as cowpeas and sesame. By enhancing the adoption of these crops, the project aims to mitigate the impacts of climate-induced droughts, which severely affect maize production, the primary crop in the country. This shift towards climate-smart crops will complement rain-fed maize cultivation, increase crop diversity, and improve food security by providing an alternative source of nutrition. These grains are well-suited to Zimbabwe's climate and have better resistance to drought and pests, ensuring more stable harvests despite variable rainfall patterns. The project will introduce novel technologies of rainwater harvesting and storage, such as potholing, infiltration pits, half-moons, intercropping, mulching and hydrogels, which are focused on improving soil health and water retention. These techniques will be introduced at demonstration plots of 4 farmer field schools in the districts. Allowing this phased and demo plot-led interventions will allow the project to manage expectations, risk, as well as learning in the two districts. These interventions are critical during dry spells, when water availability is scarce, and will help optimise soil moisture retention, enabling better crop productivity. By improving water retention, soil health, and the nutritional quality of crops, the project will increase overall agricultural resilience against climatic shocks. Additionally, technologies aimed at managing post-harvest losses, such as the use of grain processing and storage equipment (e.g., threshers and hermetic bags) will be promoted. These interventions will address gender concerns by reducing the labour-intensive burden of grain processing and post-harvest activities or drudgery, which largely affect women and children, thereby freeing up time for other productive and household responsibilities, or for studying in the case of school children. Promoting grain processing and storage technologies, such as threshers and hermetic bags, also enhances women's capacity to preserve the quality and quantity of agricultural produce, improving food security and creating opportunities for income generation from surplus sales. The diversity of crops, which include legumes, oils and pulses, to be promoted by the project will not only enhance the smallholders' resilience but also improve food and nutrition security.

Output 2: Enhanced application of innovative automatic drone technology to reduce crop damage caused by quelea birds: Under this component, the project will target 200 hectares, covering the major nesting sites in the two districts. A major focus of the project is reducing the extensive crop damage caused by Quelea birds, which are responsible for

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up to 40% yield loss in traditional grains such as millet and sorghum. According to the ZimLAC 2024 Report, 50% of households in Chivi identified crop pests as a shock1. The project aims to deploy novel, environmentally friendly technologies to mitigate this pest problem. The introduction of automated flight drones equipped with bird control mechanisms will provide a more effective and sustainable method of controlling Quelea birds. Unlike conventional methods such as pesticide spraying, which are harmful to the environment and human health, these technologies will help reduce crop losses in an eco-friendly way. This will protect farmers' livelihoods and income, boost crop yields, and reduce the need for harmful chemical interventions.

Output 3: Enhanced capacities and skills for on farm and off farm activities ensuring increased income generation opportunities for women and youth: The project will enhance the knowledge and capacity of smallholder farmers to adopt climate-smart agricultural practices. This includes the use of improved crop varieties, efficient water management techniques such as hydrogels, and other sustainable farming practices that reduce environmental impact while increasing productivity. hydrogels will be used at 4 rainfed plots at FFS as well as at two recently climate-proofed irrigation schemes of Chizumba and Bindamombe. These practices will enable farmers to manage water resources more efficiently, increase crop yields, and adapt to changing climate conditions. The project will build on the success of past and ongoing UNDP projects by empowering women and youth to engage in off-farm activities, reducing their dependence on rain-fed agriculture. This will enhance their ability to generate income and improve resilience to climate change. By diversifying livelihoods through businesses, vocational training, and other non-agricultural ventures, beneficiaries will experience increased economic stability and reduced vulnerability. Empowering women and youth will foster inclusivity, innovation, and self-reliance, ensuring communities can thrive even in the face of future climate challenges. Ultimately, the project will enhance livelihoods, strengthen resilience, and promote sustainable development.

The initiation plan is necessary to ensure a thorough and structured approach to project start-up. It will enable the project team to:

- Conduct a thorough situation analysis and needs assessment
- Develop a detailed project work plan and timeline
- Establish a project management structure and governance framework
- Develop a project monitoring and evaluation framework

By investing time and resources in a comprehensive initiation plan, UNDP can ensure that the project is well-designed, effectively managed, and positioned for success. This will ultimately contribute to the achievement of UNDP's development objectives and the Sustainable Development Goals (SDGs).

II. MANAGEMENT ARRANGEMENTS

The project will be implemented by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development with funding from JSB managed through UNDP Zimbabwe using the NGO-supported NIM modality. The governance structures will promote ownership, coordination, risk management, and mitigation and give strategic direction that supports adequate, timely, and flexible responses. A PMU with staffing from UNDP is proposed to ensure coherent and quality delivery of the project in line with the project objectives. This project will ensure cost efficiency and effectiveness by optimising resource use to achieve significant outcomes in food security and resilience for smallholder farmers. The project will sit within the Nature, Climate and Energy portfolio at UNDP, where it will leverage the technical and oversight expertise of the Team Leader and Programme Specialist

A competitively selected NGO will be responsible for day-to-day project management while UNDP will provide technical oversight, visibility, communication, M&E and knowledge management. UNDP Country Office will engage a Project Coordinator who will coordinate NGO and UNDP roles in the project.

Communication and Visibility: UNDP will ensure that the generosity of the Government of Japan is fully and visibly acknowledged. This will include a press release, human interest stories, and photo stories. Japan’s logo will be placed on supplies and other visibility materials, including banners and t-shirts, to ensure that end beneficiaries are aware of the generous contribution of the Government of Japan. UNDP will use its social media platforms (Facebook and Twitter) to disseminate information on the impact of this partnership. The close engagement with the Embassy of Japan will be made, including regular communication as well as a joint field visit where possible.

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III. MONITORING

The project will be monitored in accordance with the programming policies and procedures outlined in the UNDP User Guide for the project Initiation Plan. M&E will be a continuous process over the 10-month period with the main purpose of assessing progress towards delivering agreed outputs and achieving agreed outcomes. The function will also aim to draw and apply lessons to inform the formulation of the larger programme. Monthly and quarterly progress Reports will be submitted using the UNDP standard report format and shared with the UNDP and MLAFWRD team and collaborating partners. Upon project completion, a final report will be prepared to evaluate the project impact and lessons learnt.

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IV. WORK PLAN

Period[2]:

EXPECTED OUTPUTS *And baseline, indicators including annual targets*	PLANNED ACTIVITIES *List activity results and associated actions*	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		2025			2026				
		Q2	Q3	Q4	Q1		Funding Source	Budget Description	Amount
Output 1: Increased production of drought-tolerant crop varieties for improved yields and nutrition. ***Baseline:*** *0* ***Indicators****:* No of farmers growing drought-tolerant crop varieties for improved yields and nutrition. ***Targets****: 2500*	**Activity 1.1** Promote the production of drought-tolerant crop varieties, including traditional grains and biofortified crops.	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, letter of Agreement Project staff costs	US$300,000
	Activity 1.2 Promote the use of hydrogels among smallholder farmers to mitigate the effects of crop water stress	X	X	X	X	USDP MLAFWRD	JSB	Training, DSA, Project staff costs	US$160,000
Output 2: Enhanced application of innovative automatic drone technology to reduce crop damage caused by quelea birds.	**Activity 2.1** Deployment of automatic drone technology to targeted fields of small grains, including irrigated fields in Chivi and Mwenezi districts	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, letter of Agreement, Project staff costs	US$250,000
	Activity 2.2 Establish a user-friendly information dissemination system between farmers and the extension services for informed decision making.	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, Project staff costs	US$100,000

[2] Maximum 18 months

Baseline: *0 ha* ***Indicator:*** Area protected from quelea birds by automatic drone technologies in Mwenezi and Chivi districts. ***Targets:***	**Activity2.3** Introduction of Early Warning System to forecast the movements of quelea birds and breeding sites in Zimbabwe	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, Project staff costs	US$50,000
Output 3: Enhanced capacities and skills for on-farm and off-farm activities, ensuring increased income generation opportunities for women and youth *Baseline:0* ***Indicators:*** Number of vulnerable people benefiting from diversified climate resilient livelihood options (agrobased) ***Targets: 10000***	**Activity 3.1** Provide training to farmers and extension officers on the use of innovative technologies – drones, hydrogels, climate-smart agriculture, nutrition-sensitive agriculture, good agriculture practices, post-harvest handling and processing.	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, Project staff costs	US$100,000
	Activity 3.2 Provide training to support on-farm and off-farm income-generating activities and entrepreneurship skills development targeting women and youth.	X	X	X	X	UNDP MLAFWRD	JSB	Training, DSA, Project staff costs	US$216,000
TOTAL									US$1,500,000

The whole project contributes to CPD Outcome 2:

"By 2026, all people in Zimbabwe, especially the most vulnerable and marginalised, benefit from greater environmental stability and robust food systems in support of healthy lives and equitable, sustainable and resilient livelihoods."