Civil Society for Poverty Reduction

SUBMISSION ON THE IMPACT OF CLIMATE CHANGE IN ZAMBIA

Submitted to the Committee on Agriculture, lands and Natural Resources

30th January, 2025

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Contact:

The Executive Director

CSPR

Email: Isabel.mukelabai@csprzambia.org

Phone: +260977181220

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1. About the Civil Society for Poverty Reduction- CSPR

Established in the year 2000 in response to the government's call for the participation of civil society in the development of poverty reduction strategy papers (PRSPs), CSPR is a national network of over 104 civil society actors at grassroot level that works to facilitate the participation of the poor in various national development processes. Over the last 25 years of work in Zambia, CSPR's mandate has expanded to ensure civil society effectively and meaningfully participates in the design, formulation, and implementation of the National Development Plans (NDPs) and that civic participation in monitoring the implementation of key targets and milestones to reduce poverty and improve human development within Zambia's development framework is enhanced. Thematically CSPR works to strengthen the voice of the poor to participate in promoting economic, social and environmental rights through specific actions to advance good governance in the economy, promote climate and environmental justice, achieve social security and justice, improve the quality of civic participation through various decentralized functions of governance as well as build a string network of voices against poverty through networking and coalition building. CSPR has presence in 17 Districts in Zambia with provincial level satellite offices in Five (05) provinces namely: Choma, Mongu, Solwezi, Mansa and Chipata. To learn more about our work, please visit our website on www.csprzambia.org

2. Introduction

This memorandum was prepared by the Civil Society for Poverty Reduction (CSPR), in response to a request made by the Committee on Agriculture, Lands and Natural Resources of the National Assembly of Zambia on 30th January 2025. The request was for the Civil Society for Poverty Reduction (CSPR) to prepare and submit a memorandum commenting on the impacts of climate change in Zambia. In line with the Committee's request, this memorandum presents the Civil Society for Poverty Reduction's (CSPR's) analytical views on the aforementioned.

3. Purpose of the submission

This memorandum is a contribution to the study that the committee on Agriculture, Lands and Natural Resources intends to undertake on the Impacts of climate change in Zambia. The memorandum covers and provides comments and submissions on the following key highlights/components relevant to the study;

i. How adequate is the policy and legal framework supporting the management of climate change in country?

ii. What is the effect of climate change on the agriculture sector in Zambia?

iii. What is the impact of climate change on national food security?

iv. What measures has the government put in place to address the impact of climate change?

v. What challenges if any, are faced in addressing the impact of climate change in Zambia?

vi. Suggested recommendations on the way forward with regards to addressing the impact of climate change in the country.

4. Key highlights on the impacts of climate change in Zambia

4.1. How adequate is the policy and legal framework supporting the management of climate change in country

Zambia's policy and legal framework for addressing climate change reflects a strong commitment to sustainable development and environmental stewardship. Key policies, such as the National Policy on Climate Change (2016) and the Green Growth Strategy (2018), provide a strategic roadmap for integrating climate change adaptation and mitigation into national development plans. The Country's Nationally Determined Contributions (NDCs) set ambitious targets for reducing greenhouse gas emissions and enhancing climate resilience in critical sectors such as Agriculture, Forestry, and Energy. Additionally, the Green Economy and Climate Change ACT of 2024 and the Environmental Management (Amendment) ACT, 2023 institutionalize climate governance and establish mechanisms like the Green Economy and Climate Change Fund to mobilize resources. The establishment of the Ministry of Green Economy and Environment further demonstrates Zambia's dedication to fostering a cohesive approach to climate action.

Additionally, Zambia has developed the National Adaptation Programme of Action (NAPA) by evaluating the impacts of climate change on the relevant sectors and using Multi-Criteria Analysis (MCA), has ranked the identified most urgent needs to prioritize ten immediate adaptation interventions. The sectors that were analyzed are agriculture and food security (livestock, fisheries and crops), energy and water, human health, natural resources and wildlife. The focuses on the following objectives: (i)To identify the country's vulnerabilities to climate change and develop medium and long-term adaptation actions to minimise the impacts, (ii) To integrate climate change adaptation into the national, sectoral and sub-national planning and budgeting processes, (iii) To strengthen institutional and technical capacities for the implementation of identified priority adaptation actions, (iv) To strengthen institutional coordination mechanisms for climate change adaptation actions at national, sectoral, and sub-national levels; and, To leverage emerging opportunities for resource mobilization for the implementation of the prioritized adaptation actions to address current and projected risks.

Despite the strengths of this framework, several challenges undermine its effectiveness. Implementation and enforcement remain significant obstacles due to limited institutional capacity and insufficient financial resources. In most districts the ministry of green economy is only represented as departments with one or two staff and at the provincial level without any office/staff while at the national level ministry has full-fledged officers/staff. For example, while the Forest Act (2015) provides a legal basis for combating deforestation, weak enforcement mechanisms have contributed to continued deforestation and reduced carbon sequestration. This has been a challenge due to insufficient staff members to do forestry patrols in the districts to help curb deforestation. Moreover, reliance on external funding and donor support limits the sustainability of climate initiatives, while mechanisms like the Green Economy and Climate Change Fund remain underutilized. Institutional coordination is also hampered by overlapping mandates among agencies, like Forest department is said to have no authority in GMAs but Department of national parks and wildlife even if it concerns forest protection, creating inefficiencies. Furthermore, inadequate data collection and monitoring systems reduce accountability and hinder evidencebased policymaking, making it difficult to track progress on climate change mitigation and adaptation efforts.

To address these challenges, Zambia must focus on operationalizing its policies and strengthening institutional capacity. This includes allocating increased domestic funding, implementing innovative financing mechanisms such as carbon trading and green bonds, and enhancing enforcement of climate-related laws. Streamlined coordination among government agencies, civil society, and private sector stakeholders will be crucial to reducing duplication of efforts.

4.2. What is the effect of climate change on the agriculture sector in Zambia

Climate change has severely disrupted Zambia's agriculture sector, which is the backbone of rural livelihoods and the country’s food security. The sector's dependence on rain-fed farming makes it extremely vulnerable to climate variability. This vulnerability was starkly exposed during the 2023/2024 growing season, when prolonged droughts caused a significant reduction in maize production across key agricultural regions. Over nine million people in 84 out of the 117 districts are affected according to the government crop assessment data. In response to widespread crop failures resulting from the drought, the President of Zambia declared a national disaster in 2024, highlighting the urgency of addressing the effects of climate change on agriculture.

According to the crop forecast survey results produced in collaborative efforts between the Ministry of Agriculture and the Zambia Statistics Agency (ZSA), which gives the country's agricultural production estimates for the 2023/2024 agricultural season and the current food security situation for the 2024/2025, the survey shows that maize for grain: production is expected to decrease by 53.67 per cent to 1,511,143 metric tonnes compared to last season’s 3.3 million metric tonnes. Rice - production is forecast at 24,566 metric tonnes, a reduction of 61 per cent

from last season's output of 62,680 metric tonnes. Cassava root: production estimates have reduced by 30 per cent to 3,127,778 metric tonnes compared to 4.5 million metric tonnes last season. Sorghum: production is projected at 2,865 metric tonnes, a reduction of 58 per cent from last season's output of 6,836 metric tonnes.Millet: production estimates have reduced by 67 per cent to 15,390 metric tonnes from last season's output of 46,753 metric tonnes. Wheat: production estimates show a reduction of 28 percent to 198,886 metric tonnes from last season's estimate of 277,492 metric tonnes. Irish potatoes - production projections indicate a reduction of 47 per cent to 34,153 metric tonnes from last season's output of 65,082 metric tonnes. Soya beans - production is estimated at 169,700 metric tonnes, a reduction of 78 per cent from last season's output of 760,067 metric tonnes. Sunflower - production has reduced by 52 percent to 44,128 metric tonnes from last season's output of 91,607 metric tonnes.

Additionally, the reduction in production for most crops has resulted in a deficit in our national food balance sheet for cereals and tubers for the 2024/2025 marketing season. Overall, the country has a total net deficit in our national food balance sheet for cereals and tubers for the 2024/2025 marketing season. overall reals and tubers for the 2024/2025 marketing season. Overall, the country has a total net deficit of 2137,183 metric tonnes of maize equivalent.

Rising temperatures and erratic rainfall patterns have created major challenges for crop production. In southern and western Zambia, prolonged dry spells during the critical planting and growing periods left fields parched, reducing soil moisture and causing widespread crop failures. Maize, the staple food crop, was particularly hard hit, with many households experiencing neartotal losses. Meanwhile, floods in other regions destroyed crops, washed away fertile topsoil, and displaced farming communities. These extremes have intensified food insecurity, forcing many rural families to rely on government food aid or unsustainable coping mechanisms such as selling off livestock and assets. 84 districts across the country have severely been affected, they have already lost approximately 1 million hectares of the estimated 2.2 million hectares planted with maize.

The livestock sector has not been spared from the impacts of climate change. Prolonged dry periods have depleted grazing lands and water sources, leading to a decline in livestock productivity and higher mortality rates. Additionally, pests like armyworms and diseases such as tick-borne infections have become more prevalent due to changing weather patterns, further aggravating losses. Farmers now face greater uncertainty as unpredictable weather makes it increasingly difficult to plan planting and harvesting schedules. Smallholder farmers, who produce most of Zambia's food, are particularly vulnerable, lacking the resources, technologies, and support needed to adapt.

4.3. What is the impact of climate change on national food security

Climate change has had a profound impact on national food security in Zambia, a country where agriculture is the primary source of food and livelihoods for the majority of the population. Erratic

rainfall patterns, prolonged droughts, and frequent floods have significantly disrupted food production systems, particularly for maize, Zambia's staple crop.

During the 2023/2024 rainfall season, the country experienced a decline in maize yield. This decline was characterized by late onset, prolonged dry spells, and high temperatures. This erratic rainfall affected crop production. A total of 982,765 hectares out of an estimated 2,272,931 hectares of maize planted have been destroyed by the drought resulting in total crop failure. These dry conditions have resulted in a significant reduction in crop production in affected regions, with cereal production forecasted to decline by nearly 50 per cent. According to the Zambia Meteorological Department, the most affected regions are Central, Eastern, Southern and Western provinces of the country. These provinces have over the past five years contributed over 58 per cent of the annual national maize crop production. These provinces also host over 76 per cent of livestock, that is likely to experience decreased access to pasture and water. The significant reduction in crop production and reduced food availability is likely to result in more people requiring urgent humanitarian action to reduce food gaps, protect and restore livelihood. Food shortages and rising food commodity prices will also hinder vulnerable peoples' access to food, especially in rural areas where the level of poverty remains high. This will also lead to increased reliance on imports to meet domestic demand.

The impact of climate change on food security extends beyond production to include issues of food access and utilization. Reduced agricultural output has diminished rural incomes, limiting the purchasing power of vulnerable households to buy food. Smallholder farmers, who account for most of the country's agricultural production, are particularly affected, as their livelihoods are directly tied to crop and livestock productivity. Additionally, the rising prevalence of pests and diseases exacerbated by climate change has reduced the quality and quantity of available food, compromising the nutritional status of communities. For instance, the fall armyworm outbreak, worsened by erratic weather patterns, has devastated maize fields, further exacerbating food insecurity.

The national food security situation prompted the Zambian government to respond with shortterm measures such as FRA opening up several community sales points across the country, particularly after the declaration of a national disaster in 2024.

Due to the devastating effects of climatic hazards including prolonged dry spells and the drought experienced in the 2023/2024 agricultural season which caused reductions in crop production, the food balance sheet indicates that there are deficits of the major cereals and tubers. Maize stands at 1,323,288 Mt, paddy rice at 55,138 Mt, wheat (preliminary) at 225,296 Mt, and cassava flour at 548,644 Mt, translating into possible import requirements. This is according to the integrated food security phase classification (IPC) acute food insecurity analysis report of April 2024 – March 2025, published on 2 October 2024.

Further, the report shows that at the national level, the total area planted with maize in the 2022/2023 agricultural season was 1,896,482 hectares (Ha), compared to 2,209,160 Ha in the 2023/2024 agricultural season, representing an increase of 16.49 percent. The area that was

expected to be harvested in the previous season was 1,418,369 Ha compared to 684,402 Ha in the 2023/2024 agricultural season, representing a decrease of 51.75 percent. The total forecasted production of maize in the current agricultural season is 1,511,143 metric tonnes (Mt), representing a decline in production of 53.67 percent compared to 3,261,686 Ha in the 2022/2023 agricultural season.

The average yield in the previous season was estimated at 1.72 metric tonnes per hectare (Mt/Ha) and 0.68 Mt/Ha projected in the 2023/2024 agricultural season representing a percentage change of 60.23 percent. The estimated output for paddy rice is 24,566 Mt, preliminary wheat is 198,886 Mt, sorghum and millet are 18,254 Mt, sweet and Irish potatoes are 117,695 Mt, and cassava is 781,945 Mt, according to the food balance sheet for the 2024/2025 agricultural marketing season.

Additionally, the report shows that at the start of the 2024/2025 agricultural marketing season on 1 May 2024, there was 408,679 Mt of carry-over stocks for maize, 315 Mt for rice, 79,948 Mt for wheat, and 1,335 Mt for millet and sorghum. The National Food Balance Sheet shows that national requirements for both human and industrial use for maize are estimated at 3,243,110 Mt, paddy rice 80,018 Mt, wheat 504,131 Mt, sorghum and millet 19,589 Mt, both sweet and Irish potatoes at 117,695 Mt and cassava flour equivalent 1,330,588 Mt.

4.4. What measures has the government put in place to address the impact of climate change

Zambia like many other countries has been experiencing adverse impacts of climate change including prolonged seasonal droughts, flash floods, occasional dry spells and increased temperatures.

As part of the efforts to address these adverse impacts of climate change, Zambia has been strategically implementing and working on policies that address the impacts of climate change and also developing key and sustainable programmes for both livestock and animals in the face of climate change. Zambia is currently implementing the Eighth national development plan (8NDP), National policy on climate change, the green growth Strategy, the green economy and climate change bill No. 18 of 2024 and the comprehensive agriculture Transformational support programme (CATSP).

In the Eighth National Development Plan (8NDP) 2022 – 2026, the government is implementing the strategic development area/pillar three (3): environmental sustainability. This strategic development area/pillar of the 8NDP focuses on Strengthening climate change mitigation, enhancing disaster risk reduction and response, promoting integrated environmental management and enhancing natural resources management.

As part of the efforts to strengthen climate change mitigation, government is implementing various interventions in forestry, agriculture and energy among many others being climate-smart agriculture and advocating for a switch towards green and renewable energy sources such as biogas, solar, and wind as well as reducing electricity transmission and distribution losses from

the national grid and sustainable charcoal production. In doing so, government ensures that these interventions are in line with the Nationally Determined Contributions. To enhance disaster risk reduction and response, government is focused on strengthening disaster risk reduction and enhance early warning systems for early action and disaster preparedness for effective response.

In October 2023 the government developed the National Adaptation Plan (NAP) to address the country's vulnerability and resilience to climate change. The plan focuses on the following Objectives: to identify the country's vulnerabilities to climate change and develop medium and long-term adaptation actions to minimize the impacts, to integrate climate change adaptation into the national, sectoral and sub-national planning and budgeting processes, to strengthen institutional and technical capacities for the implementation of identified priority adaptation actions, to strengthen institutional coordination mechanisms for climate change adaptation actions at national, sectoral, and sub-national levels; and to leverage emerging opportunities for resource mobilization for the implementation of the prioritized adaptation actions to address current and projected climate risks.

On 24th, April 2024, the government launched the National Green growth Strategy (2024-2030), which is a great initiative aimed at transitioning the nation towards a green economy by fostering low-carbon, resource-efficient, resilient and socially inclusive growth. The strategy is a comprehensive framework which is designed to align Zambia's development pathways with principles of sustainability and inclusivity, centering on four pillars: (1) resilient and climatecompatible growth, (2) enhanced resource efficiency, (3) enhanced natural capital and (4) improved inclusivity. Additionally, the strategy provides a roadmap for achieving Zambia's Vision 2030 and the Eighth National Development Plan (8NDP) objectives, while reaffirming Zambia's commitment to the Paris Agreement, the Sustainable Development Goals and the Convention on Biological Diversity.

Through the national policy on climate change, launched on the 3rd of March 2017, government coordinates climate change programmes in order to ensure climate resilient and low carbon development pathways for sustainable development towards the attainment of Zambia's Vision 2030. The policy focuses on sustainable climate change response, climate change actions being environmentally sustainable and contribute to national economic growth and social development objectives, including poverty alleviation.

In order to tackle the obstacles impacting agriculture caused by climate change and also to primarily and comprehensively transform the agriculture sector by ensuring improved performance and resilience in the sector including agri-food systems the government is implementing the Comprehensive Agriculture Transformational Programme (CATSP). The CASP has seven main components, namely: irrigation, mechanization financing, farm blocks, extension services, input support, agro-processing, and infrastructure development.

Lastly, the green economy and climate change bill No. 18 of 2024 provide for: climate change adaptation and disaster risk reduction; climate change mitigation, low emission development,

green economy and related actions; regulate carbon markets; provide for environmental and social safeguards in climate change actions; establish the Climate Change Fund; domesticate the United Nations Framework Convention on Climate Change and the Paris Agreement.

4.5. What challenges if any, are faced in addressing the impact of climate change in Zambia

Zambia faces a number of challenges in its efforts to address the impacts of climate change in the country.

Currently, there is Inadequate/insufficient funding toward environmental protection and climate change adaptation in the country. Lack of funding for climate change adaptation limits the implementation of national adaptation measures that will facilitate the integration of climate interventions into the social and economic development, national poverty reduction, and growth objectives threatened by climate change.

Zambia also lacks strengthened Early Warning System from the Meteorological Department that helps facilitate timely dissemination of weather information and enhance preparedness among communities including farmers.

Additionally, Zambia lacks strengthened /enhanced inter-ministerial and inter-institutional coordination that can help to facilitate implementation and mainstreaming of cross-cutting environmental and climate change programs, plans, and/or policies.

Further, there is weak MEAL system. Weak Data and information monitoring, management, research, and capacity needs for stakeholders in national data collection and monitoring centers in most parts of the country is weak.

4.6. What recommendations would you suggest on the way forward with regards to addressing the impact of climate change in the country

Despite the government's commitment to address the impacts of climate change, Zambia still faces a number of challenges. However, in order to address the impacts of climate change in the country, CSPR would like to make the following recommendations:

- Increased funding to environmental protection and for climate change adaptation. Increased funding will not only support necessary climate change adaptation efforts and initiatives, it will also contribute to strengthening the capacities of decision makers and stakeholders to work towards and achieve climate resilience and sustainable development goals in Zambia.

- Improve the Zambia Meteorological Department's Early Warning System to facilitate timely dissemination of weather information so as to enhance preparedness among communities especially farmers.

- Promote the adoption of climate smart Agriculture and other agricultural practices such as use of drought tolerant crops, heat resistance crops and disease resistant livestock breeds. This will Enhance Diversification of crops and livestock which will improve nutrition and food security in the country.

- Strengthen /enhance inter-ministerial and inter-institutional coordination that can help to facilitate implementation and mainstreaming of cross-cutting environmental and climate change programs, plans, and/or policies.

- Strengthen MEAL system. Once strengthened the, system will enhance data and information monitoring, management, research, and capacity needs for stakeholders in national data collection and monitoring centers in the country.