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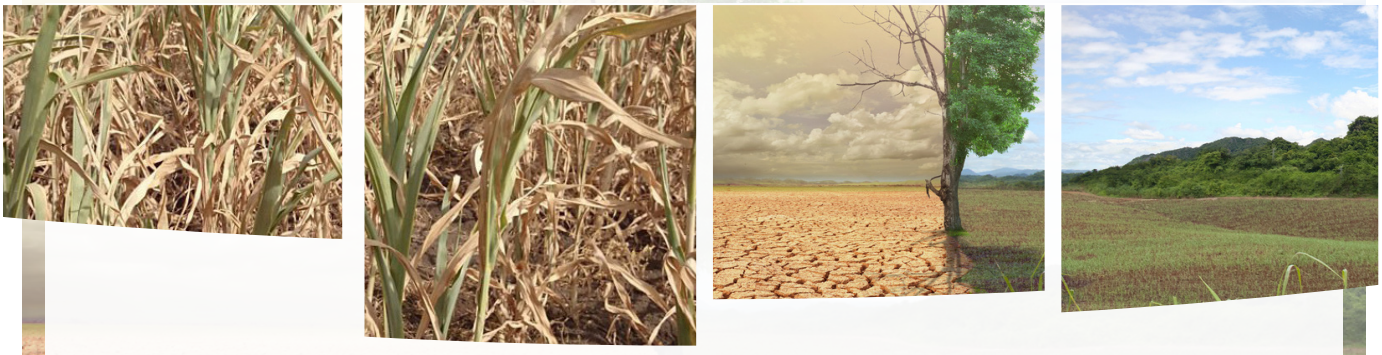

IMPACT OF CLIMATE CHANGE ON CROP PRODUCTION IN ZAMBIA: TOWARDS ACCELERATION OF CLIMATE CHANGE ADAPTION AND RESILIENCE IN THE AGRICULTURAL SECTOR FOR INCREASED SUSTAINABLE CROP PRODUCTION.

PRESS STATEMENT

FOR IMMEDIATE RELEASE

Friday 20th May, 2022

Climate Change in Zambia continues to negatively impact the agricultural sector through an increase in the incidence of hunger due to the destruction of crops, reduction in cultivatable land and increased land and soil degradation. This is a result of higher temperatures, drought and tropical plant and animal diseases due to flooding among others. On an economic outlook, the production of staple food crops, which include maize, millet, sorghum and rice, has been dropping steadily in recent years. For example, **in the 2018/2019 Agriculture Season's Crop Forecast, results indicate that maize production declined from 2,394,907 metric tonnes in the 2017/2018 season to 2,004,389 metric tonnes in 2018/2019 accounting for a 16% decline in crop production due to climate change effects that led to prolonged dry spells**.

The 2021/2022 farming season has experienced a similarly low yield in selected crops including maize due to continued climate variability. The country experienced delayed rainfall in most parts of the country with the planting season generally starting towards the end of December 2021 and the beginning of January 2022. This occurrence led to delayed onset of planting. In addition to the delayed rainfall, some parts of the country recorded a combination of floods and prolonged dry spells leading to reduced yields for the current season.

On 12th May 2022, the Ministry of Agriculture announced the 2022 crop forecast for the expected crop production for the 2021/2022 farming season. As indicated above, the production of staple crops that include maize, millet, sorghum and rice has declined in this Agricultural farming season. **Rice production is expected to decrease to 62,280 MT from 65,876 MT in the 2020/2021 season representing a 5.46% decline. Sorghum yield is expected to decline by 19.2% from 18,372 MT in the 2020/2021 season to 14,843MT in the 2021/2022 season while millet is expected to decrease as well by 10,478MT in 2022 from 34,702MT in the previous season to 24,224 MT this season**.

Further, maize production, which contributes a large portion, is expected to reduce from 3,620,244 MT in the 2020/2021 season to 2,706,243 MT in the 2021/2022 season representing a decline of 25.24%. **Despite having a surplus of 1.2 million MT of maize and a total accumulating figure of 4 million MT, there is a need for more production of maize. Besides these crops, the production of tubers like cassava and potatoes is expected to reduce and non-food crops such as cotton and tobacco will reduce**.

Although the reduced production of maize might be attributed to the reduced area planted, this reduction is also a result of delayed and reduced rainfall in most parts of the country.

It is important to note that the Government through the Ministry of Agriculture is already putting in place efforts to address the reduction in yields, especially for staple crops. These measures include the Third National Rice Development Strategy with support from the Japanese International Cooperation Agency (JICA) **for sustained rice production as well as ensuring increased access to local markets. However, more still needs to be done to ensure that the agricultural sector both adapts to and becomes resilient to the current climatic change shocks**.

While the effects of climate change are not consistent between each of Zambia's ten provinces or on crop species, climate projections predict an experience in increasing temperatures throughout the year. This is indicated by increased average monthly 'Mean Temperature' as well as average 'Minimum Temperature'. Furthermore, all provinces are predicted to experience increasing delays or inconsistencies with regards to the onset of rainfall, and an overall decrease in the annual and seasonal precipitation between the present day and the 'Mid-Century' future (de ned by the period ~2040–2069). Average monthly rainfall is predicted to decrease in all provinces, including during September, October and November, which are considered to be the start of the rainy season. These results may be indicative of a delay in the onset of the traditional rainy seasons, or a decrease in the effective duration of the rainy season. Overall, the predicted trend for annual precipitation is a long-term trend of decreasing rainfall, as well as possible shifts in the timing of rainy seasons. Modelled

predictions for national average precipitation indicate a decrease of mean annual rainfall from ~970 mm to ~880 mm, representing a decrease of ~88 mm or 9%.

It is against this background that the Policy Monitoring and Research Centre (PMRC) urges the Government to expedite its efforts towards increasing hectarages under irrigation as this will enable the country to grow crops especially maize throughout the year for both local and outside markets. Secondly, to build resilience, especially for small-scale farmers who are contributing 96% to this year's total crop production, Government must continue to encourage and empower farmers to practice climate-smart agriculture as well as empower them with small irrigation equipment. To actualize this, Government is urged to consider establishing an **irrigation development fund** that comprehensively addresses the diverse needs of farmers in light of climate change effects to increase crop production and productivity. Finally, Government may take advantage of the already established Zambia National Service mechanized farms to embark on winter maize production for local and export markets to enable the country maximize Foreign Exchange Earnings.

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