

MINISTERIAL STATEMENT
ON THE
WEATHER AND CLIMATE SERVICES AND 2023/2024 RAINY SEASON
FORECAST
BY
THE MINISTER OF GREEN ECONOMY AND ENVIRONMENT (ENG.
NZOVU), MP

Madam Speaker, I wish to take this opportunity to thank you most sincerely, for granting me the honour and privilege to deliver a ministerial statement on weather and climate services as well as share the 2023/2024 Rainy Season forecast, and the projected rainfall patterns for Zambia.

Madam Speaker, weather and climate are critical factors that affect the livelihoods, well-being, and development of our people, especially in supporting productivity in sectors such as agriculture, water, energy, health, and disaster management. Therefore, it is imperative that we have reliable and timely information on the current and future weather and climate conditions, to enable us to plan and implement appropriate measures to mitigate the impacts of adverse events and harness the opportunities of favourable ones.

Madam Speaker, as you may be aware, Zambia is a signatory to the World Meteorological Organisation (WMO), the specialised agency of the United Nations (UN) that co-ordinates and facilitates the provision of weather and climate services globally. As a member state, we are obliged to adhere to the standards and practices set by the WMO, as well as to contribute to the global observing system and exchange data and information with other countries.

In this regard, I am pleased to report to this august House that, the New Dawn Government, under the leadership of His Excellency, Mr Hakainde Hichilema, President of the Republic of Zambia, has been making commendable efforts to improve the capacity and performance of the Meteorological Department under the Ministry of Green Economy and Environment, in delivering quality weather and climate services to various users and stakeholders.

Madam Speaker, some of the notable achievements and improvements in 2023 include, among others:

- (a) the installation and operationalisation of over eighty automatic weather stations across the country, which has modernised and enhanced the spatial coverage and frequency of weather observations. This august House may wish to note that every district will be installed with an automatic weather station by the end of 2023, bringing a total of 120 automatic weather stations installed in 2023;
- (b) the implementation of quality management systems at international airports to improve provision of weather services for safety and efficiency of aviation operations;
- (c) the acquisition and installation of a high-performance computing facilities as well as satellite receiving systems, which has enabled the access and utilisation of high-resolution satellite imagery and global climate models and products for weather and climate analysis and forecasting;
- (d) the development and dissemination of various weather and climate products and services, such as daily weather bulletins, seasonal climate outlooks, agrometeorological advisories, flash flood early warning alerts, and aviation meteorological services;
- (e) the establishment and strengthening of partnerships and collaborations with various national, regional and international institutions and organisations, such as the Ministry of Agriculture, the Disaster Management and Mitigation Unit (DMMU) under the Vice-President's office, the Water Resource Management Authority (WARMA), the Southern African Development Community Climate Services Centre (SADC-CCS), the African Centre of Meteorological Applications for Development (ACMAD), the United Nations Development Programme (UNDP), and the World Bank;

- (f) the participation and contribution to various regional and global initiatives and projects on weather and climate services, such as the Global Framework for Climate Services (GFCS), the Climate Risk and Early Warning Systems Initiative (CREWS), the Severe Weather Forecasting Demonstration Project (SWFDP); and
- (g) the training of over 200 Agriculture Camp Extension officers in Lusaka, the Southern, Eastern, Western and Muchinga provinces in the interpretation of climate information to support smallholder farmers. This will strengthen resilience to climate variability and climate change, thereby increasing productivity and food security at household level.

Madam Speaker, these achievements have not only enhanced the visibility and credibility of meteorological services, but also increased the capacity of the ministry, through the Meteorological Department, to provide timely and accurate weather and climate information to support decision-making at various levels. However, there are still some challenges and gaps that need to be addressed in order to further improve the quality and delivery of weather and climate services in our country. Some of these challenges include:

- (a) inadequate human resources in terms of the number of meteorological staff;
- (b) insufficient financial resources to sustain the operation and maintenance of meteorological infrastructure and equipment;
- (c) inadequate transport to facilitate operations and maintenance of meteorological infrastructure across the country;
- (d) limited access to advanced technologies and tools such as weather radars and upper air stations for weather analysis and forecasting;

- (e) low awareness and appreciation of weather and climate services among some users and stakeholders; and
- (f) weak co-ordination and integration of weather and climate services into sectoral policies and plans.

Madam Speaker, in view of these challenges, my ministry has developed a Strategic Plan for 2022-2027 that outlines the vision, mission, goals and objectives for improving meteorological services. The strategic plan also identifies the priority areas and actions that need to be implemented in order to enhance the capacity and performance of our Meteorological Department in delivering quality weather climate services to various users and stakeholders. Some of these priority areas and actions include:

- (a) the recruitment and training of more meteorological staff to fill the existing and emerging gaps in skills and competencies;
- (b) the mobilisation and allocation of adequate financial resources to support the operation and maintenance of meteorological infrastructure and equipment;
- (c) the acquisition and utilisation of advanced technologies and tools such as the weather radar and upper air systems for weather analysis and forecasting;
- (d) the development and implementation of a communication and outreach strategy to raise awareness and appreciation of weather and climate services among different users and stakeholders;
- (e) the establishment and strengthening of a co-ordination mechanism to facilitate the integration of weather and climate services into sectoral policies and plans by developing a National Framework for Climate Services; and

(f) the review of the 2013 National Meteorology Policy.

Madam Speaker, my ministry is committed to implementing this strategic plan in collaboration with other relevant partners and stakeholders. We believe that this will enable us to provide better weather and climate services that will contribute to the socio-economic development and resilience-building of our country.

Madam Speaker, let me now turn to the outlook for the 2023/2024 rainfall season. As you may recall, the 2022/2023 rainfall season was characterised by above normal rainfall amounts, with extreme weather and climate events, from episodes of flash floods and flooding to prolonged dry spells, especially over areas in the Southern, the Central and Lusaka provinces. This resulted in reduced crop production, damage to infrastructure, such as roads and bridges, increased incidences of waterborne diseases and agricultural pests.

Madam Speaker, the 2023/2024 seasonal forecast and outlook has been produced based on the analysis of the prevailing and expected global and regional climate drivers, such as the El Nino-Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD), among others. This analysis has been done by the Meteorological Department in collaboration with the SADC-CSC and other regional and international climate centres. This august House may wish to note that the 2023/2024 rainfall season pattern will be largely influenced by the El Nino and the IOD, which tend to suppress rainfall over the southern half of the country and enhance rainfall amounts over the North-Eastern portions of Zambia respectively.

Madam Speaker, the 2023/2024 Rainfall Season forecast indicates that:

(a) the rainfall season is likely to start this month over the northern parts of the North-Western Province, Luapula Province and Northern Province. The onset for areas over the southern parts of the country is likely to be by the end of December. Areas over the rest of the country are likely to have their onset of rains by the end of November;

- (b) the rainfall amounts are likely to be normal to below normal in most parts of the country;
- (c) the rainfall distribution is likely to be erratic and uneven, with some periods of prolonged dry spells and periods of heavy rainfall events; and
- (d) the temperature is likely to be above-normal in most parts of the country, especially during the day.

Madam Speaker, the detailed 2023/2024 Rainfall Season forecast is as follows:

- (a) for the period October, November and December, Luapula Province, Northern Province, Muchinga Province, Lusaka Province, Central Province and Copperbelt Province, including Lundazi, Chama, Kaoma, Kabompo and Kalabo Districts have a high chance of receiving normal to below normal rainfall. During this period, normal to above normal rainfall is expected over the Southern Province, Western Province, much of North-Western Province and Eastern Province, including Mansa and Mpika districts;
- (b) during the period November, December and January, much of the eastern half of the country and Kabompo District in the North-Western Province are likely to receive normal to below normal rainfall. However, normal to above normal rainfall is projected over much of the Southern Province, Western Province, North-Western Province and the northern parts of Luapula Province and Muchinga Province, including Mumbwa District;
- (c) for December, January and February, the Copperbelt Province, Central Province and Lusaka Province, including areas around Choma, Petauke, Nyimba, Mbala, Zambezi, Kabombo, Chembe, Milenge and Mansa have a high chance of receiving normal to below normal rainfall. On the other hand, normal rainfall is expected in most parts of

the Eastern Province, Muchinga Province, Northern Province, Luapula Province, Southern Province, Western Province and North-Western Province; and

- (d) for the period January, February and March, most parts of Zambia have a high chance of receiving normal to above normal rainfall, except for areas around Ikeleng'i, Mwinilunga, Mpika, Kasama, Livingstone, Mazabuka, Monze, Kafue and Siavonga Districts that are likely to receive normal to below normal rainfall.

Madam Speaker, this forecast outlook is based on the best available scientific knowledge and information at this time. It is based on the three-month cumulative rainfall totals. Therefore, it is important that we monitor the weather and climate conditions closely and update the nation regularly. It is also essential that we complement this outlook with other weather and climate products and services, such as the ten-day agro-meteorological advisories, the weekly forecasts, as well as the flash flood early warning alerts, among others, that can provide more detailed and tailored information for decision-making at various levels.

Madam Speaker, this forecast does not imply that we should relax our efforts to mitigate the impacts of adverse weather and climate events and harness the opportunities of favourable ones. To the contrary, it calls for more vigilance and preparedness to cope with the potential risks and challenges that may arise from the expected weather and climate conditions. Therefore, it is imperative that we implement appropriate measures to enhance our adaptive capacity and resilience to weather and climate variability and change.

Madam Speaker, some of these measures include, among others:

- (a) the promotion of climate-smart agriculture practices, such as conservation agriculture, crop diversification, irrigation and water harvesting;

- (b) the improvement of water resource management, such as water conservation, storage, distribution and quality monitoring;
- (c) the enhancement of energy security, such as renewable energy sources and energy efficiency;
- (d) the strengthening of health systems, such as disease surveillance, prevention, control and treatment; and
- (e) the reduction of disaster risks, such as early warning systems, contingency planning, emergency response and recovery.

Madam Speaker, my ministry, in collaboration with other relevant partners and stakeholders, will continue to provide weather and climate information and guidance to support these measures.

Madam Speaker, furthermore, this august House may wish to note that in our effort to reach most of our population, we have translated the 2023/2024 seasonal forecast and the anticipated impacts in seven of our local languages. The translated forecast information will be produced and presented in video and audio formats at our newly refurbished meteorological studios.

Madam Speaker, we plan to disseminate this information through the Zambia National Broadcasting Corporation (ZNBC), Zambia News and Information Services (ZANIS), community radio and television stations, and that is where hon. Members of Parliament are encouraged to participate across the country. We will share this information on social media platforms, including WhatsApp, Facebook, YouTube and the ministry's website. We will also conduct community dissemination activities to share the information.

Madam Speaker, the provincial meteorological offices have been tasked to ensure that the forecast information is widely circulated. We, therefore, urge all users and sectors to make use of this information and guidance to plan and implement their activities accordingly.

Madam Speaker, I thank you.