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# REPUBLIC OF KENYA THE NATIONAL ASSEMBLY THIRTEENTH PARLIAMENT – FOURTH SESSION – 2025

DEPARTMENTAL COMMITTEE ON ENVIRONMENT, FORESTRY AND MINING

# REPORT

ON CONSIDERATION OF THE METEOROLOGY BILL (SENATE BILL NO.45 OF 2023)



NATIONAL ASSEMBLY RECEIVED

43 JUL 2025

SPEAKER'S OFFICE P. O. Box 41842, NAIROBI

DIRECTORATE OF DEPARTMENTAL COMMITTEES, CLERK'S CHAMBERS, PARLIAMENT BUILDINGS, NAIROBI.

**JULY, 2025** 

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# LIST OF ABBREVIATIONS AND ACRONYMS

UDA United Democratic Alliance ODM Orange Democratic Movement

WDP Wiper Democratic Party

KUP

Kenya Union Party United Party of Independent Alliance UPIA World Meteorological Organization **WMO** International Civil Aviation Organization ICAO

# LIST OF ANNEXURES

- I. Report adoption Schedule
- 2. Minutes
- 3. Copy of the Newspaper Advertisement on Public Participation
- 4. Letter inviting stakeholders for meetings with the Committee
- 5. Stakeholder submissions

#### CHAIRPERSON'S FOREWORD

This Report contains the Departmental Committee on Environment, Forestry and Mining proceedings on its consideration of the Meteorology Bill, 2023 (Bill No. 45 of 2023), published on 22<sup>nd</sup> September 2023 and passed by the Senate, with amendments, on 19<sup>th</sup> November 2024. The Bill was Read a First Time on 3<sup>rd</sup> December 2024 and thereafter committed to the Departmental Committee on Environment, Forestry and Mining for consideration and reporting to the House pursuant to the provisions of the National Assembly Standing Order 127.

1. 基理整理

1. 7. 1.

The Bill is sponsored by Sen. Aaron Cheruiyot, MGH, MP, and Leader of the Majority in the Senate. The principal object of the Bill is to provide a legal framework for the establishment of the Kenya Meteorological Service Authority, regulation, coordination, monitoring, management, provision and control of meteorological services and for connected purposes.

The Bill concerns County governments in terms of Article 110 (1) (a) of the Constitution.

Following the placement of advertisements in the print media on Friday, 20<sup>th</sup> October 2023, seeking public and stakeholder views on the Bill pursuant to Article 118(1) (b) of the Constitution and Standing Order 127(3), the Committee did not receive any Memorandum.

The Committee also invited the following MDAs vide a letter Ref. No. NA/DDC/EF&M/2025/004 dated  $7^{th}$  March, 2025 to present their comments and proposals on the Bill.

- i. The State Department for Environment and Climate Change;
- ii. State Department for Shipping and Maritime Affairs;
- iii. State Department for Transport;
- iv. National Environment Management Authority (NEMA)
- v. Kenya Civil Aviation Authority (KCAA); and
- vi. The National Drought Management Authority (NDMA).

The Committee, having considered the Meteorology Bill, 2023, recommends that the House APPROVES the Bill with amendments as contained in the Schedule.

The Committee is grateful to the Offices of the Speaker and the Clerk of the National Assembly for the logistical and technical support accorded to it during its sittings. Finally, I wish to express my appreciation to the Honourable Members of the Committee and Secretariat who made useful contributions towards the consideration and production of this report.

On behalf of the Departmental Committee on Environment, Forestry and Mining and pursuant to provisions of Standing Order 127 (4), it is my pleasure and honour to present to this House the Report of the Committee on its consideration of the Meteorology Bill, 2023 (Senate Bill No. 45 of 2023) .

HON. ENG. VINCENT MUSYOKA MUSAU, CBS, MP.
CHAIRPERSON, DEPARTMENTAL COMMITTEE ON ENVIRONMENT, FORESTRY
AND MINING

#### PART ONE

#### I.0 PREFACE

# I.I ESTABLISHMENT OF THE COMMITTEE

- 1. The Departmental Committee on Environment, Forestry and Mining is one of the twenty Departmental Committees of the National Assembly established under Standing Order 216 whose mandate pursuant to the Standing Order 216 (5) is as follows:
  - i. To investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned ministries and departments;
  - ii. To study the programme and policy objectives of Ministries and departments and the effectiveness of their implementation;
  - iii. On a quarterly basis, monitor and report on the implementation of the national budget in respect of its mandate;
  - iv. To study and review all the legislation referred to it;
  - v. To study, assess and analyse the relative success of the Ministries and departments as measured by the results obtained as compared with their stated objectives;
  - vi. To investigate and inquire into all matters relating to the assigned Ministries and departments as they may deem necessary, and as may be referred to them by the House;
  - vii. To vet and report on all appointments where the Constitution or any law requires the National Assembly to approve, except those under Standing Order 204 (Committee on appointments);
  - viii. To examine treaties, agreements and conventions;
  - ix. To make reports and recommendations to the House as often as possible, including recommendation of proposed legislation;
  - x. To consider reports of Commissions and Independent Offices submitted to the House pursuant to the provisions of Article 254 of the Constitution; and
  - xi. To examine any questions raised by Members on a matter within its mandate.

# 1.2 MANDATE OF THE COMMITTEE

- 2. In accordance with the Second Schedule to the Standing Orders, the Committee is mandated to consider matters related to Climate change, environment management and conservation, forestry, mining and natural, pollution and waste management.
- 3. In executing its mandate, the Committee oversees the Ministry of Environment, Climate Change and Forestry and the State Department for Mining.

#### 1.3 COMMITTEE MEMBERSHIP

4. The Departmental Committee on Environment, Forestry and Mining was constituted by the House on 27<sup>th</sup> October 2022 and on 5<sup>th</sup> March 2025 and comprises the following Members:

# Chairperson

Hon. Eng. Vincent Musyoka Musau, CBS MP
Mwala Constituency
UDA Party

#### Vice-Chairperson

Hon. Charles Kamuren, MP Baringo South Constituency

# **UDA Party**

#### **Members**

Hon. Mbalu Jessica Nduku Kiko, CBS, MP Kibwezi East Constituency WDP Party

Hon. Mwanyanje Gertrude Mbeyu, MP Kilifi County **ODM Party** 

Hon. Hiribae Said Buya, MP Galole Constituency

**ODM Party** 

Hon. Salim Feisal Bader, MP Msambweni Constituency **UDA Party** 

Hon. Emathe Joseph Namuar, MP Turkana Central Constituency

UDA Party

Hon. Joseph Wainaina Iraya, MP Nominated **UDA Party** 

Hon. Kemei Beatrice Chepngeno, MP Kericho County **UDA Party**  Hon. Mohamed Ali Mohamed, MP Nyali Constituency **UDA Party** 

Hon. Masito Fatuma Hamisi, MP Kwale County **ODM Party** 

Hon. Titus Lotee, MP Kachaliba Constituency **KUP Party** 

Hon. Mohamed Tubi Bidu, MP Isiolo South Constituency <u>Jubilee Party</u>

Hon. Yakub Adow Kuno, MP Bura Constituency **UPIA Party** 

Hon. Charity Kathambi Chepkwony, MP Njoro Constituency **UDA Party** 

# 1.4 COMMITTEE SECRETARIAT

5. The Committee is facilitated by the following staff:

# Ms. Hellen Ekadeli Senior Clerk Assistant/Head of Secretariat

Ms. Mercy Wanyonyi
Senior Legal Counsel

Dr. Joseph Kuria
Research Officer III

Mr. Stephen Otieno
Senior Sergeant-At-Arms

Mr. Eric Ogola

Public Communications Officer III

Mr. Hamdi Hassan Mohamed Clerk Assistant III

Ms. Nancy Chamunga Fiscal Analyst II

Mr. Kevin Obilo

Media Relations Officer III

Mr. Meldrick Sakani **Audio Recording Officer** 

#### **PART TWO**

# 2.0 BACKGROUND OF THE METEOROLOGY BILL, 2023

# 2.1 INTRODUCTION

6. The principal object of the Bill is to provide a legal framework for the establishment of the Kenya Meteorological Service Authority, regulation, coordination, monitoring, management, provision and control of meteorological services and for connected purposes.

# 2.2 SITUATIONAL ANALYSIS

- 7. Meteorological services in Kenya have been provided without a policy to guide the Kenya Meteorological Department (KMD) operations. In the absence of an Act of Parliament, there has been a lack of effective regulation of the provision of meteorological services and the subsequent clear guidelines on resource mobilization and revenue collection.
- 8. The increase in world population and extension of settlement and life-supporting activities, in areas vulnerable to the vagaries of extreme weather and climate events, justifies the urgent need and requirement to improve the capacity of KMD to provide better services to mitigate disaster risk and support the productive capacities of life-supporting activities.
- 9. The increase in the intensity of natural hazards due to climate variability and climate change poses critical challenges to the country, with far-reaching socio-economic devastation and misery.
- 10. Meteorological services are essential for disaster risk reduction and necessary for building resilience in the country against the adverse impacts of climate variability and climate change.
- 11. The service cuts across all socio-economic sectors and hence, the need for immediate remedial by the establishment of an Authority with an independent and flexible mandate to promote the provision of timely, accurate, and effective climate information services delivery.
- 12. This has been reiterated in the East African Community region as a means of not only improving service delivery but also streamlining meteorological policy in the region. The National Meteorological Services of Tanzania, Uganda, and Rwanda have attained autonomy in the provision of meteorological services, while those in Kenya, Burundi and South Sudan are yet to gain autonomy.

# 2.3 COMPARATIVE ANALYSIS

- 13. The WMO Technical Document No. 947 notes that over half of the National Meteorological Services (NMSs) operated by Members of World Meteorological Organization (WMO) have formal legal instruments covering their responsibilities, the establishment and operation of their facilities, and government regulation and legal responsibility.
- 14. Other issues included in the legal instruments are the roles of NMSs in the prevention/mitigation of natural disasters, international cooperation, and supplementary provisions and funding.

#### 2.3.1 GERMANY

- 15. The Deutscher Wetterdienst Act (DWD Act), 1998 establishes the legal framework for the German Meteorological Service (Deutscher Wetterdienst, or DWD). Under the jurisdiction of the Federal Ministry for Digital and Transport, the DWD is tasked with fulfilling meteorological requirements across various sectors of the economy and society.
- 16. The DWD's core responsibilities include weather forecasting, issuing warnings about weather-related hazards, climate monitoring throughout Germany and providing meteorological information and services to ensure aviation safety and safety of maritime shipping.
- 17. Additionally, the DWD is mandated to make its weather and climate information available frequently free of charge, supporting transparency and public access to meteorological data. The Act underscores the DWD's role in safeguarding public safety and supporting various sectors by providing accurate and timely meteorological information.
- 18. The Service is headed by an Executive Board of Directors that oversees its overall operations and Advisory Boards including the Advisory Board of the Federation that advises on federal matters, and a Scientific Advisory Board providing guidance on research initiatives.
- 19. Mineral exploration and mining activities can only happen in Australian waters with approval from the relevant Joint Authority composed of the federal minister and the relevant state or Northern Territory minister.

#### **Similarities**

- 20. Public Mandate and Service Delivery: Both the Kenya Meteorology Service Authority (KMSA) and Deutscher Wetterdienst (DWD) process climate data, issue weather forecasts and provide warnings about extreme weather events to support various sectors, including aviation, agriculture, disaster management, and public safety.
- 21. Each operates under a Legal and Institutional Framework: The Meteorology Bill, 2023 seeks to establish the Kenya Meteorology Service Authority (KMSA) while the DWD operates under the Deutscher Wetterdienst Act (DWD Act), which provides its legal foundation.
- 22. Both organizations contribute significantly to disaster preparedness and climate resilience by providing early warnings on extreme weather conditions.

#### **Differences**

- 23. Data Accessibility: KSMA meteorological services are expected to be regulated, and some may require payment while DWD meteorological data is mostly free of charge, ensuring public accessibility.
- 24. Training and Research: Kenya's proposed Bill establishes the Meteorology Training and Research Directorate to offer professional courses, while DWD has a Scientific Advisory Board guiding research initiative.

# 2.3.2 UNITED STATES OF AMERICA

- 25. The National Weather Service (NWS) in the United States operates under the National Oceanic and Atmospheric Administration (NOAA) to provide weather, hydrological, and climate data.
- 26. The National Weather Service was established under the National Weather Service Organic Act (1890), with one of its primary mandates was to establish the volunteer weather observer program. Today, weather observers who make up the Cooperative Observing Program are a core of volunteers numbering over 10,600.
- 27. Cooperative Weather Stations scattered over all fifty (50) states, Puerto Rico, and the Virgin Islands, are taking weather observations seven days a week throughout the year. They provide a myriad of vital information for their local areas.
- 28. Although the network has been very successful in fulfilling its original agriculturally oriented mission of defining the weather and climate of the United States, its data is now used among others water and land management, recreation, environmental impact studies, litigation and insurance, energy production and energy use, engineering, architectural design and construction, and agriculture and farm management.

# **Similarities**

- 29. KMSA is established through the Meteorology Bill, 2023, while NWS operates under the National Weather Service Organic Act (1890) and other legal instruments under NOAA and operate within international meteorological regulations, including compliance with the World Meteorological Organization (WMO) standards.
- 30. KMSA will have a Meteorology Training and Research Directorate, succeeding the Institute for Meteorological Training and Research (IMTR) in Kenya while NWS collaborates with universities and research institutions to enhance meteorological science and training.

#### 2.3.3 FINLAND

- 31. The Finnish Meteorological Institute makes observations and research on the atmosphere, the near space and the seas. It also provides services on weather, sea, air quality, climate and near space for the needs of public safety, business life and citizens. The Finnish Meteorological Institute is an administrative branch of the Ministry of Transport and Communications.
- 32. The operations of the Finnish Meteorological Institute are anchored on the Meteorological Institute (No. 212 of 2018) Act and regulated by the Government Decree on the Meteorological Institute (No. 263 of 2018).

#### **PART THREE**

# 3.0 OVERVIEW OF THE METEOROLOGY BILL, 2023.

#### 3.1 INTRODUCTION

- 33. The Meteorology\_Bill (Senate Bill No.45 of 2023) is sponsored by the Senate Majority Leader the Sen. Aaron Cheruiyot, MGH, MP.
- 34. The principal object of the Bill is to provide a legal framework for the establishment of the Kenya Meteorological Service Authority, regulation, co-ordination, monitoring, management, provision and control of meteorological services and for connected purposes.

# 3.2 REVIEW OF THE BILL

- 35. PART I: Clauses I-5 of the Bill provides for preliminary provisions that is the short title, interpretation of terms as used in the Bill, application of the Act and the guiding principles. The Act is to come into operation on such date as the Cabinet Secretary may appoint, by notice in the Gazette.
- 36. The Act is to apply to weather observers; meteorological service providers; private weather service providers; the Directorate; any meteorological training and research institution; and any person, group of persons or organization whose undertakings involve or include, generally, the use of meteorological information for commercial purposes
- 37. PART II: Clauses 5-23 of the Bill provides for the establishment of the Meteorological Service Authority as a corporate body with perpetual succession. The Authority shall be responsible for the provision of meteorological services in Kenya and the principal technical advisor to the National and County Governments on matters related to meteorology. Additionally, the Authority shall be responsible for the issuance of permits to persons who intend to undertake meteorological observation, weather forecasting activities or weather modification activities.
- 38. The functions of the Authority include to—
  - (a) develop, review and monitor the implementation of government policies in respect of meteorology and related sciences;
  - (b) develop, review and operate
    - i) a national strategic plan for the Authority in alignment with international treaties, protocols, agreements, and conventions on meteorology; and
    - ii) a national framework for climate services in support of the climate services information system value chain to process data, run models and produce climate products for user benefits;
  - (c) establish and maintain
    - i) surface, upper-air and marine meteorological observation networks;
    - ii) integrated information systems, in line with the World Meteorological Organization Information System, for the exchange of meteorological data and products; and
    - iii) meteorological management systems for data processing, analysis, forecasting and archival;

- (d) provide aeronautical meteorological services for the safety, regularity and efficiency of international air navigation in line with Annex 3 to the Chicago Convention on International Civil Aviation;
- (e) provide timely meteorological information for search and rescue services and accident investigation;
- (f) prepare and disseminate
  - i) weather forecasts, as well as issue advisories, alerts and warnings of severe weather and extreme climate events for disaster risk reduction through a multi-hazard early warning system;
  - ii) marine and tsunami early warning advisories as designated by the Intergovernmental Oceanographic Commission of United Nations Education, Scientific and Cultural Organization as the Indian Ocean Tsunami Watch Centre;
  - iii) agricultural meteorological services to improve productive capacity and build resilience posed by extreme events associated with climate variability and climate change;
- (g) monitor background environmental pollution at the World Meteorological Organization Global Atmosphere Watch Station on Mount Kenya and atmospheric chemical composition for greenhouse gases in the country for assessment of air quality and climate change detection and attribution;
- (h) provide public good services as set out in the Second Schedule;
- (i) provide private good services as set out in the First Schedule;
- (j) set standards, developing curricula, providing training in meteorology, operational hydrology and related sciences and examination and award of diploma certification in line with the World Meteorological Organization and other standards;
- (k) in collaboration with the ministry responsible for matters related to education, set the minimum curriculum requirements for training in meteorology;
- (I) collaborate with relevant government agencies in the development, implementation and operation of national multi-hazard early warning systems;
- (m) in collaboration with Kenya Civil Aviation Authority, participate in the training and rating of air traffic controllers;
- (n) collaborate with other institutions in the observation, recording and transmission of meteorological data in line with the World Meteorological Organization Integrated Global Observing System;
- (o) conduct and co-ordinate research and development in meteorology and related environmental sciences including scientific assessments to improve operations and services and to provide updates with respect to climate change;

- (p) design, fabricate and in collaboration with the Kenya Bureau of Standards calibrate and monitor standards for meteorological instruments;
- (q) set and maintain standards and recommended practices on meteorological instruments and methods of observations;
- (r) conduct public weather services for public education, outreach programme, radio and television communication and media presentation for meteorological services;
- (s) maintain up-to-date data on weather and climate within the zone of responsibility assigned to Kenya by the World Meteorological Organization;
- (t) register weather stations for meteorological data collection;
- (u) collaborate with the public and private sector in meteorological observation, carrying out research and development and education and training;
- (v) fulfill relevant international commitments, including those under the World Meteorological Organization and advance national interests by participating in the appropriate international programmes and activities; and
- (w) undertake any other function that may be required by this Act or any other written law.
- 39. PART III: Clauses 12-31 of provides for the management of the Authority which shall vest in a Board comprising of—
  - (a) a chairperson, appointed by the President;
  - (b) the Principal Secretary in the ministry responsible for matters relating to meteorological services or his representative;
  - (c) the Principal Secretary in the ministry responsible for matters relating to finance or his representative;
  - (d) the Principal Secretary in the ministry responsible for matters relating to transport or his representative;
  - (e) the Attorney-General or his representative;
  - (f) a representative nominated by the Council of County Governors;
  - (g) two other persons, not being public officers, with knowledge and experience in any of the following fields
    - i) meteorology;
    - ii) aviation;
    - iii) marine;
    - iv) agriculture; or
    - v) water resources management; and
  - (h) the Director-General, who shall be an ex-officio member of the Board with no voting rights.

- 40. A person is qualified for appointment as the chairperson or member of the Board of the Authority if that person holds a degree from a university recognized in Kenya and has at least five years' experience (ten years for the chairperson) in the relevant field.
- 41. A person is qualified for appointment as the Director-General of the Board of the Authority if that person has a first degree in Meteorology and a Master's degree in a related science from a university recognized in Kenya and has at least ten years' experience in the relevant field, of which five years shall be at a senior management position.
- 42. A person is qualified for appointment as the Corporation Secretary of the Authority if that person has a first degree in law from a university recognized in Kenya and has at least five years' experience as a corporation secretary and is a member in good standing with the Institute of Certified Public Secretaries.
- 43. PART IV: Clause 32 of the Bill establishes a directorate of the Authority to be known as the Meteorology Training and Research Directorate, which shall be the successor to the Institute for Meteorological Training and Research and shall be headed by a Director who shall be accountable to the Director-General.
- 44. The Directorate shall be responsible for training and research and shall be the World Meteorological Organization Regional Training Centre for the provision of certificate and diploma professional courses in meteorology, operational hydrology and related sciences.
- 45. PART V: Clause 33-37 of the Bill provides that the funds of the Authority shall comprise of—
  (a) such monies as may be appropriated by Parliament for purposes of the Authority;
  - (b) charges for private goods services;
  - (c) such monies as may accrue to or vest in the Authority in the course of the exercise of its powers or the performance of its functions under this Act;
  - (d) grants and loans from the government;
  - (e) grants and loans from any organization or person subject to the provisions of the Public Finance Management Act, 2012;
  - (f) interest on savings made by the Authority;
  - (g) money collected under the Air Passenger Service Charge Act; and
  - (h) all monies and fees from any other sources provided, donated or lent to the Authority.
- 46. PART VI: Clause 48 of the Bill contains provisions on regulations.
- 47. PART VII: Clause 49 and 50 contains provisions on consequential amendments to the Mining Act, Cap 306. The Bill provides that the Mining Act, Cap 306 shall not apply to matters relating to the

- exploration, exploitation and processing of gold. The Bill further seeks to delete gold from the list of minerals appearing in Part C of the First Schedule to the Mining Act, Cap 306.
- 48. The Authority is required to identify suitable sites and places on which to establish meteorological observation stations and the Director-General is required to designate and appoint any person to be an authorized officer for purposes of carrying out the functions of the Authority.
- 49. Additionally, the Bill provides that the Authority shall retain the intellectual property rights on any data, meteorological, hydrological, environmental and advisory service, computer programs, inventions, discoveries and improvements, generated by the Authority in the fulfilment of its functions.
- 50. Further, clause 41 of the Bill provides that the Authority is not liable for any damage, loss or injury sustained or alleged to have been sustained, by any person because of such person's reliance on meteorological information provided by the Authority.
- 51. The Cabinet Secretary is required to make regulations to among other things prescribe rates, fees, charges and alterations in the tariffs, levied for the services and facilities provided by the Authority; the cost recovery for aeronautical meteorological and marine meteorological services. In addition, the standards for setting up and operating weather observing instruments; dissemination of meteorological information to the public; the operation of private weather services; procedures for application for permits, suspension and cancellation of permits under this Act; procedures for registration of persons and entities providing meteorological services and procedure for issuance of permits for operating meteorological stations. Also for regulating standards of installation of meteorological equipment and instruments in accordance with the World Meteorological Organization standards and recommended practices.
- 52. PART VII: Clauses 44-50 provides for offences and penalties e.g. a person who obstructs an authorized officer of the Authority in the exercise of the powers or duties of the authorized officer under this Act; falsely holds themselves out to be an authorized representative of the Authority and destroys, removes or damages a weather observation station or other equipment of the Authority. The person commits an offence if they give or distribute meteorological information obtained from the Authority without the consent of the Authority and contrary to the provisions of this Act; issues to the public meteorological data collected, or weather information derived from a weather station not registered by the Authority; or issues meteorological data or weather information to the public contrary to the provisions of this Act, and on conviction, be liable to a fine not exceeding one million shillings or to imprisonment for a term not exceeding twelve months or to both.
- 53. PART VIII: Any proceedings taken by or on behalf of the Kenya Meteorological Department or pending against it or any other person immediately before the commencement of this Act may be continued by, on behalf of, or against the Authority as if instituted under this Act.
- 54. Upon commencement of this Act, all funds, assets and other property, both movable and immovable, which immediately before such date were vested in the Kenya Meteorological Department shall, by virtue of this section, vest in the Authority, subject to all interests, liabilities, charges, obligations and trusts affecting that property.

- 55. The Director of Kenya Meteorological Department shall assume the duties of the Director-General in an acting capacity for a period not exceeding six months or until the Director-General is appointed. Additionally, the technical staff who, immediately before the date of commencement of this Act, were employees of the Kenya Meteorological Department shall continue to be employees of the Authority.
- 56. Upon commencement of this Act, all the funds, assets and other property, both movable and immovable, which immediately before such date were vested in the former Institute shall, by virtue of this Act, vest in the Directorate.
- 57. Any person who was an officer or employee of the former Institute immediately before the commencement of this Act shall be deemed to be an officer or employee of the Directorate subject to such terms of service as the Board may, on the advice of the Salaries and Remuneration Commission, determine.
- 58. All certificates issued by the former Institute shall be deemed to have been issued by the Directorate.

#### **PART FOUR**

#### 4.0 PUBLIC PARTICIPATION/STAKEHOLDERS CONSULTATION

- 59. Following the call for memoranda from the public through placement of adverts in the print media on 6<sup>th</sup> December, 2024 and vide a letter Ref. No. NA/DDC/ EF&M/2024/004 dated 7<sup>th</sup> March, 2024 inviting stakeholders for a meeting, the Committee received submissions from the following stakeholders:
  - a) State Department for Environment and Climate Change,
  - b) State Department for Shipping and Maritime Affairs,
  - c) Kenya Civil Aviation Authority,
  - d) Pastoralists Alliance for Resilience and Adaptations Across Nations;

# 4.1 MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND FORESTRY

- 60. Eng. Festus Ngeno Principal Secretary, State Department for Environment and Climate in a meeting with the Committee held on Tuesday, 18<sup>th</sup> March 2025, highlighted the benefits of transitioning the Kenya Meteorology Department to an Authority, which included:
  - i) The legal framework will enhance access and utilization of meteorological services through engagement and partnerships with all stakeholders to facilitate the integration of weather & climate information in the decision-making processes.
  - ii) Enhanced the provision of timely, accurate and effective weather forecasts, advisories and alerts, as well as the provision of user-tailored specific climate and weather products.
  - iii) Establishment of sufficient upper air, land, hydro-meteorological and marine weather observation networks ensured through the law as well as improvement in acquisition, installation and maintenance of meteorological equipment, instruments and infrastructure.
  - iv) Collaboration and engagement with counties in the provision of weather and climate services, since it is expected that there will be more staff at the county levels.
  - v) It is expected that climate information services in support of national development programs shall be streamlined.
  - vi) The nation stands to benefit from compliance with international commitments and requirements.
  - vii) It is expected that there will be a better understanding and the uptake of products and services offered by the National Meteorological Service to the community level.
  - viii) Provide decision support that informs policy-making at the national and county levels.
  - ix) Ensure national and international meteorological training curricula standards are maintained in accordance with national, regional and international requirements, e.g., Technical and

Vocational Education and Training Curriculum Development, Assessment and Certification Council (TVET\_CDACC), Kenya National Qualifications Authority (KNQA), WMO and ICAO requirements.

x) It is expected that operational research will be enhanced and promote development programs.

# 4.2 STATE DEPARTMENT FOR SHIPPING & MARITIME AFFAIRS

- 61. Mr. Geoffrey Kaituko, Principal Secretary, State Department for Shipping & Maritime Affairs, in a meeting with the Committee held on Tuesday, 18<sup>th</sup> March 2025, , appreciated the timeliness of the Bill, and the significant benefits that it brings onboard.
- 62. He noted that by gaining access to real-time and reliable information on atmospheric and oceanic conditions, mariners can effectively anticipate and respond to potential hazards at sea as follows:
  - i) Reducing fuel consumption: Fuel is typically the top cost for maritime transport/ shipping companies, generally accounting for 50-60% of operation costs. For maritime shipping operators, there is constant pressure to optimize routes and minimize delays caused by bad weather. Reducing fuel usage is also paramount to meeting emission standards- translating to a positive impact on the carbon footprint. Besides avoiding extreme weather, there are many opportunities to adjust routes based on up-to-date data on currents, winds, and waves. These add resistance to ships traveling through the water and significantly contribute to extra fuel costs. However, real-time route optimization considering these can lead to significant fuel savings.
  - ii) Reducing downtime: Shipping and transport companies use maritime weather forecasts to plan for weather patterns and allow for adjustments to speed and route several days out (route planning). A ship that spends an extra day at sea as a result of having to avoid a storm and bad planning incurs higher cost from extra day of fuel cost and extra day of crew pay as well as higher fees from ports and operators, missed schedules, which may lead to additional lost time and money. Saving as little as 2-3 days per year thanks to maritime weather forecasts is definitely a worthy investment.
  - iii) Improvements in e-navigation: The two key data sets necessary for intelligent and dynamic routing (or e-navigation) are ship tracking (AIS) and weather. Key goals of e-navigation are to improve safety, provide improved estimated time of arrivals (ETAs), and situational awareness. Up-to-date weather forecasts assists in decision-making and efficiency. Maritime Weather forecasts play an important role in the development of e-navigation and autonomous shipping, making it possible to fuse and analyze historical weather with ship tracking data to develop intelligent neural networks and routing engines.
  - iv) Minimizing disruption: For manufacturers, a sudden disruption can cause a chain-reaction those results to a near-standstill of a large and complex manufacturing process that can, in turn, have ripple effects on customer confidence, perception, and stock price. With maritime weather forecasts as an integral part of workflow, it is possible to avoid unplanned disruptions. Planning for extreme weather assists in avoiding delays due to storm-avoidance or crowded ports/canals. Supply-chain disruptions may also stem from in-transit damage to goods, caused by storm-related

- shifts in cargo, or to moisture/ sweat due to sudden changes in humidity. Better planning for weather helps in mitigating these disruptive causes.
- v) Navigating treacherous areas: There are geographical regions of the world that are known for extreme winds, extreme waves, extreme currents, extreme precipitation, icy conditions, and/or extreme fog. Some of these areas are in remote locations that are under-observed by most weather forecasting services. For an organization operating ships, these areas pose all sorts of risks including; safety risks to crew, damage to the ship, equipment, and cargo, and lost time. For such areas, it can be especially valuable to have accurate high-resolution maritime weather forecasts. A reliable forecast with better global coverage allows for real-time adjustments as conditions change.
- vi) Mitigating the risk of injury or damage during marine accidents: Maritime weather forecasts can help avoid injuries to crew/passengers, as well as damage to the ship and its equipment. Precise weather forecasts can also help companies and rescuers respond better when weather emergencies happen. Having knowledge of up-to-date conditions around a storm can help in deciding whether to send out another vessel or to wait. For an emergency/rescue response organization, more detailed maritime weather forecasts with global coverage is very critical. Besides the direct costs from injuries or damage, there's also the potential for reducing insurance costs.
- vii) Weather data is also very valuable to insurance companies, or any company that requires risk analysis and post-incident investigations. Access to reliable weather forecasting assists in understanding why things went wrong, including reviewing crew's decisions during extreme weather or even route planning decisions made by navigators or a third-party service. In turn, these assist in improving budget planning, operations, and processes.
- viii) Well-planned port operations: Weather predictions help maritime infrastructure owners and managers prepare for extreme weather, making it possible to foresee when storms will cause pre-storm traffic slowdown and post-storm traffic surges. Better weather forecasts can help develop storm strategies to drive efficiency across all operations.
- ix) The State Department for Shipping and Maritime is overseeing the implementation of a Maritime Safety Project in Lake Victoria, with a component on Maritime Communications Network, which will rely on a constant supply and availability of weather information/ data. The passage of this Bill will also boost Kenya's capacity (as a host to the Regional Maritime Rescue Coordination Centre in the Western Indian Ocean) to provide effective Search and Rescue services and Maritime Radio communication Services per the International Convention for the Safety of Life at Sea (SOLAS) V/4 & V/5.

Clause 12(2) (d)

63. Include "the Principal Secretary in the ministry responsible for matters relating to maritime or his representative".

# Justification:

The Board as currently constituted comprises of eight (8) members. The *Mwongozo* Code of Governance for Government-Owned Entities recommends a minimum of seven (7) and a maximum of nine (9) members.

#### Committee Observation/Recommendation:

The Committee rejected the proposed amendment, as the Principal Secretary for the State Department for transport is already included in the Board. Additionally, the Committee was of the view that the Principal Secretary responsible for agriculture should be in the Board as the consumers of meteorological data are largely from the agricultural sector.

# 4.3 SUBMISSION BY KENYA CIVIL AVIATION AUTHORITY (KCAA)

#### 64. KCCA submitted as follows:

# Clause 2

- 65. Delete: "aeronautical meteorological services" means services provided to air navigation for safety and security reasons and comprise the following;
  - (a) en route meteorological forecast and warning services for both international and national flights;
  - (b) low-level significant weather charts for general aviation;
  - (c) aerodrome meteorological information;
  - (d) provision of aviation specific research and development; and
  - (e) provision of significant meteorological information;

# Justification:

This is already provided for in the Civil Aviation Act (CAA), CAP 394, and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 - Legal Notice No. 166.

#### Comments by the Ministry

- 66. Kenya Meteorological Department (KMD) provides Aviation MET (Meteorological Service for Air Navigation) in accordance with the International Civil Aviation Authority (ICAO) Annex 3
- 67. ICAO recommends the states to promulgate primary aviation laws and subsequent operating regulations (CEI&2). KCAA promulgated CAA Act. CAP 394 and several subsequent CAA Regulations for different service providers.
- 68. Since the establishment of CAA primary law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the Bill does not contravene the Civil Aviation Act, CAP 394 and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018.
- 69. The function of the Authority under clause 7(2) (d) provides for the aeronautical meteorological services for the safety, regularity and efficiency of international air navigation in line with Annex 3 of the Chicago Convention on International Civil Aviation and proposes that years of experience be

amended to 2 or 3 years. Further, the provision to include 2/3 gender rule and representation by youth on the Board.

#### Committee Observation/ Resolution:

Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological services for air navigation on its behalf. Additionally, there is no contradiction or conflict between the provisions of the Bill, the Civil Aviation Act, CAP 394, and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018. Since the enactment of the Civil Aviation Act, CAP 394 into law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP).

Consequently, the Committee rejected the proposed amendment.

#### Clause 2

70. Delete: "flight information region" means an air space of defined dimensions within which flight information and alerting services are provided.

# Justification:

This is already provided for in the Civil Aviation Act, CAP 394 and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 - Legal Notice No. 166.

"flight information region" means an airspace of defined dimensions within which flight information and alerting services are provided;

# Comments from the Ministry

- 71. Kenya Meteorological Department is providing Aviation MET (Meteorological Service for Air Navigation) in accordance with the ICAO Annex 3
- 72. ICAO recommends the States to promulgate primary aviation laws and subsequent operating regulations (CE1&2). KCAA promulgated CAA Act. CAP 394 and subsequent several CAA Regulations for different service providers.
- 73. Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological service for air navigation on its behalf.
- 74. Since establishment of CAA primary law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the Bill does not contravene the Civil Aviation Act, CAP 394 nor the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018.

#### Committee Observation/ Resolution:

Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological services for air navigation on its behalf. Additionally, there is no contradiction or conflict between the provisions of the Bill, the Civil Aviation Act, CAP 394, and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018. Since the enactment of the Civil Aviation Act, CAP

394 into law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the proposed amendment was rejected by the Committee.

#### Clause 2

75. Delete: "meteorological watch office" means an office designated to provide information concerning the occurrence or expected occurrence of specified en route weather and any other phenomenon in the atmosphere that may affect the safety of aircraft operation within Kenya flight information region.

# Justification:

This is already provided for in the Civil Aviation Act, CAP 394 and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 - Legal Notice No. 166.

# Comments from the Ministry

- 76. Kenya Meteorological Department is providing Aviation MET (Meteorological Service for Air Navigation) in accordance with the ICAO Annex 3
- 77. ICAO recommends that the States promulgate primary aviation laws and subsequent operating regulations (CEI&2). KCAA promulgated CAA Act. CAP 394 and several subsequent CAA Regulations for different service providers.
- 78. Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological service for air navigation on its behalf.
- 79. Since the establishment of CAA primary law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the Bill does not contravene the Civil Aviation Act, CAP 394; and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018.

# **Committee Observation/ Resolution:**

Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological services for air navigation on its behalf. Additionally, there is no contradiction or conflict between the provisions of the Bill, the Civil Aviation Act, CAP 394, and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018. Since the enactment of the Civil Aviation Act, CAP 394 into law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the Committee rejected the proposed amendment.

- 80. Amends: The object of this Act shall be to
  - a) provide for the regulation, coordination, monitoring, management, and provision of meteorological services; and
  - b) give effect to and ensure fulfilment of the obligations of the Government under treaties and conventions on meteorology, save for meteorological services for air navigation, and in particular the Convention of the World Meteorological Organization, to which Kenya is a party.

## **Justification:**

The framework for regulation of the establishment and provision of meteorological services for air navigation is already provided for under Annex 3 to the Convention on International Civil Aviation; the Civil Aviation Act, CAP 394; and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 - Legal Notice No. 166.

The regulator for the provision of air navigation services, which includes meteorological services for air navigation as per ICAO definition in the annex and civil aviation law and regulations, is the Kenya Civil Aviation Authority.

# **Committee Observation/ Resolution:**

Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological services for air navigation on its behalf. Additionally, there is no contradiction or conflict between the provisions of the Bill, the Civil Aviation Act, CAP 394, and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018. Since the enactment of the Civil Aviation Act, CAP 394 into law in 2002, KMD has been designated as the sole Meteorological Service Provider (MSP). Consequently, the Committee rejected the proposed amendment.

# Clause 7(d)

81. Amend as follows: provide aeronautical meteorological services for the safety, regularity and efficiency of international air navigation in accordance with the requirements of Annex 3 to the Chicago Convention on International Civil Aviation, Civil Aviation Act, CAP 394, and relevant Regulations thereunder.

# Justification:

To avoid conflicting provisions in two statutes, and ensure alignment of the provisions of the Bill to the existing legal and regulatory framework for the provision of meteorological services for air navigation.

# Comments from the Ministry

- 82. Kenya Meteorological Department is providing Aviation MET (Meteorological Service for Air Navigation) in accordance with the ICAO Annex 3
- 83. ICAO recommends the states to promulgate primary aviation laws and subsequent operating regulations (CEI&2). KCAA promulgated CAA Act. CAP 394 and subsequent several CAA Regulations for different service providers.
- 84. The amendments seek to provide clarity with regards to the applicable legal framework on matters relating to the provision of aeronautical meteorological services

## Committee Observation/Resolution:

The Committee accepted the proposal as it seeks to provide clarity with regards to the applicable legal framework on matters relating to the provision of aeronautical meteorological services.

Clause 7(e)

85. Amend as follows: provide timely meteorological information for search and rescue services and accident investigation in accordance with the requirements of Annex 3 to the Chicago Convention on International Civil Aviation, Civil Aviation Act, CAP 394, and relevant Regulations thereunder.

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Justification:

To avoid conflicting provisions in two statutes, and ensure alignment of the provisions of the Bill to the existing legal and regulatory framework for the provision of meteorological services for air navigation.

Comments from the Ministry

- 86. The proposed amendment is restrictive as the meteorological information for search and rescue services and accident investigation is not limited to aviation accidents.
- 87. Pursuant to paragraph 13 of the Second Schedule to the Bill, the Authority is also required to provide maritime weather, sea bulletins, tsunami warnings, alerts and warnings for safety of life at sea and coastal regions.

# Committee Observation/ Resolution:

The Committee rejected the proposed amendment as the meteorological information for search and rescue services and accident investigation is not limited to aviation accidents.

#### Clause II

88. Amend as follows: No person shall engage in any meteorological observations, weather forecasting activities or weather modification activities unless that person obtains a permit from the Authority, save for air traffic controllers.

#### Justification:

89. Air traffic controllers may be required to pass the prevailing weather information based on their observation of weather that has not been reported by MET for operational use. Similarly, pilots in flight make aircraft observations.

Comments from the Ministry

- 90. Regulation 19 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018, with respect to an Agreement between air traffic services provider and meteorological services provider provides that—
- 91. An agreement between the meteorological services provider and the appropriate traffic ATS provider shall be established to cover, amongst other things
  - a) the provision in air traffic services units of displays related to integrated automatic systems;
  - b) the use to be made of these displays/instruments by air traffic services personnel; and
  - c) as and where necessary, supplementary visual observations including meteorological phenomena of operational significance in the climb-out and approach areas and when

made by air traffic services personnel to update or supplement the information supplied by the meteorological station;

92. Consequently, there's no contradiction as the provision seeks to ensure that meteorological service providers are licenced by the Authority. Additionally, an agreement between the meteorological services provider and the appropriate traffic ATS provider must include the use of meteorological information by air traffic services personnel to update or supplement the information supplied by the meteorological station

#### **Committee Observation/ Resolution:**

The Committee rejected the proposed amendment as there is no contradiction between the provisions of the Bill and the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018, as the provision seeks to ensure that meteorological service providers are licensed by the Authority. Additionally, an agreement between the meteorological services provider and the appropriate traffic ATS provider must include the use of meteorological information by air traffic services personnel to update or supplement the information supplied by the meteorological station

# Clause 33(1) (g)

93. Delete

# Justification:

Provision of aeronautical meteorological services required for aerodrome warnings, and provision of meteorological services to airport for approach and landing, take off and cruising, and en-route services have been classified 'Private Good Services' under the First Schedule, and charges for private goods services as one of the funds of the Authority has been provided for under 33(1)(b).

# Comments from the Ministry

- 94. Imposition of passenger service charge
  - (1) Subject to this Act, there shall be paid by every person who purchases a ticket for an external or internal journey an air passenger service charge of—
    - (a) fifty United States dollars or the equivalent in specified currency or in Kenya shillings for an external journey: and
    - (b) six hundred shillings for an internal journey.
  - (2) The Cabinet Secretary may, by notice in the Gazette, from time to time vary the charges specified in this section.
  - (3) All proceeds of the charge imposed under this section shall be apportioned between the Kenya Airports Authority, the Kenya Civil Aviation Authority and the Tourism Promotion Fund in such manner as the Cabinet Secretary may, by notice in the Gazette, specify.
  - (4) Additionally, the Bill has not proposed any consequential amendments to the Air Passenger Service Charge Act, Cap.475 with respect to the apportionment of money collected under the Act.

#### Committee Observation/ Resolution:

The proposed amendment was rejected by the Committee as KMD has been designated as the sole Meteorological Service Provider (MSP) and is the only government agency responsible for the provision of meteorological data.

# Clause 43(1) (b)

95. Amend as follows: the cost recovery for marine meteorological services.

# Justification:

To avoid conflicting provisions in two statutes on cost recovery for meteorological services for air navigation and ensure alignment of the provisions of the Bill to the existing legal and regulatory framework. Section 82(2)(p) of the Civil Aviation Act, CAP 394 provides that without prejudice to the generality of subsection (I), the Cabinet Secretary may make regulations prescribing charges or enabling some other authority to prescribe charges to be paid in respect of air navigation services, regulatory services and providing for the recovery of such charges;

# Comments from the Ministry

- 96. KMD and KCAA have existing LoA over the provision of the meteorological services for air navigation. The current LoA is for five (5) years, leveraging on the ATS, CNS, AIS and SAR sections of KCAA.
- 97. Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological service for air navigation on its behalf.

#### Committee Observation/ Resolution:

The proposed amendment was rejected by the Committee as Regulation 4 of the Civil Aviation (Meteorology Services for Air Navigation) Regulations, 2018 empowers KCAA to designate a person to provide or arrange for the provision of meteorological service for air navigation on its behalf. Additionally, KMD and KCAA have existing LoA over the provision of the meteorological services for air navigation. The current LoA is for five (5) years leveraging on ATS, CNS, AIS and SAR sections of KCAA.

# 4.4 SUBMISSION BY NATIONAL DROUGHT MANAGEMENT AUTHORITY

98. The National Drought Management Authority submitted as follows:

# Clause 7

99. "specialized service" means meteorological service provided by the Authority as it deems necessary or on request by an identifiable person. Amend and add "and organization" at the end of the sentence.

#### Justification:

Expands the scope of coverage of requests made to the Authority to include organizations.

#### Committee Observation/ Resolution:

The Committee rejected the proposed amendment as the term person as used in the Bill refers to either a natural person or a juristic person, which includes an organization.

# Clause 7(2) (f) (i)

- 100. Amend clause 7(2)(f)(i) to read as follows—
  - (i) weather forecasts, as well as issue advisories, alerts and early warnings of severe weather and extreme climate events for disaster risk reduction and collaborate with NDMA through a multihazard approach.

# Justification

NDMA operates an early warning system and conducts food security assessments through a multi-hazard approach.

#### Committee Observation/ Resolution:

The Committee adopted the proposal as follows—

(ma) collaborate with the National Drought Management Authority in the development of drought early warning systems

#### Clause 7

101. Insert clause 7(2)(f)(iv)—

(iv) weather forecasts using local languages and media easily understood by local communities who are likely to be affected by hazards/disasters

# Justification

For the local communities to be able to understand meteorological data.

#### **Committee Observation/ Resolution:**

The Committee rejected the proposal as the same has already been provided for in the Bill.

- 102. Amend 7(f)(I) to read as follows—
  - (i) collaborate with NDMA and other relevant government agencies in the development, implementation and operation of national multi-hazard early warning systems.

# **Justification**

NDMA operates an early warning system and conducts food security assessments through a multi-hazard approach.

# Committee Observation/ Resolution:

The proposal was adopted by the Committee as follows—

(I) collaborate with relevant government agencies, including the National Drought Management Authority in the development, implementation and operation of national multi-hazard early warning systems.

# 4.5 SUBMISSION BY PASTORALISTS ALLIANCE FOR RESILIENCE AND ADAPTATION ACROSS NATIONS (PARAAN)

103. PARAAN made the following submissions during the meeting held on Monday, 17<sup>th</sup> March 2025.

#### Clause 4

104. The Bill should explicitly mandate the creation of county meteorological offices to bring weather forecasting and climate services closer to the people. These offices should also endeavor to provide forecasts in local languages to ensure accessibility and relevance as well as leverage mobile platforms (e.g., SMS, mobile apps, and voice messages) to disseminate information widely, especially in remote and marginalized areas.

# Justification:

This approach will enhance the inclusivity, efficiency, and usability of meteorological services, ensuring that all communities, including indigenous peoples and rural populations, can benefit from timely and actionable weather information.

#### Committee Observation/ Resolution:

The proposal was rejected by the Committee as the functions of the Kenya Meteorology Service Authority under Clause 7(2) (r) of the Bill include conducting public weather services for public education, outreach programme, radio and television communication and media presentation for meteorological services. Under clause 7(2) (h), the Authority is required to provide public goods. Additionally, paragraph 14 of the Second Schedule provides those public goods include the provision of weather and climate information through County Weather and Climate Information Centres.

#### **New Clause**

105. The Bill should explicitly include a clause mandating the Kenya Meteorological Authority (KMA) to collaborate with the National Drought Management Authority (NDMA).

#### Justification:

Given the NDMA's critical role in drought mitigation, resilience building, and resource management in arid and semi-arid lands (ASALs), such collaboration would ensure that meteorological data and early warning systems are effectively integrated into drought preparedness and response strategies.

# Committee Observation/ Resolution:

The Committee adopted the proposal as follows—

(ma) collaborate with the National Drought Management Authority in the development of drought early warning systems.

#### Clause 5

106. Amend Clause 2(f) to include specifically pastoralist specific meteorological services, ensuring that early warnings and weather information are tailored to the unique needs of communities in arid and semi-arid lands (ASALs). This amendment should mandate the development of accessible early warning systems for droughts, livestock health risks, grazing conditions, and extreme weather events.

#### Committee Observation/ Resolution:

The proposal was adopted by the Committee as follows—

(ma) collaborate with the National Drought Management Authority in the development of drought early warning systems.

107. The mandate of the Authority under Clause 7(2)(f) on the provision of weather and climatic forecasting and early warning services is intended for the benefit of the public, safety of life and the protection of property and life. This also includes the ASALs.

#### Clause 12

108. Clause 12 of the Bill should explicitly include Rangeland Management and Pastoralism as a required area of expertise for Board members

# Justification:

To ensure the representation of pastoralist communities, who are among the most vulnerable groups to climate challenges and disasters.

#### Committee Observation/Recommendation

The Committee accepted the proposal as it would ensure that the Board has expertise in traditional indigenous knowledge on weather forecasting and drought risk management, to enhance the accuracy of meteorological information.

# Clause II(2)

109. The Meteorology Bill should explicitly recognize and incorporate Traditional Indigenous Knowledge (TIK) of pastoralists and other indigenous communities, who have relied on their own weather forecasting and environmental management practices for centuries. The Bill should provide a mechanism for the protection of rights and a place for traditional weather forecasters. Additionally, there is a need for documentation, use, and transmission of the knowledge involved.

# Justification:

This knowledge is not only scientifically valuable but also culturally significant and should be integrated into modern meteorological systems to improve the accuracy and relevance of forecasts, particularly in arid and semi-arid lands (ASALs). Furthermore, TIK should be protected under the Intellectual Property Laws to safeguard community rights and ensure that pastoralists and other indigenous groups benefit from the use of their knowledge.

#### Committee Observation/Recommendation

The Committee accepted the proposed amendment as it would ensure that the Kenya Meteorological Service Authority integrates Traditional Indigenous Knowledge (TIK) in weather forecasting as TIK is not only scientifically valuable but also culturally significant and should be integrated into modern meteorological systems to improve the accuracy and relevance of weather forecasts.

#### Clause 38

110. Clause 38, which establishes observation stations, introduces the concept of wayleaves but fails to provide clarity on essential safeguards for landowners. To ensure fairness and compliance with Kenya's Land Laws, such as the Land Act (2012) and the Community Land Act (2016), the clause must include clear guidelines on prior notice of entry, fair compensation, and protective measures for landowners.

# Justification:

These provisions will protect landowners' rights, particularly in rural and pastoralist areas, while promoting transparency and cooperation in the establishment of meteorological infrastructure. Without such safeguards, the clause risks creating conflicts and undermining trust between the meteorological authority and communities.

#### Committee Observation/ Recommendation

The proposal was accepted by the Committee in terms of ensuring that land owners are adequately compensated, if need be when meteorological observation stations are constructed on private land

#### Clause 42

- 111. The Bill's penalties and hefty fines, such as the proposed five million shillings, are overly punitive and counterproductive. These provisions risk criminalizing communities that rely on traditional practices to adapt to climate challenges, undermining their contributions to environmental stewardship.
- 112. Therefore, we recommend replacing these punitive measures with a more collaborative approach focused on education and capacity building. Additionally, the Bill's penalty clauses are inconsistent and disproportionately harsh, requiring a balanced and fair framework to align with its goals of promoting climate resilience and inclusivity.

#### **Justification:**

These provisions will protect landowners' rights, particularly in rural and pastoralist areas, while promoting transparency and cooperation in the establishment of meteorological infrastructure. Without such safeguards, the clause risks creating conflicts and undermining trust between the meteorological authority and communities.

#### Committee Observation/Recommendation

The Bill provides for maximum penalties and not minimum penalties giving the judicial officer discretion to determine on a case-by-case basis.

#### **PART FIVE**

#### 5.0 COMMITTEE OBSERVATIONS

Having considered the Bill, the Committee made the following observations:

- Kenya Meteorological Authority will ensure the establishment of sufficient upper air, land, hydrometeorological and marine weather observation networks that will enhance the provision of timely, accurate, and effective weather forecasts, advisories and alerts, as well as the provision of user-tailored specific climate and weather products.
- 2. The legal framework will enhance access and utilization of meteorological services through engagement and partnerships with all stakeholders to facilitate the integration of weather & climate information in the decision-making processes.
- 3. The nation stands to benefit from compliance with international commitments and requirements if the Bill is enacted into law.
- 4. Kenya Maritime Authority (KMA) gaining access to real-time and reliable information on atmospheric and oceanic conditions, mariners will effectively anticipate and respond to potential hazards at sea.
- 5. Traditional Indigenous Knowledge (TIK) in weather forecasting as TIK is not only scientifically valuable but also culturally significant and should be integrated into modern meteorological systems to improve the accuracy and relevance of weather forecasts.
- 6. The Kenya Meteorological Service Authority ought to collaborate with relevant government agencies including National Drought Management Authority that operates an early warning system and conducts food security assessments through a multi-hazard approach, so as to leverage on the already existing systems through a collaborative framework.

#### **PART SIX**

# 6.0 COMMITTEE RECOMMENDATION

4.7.40

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1. The Committee, having facilitated public participation and considered the *Meteorology Bill, 2023* (Senate Bill No.45 of 2023) by Hon. Aron Cheruiyot, the stakeholders' comments and from the above observations, recommends that the House **APPROVES the Bill with amendments** as contained in the Schedule.

SIGNED DATE 22 07 2021

HON. ENG. VINCENT MUSYOKA MUSAU, CBS, MP CHAIRPERSON,

DEPARTMENTAL COMMITTEE ON ENVIRONMENT, FORESTRY AND MINING

DATE 24 JUL 2 Thursten Chair Person

BY: Chebet tracy