RA I Keynote Address on the status of communication and service delivery in Africa

Presented by the

Permanent Representative (PR) of South Africa with the WMO

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14 February 2023

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Purpose

- The purpose of this keynote address is to consider the status quo of communication and service delivery in Africa.
- It also seeks to pinpoint gaps and challenges faced by the African NMHSs in data communication and service delivery.
- This address will also identify opportunities that could be leveraged on by the continent; and propose recommendations for consideration to address the identified communication and service delivery issues and gaps.
- This address seeks to trigger discussion points for African PRs to strategize on regarding cooperation mechanisms to enhance communication and service delivery of our African NMHSs; to leverage on available resources and ensure sustainability.

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Background

- Climate change is definitively impacting the weather, climate and water and concomitantly impacts on almost all facets of our daily life.
- These climate impacts manifest as an increase in severe weather events and has become a serious risk for sustainable development.
- The recent analyses of the WMO and the UNDRR, through their surveys, in cooperation with NMHSs and Disaster Management Centres at national levels, revealed the vulnerability of communities, particularly in Africa and on the Last Mile who don't have access to weather, water and climate information, and are often located in the most rural and vulnerable areas, with poor or no literacy and are often women and children
- This has prompted several global initiatives, including the recent Early Warnings for All (EW4A) Initiative, championed by the UN Secretary-General and implemented by the WMO.

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Background cont'd

- The International Telecommunications Union (ITU), in its efforts to contribute to addressing the identified risks to lives and livelihoods advocates the importance of the use of Information and Communication Technologies (ICTs), as it will assist in accelerating progress towards achieving the 17 United Nations Sustainable Development Goals (SDGs).
- In response to the above, the African Union has developed its digital transformation strategy for Africa (2020-2030).
- Its vision is to have an integrated and inclusive digital society and economy in Africa that improves the quality of life of Africa's citizens.
- It also aims at strengthening the existing economic sector, enabling its diversification and development, and ensuring continental ownership with Africa as a producer and not only a consumer in the global economy.
- However, there is a slow pace of socio-economic development in Africa as a result of inadequate use of information and communication technologies.

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The role of WMO Global Basic Observation Network (GBON) and WMO Information System 2.0

- The WMO GBON establishment was envisaged to increase the availability of the essential surface-based data, thus improving the quality of weather products and services, which will in turn enhance the service delivery of NMHSs.
- Currently, the African continent is still behind in the implementation of the GBON, due to a number of factors that include limited financial resources to upgrade the ageing observational infrastructure.
- The WMO also developed the WMO Information System (WIS) to provide its Members with a high performing and reliable information-sharing platform, and the migration from WIS 1.5 to 2.0 seeks to address the evolving global technical trends and the growing requirements of its users, especially in consideration of the impacts of climate change.
- Compared with the developed world, the African continent is still far behind in its migration to WIS 2.0. As result, collective efforts both at continental and international levels are required to assist the continent in its migration process.

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Early Warning Systems (EWS)

a) Severe Weather Forecasting Demonstration Programme

- In the past, the WMO established and implemented the Severe Weather Forecasting Demonstration Project (SWFDP) as a pilot, which after its successful implementation in some regions, led to its launch into a fully-fledged programme.
- Its main aims, amongst others, were to improve the ability of NMHSs to forecast severe weather events, and to improve lead-time of alerting communities of these weather events.
- In the context of Africa, the Southern African region is one of the areas where this programme was implemented successfully. There is therefore a need for its roll-out to all the regions of the continent.

b) Flash-Flood Guidance System

- One of the WMO program geared to enhance the early warning system is the Flash Flood Guidance System (SARFFG), which aims at improving the flash flood warnings to disaster management and the communities it serves.
- In consideration of its significance in enhancing the relevance of NMHSs, there is a strong need to implement this programme in all African countries.
- It is also strongly recommended that all NMHSs on the continent should nominate their experts for serving in the recently established WMO Flash-flood Committee.

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Early Warning Systems (EWSs) cont'd

c) Common Alert Protocol (CAP)

In relation to issuing and transmitting weather warnings, the Common Alerting Protocol (CAP) is one of the international standard formats for emergency alerting and public warning, developed by the International Telecommunication Union and embraced by the WMO.

Currently, the CAP is not fully implemented in the continent, therefore there is a need for a closer collaboration with the WMO, through its twinning processes, to ensure that all countries in Africa comply with the requirements of this protocol.

d) Impact-based Forecasting

Impact-based forecasting is aimed at migrating NMHSs from issuing ordinary weather warnings to including possible impacts of the weather and its degree of threat to vulnerable communities.

It is strongly recommended that this programme should be rolled-out to all African countries.

Currently, the NMHSs collaboration with disaster centres and media houses require enhancement to bridge any possible gaps in the communication flow to ensure that warnings reach the intended users.

NMHSs should also consider latest practices and digital technologies that improve the communication flow of the weather information.

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Challenges facing communication and service delivery in Africa

- One of the fundamental challenges the continent faces is that its observational infrastructure is ageing. This negatively impacts on the availability and accuracy of meteorological data available for sharing.
- The unavailability of meteorological data is detrimental to the communication and service delivery in Africa and paralyses the continent's contribution to the WMO State of Climate for Africa programme.
- The continent is also marred by serious challenges of internet connectivity, which is essential for the dissemination of weather and climate products and services to user communities. The ITU reports indicate that in Africa, 3G and 4G broadband coverage is still low, whilst developed regions have adequate coverage in 5G broadband coverage.
- This is lately compounded by electricity loadshedding processes at national levels, that are affecting predominantly the African continent. This interrupts the data transmission from Members to Regional Centres and Global Centres.

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Challenges facing communication and service delivery in Africa cont'd

- The adoption of multi-hazard early warning systems at local, national, and regional scales for Africa is still low. According to the WMO surveys, only 24 countries report on the Multi Hazard Early Warning Services (MHEWS).
- There is therefore a need to clearly define this concept to Members in the continent and then develop a support system to assist the countries that do not have it in place.
- The NMHSs in the African continent have limited financial resources to implement the key WMO programmes relating to data communication such as GBON and WIS 2.0.

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Opportunities

- With digitisation, developing countries have an enormous opportunity to boost growth and be part of the global economy and help people access better services. (Rwanda)
- This is also true in the hydro-meteorological services where the value chain in service delivery requires digital information to speed up development in hydro-meteorological services and enhance socio-economic growth.
- **Digitisation** could also enable better use of resources, capacities of the leadership and management of NMHS must be built on the use of ICT to deliver on mandated services.
- The use of **modern technology** has an unexploited potential to augment the entire value chain of climate services, including in fields such as data collection, co-design, dissemination, and personalization of services. Much of the technologies to develop these areas are not yet fully utilized, and most of the reported progress is on data production rather than product development and delivery.

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Opportunities

- Members should also consider the **Public-Private Engagement (PPE)** that aims at enhancing cooperation and collaboration between NMHSs and the private sector that possess the required financial resources.
- In this regard, the WMO is available to provide Members with lists of developmental partners and existing weather and climate related projects that Members could leverage on for the funding of key meteorological programmes.

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Opportunities cont'd

- Some of the NMHSs' governance processes, procedures and structures are outdated, they require a rigorous review to ensure alignment and that they are fit-for-purpose. In this regard, the Leaders of the African NMHSs should leverage on the Leadership and Management of National Meteorological and Hydrological Services (NMHSs) WMO initiative that aims at empowering the Directors of the NMHSs with strategic skills required to lead the NMHSs.
- The WMO Systematic Observations Financing Facility (SOFF) programme is an innovative way of financing the generation of surface-based observations, inclusive of its exchange and dissemination.
- This programme is envisaged to improve the availability and accuracy of meteorological data in the continent, thus improving communication and service delivery in the continent.
- However, the WMO should consider extending it to developing countries; and not limit it to the Least Developing Countries (LDCs) and Small Islands Developing States (SIDS). By doing so, the African continent will be widely covered resulting in an enhanced communication and service delivery.

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Proposed recommendations

a) Work on enhancement and sustainability of the NMHSs' observational infrastructure in the continent to ensure availability and accuracy of weather information for enhanced service delivery.

b) Enhancement of forecasting capabilities by developing and implementing Weather Forecast Competency Frameworks to ensure quality-controlled products and services.

c) Migration of NMHSs from the ISO (International Standard Organization) 9001:2008 to ISO: 9001:2015 certification to certify the accuracy of weather-related products and services.

d) Investment in digital technology to improve communication and service delivery. Digital solutions hold the key to ensuring climate services and lead to increased resilience in Africa.

e) Rolling out of the Severe Weather Forecasting Programme; Impact-based Forecasting; Flash-flood guidance system and CAP in the entire continent to improve the communication and service delivery of the NMHSs.

f) Enhancement of NMHSs collaboration with disaster centres and media houses at national levels, to improve communication and dissemination of weather information.

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Proposed recommendations

g) Enhanced collaboration of NMHSs with private sector as guided by the WMO PPE.

h) Involvement of African Members on international financing projects related to weather, climate, and water services in order to leverage on existing funds, thus closing gaps in service delivery. (International financing organizations such as the African Development Bank, Global Centre on Adaptation, and the Climate Resilience Early Warning initiative (CREWS) have continued to support such projects in the continent).

i) There is also a need for the training of African NMHSs on multi-channel dissemination of weather information (TV, radio, digital medium) to reach the last mile. TV and Radio communication is particularly important.

j) High level commitment and support at national levels for policies and legislation on EWS (Early Warning System) is strongly encouraged.

k) Implementation of the WIGOS and the Unified Data Policy by the continent is crucial as it aims on improving meteorological services.

l) African NMHS are encouraged to increased their participation and contribution in the WMO State of climate for Africa. This will assist in closing the existing gaps.

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Priorities for Africa

- Establishment of an enhanced and sustainable basic observation network for sustained weather data for enhanced communication and service delivery.
- Improvement of continental connectivity for adequate communication flow.
- Implementation of multi-hazard early warning systems throughout the continent; to achieve the UN clarion call of “Early Warning for All” in the next 5-year period.
- Capacitation of DMCs (state of readiness) at national, provincial and local levels, to ensure better communication of weather information.
- Improvement of the “Last Mile” communication in terms of user understandability and reach.

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Thank you

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