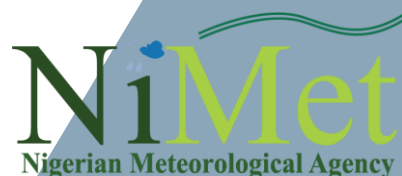


PUBLIC PRIVATE PARTNERSHIP FOR WEATHER AND CLIMATE SERVICES

(T **An Experience Sharing from NiMet** E)



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WEATHER AND SUSTAINABLE DEVELOPMENT



Weather is a major challenge to achieving sustainable development

Weather-related, weather-caused and weather-dependent disasters are frequently affecting different countries

Many of the effects are catastrophic

To achieve sustainable development, we must therefore understand weather, adapt to it, mitigate its effects and if possible control it

Doing these require the contribution of all (i.e **partnership**)

PARTNERSHIPS IN DEVELOPMENT AGENDA

The world needs development to eliminate inequality and instability

Achieving development is always a challenge

Multiple stakeholders need to come together to meet up with the challenge

Public sector can't do it all alone

UN Sustainable Development Agenda 2020 particularly emphasise Partnerships



PARTNERSHIPS IN DEVELOPMENT AGENDA

Key development areas where partnerships MUST be established include:

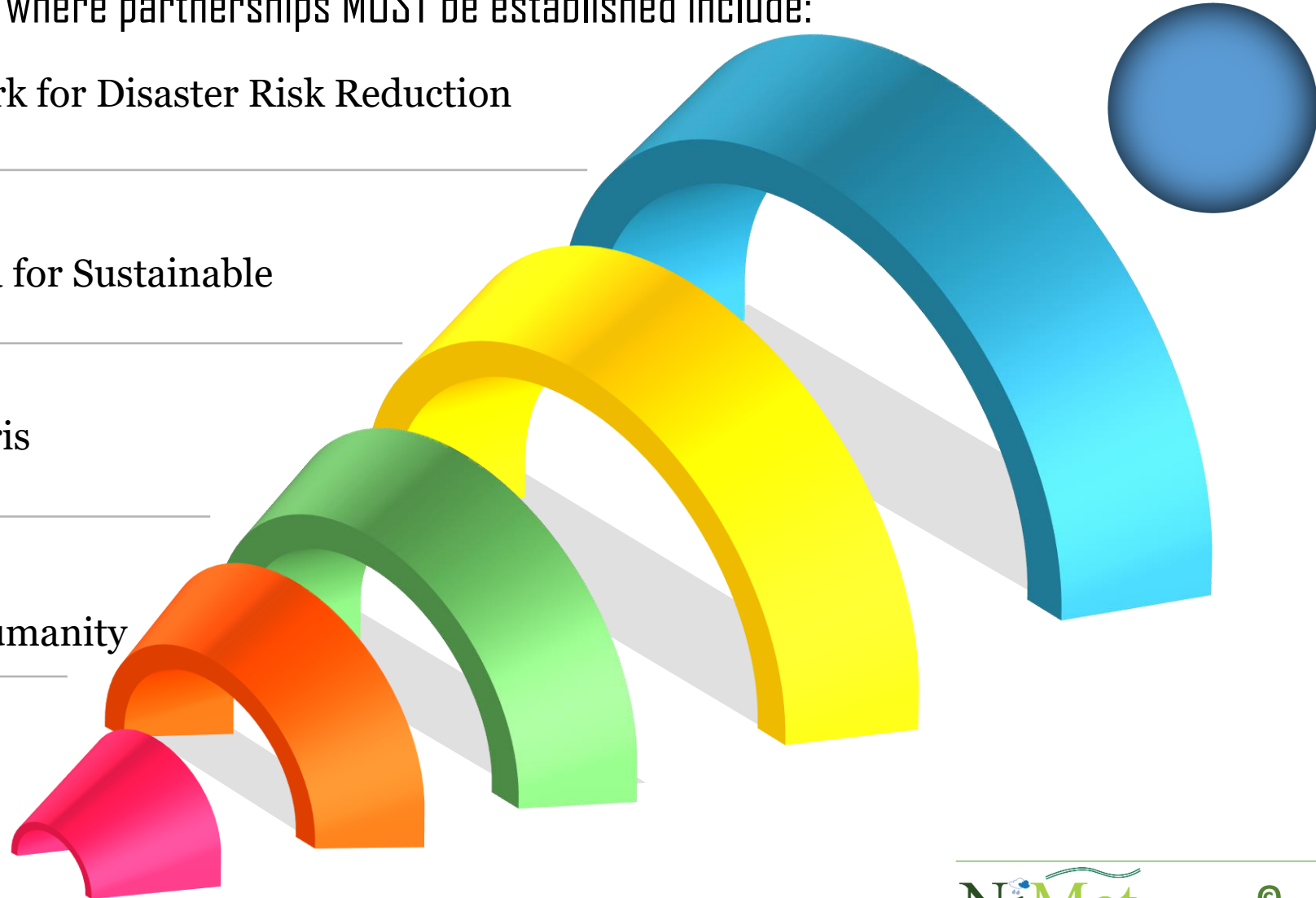
01 Sendai Framework for Disaster Risk Reduction
2015–2030

02 The 2030 Agenda for Sustainable
Development

03 The UNFCCC Paris
Agreement

04 The Agenda for Humanity

05 The New Urban
Agenda



PARTNERSHIPS IN WEATHER SERVICES DELIVERY

01

Weather services delivery is very key to achieving sustainable development

02

NMHSs are not only custodians of weather data, but provide lead in delivering such services

03

NMHSs must therefore go for partnerships as they can't always do it alone

04

Public sector is after the public good but need to also create enabling environment for the private sector to thrive

05

The private sector is primarily for profit, but need to be corporately-responsible

06

As public finance becomes limited, the public is now forced to as much as possible go towards commercialization

THE PUBLIC-PRIVATE WEATHER ENTERPRISE

- The public-private global weather enterprise is rising to this challenge
- The context now goes beyond mere protection of infrastructure, but real business development

01

02

03

04

05

There is now a well-established and successful global public-private partnership in which both sectors share common goals

New opportunities emerging to develop this partnership further

The target is to enable the whole enterprise to grow and produce more accurate and reliable weather forecasts

WHAT CAN THE PRIVATE SECTOR OFFER TO WEATHER SECTOR?

- Can best operationalize innovation from public sector investment (R&D)
- Private sector is sometimes more capable and efficient

01

Private sector invest in sophisticated area with high risks that public sector cannot always cope with

02

Many small and large companies already add value in MANY AREAS. (Consumption, Production, Services Delivery, etc)

03

Can particularly help in public numerical weather prediction (NWP) data

04

Can also help in disseminating weather forecasts widely

05

Engaging private sector can enable a transfer of risk

Private sector can also help in technology transfer

THE WEATHER ENTERPRISE AND AFRICA

- Africa faces very difficult development challenges
- Its climate is one of the most dynamic
- Meteorological infrastructure not well developed

01

02

03

04

05

There is hence the need for African NMHSs to be more effective, to promote saving lives and protecting infrastructure

Governments cannot do it all

The private sector has huge potential in the region

Can help in raising and deploying private (venture) capital for high-tech developments in ***measurement*** and ***computing/data technology***

ROLES OF BOTH NMHSs AND THE PRIVATE SECTOR

- NMHSs need to meet up with challenges of meeting so much and emerging expectations
- Technology moving fast that NMHSs cannot easily meet up with the need to catch up FAST

01

NMHSs need to start delivering **new products** and **services** (smart systems)

02

Private sector now becoming much more involved in nearly all aspects of public life, including the weather enterprise

03

04

From observations to tailored weather products private sector can come in

05

ROLES OF BOTH NMHSs AND THE PRIVATE SECTOR

cont.

- The prospects are thus very high for private engagement here
- A solid partnership can then be built between the two

01

There are however some **fears**, **misunderstandings** and even **mistrust**

02

Greater engagement needed between the two to dispel perceived obstacles and change the mind-set (World Bank seriously trying here)

03

04

Mistrust also arises due to lack of knowledge and clarity about the respective roles of the two sectors

05

Fears also remain regarding how they can best work together

NiMet AND PRIVATE SECTOR ENGAGEMENT

- In Nigeria private sector engagement in public services delivery well considered
- There is a law to guide the partnership (ICRC Act 2005)

01

NiMet needs thousands more of varied recording and analytical instruments (*especially AeroMet, AgroMet, MarineMet*).

02

Technology and resources for maintenance and management not completely available

03

Market to generate and deliver weather products and services to is very *high (population about 206million)*

04

05

Using provision of the ICRC Act, models for funding, revenue sharing and benefits realization could be developed

Technical Partnership for Improved Service Delivery





WEATHER MATTERS



PROJECT: *Installation of Lightning and Thunder Detectors in Airports*

TARGET: *22 Federal Airports, 14 State Airports*

COVERED SO FAR: *8 Federal Airports*

REVENUE STREAM: *Data sales for Aeromet Operations*

NiMet PPP EXPERIENCE: (B) TAHMO



PROJECT: *Installation of AWS in synoptic stations*

TARGET: *9,400 stations nationwide*

COVERED SO FAR: *37 AWS under the pilot phase*

REVENUE STREAM: *Data sales for raw data users, input for products development*

NiMet PPP EXPERIENCE: (B) TAHMO



Coupling the Sensors' Component of one of the Installed AWOS by a Team of NiMet and WASCAL Personnel



A View of a Completely Remodelled Synoptic Station



Fully Installed TAHMO AWOS in one of the stations

NiMet PPP EXPERIENCE: (C) WEATHER BASED INSURANCE SCHEME

WEATHER BASED INSURANCE SCHEME

- **NiMet & NIRSAL** entered into partnership with insurance firms (Weather Based Insurance Scheme)
- Currently collaborating with NIRSAL to provide weather info to **4 million farmers** to de-risk their activities
- NiMet service cost to be deducted from source from loan facilities to farmers by the Central Bank of Nigeria

PROJECT:

- *Installation of AWS in farming improvement centers and synoptic stations*
- *Generation of agromet services to support farmers products*

TARGET: *150m farmers nationwide*

COVERED SO FAR: *540,000 farmers under the pilot phase*

REVENUE STREAM:

Deductions of costs of AgroMet products and services from loan facilities to farmers and sharing among NiMet, Insurance Companies and NIRSAL)

NiMet PPP EXPERIENCE : (D) MOBILEMET PROJECT WITH GSM OPERATORS

- **Nigeria has huge population (about 206m)**
- **Very high usage of cell phones (170M officially registered lines)**
- **Huge market with populace in love with mobile products and services**
- **Development of weather products and services for specific and general usages**

PROJECT:

- *Deployment of ICT and Telecommunications facilities*
- *Development of products for marketing by MobileMet operators (MTN, Airtel, Glo, 9Mobile)*

TARGET: *170m Mobile Phone Users nationwide*

COVERED SO FAR: *Select 1m phone users under the pilot phase*

REVENUE STREAM:

Sales of SMS, USSD and other Mobileservices. Revenue to be shared between NiMet, Mobile Services Providers and Strategic Investors of the Agency

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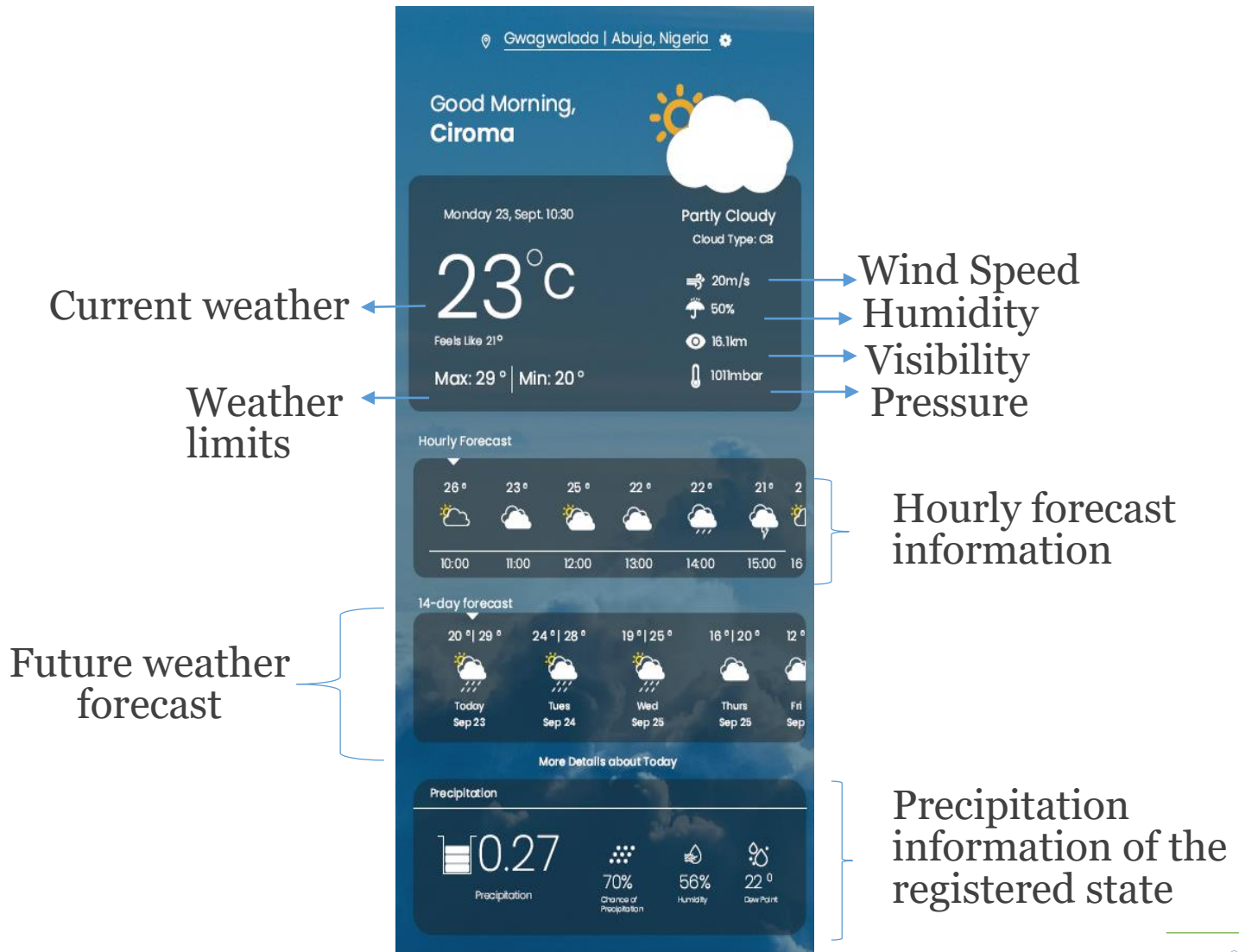
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NiMet WEATHER APP

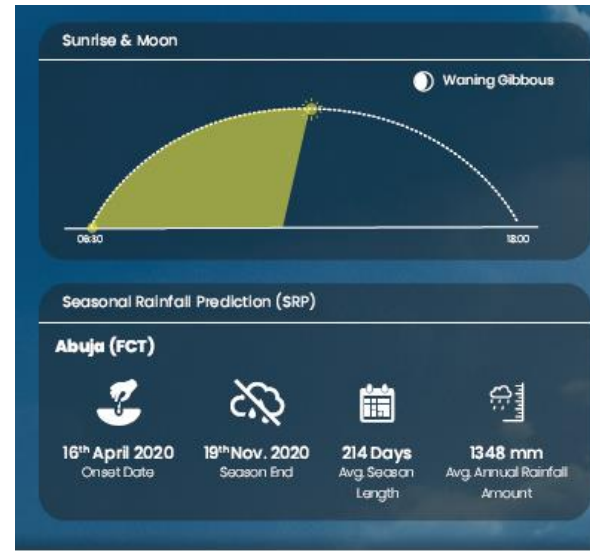


NiMet WEATHER APP



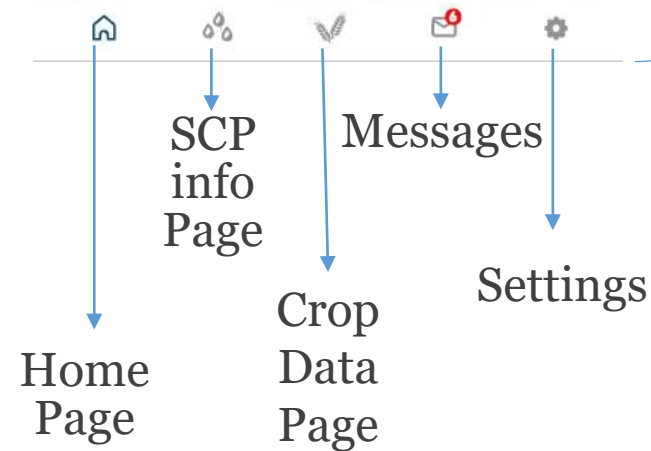
NiMet WEATHER APP

SCP information



Sunrise and Sunset information

Menu icons



LESSONS LEARNT

Partnership is a two-way venture, requesting NMHSs to do a lot (technical, financial, administrative)

Start up costs are high and many developing countries may not have enough to spare

Return on investment not always instant

Legal framework need to be very strong

Some NMHSs already have concessioned some of their activities

KEY MESSAGES

NMHSs cannot continue to depend on themselves alone

Government funding for provision of Meteorological infrastructure not sustainable

The weather enterprise is today a global public-private partnership

NMHSs can rely on weather enterprise to meet up with infrastructure deficiencies

If properly backed by legal and other frameworks, weather enterprise can bring substantial revenue streams to NMHSs



THANK YOU!

Any Questions?