Leveraging Technology for Effective Agriculture: The Story of a Weatherman

A Presentation by:

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&
PERMANENT REPRESENTATIVE OF NIGERIA
WITH WORLD METEOROLOGICAL ORGANISATION (WMO)

Thursday 7th April 2022

The Nigerian Meteorological Agency is a parastatal of the Federal Ministry of Aviation, with the statutory responsibility of providing meteorological services (weather, climate and hydrological data and information) for **all sectors of the Nigerian economy**

Our Mandate

Our core mandate is to ***observe***, **collate**, and **analyze meteorological data** to provide ***timely and accurate*** reporting of weather and climate information for socio-economic development and safety of lives and property

Our Vision

To be a World Class provider of Weather and Climate services for safety and sustainable national socio-economic development

Our Mission

To observe Nigerian Weather and Climate and provide Meteorological, Hydrological and Oceanographic services in support of National needs and international obligations

NIGERIAN METEOROLOGICAL AGENCY: WHAT WE DO

We have presence in every state of the Federation

We have built infrastructure and acquired certifications for quality of service and competency

Our services covers Telecommunications, Power & Energy, Building & Construction, Aviation, Oil & Gas, Agriculture, Marine & Maritime, Education, Defence, Health , Finance and Insurance etc.

Though, we are indigenous, our service is international.

NIGERIAN METEOROLOGICAL AGENCY: WHAT WE DO IN BRIEF

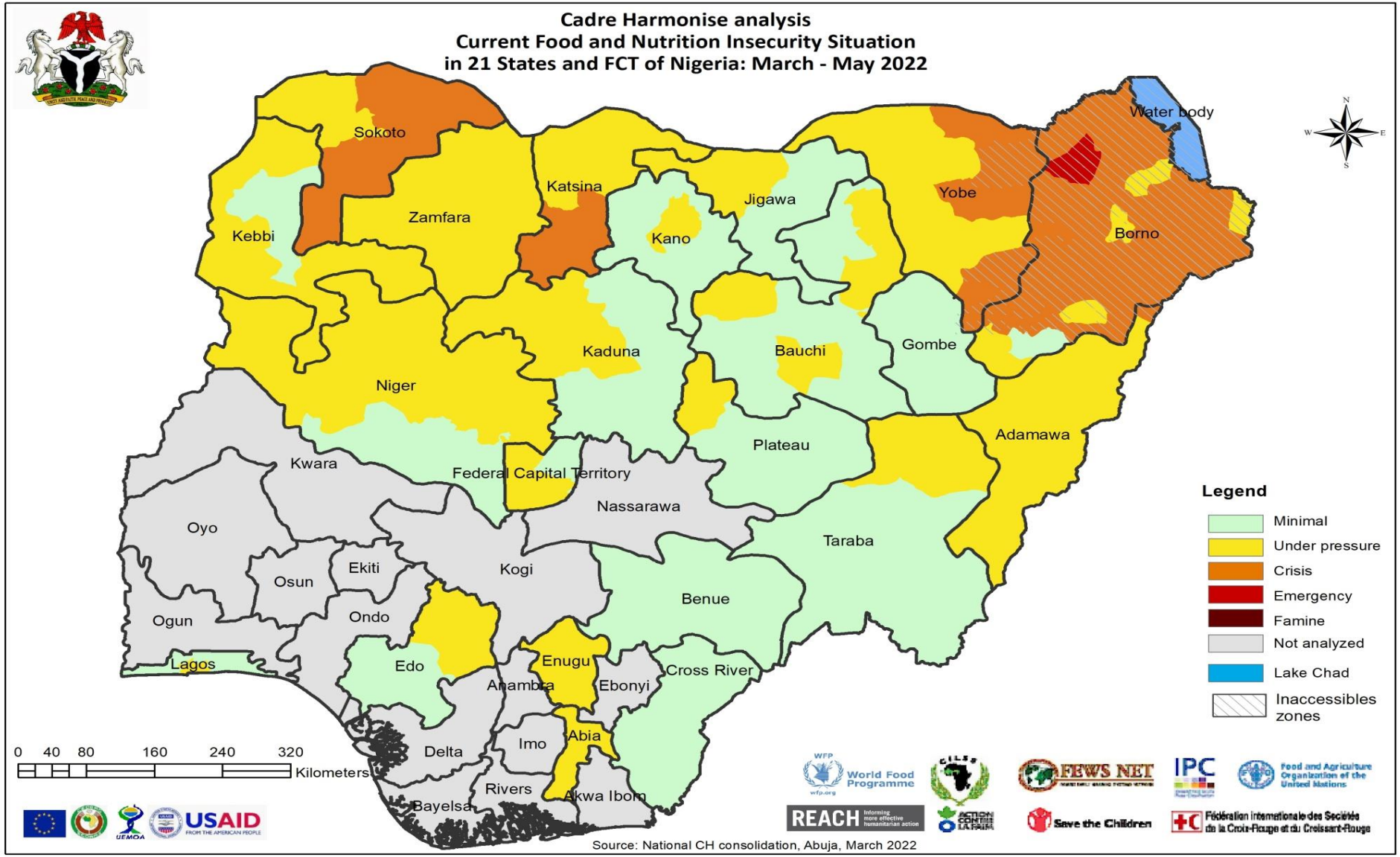
- Advise the government on all aspects of meteorology
- Project, prepare and interpret government policy in meteorology
- Issue weather forecasts for the safe operation of the aircrafts, ocean going vessels and oil rigs
- Promote the service of meteorology in agriculture, drought and desertification activities
- Keep in safe custody all meteorological records in the National Meteorological Archive
- Ensure uniform standards of observation of all meteorological phenomena in Nigeria
- Regulate the standards and performance of meteorological services and service providers across the nation

THE CLIMATE OF NIGERIA

- **Nigeria has a tropical climate with variable rainy and dry seasons**. In the South the rainy season lasts from March to November, whereas in the far North it range only from mid-May to September.
- **There are wide climatic variations in different regions of the country**: Near the coast temperatures rarely exceed 32°C, but humidity is very high, and nights are very hot. Inland, there are two different seasons. A wet season from April to October, with lower monthly temperatures and the wettest month being June. Also, a dry season from November to March, with midday temperatures that rise above 38°C but relatively cooler nights, dropping as low as 12°C.
- **Average rainfall** along the coast varies from about 1800Mm in the west to about 3000mm in certain parts of the east. Inland, it decreases to around 1300mm over most of central Nigeria and only 500mm in the extreme North. The hot Harmattan wind from the Sahara sweeps across the Northeastern areas which extend further down South
- **The Harmattan wind is hot and dry and laden with dust from the desert**. The Southwest wind brings cloudy and rainy weather.

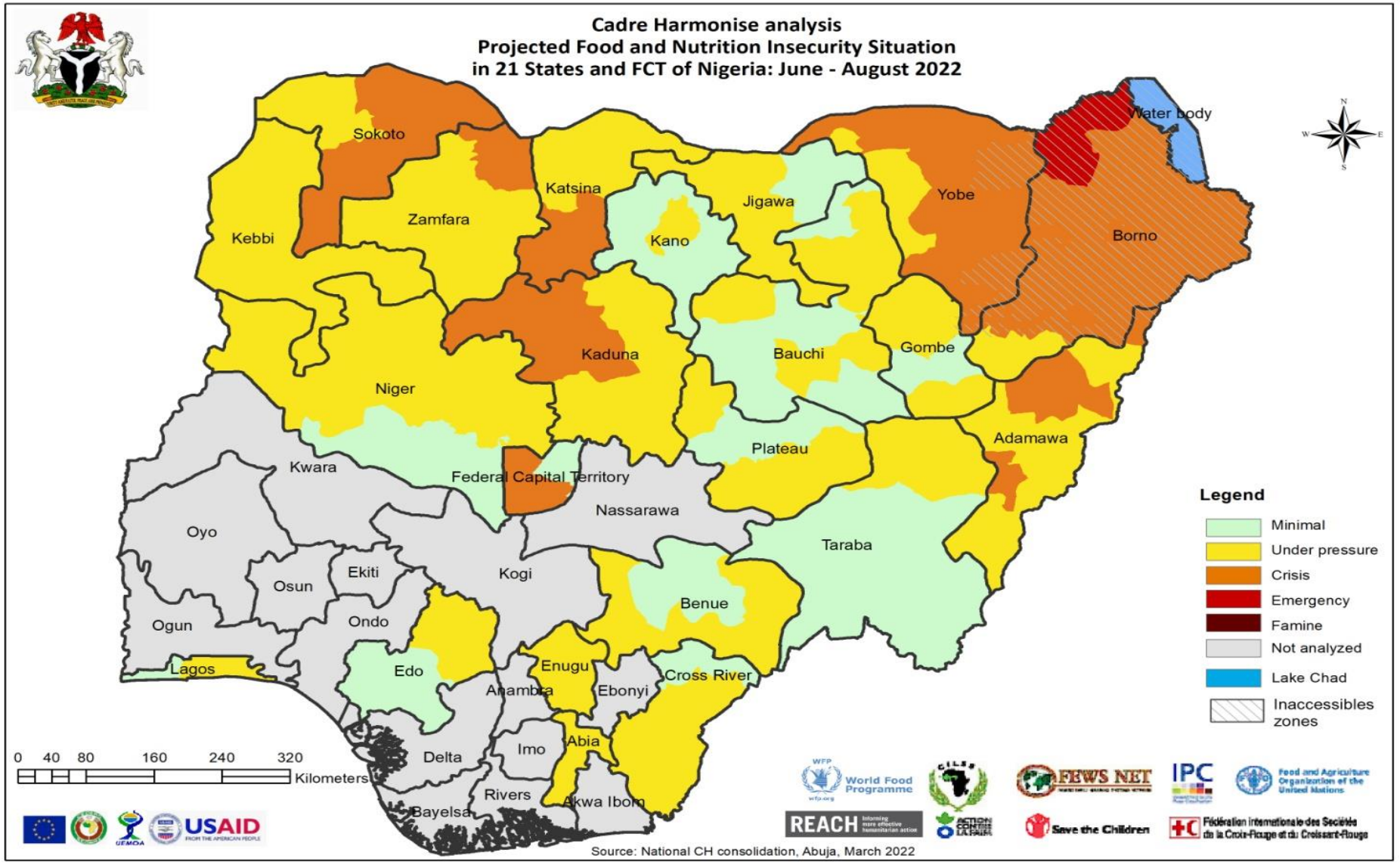
FOOD AND NUTRITION INSECURITY : CURRENT CONDITION (Source: ARMTI)

OVERALL 21 States and FCT

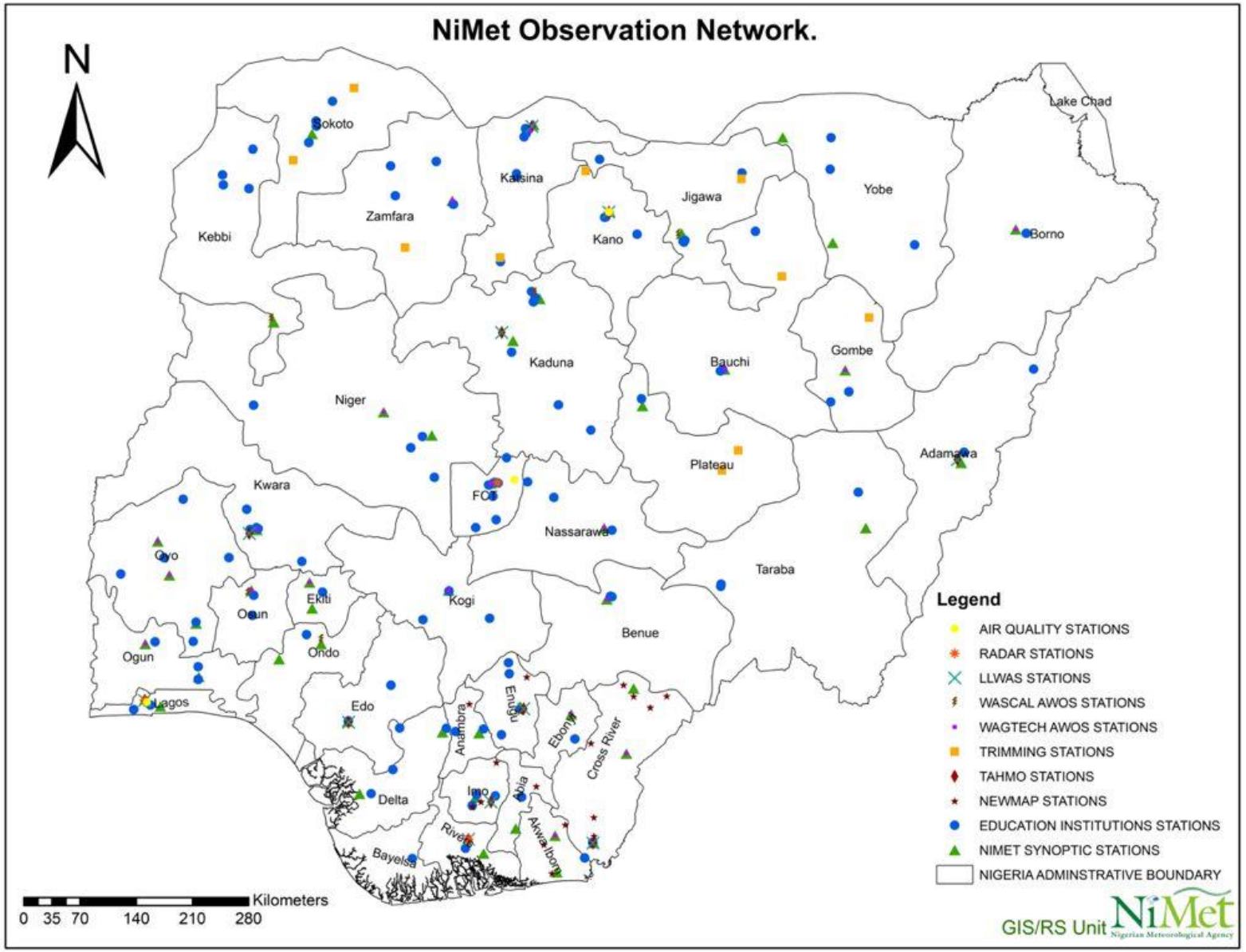


FOOD AND NUTRITION INSECURITY : PROJECTION (Source: ARMTI)

OVERALL 21 States and FCT



OUR NETWORK OF OBSERVING STATIONS: To monitor Nigerian Climate and Weather



OUR NETWORK OF OBSERVING STATIONS: To monitor Nigerian Climate and Weather

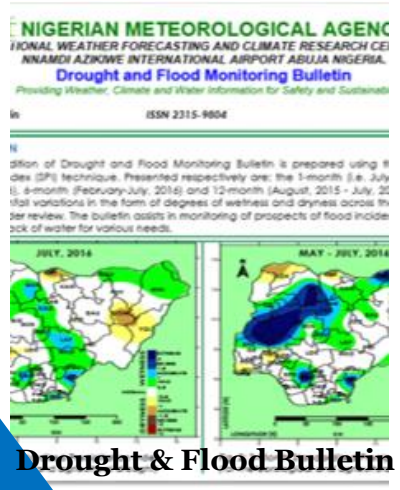
- **Climate Change:** Climate change and its year-to-year variabilities have been established with attendant impacts on almost every aspect of our socio-economic lives. Hence, the science of meteorology is no longer business as usual.
- **Technology Advancements**: Weather and climate monitoring has also evolved. Meteorological community have witnessed tremendous change in methods of observation and forecasting. Now we talk of digital barometer, digital anemometer, portable thermometers, portable pollutant analyzers, High Performance Computing Systems/Computers, Automatic Rain gauges, and Automatic Weather Observing stations among many others
- **Digital Solutions:** Aided by technology advancements, weather forecasting is no longer the same. With Super computers, global models now run within minutes rather than days. Observations are instantaneous and transmitted within seconds for further processing.
- **Adequate Skilled Work Force:** With the changing climate, technology advancements and digital ways of doing things, the human workforce require adequate training and skills. Every weatherman (observer and forecaster) is a product of investment in years of training and skill acquisition to deliver services round the clock and generate relevant products.

NiMet Products and Services as Early Warning Tools in Agriculture

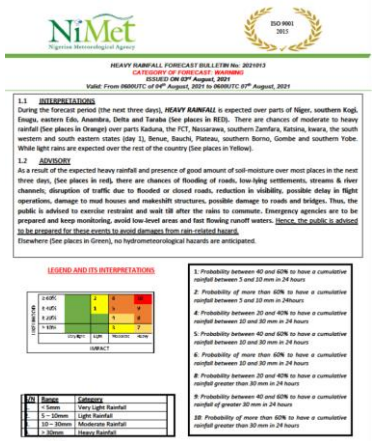
NIMET PRODUCTS AND SERVICES AS EARLY WARNING TOOLS IN AGRICULTURE

- **In NiMet,** we have moved from just generating forecasts to producing forecasts with implications.
- By this, we mean, **Impact-Based Early Warnings!!**
- Our clients and stakeholders are not only foretold but also forewarned of likely impacts of the predicted weather and climate events
- In agriculture, weather and climate information provides a smarter and wise way of executing our activities in order **to minimize risks and reduce losses**.
- Throughout the agricultural value-chain, weather and climate information is critical and we encourage our clients and stakeholders to embrace this, partner with us and **let's improve food security in our dear nation.**
- **In summary, NiMet Products and Services are Actionable!**

NiMet Products & Services towards effective Weather and Climate Services in Nigeria

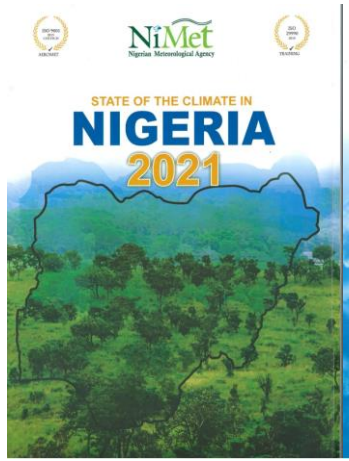


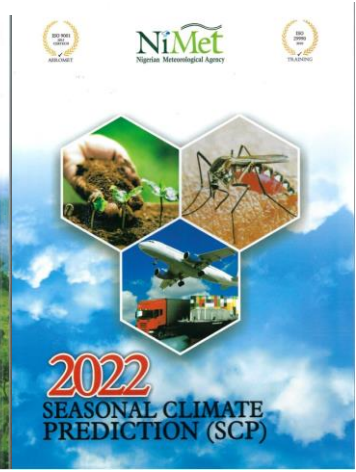
Drought & Flood Bulletin

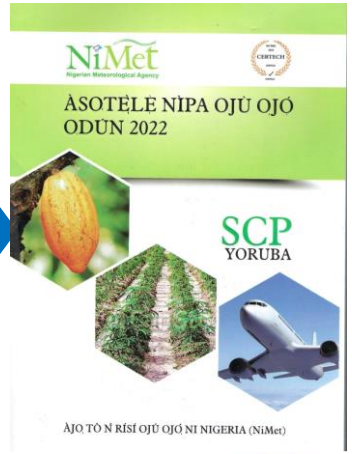


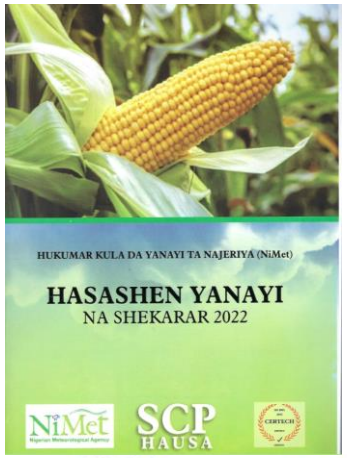
Heavy Rainfall Forecast

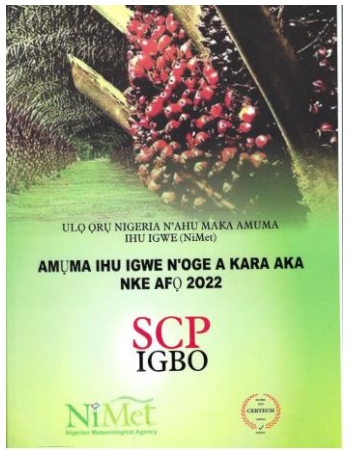
Impact-Based Forecast

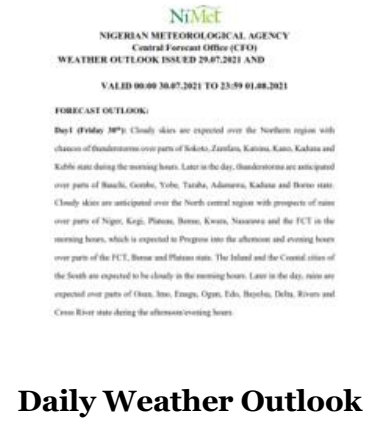




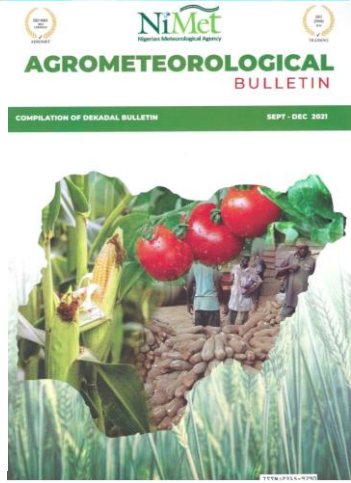


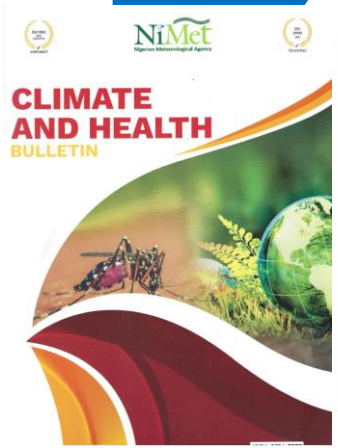


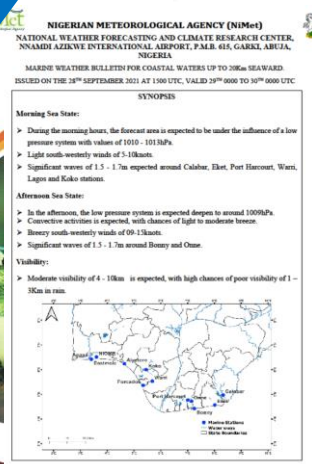




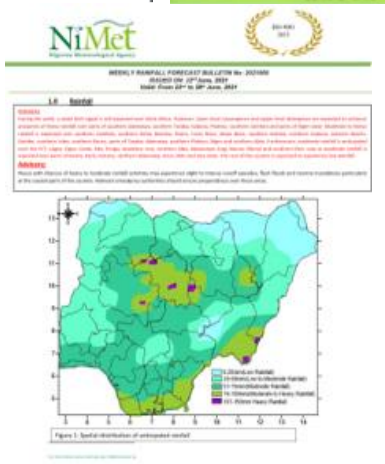
Daily Weather Outlook





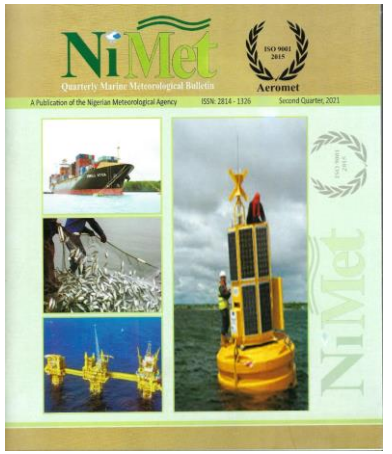


Marine Forecast

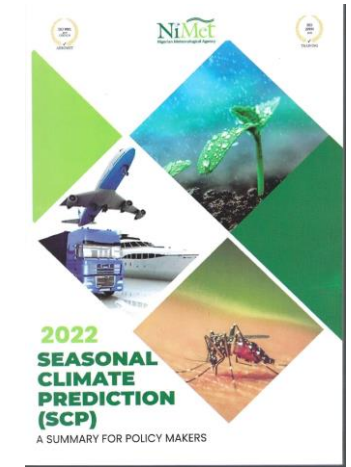


Weekly Rainfall Forecast

Daily Weather Bulletin



Marine Bulletin



Our PRODUCTS & Agriclutural developments

- SEASONAL CLIMATE PREDICTION (SCP)
- FARMERS GUIDE
- DROUGHT AND FLOOD MONITORING BULLETIN
- MARINE BULLETIN
- CROP-WEATHER- CALENDAR (CWC)
- IN-SEASON SCP UPDATES
- STATE DOWNSCALED SCP
- TAILORED/ON-DEMAND USER-FOCUSED PRODUCTS
- AGRICULTURAL BULLETINS RELEASED EVERY TEN DAYS
- ANNUAL STATE OF THE CLIMATE IN NIGERIA

SEASONAL CLIMATE PREDICTION (SCP):
TECHNOLOGY-POWERED ACTIONABLE PRODUCT

The Seasonal Climate Prediction (SCP) is being produced by NiMet in fulfilment of one of our core mandates:

.....***to monitor weather and climate in Nigeria and provide authoritative meteorological information for sustainable development and safety of life and property in the country.***

- Historical Climate Data
- Crop Information
- Basic Soil Information

Simple Crop Model

Crop Advice for Rural Farmers

COMPONENTS OF THE 2022 SCP

The predictions provide information about:

(i) Onset and cessation dates of rainy season;

(ii) Length of the rainy season;

(iii) Annual Total amount of rainfall;

(iv) Dry Spell Occurrence

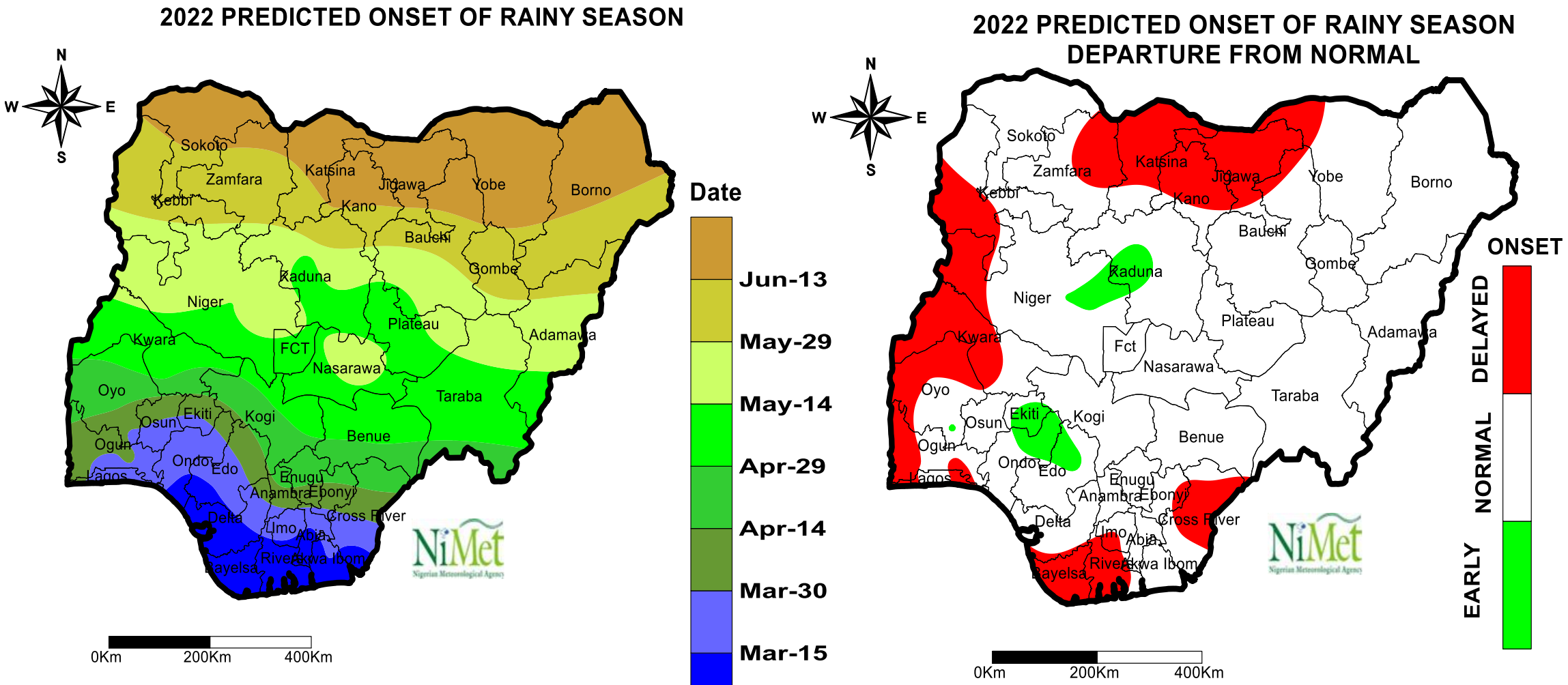
(v) Temperature (Day & Night) Forecast

(vi) Malaria Vigilance

(vii) Meningitis Vigilance

(viii) Socio-economic implications of the predictions

2022 PREDICTION
Onset of Rainy Season



2022 ONSET OF RAINY SEASON

- Earliest onset to occur on the 28th of February 2022 in and around the Coastal States of Bayelsa, Rivers and Akwa Ibom. The onset dates are expected to progress latitudinally with the ITD northwards oscillation as the year progresses.

- **Areas around the Central States are expected to have their onset between April and May.**

- Extreme Northern States expected to have their onset between June and July, with the northern fringes of Sokoto, Kebbi, Zamfara, Kano, Katsina, Jigawa, Yobe and Borno states **predicted to likely have onset of rains between 13th June and 4th of July 2022.**

- The 2022 Onset of rains is predicted to be normal in most parts of the country with parts of Ekiti, Ondo, Edo, Niger and Kaduna that **are likely to experience earlier than normal onset when compared to the long-term averages in these locations.**

- Zamfara, Katsina, Kano, Jigawa, parts of Kebbi, Niger, Kwara, Oyo, Ogun, Cross River, Bayelsa and Rivers States **are predicted to likely experience a delayed onset when compared to their long-term averages.**

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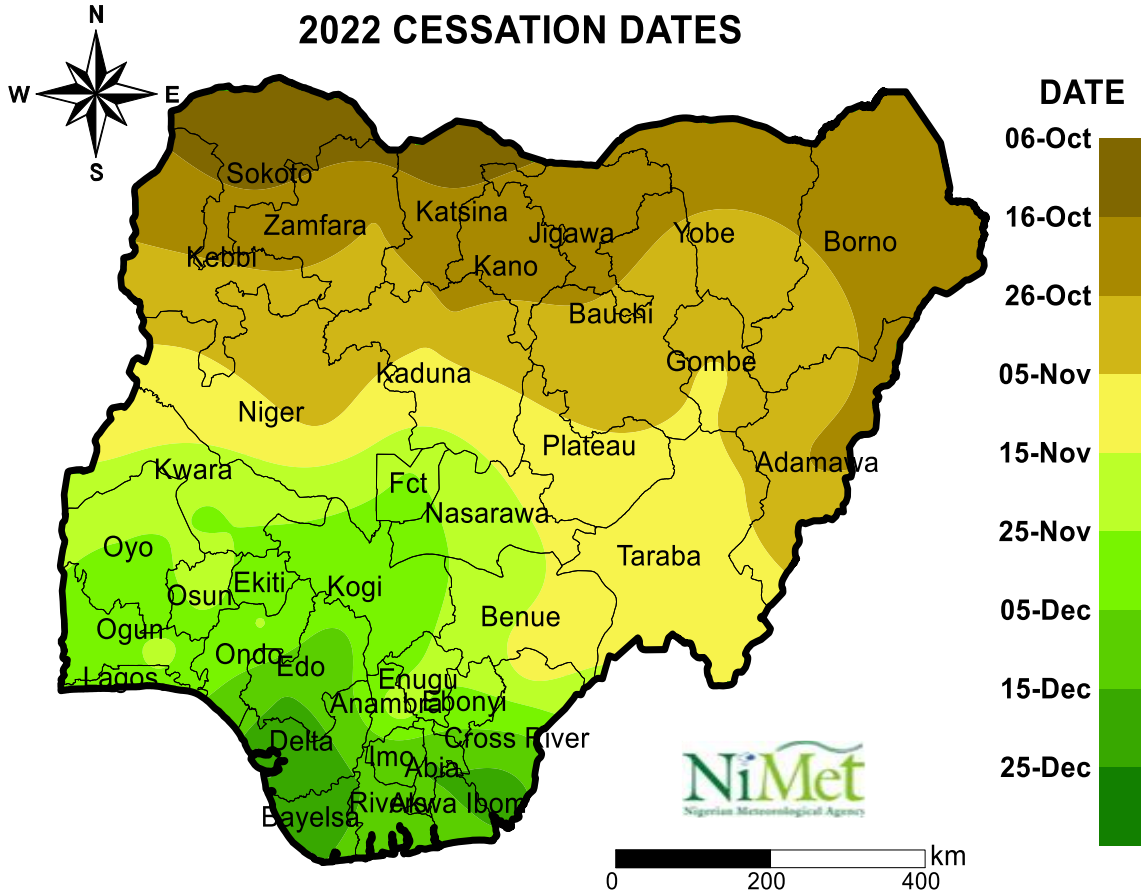
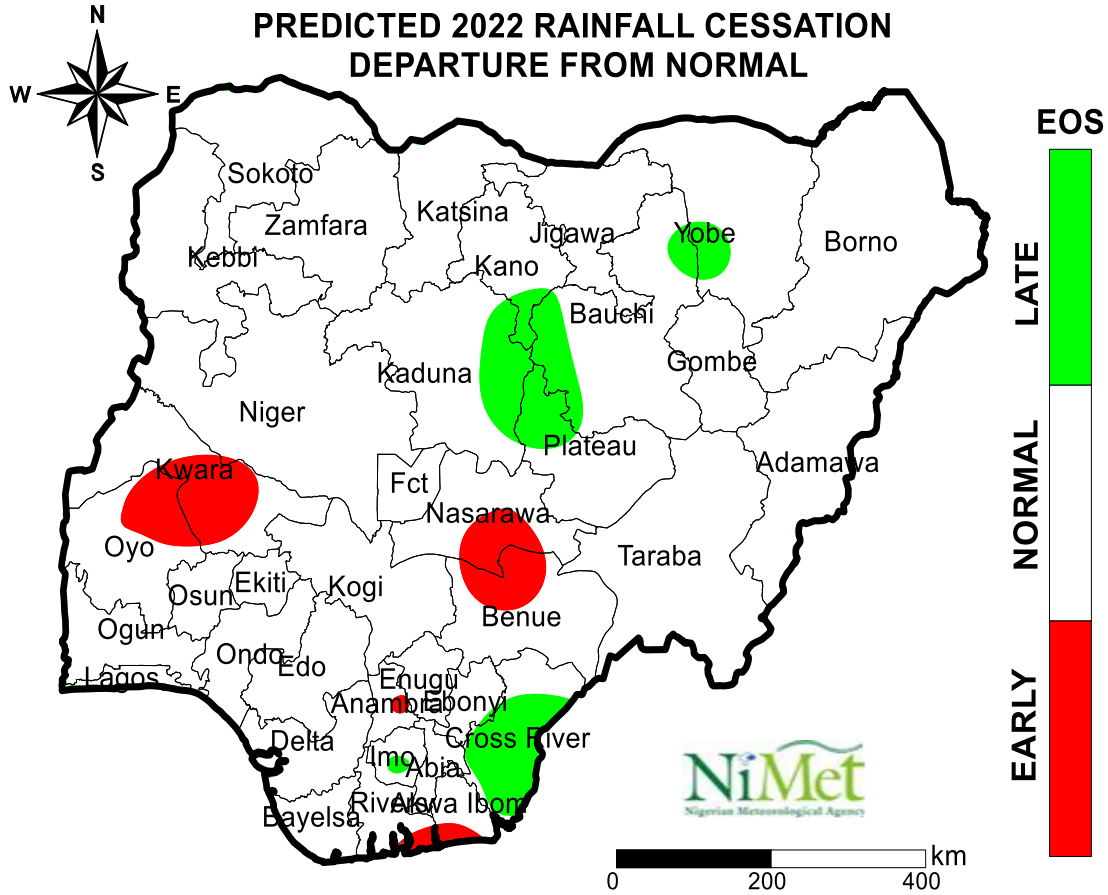
2022 PREDICTION
Cessation of Rainy Season





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2022 PREDICTION Cessation of Rainy Season

- **Rainfall cessation** is anticipated to begin in the **North**, from **early-October to mid-November** and gradually progress southward.

- In **Central States**, to begin **mid-November** and finally ceasing around **mid-December** in the **Southern most parts of the country**.

- Cessation dates predicted across most parts of Nigeria for 2022 is **near long-term average** conditions (normal). It is expected to be delayed over parts of Cross River, Imo in the South and parts of Plateau, Kaduna, Kano, Bauchi and Yobe in the north.

- **Areas of considerable concern are parts of Nasarawa, Benue, Kwara, Oyo and Anambra where cessation is predicted to occur earlier than the long-term averages.**

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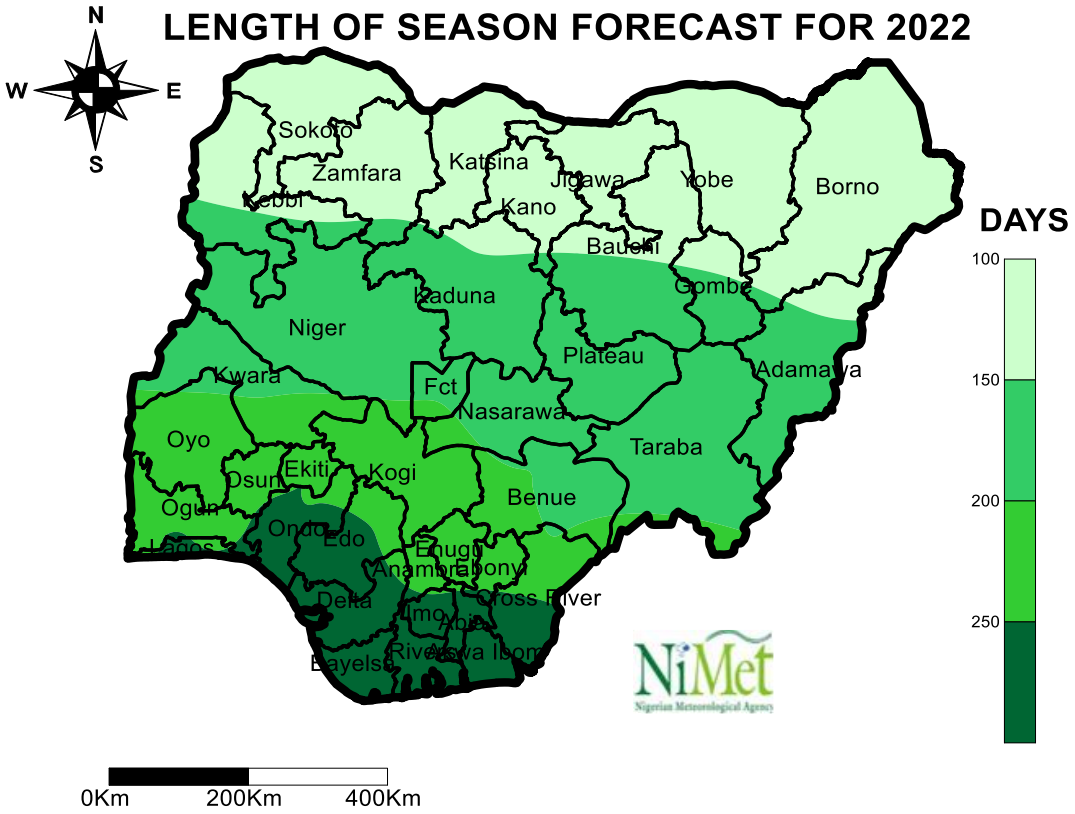
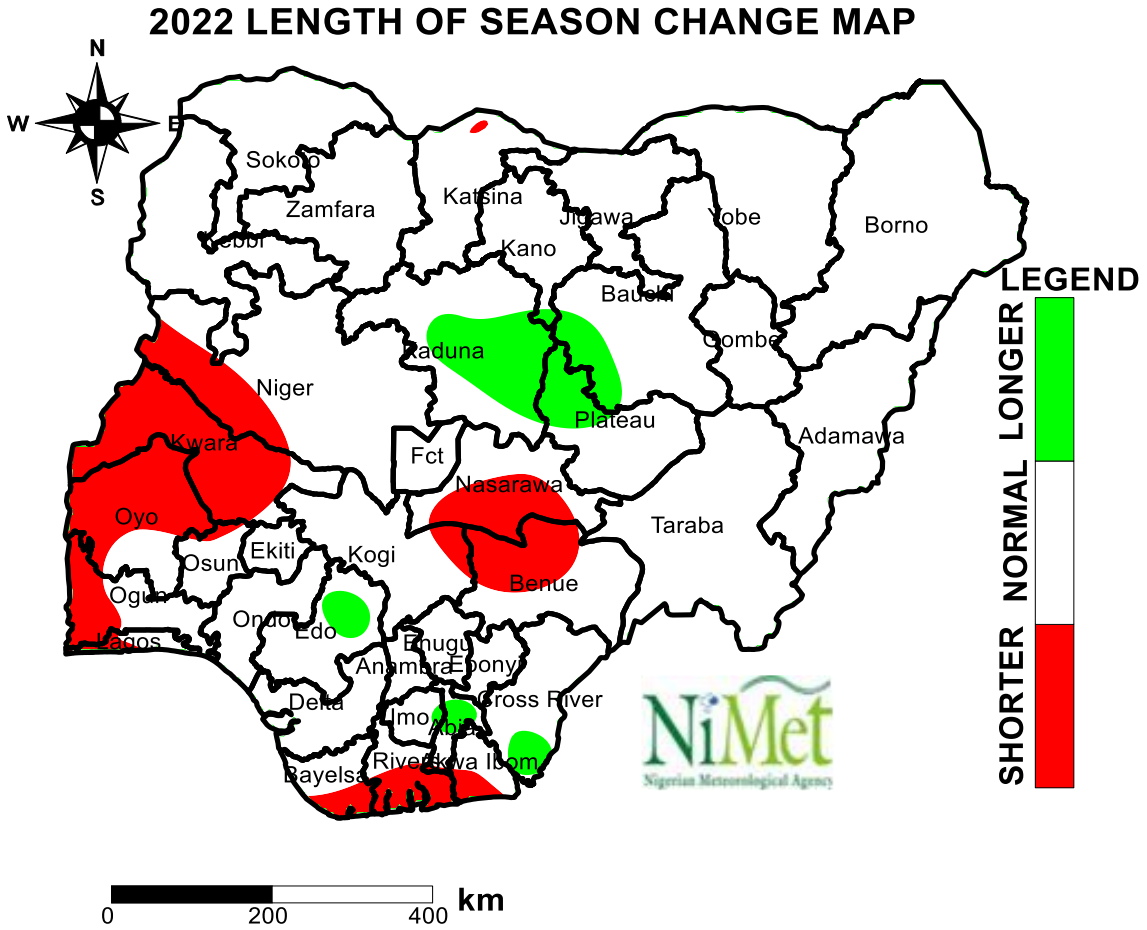
2022 PREDICTION
Length of Rainy Season





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2022 PREDICTION Length of Rainy Season

- The length of growing season usually increases Southwards from the North, For the Year 2022 in the Southern States, the length of season is likely to expand above 250 days but not more than 300 days.

- The Sahelian region is likely to have length of growing season between 90 to 200 days.

- **The predicted length of growing season shows a large area of the country is expected to have length of season similar to the long-term average** (normal), depicted by white shading in the map.

- **Some areas around the southwestern region of Kwara, Oyo, Lagos, Nasarawa, Benue, Bayelsa, and Rivers are likely to experience length of growing season shorter than the long-term averages for these areas**, (portions of the plot denoted in red).

- However, the areas in green (northern Plateau, southern Kaduna, Edo, Imo) will have longer length of season than the long-term average for these areas

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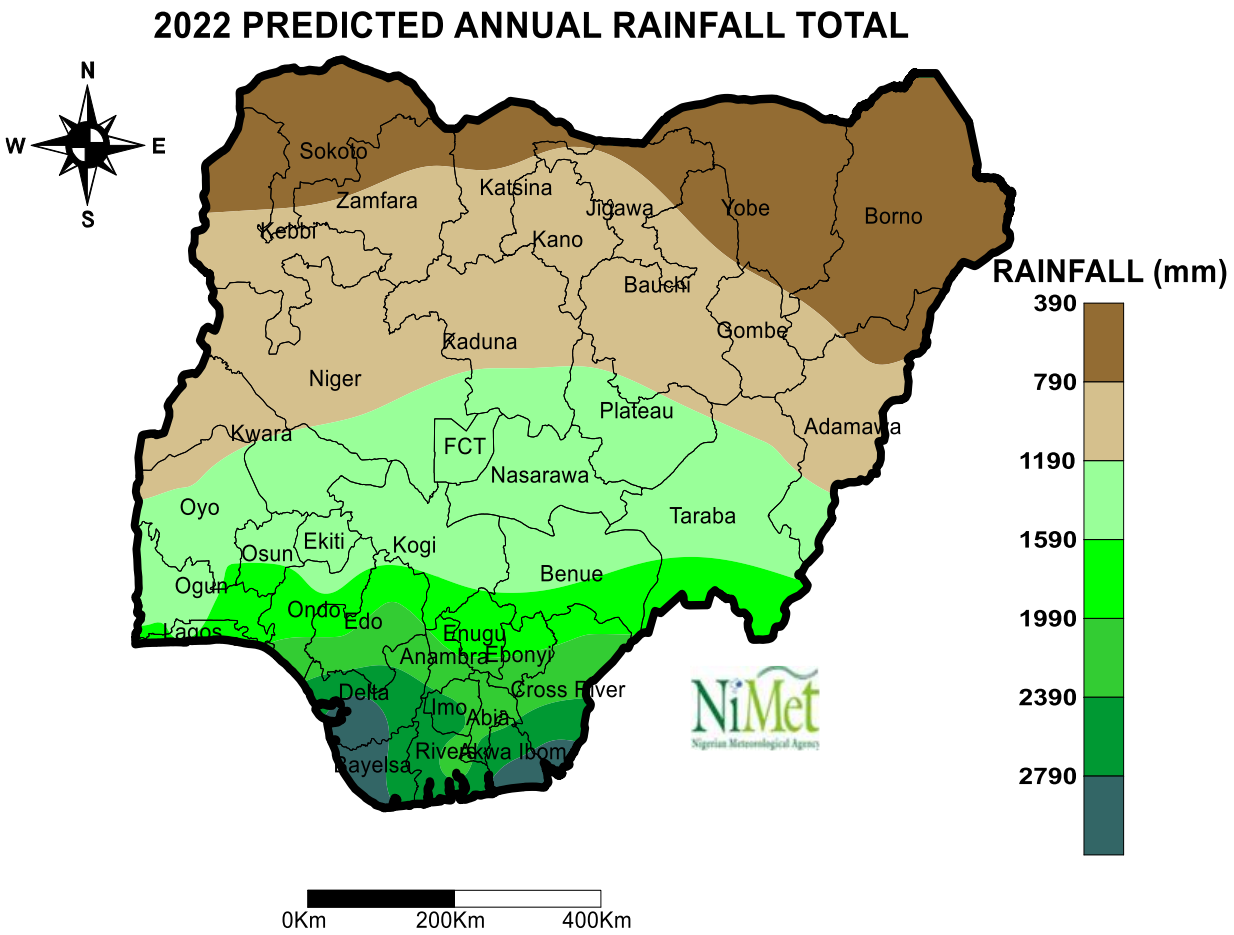
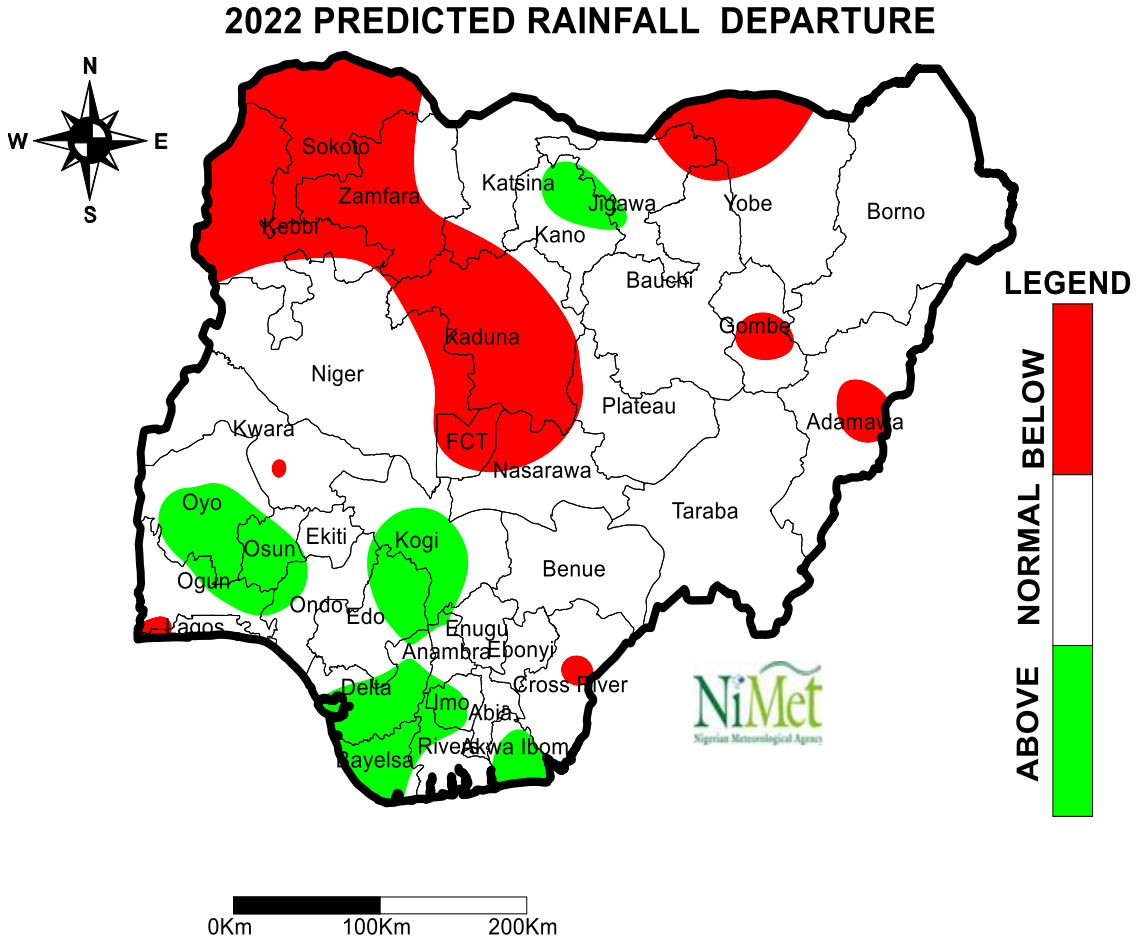
2022 PREDICTION
Rainfall Amount





2022 PREDICTION Rainfall Amount

- Predicted annual rainfall amount for the year 2022 is likely to range **from 390 mm in the far North to over 2790 mm in the Coastal States**.

- Rainfall amount ranging from **390 mm – 790 mm** is likely in some parts of Borno, Yobe, Jigawa, Katsina and Sokoto states.

- The Central States such as FCT, Nasarawa, Taraba, Kogi, Benue as well as Ekiti, Osun and Oyo are expected to have 1190 mm to 1590 mm. However, parts of Bayelsa, Akwa-Ibom, Delta, and Cross River states are predicted to have **annual rainfall amounts of 2700 mm and above**.

- As depicted in the departure map, rainfall amount close to the long-term average (normal) is predicted for most parts of the country, with exceptions to areas in and around Yobe, Sokoto, Zamfara, Gombe, Adamawa, Niger, Kebbi, Kaduna and FCT which **are predicted to experience rainfall amount below annual long-term rainfall average**.

- Areas around Katsina, Jigawa, Oyo, Ogun, Osun, Kogi, Delta, Imo, Bayelsa, parts of River and Akwa-ibom **are predicted to record rainfall amount above their annual long-term average**

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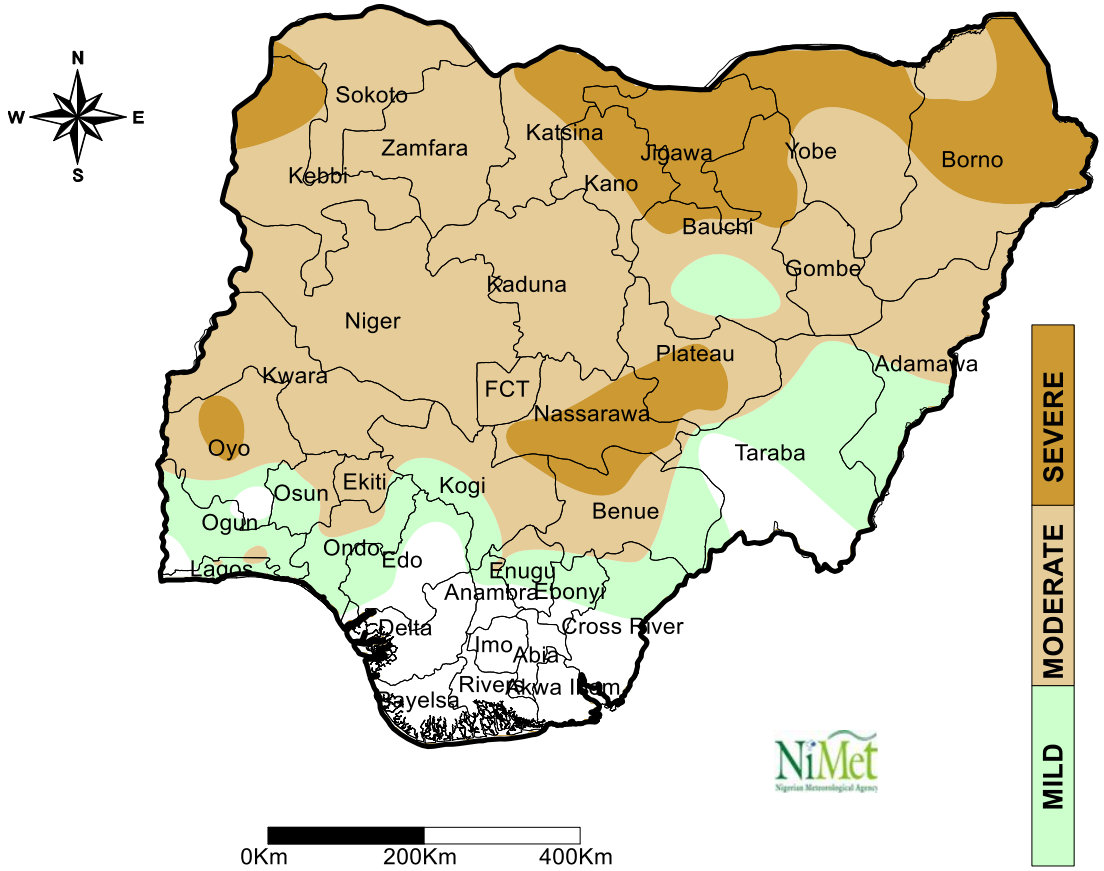
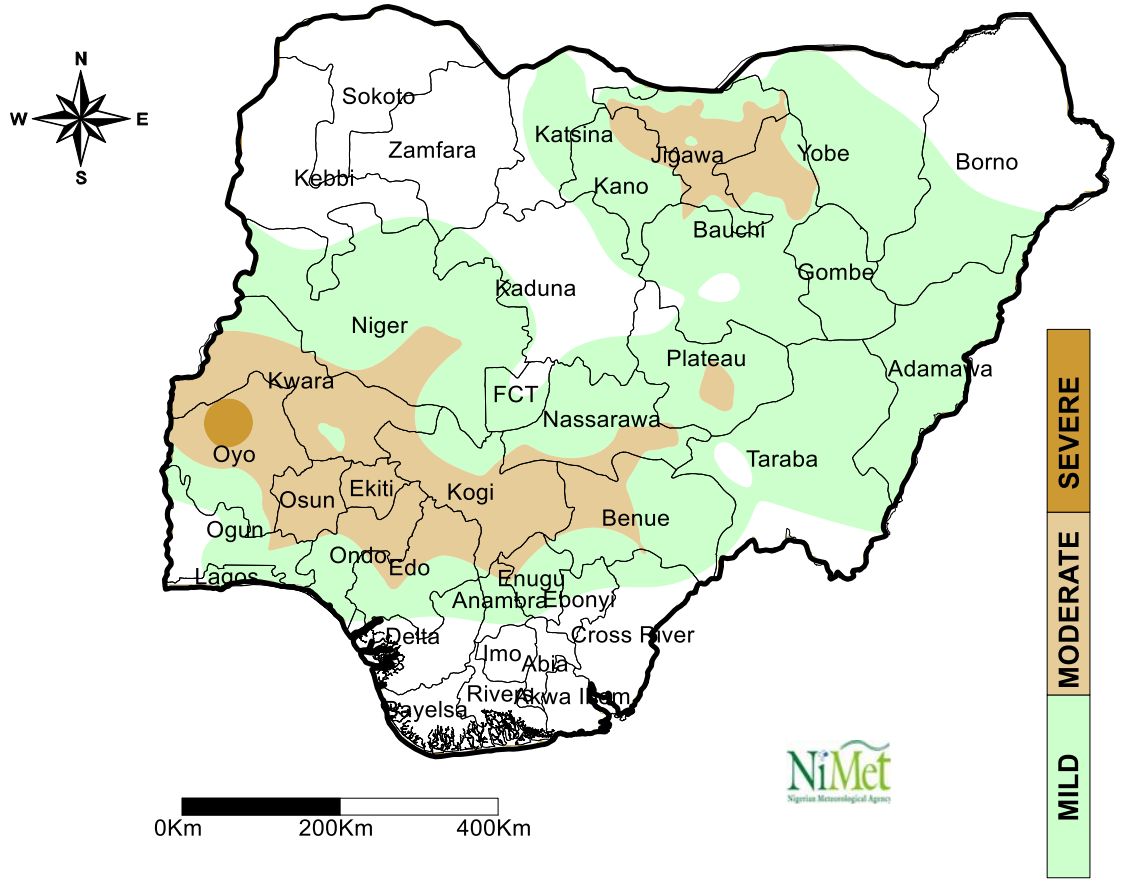
2022 Dry Spell PREDICTION

DRY SPELL FORECAST FOR MAY - JUNE 2022



DRY SPELL FORECAST FOR JULY- AUGUST 2022



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2022 PREDICTION: Dry Spell

- Predicted 2022 dry spell for the month of May into June indicates a mild dry spell of less than 8 days in Taraba, Nasarawa, parts of Oyo, Niger, Ekiti, Plateau, Ogun, Osun, Edo and Anambra states. Moderate dry spell that is likely to persist for up to 15 days is predicted over parts of Adamawa, Benue, Kogi, Ekiti, Kwara, Niger, FCT, Kaduna, Sokoto, Kebbi and Gombe.

- Severe dry spell is predicted over the following locations (**Arewa Dandi, Birnin Kebbi, Argungu, Augie) Kebbi, (Kaita, Mashi, Mai'Adua, Katsina, Dutsi, Daura, Baure, Zango) Katsina, (Gwiwa, Yankwashi, Gumel, Birniwa, Sule-Tankarkar, Guri, Kiri Kasama)Jigawa, (Machina, Nguru, Yusufari, Yunusari, Karasuwa, Barde, Jakusko, Geidam) Yobe, (Abadam, Mobbar, Kukawa, Guzamala, Gubio, Nganzai, Monguno) Borno, (Awe, Toto and Keana) Nasarawa, (Langtang South and Kanke) Plateau state** in the month of June that may persist for up to 20 days or more**.**

- Dry spell prediction for July to August 2022 shows a severe dry spell over Northern Oyo **(Saki, Iseyin, Orelope, Irepo, Atisbo, Iwajowa, Kajola, Ogbomosho).** A moderate dry spell is predicted over **Niger, Nasarawa, Gombe, Jigawa, Borno and the FCT and parts of Nasarawa, Kogi, Benue, Osun, O Ekiti and Kwara** state. Mild dry spell is predicted the areas in coloured green

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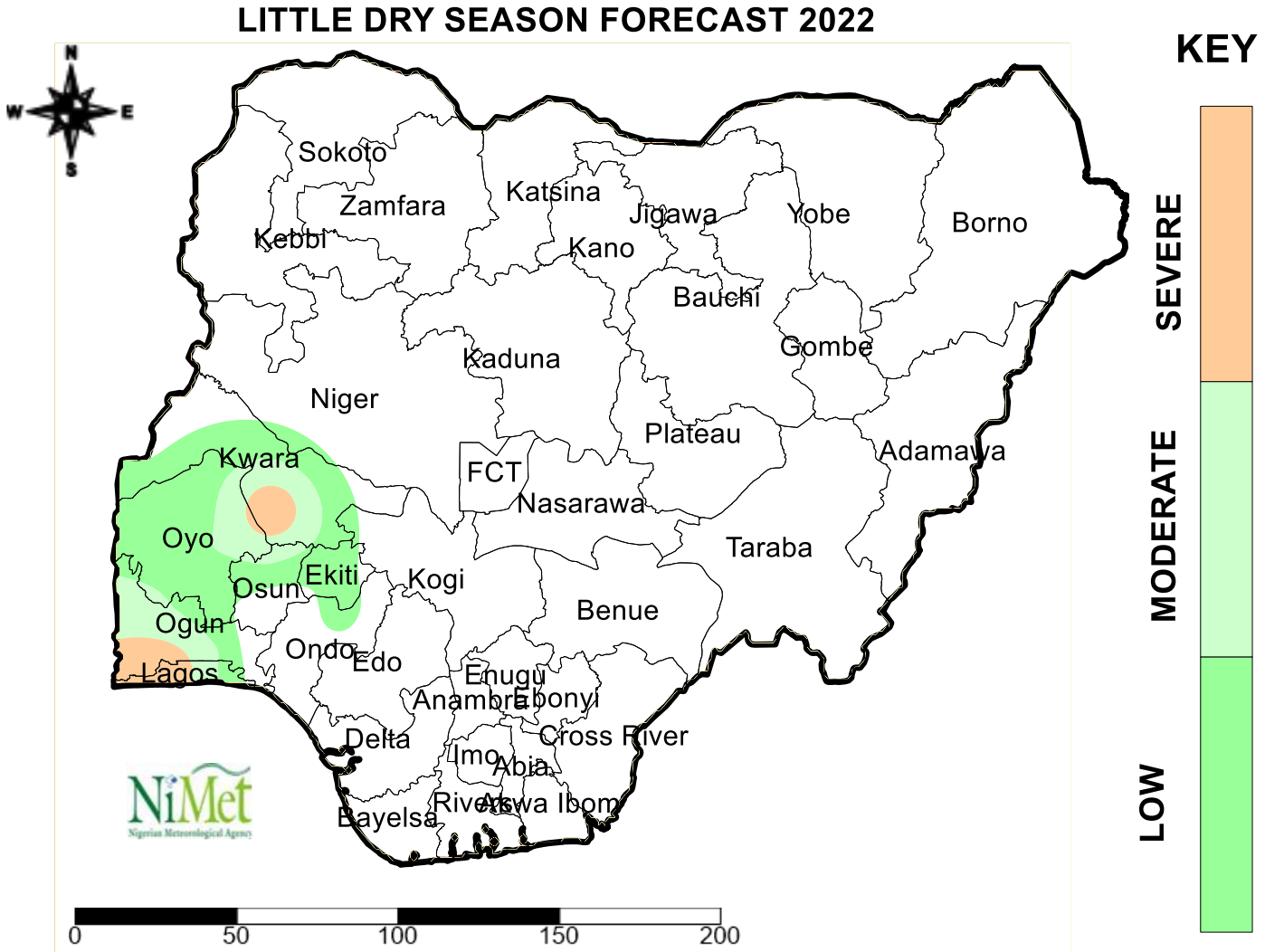
2022 PREDICTION: Little Dry Season (August Break)



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2022 PREDICTION: Little Dry Season (August Break)

- Signs of Little Dry Season (LDS) expected to surface around 27th July to 1st of August in year 2022.
- Locations in Lagos and Kwara States are likely to experience severe cases of LDS lasting about 25 days or more.
- Parts of Ogun, Oyo, Osun and Ekiti will experience low to moderate effect that may last between 14-20 days.

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2022 RAINFALL CHARACTERISTICS FOR AGRO-ECOLOGICAL ZONES IN NIGERIA

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AGRO ECOLOCICAL ZONES	PLACES COVERED	ONSET DATES	CESSATION DATES	LENGTH OF GROWING SEASON (DAYS)	SEASONAL RAINFALL AMOUNT (mm)
Coastal Swamp	Aba, Brass, Ikot-Abasi, Nembe, Oron, Warri, Eket, Otuoke, Patani, Sagbama, Yenagoa, Port Harcourt, Ughelli, Uyo, Calabar, Ekeremor, Degema, Badagry, Bakassi,	28 Feb – 21 Mar	5 Dec – 27 Dec	250 -300	1800 - 3000
Tropical Rain Forest	Abeokuta, Benin, Afikpo, Ekiti, Osogbo, Asaba, Owerri, Owo, Sango-Ota, Sagamu, Etsako, Ijebu, Ifedayo, Bekwarra, Ihiala, Arochukwu, liesha	15 Mar – 30 Apr	10 Nov – 10 Dec	225 - 270	1300 - 2200
Guinea Savannah	Abakiliki, Oturkpo, Agbani, Ezeagu, Saki, Ajaokuta, Ilorin, Awka, Minna, Bida, Ogoja, Makurdi, Jeba, Jos, FCT (Abuja), Ibi, Latia, Doma, Awe, Gwer, Wukari, Takum, Bassa, Mokwa	10 Apr – 25 May	1 Nov – 25 Nov	175 - 250	950 - 1950
Sudan Savannah	Ikara, Shani, soba, Madagali, Yauri, Bogoro, Biu, Gulani, Igabi, Birnin Gwari, Lere, Danja, Samna, Mubi, Yola, Bauchi, Akko, Dass, Shiroro, Zaria, Kaduna, Sabuwa	12 May – 15 June	10 Oct – 30 Oct	120 - 180	730 - 1100
Sahel Savannah	Bama, Nguru, Illela, Zaki, Sokoto, Maiduguri, Dutsi, Katsina, Gusau, Shinkafi, Daura, Argungu, Wamako, Rabah, Augie, Yusufari, Geidam, Babura, Mungono, Dutse, Matazu, Aleiro, Fika	05 June 10 July	28 Sept– 20 Oct	85 - 130	340 - 760

CROP-WEATHER CALENDAR

Crop – Weather Calendar is a tool that provides timely information about seeds to promote local crop production.

It contains information on best planting dates based on the SRP and harvesting periods of locally adapted crop varieties in specific agro-ecological zones.

It also provides information such as sowing rates of seed, stages of crop development and planting material in the region or state

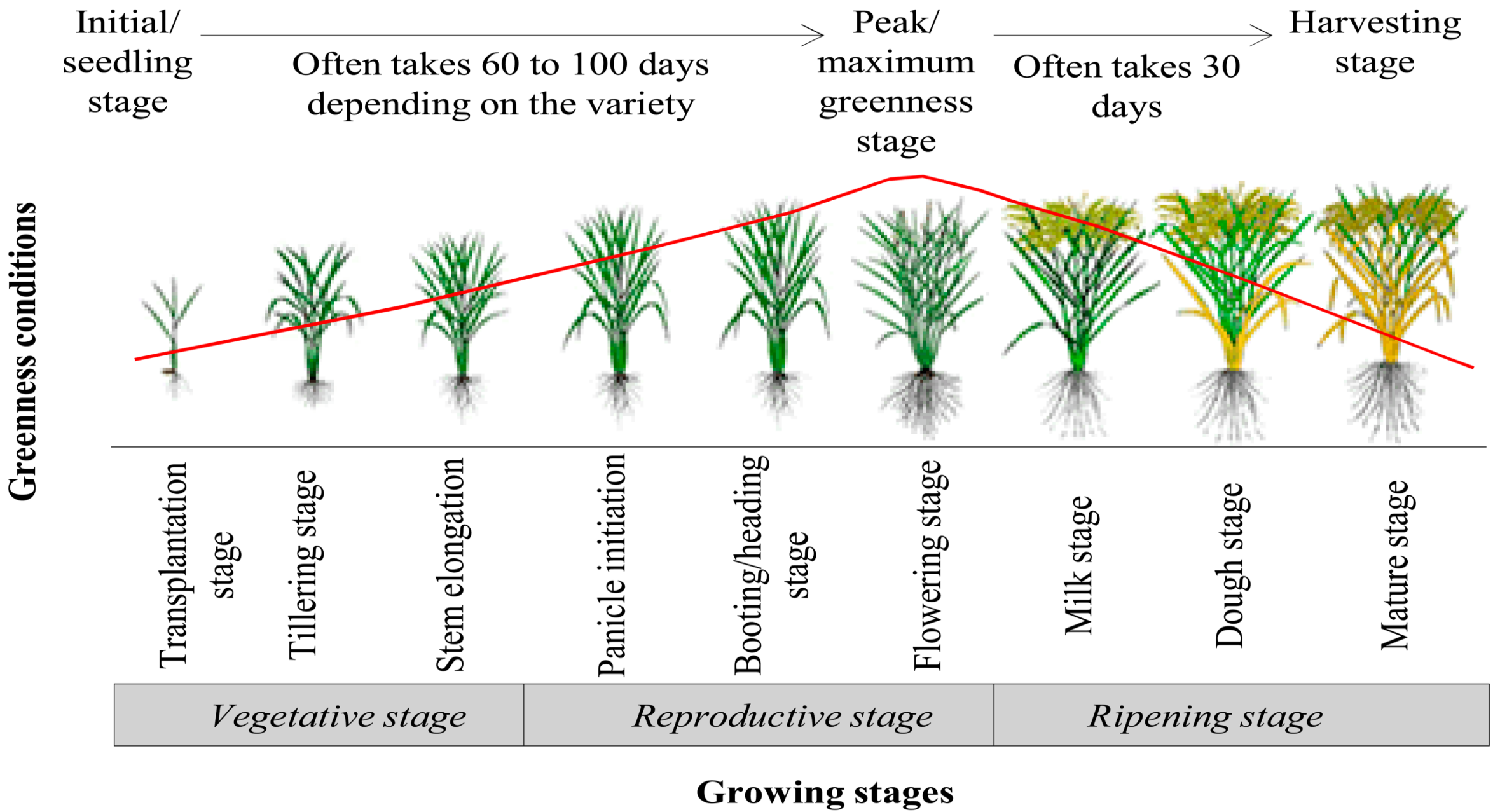
This tool supports farmers in taking appropriate decisions on crops and their sowing period, taking note of the agro-ecological dimension. It also provides a solid base for emergency planning of the rehabilitation of farming systems after disasters

2022 CROP-WEATHER CALENDAR FOR FCT-MAIZE

Abaji, AMAC, Bwari, Gwagwalada, Kuje, Kwali				
MAIZE				
Maize Variety	**Medium Maturing (SAMAZ 37, Oba Super 6)**	**Medium Maturing (Oba Super 11, SAMAZ 39)**	**Late Maturing (Oba Super 98, SAMAZ 50)**	**Early Maturing (Ife-Hybrid 6, SAMAZ 42)**
Salient Features	**Tolerant to striga harmonthica OPV Synthetic (yellow)**	**Drought tolerant, Striga tolerant, tolerant to MSV and high grain flour High yield potential.**	**Quality Protein maize, high grain flour and good stay green. Tolerant to most maize diseases**	**Extra-early maturing, high grain yield. Striga resistant. Tolerant to drought and low soil nitrogen.**
Potential Yield (tons/Ha.)	**5.9**	**7-9 tons/ha**	**6-8 tons/ha**	**5 -7 tons/ha**
Life Cycle	**115 days**	**110days**	**120days**	**90days**
Planting window	25-May to 15-Jul	25-May to 15-Jul	25-May to 15-Jul	25-May to 30-Jul
Onset/Planting	**25-May**	**15-Jun**	**15-Jun**	**25-Jul**
Establishment	**14-Jun**	**05-Jul**	**05-Jul**	**14-Aug**
Vegetative	**14-Jul**	**04-Aug**	**04-Aug**	**03-Sep**
Flowering	**03-Aug**	**24-Aug**	**24-Aug**	**13-Sep**
Grain Filling	**02-Sep**	**23-Sep**	**28-Sep**	**28-Sep**
Harvesting	**12-Sep**	**03-Oct**	**13-Oct**	**13-Oct**

Activity	Period	Remark
Land Preparation	First week of April to Second week of May	
Planting Window	25th May to 30th July	
1ST Weeding	30th May to 5th August	Depending on Planting date
1st Fertilizer Application	10th June to 15th August	Pay attention to daily forecast to avoid days with high intensity rainfall
2nd Weeding	25th June to 15th August	
2nd Fertilizer Application	27th July to 21th August	Pay attention to daily forecast to avoid days with high intensity rainfall
Harvesting	From 28th September	Depending on Planting date

2022 CROP-WEATHER CALENDAR FOR FCT - RICE



Federal Capital Territory Crop Weather Calendar Based on the 2022 SCP

Abaji and Kwali

Characteristics	FARO 44	FARO 52 (WITA 4)
Adaptation	Ideal for Lowlands and can be cropped also on upland.	Forest Transition/Derived Savanna Rainfed lowland
Tillering capacity	High	Medium
Plant Height (cm)	110 – 120	115 - 120
Maturity	Early	Medium
Days to maturity	95 - 100	120 - 130
Disease reaction	Resistant to Blast	
Husk color at maturity	Straw	Straw
Yield potential (Ton/Ha)	4--8	5------7
Grain Type	Long grain	Long grain
Outstanding characteristics	Long grain and optimum production under low management Non shattering	High yielding, tolerant to iron toxicity and drought.
Planting Window	20-Jun to 25-Jul	20-Jun to 25-Jul
Onset	22-Jun	25-Jun
Vegetative	31-Aug	03-Sep
Flowering	10-Sep	13-Sep
Reproduction / Ripening	30-Sep	08-Oct
Harvest	20-Oct	07-Nov

2022 CROP-WEATHER CALENDAR FOR FCT - SOYABEAN

Soyabean	
Variety	**TGX 1448-2E**
Salient features	**Medium maturing, high yield, low shattering and excellent grain color.**
Seed Rate (kg/Ha)	**50 – 60kg/ha**
	90 - 120
Potential yield (T/Ha.)	**2.5**
Planting Window	**30-Jun to 30-Jul**
Onset/Planting	**30-Jun**
Vegetative	**30-Jul**
Flowering	**18-Sep**
Harvesting	**18-Oct**

2022 CROP-WEATHER CALENDAR FOR FCT - CASSAVA

TME 419

I

GROWTH STAGE I
Sprout development

Sprouts develop from eyes on seed tubers and grow upward to emerge from the soil

Roots begin to develop at the base of emerging sprouts

II

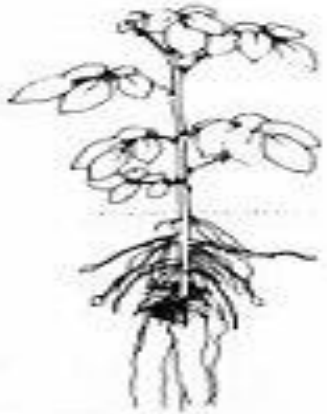
GROWTH STAGE II
Vegetative growth

Leaves and branch stems develop from aboveground nodes along emerged sprouts

Roots and stolons develop at below-ground nodes

Photosynthesis begins

III

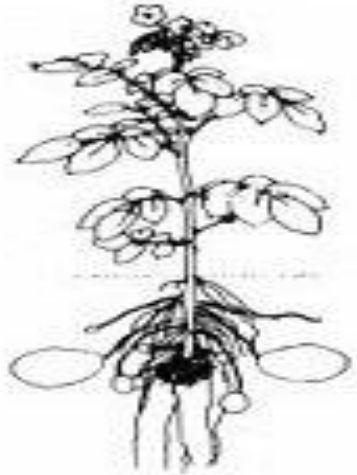


GROWTH STAGE III
Tuber initiation

Tubers form at stolon tips but are not yet appreciably enlarging

In most cultivars the end of this stage coincides with early flowering

IV

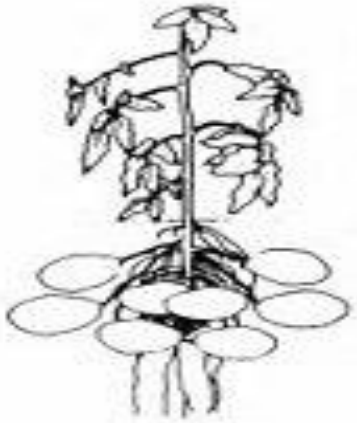


GROWTH STAGE IV
Tuber bulking

Tuber cells expand with the accumulation of water, nutrients, and carbohydrates

Tubers become the dominant site for deposition of carbohydrates and mobile inorganic nutrients

V



GROWTH STAGE V
Maturation

Vines turn yellow and lose leaves, photosynthesis decreases, tuber growth slows, and vines eventually die

Tuber dry matter content reaches a maximum, and tuber skins set

Climate and Cassava

- Land Preparation before Onset
- Adaptation is wide except for few species that are only adapted to the rain forest and some the savannah
- Optimum temperature is between 21 – 32^{o}C
- Requires about 800 – 2000mm rainfall
- Dry season pest: Green spider Mite, termites
- Cassava can be harvested all year round depending on the planting date
- Avoid flood plain as a control for diseases such as root rot .

When harvest

- During raining season, sunshine and temperature are low for processing and drying in humid areas
- Dry matter content is usually lower in the raining season than in the dry season thus difference in seasonal yield difference
- Cassava products are highly hygroscopic (absorbs moisture from the atmosphere easily) and thus should be packed in airtight moisture proof bags to prevent spoilage due to mold growth

PARTNERSHIPS FOR PRODUCT DISSEMINATION

THE FORECAST IS PERISHABLE, WHAT DO WE DO?

THE NEXUS WITH AGRIC EXTENSION SERVICES

"...Make sure farmers have access to the **resources** they need, such as seeds, feeds, fingerlings, day old chick and fertilizer, + [**** ?] by enhancing **agricultural extension services** and Research Institutes

**** = [timely weather and climate information]

Weather and Climate advisories are vital all throughout the value chain.

We also collaborate with,

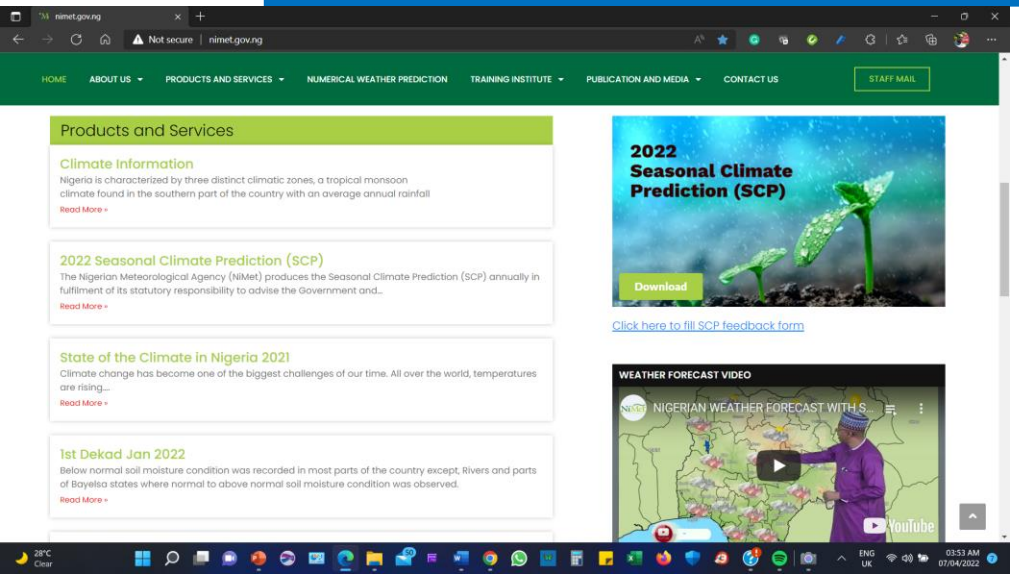
- NGOs
- MDAs
- State Governments
- Media
- Farmer Groups

HOWEVER,

WE CAN DO MORE WITH,

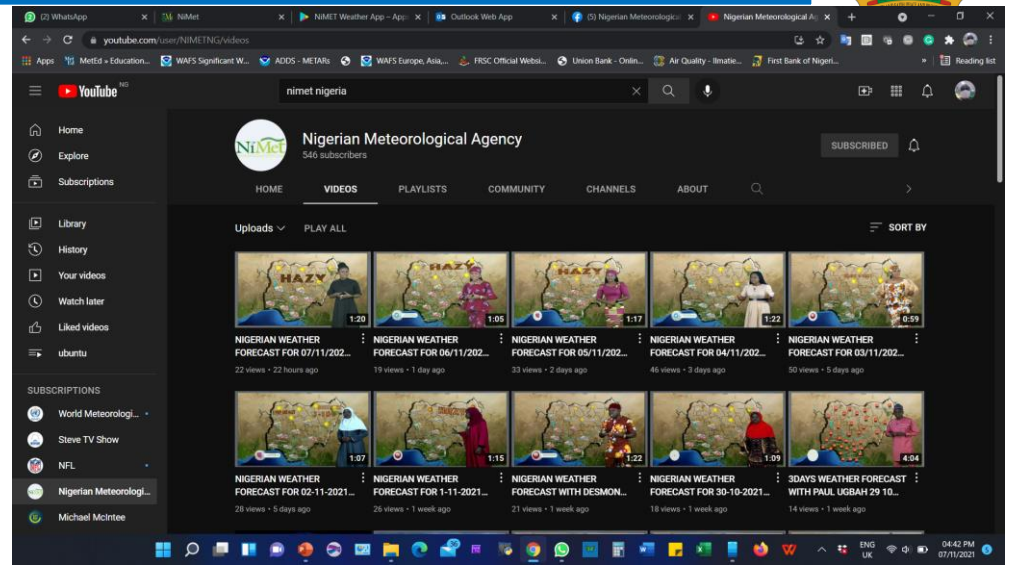
- MobileMet with effective partnerships with operators in the telecommunication Industry
- All State Governments through the downscaling of the Forecast (location and crop specific meteorological information)
- ADPs
- Pamphlets / Leaflets in local languages with the help of Agricultural Extension Workers
- National and Local Media

NiMet Social Media Presence: Essential in info dissemination



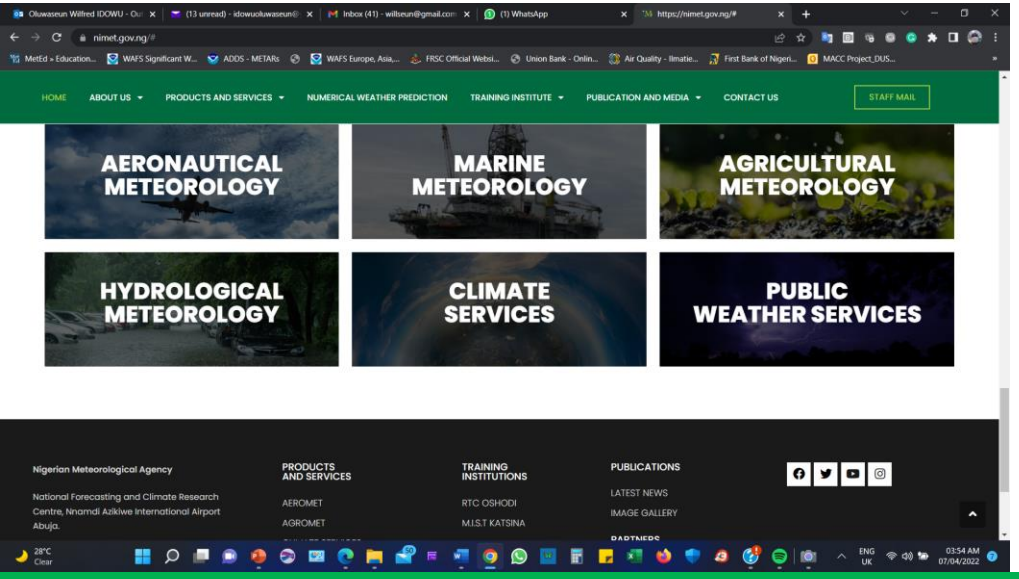
NiMet website: www.nimet.gov.ng

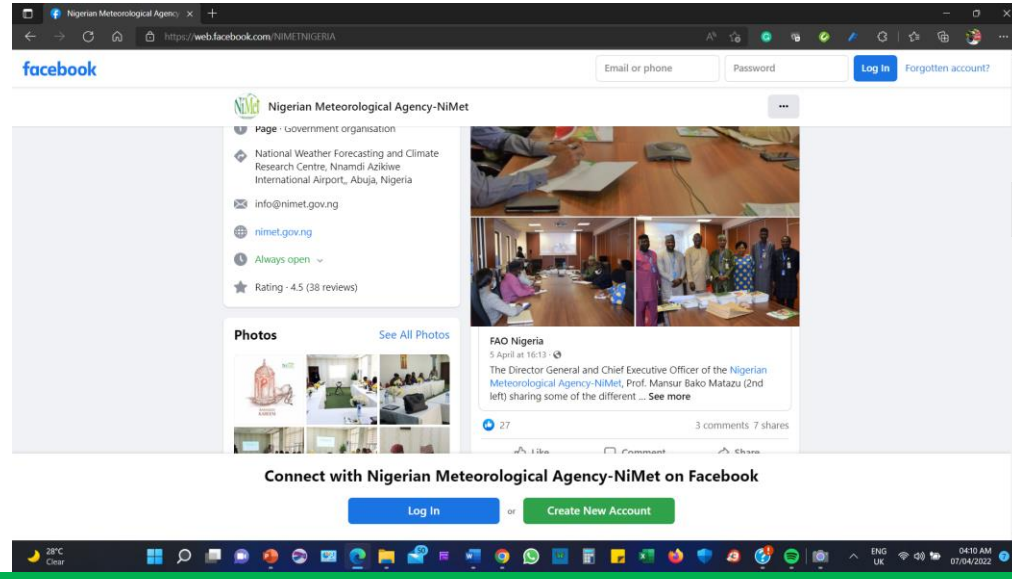
Instagram: officialnimetng



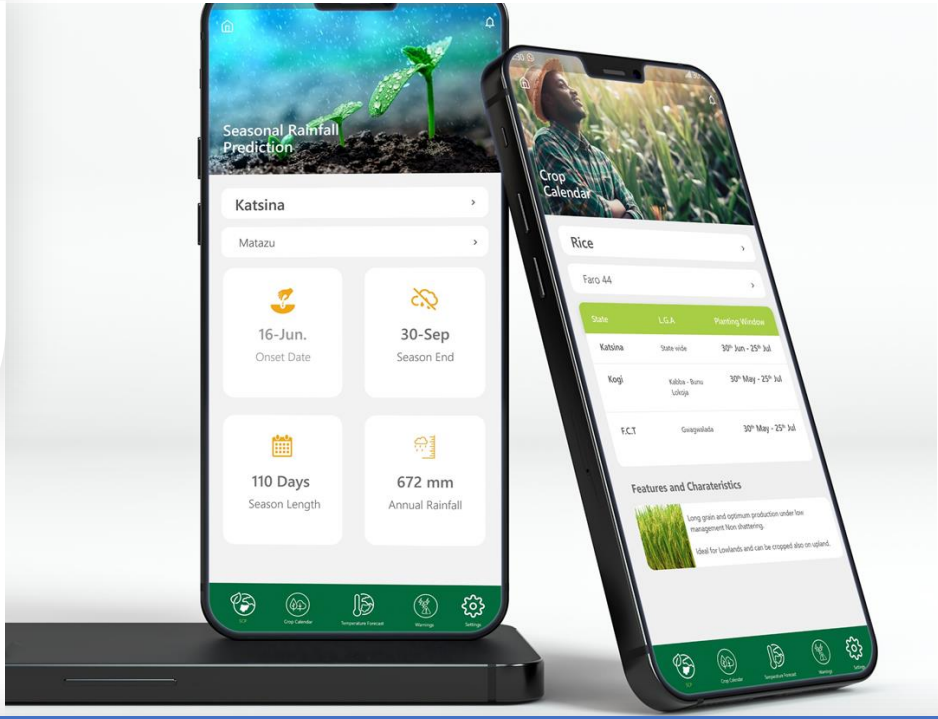
https://www.youtube.com/user/NIMETNG

https://www.facebook.com/NIMETNIGERIA



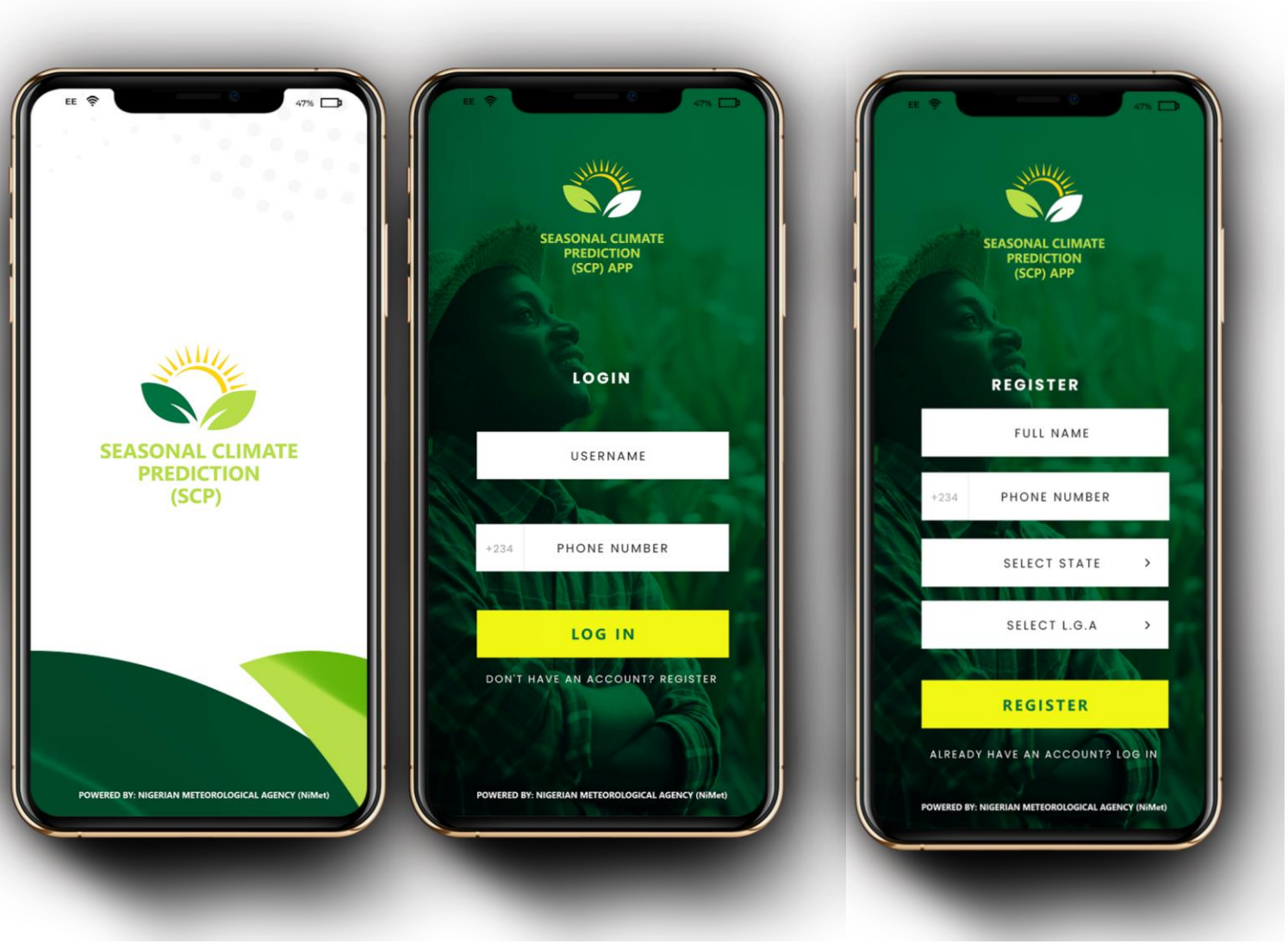


NiMet
Nigerian Meteorological Agency



NEW SEASONAL CLIMATE PREDICTION (SCP) MOBILE APP

- The New NiMet SCP App as the name implies displays the Seasonal Climate Prediction data and information in the easiest form to understand.
- With our new SCP App you'll be able to get instant information about Onset Dates, Cessation Dates, Specific Crop Calendar, Seasonal Rainfall Amount and lots more.
- This implies that it is easy to use, it has a fresh design and user-friendly



SPLASH AND LOGIN

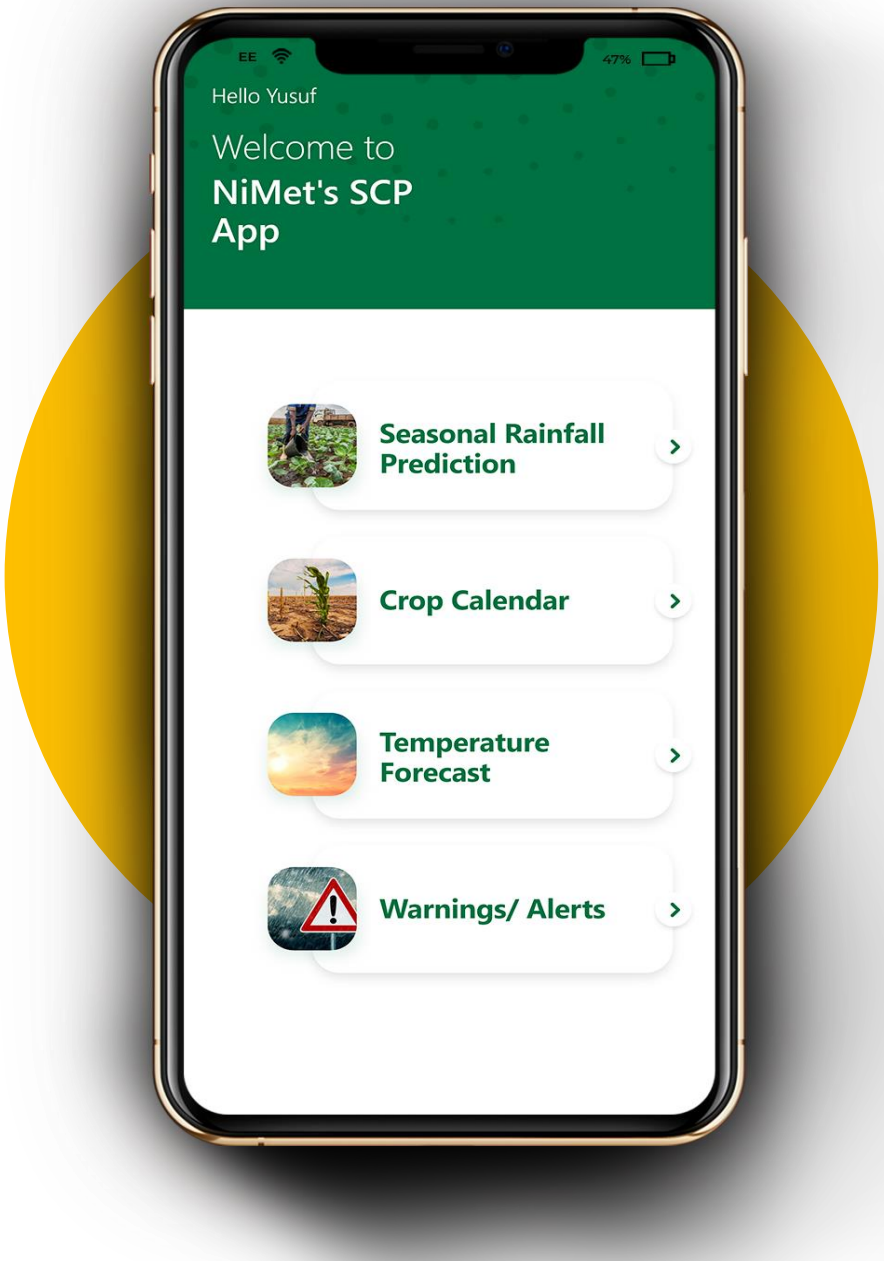
- After installing the App, as a first-time user, you will be required to register.
- This is important so that you will be able to get vital notifications about your region or location.
- After registration you remain logged in until you decide to log out

Home Page

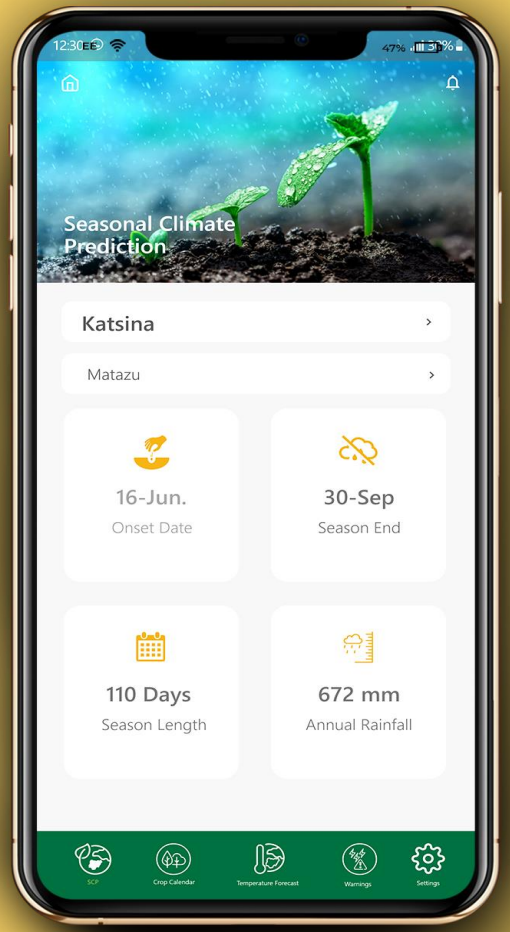
- The Home page helps you properly navigate to your desired page on the App, with just a click

- The various pages on the App are;
  - The Seasonal Climate Prediction
  - Crop Calendar
  - Temperature Forecast and
  - Warnings and Alerts

- Let's explore this pages individually



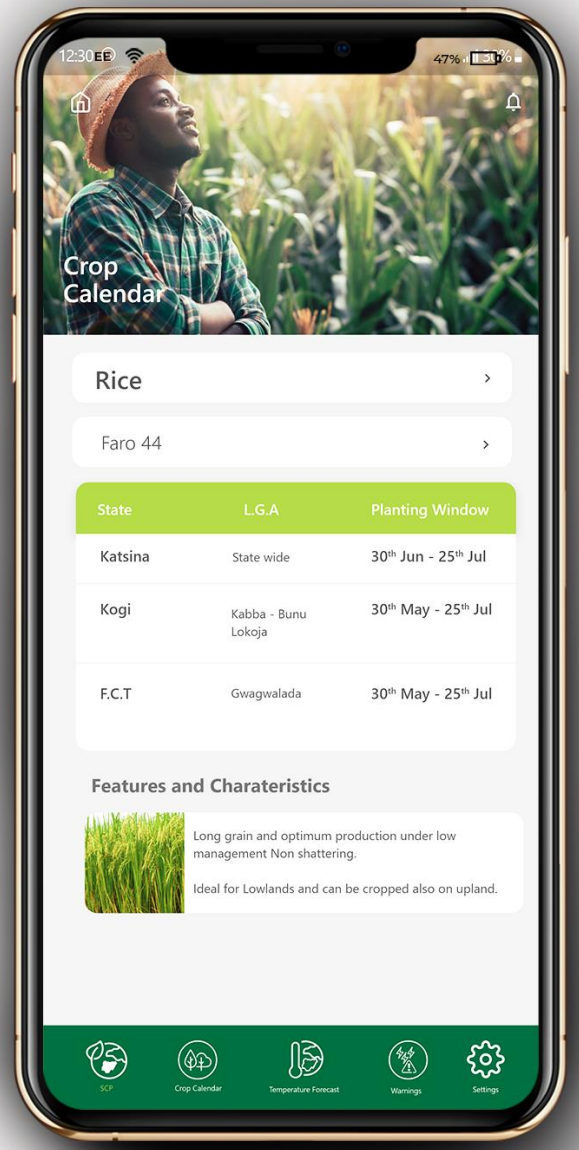
SCP PAGE



- The SCP Page houses information such as Onset Date, Season End, Season Length and Annual Rainfall.

- Desired States can be selected by clicking the State menu and Selecting a state from the list.

- LGA should be selected as well, information for that region will be displayed below as seen on the image.



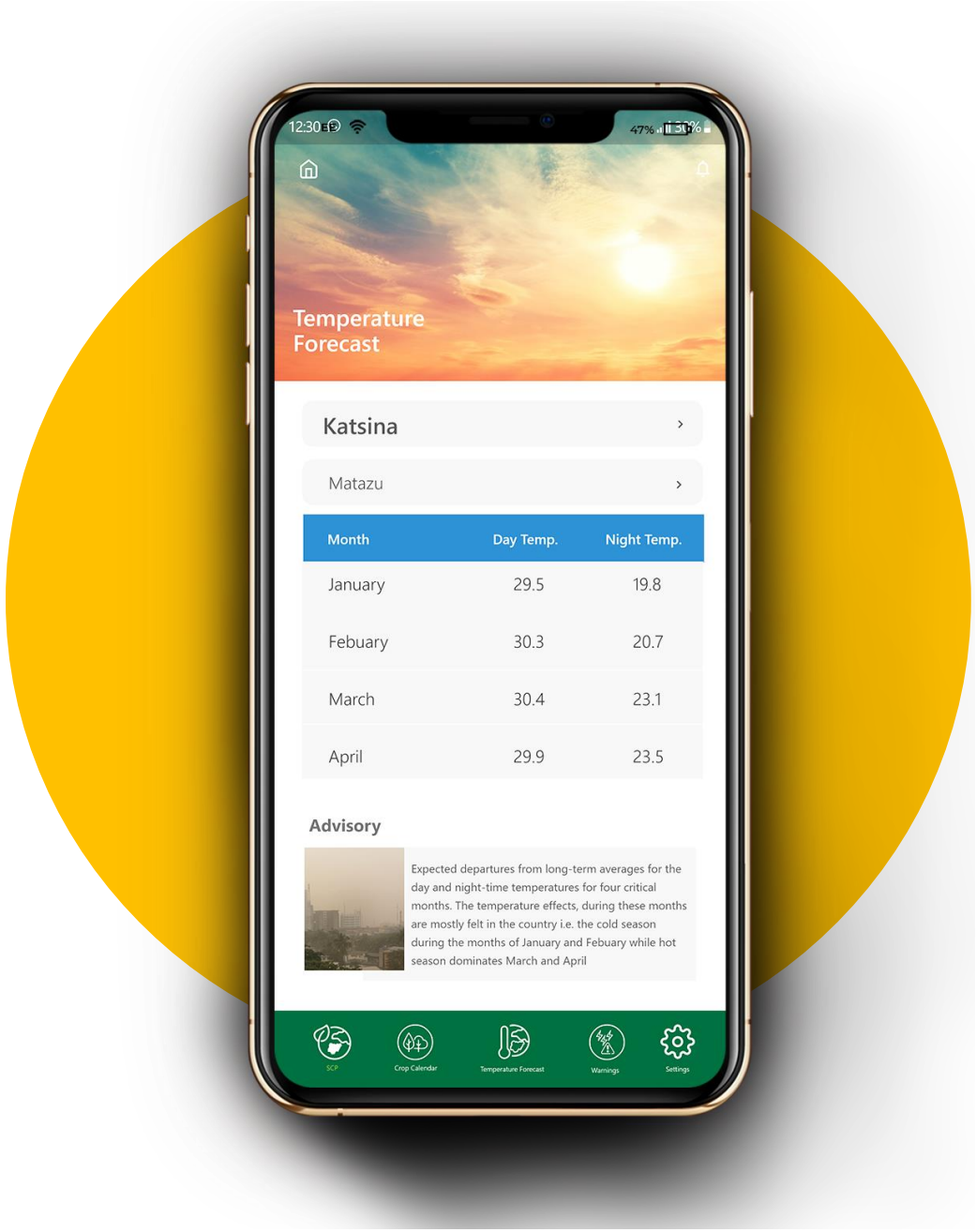
Crop Calendar

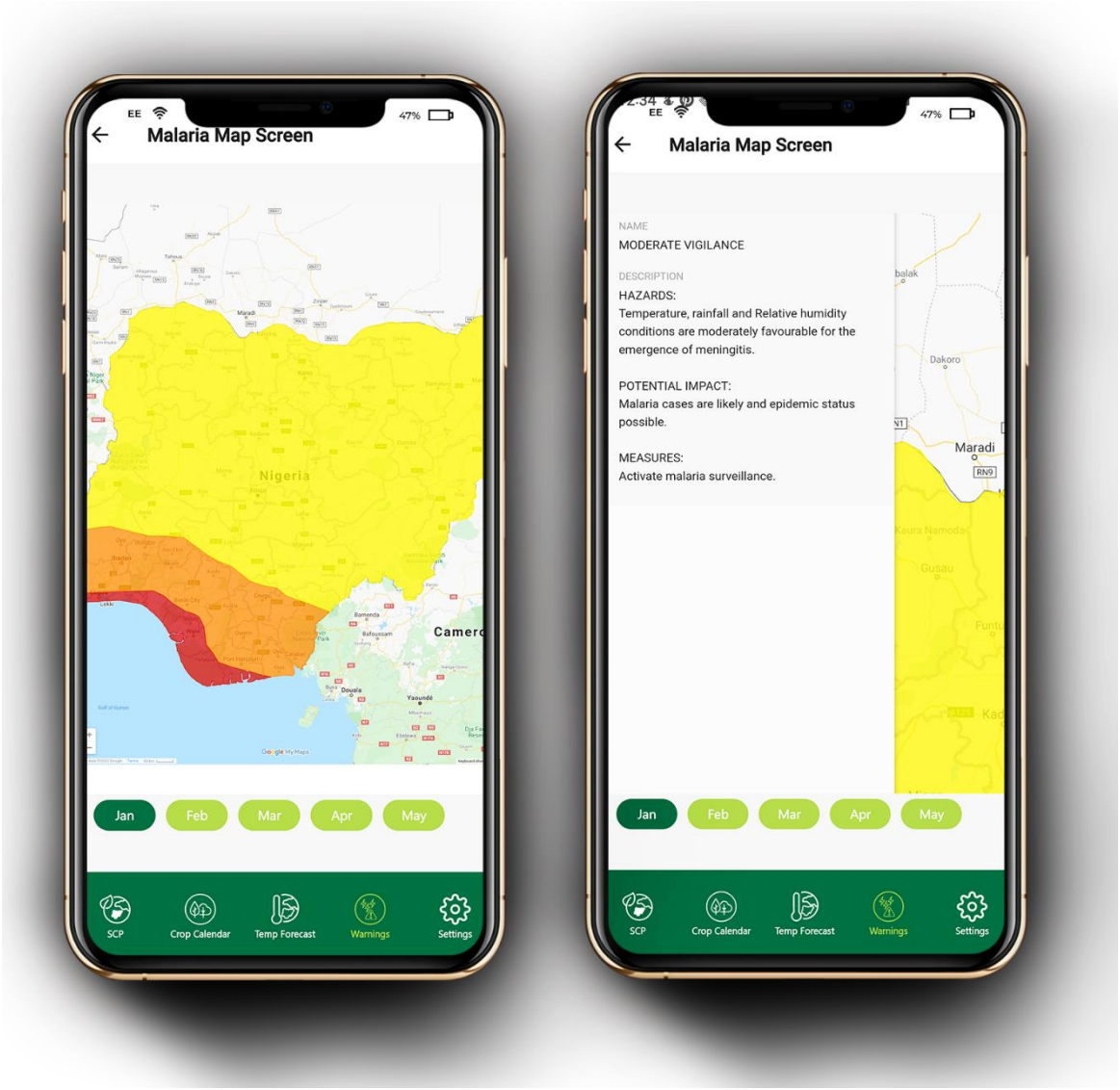
The Crop Calendar has been configured to display the Planting Window of crop and specie for States and Local Governments.

Note: To access detailed information a Subscription would be required.

Temperature Forecast

- This displays the average Day and Night Temperatures for State Local Governments for four Months
- Additional advisory on Temperature is also given.





- Users can gain access to both Malaria and Meningitis warnings from the Malaria Map Screen.

- When screen is expanded, a detailed explanation about the information is given as well

COLLABORATION WITH FEDERAL MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT ON FGN/IFAD ASSISTED PROJECTS

CLIMATE CHANGE ADAPTATION AND AGRIBUSINESS SUPPORT PROGRAMME (CASP)	VALUE CHAIN DEVELOPMENT PROGRAMME (VCDP)	LIVELIHOOD IMPROVEMENT FAMILY ENTERPRISES-NIGER DELTA (LIFE-ND)
JIGAWA, KATSINA, BORNO, KEBBI, SOKOTO, YOBE, ZAMFARA	ANAMBRA, EBONYI, ENUGU, OGUN, BENUE, NIGER, TARABA	ABIA, AKWA-IBOM, BAYELSA, CROSS-RIVER, EDO, DELTA, IMO, ONDO, RIVERS
2017 – 2021 104 LGAs and 727 villages covered with over 60,000 farmers and extension officers trained on the application of the Seasonal Climate Prediction for Agricultural production. Additionally Crop Weather Calendar and Livestock comfortability Index were provided.	2021 Farmers and extension officers trained on the application of the Seasonal Climate Prediction for Agricultural production. Additionally, Crop Weather Calendar and Livestock comfortability Index are being provided.	2021 Farmers and extension officers trained on the application of the Seasonal Climate Prediction for Agricultural production. Additionally, Crop Weather Calendar and Livestock comfortability Index are to be provided.

COLLABORATION WITH FEDERAL MINISTRY OF FINANCE, BUDGET AND NATIONAL PLANNING (BUDGET AND NATIONAL PLANNING

- Under the umbrella of FOOD SYSTEMS PATHWAY, NiMet is collaborating with the Federal Ministry of Finance, **Budget and National Planning** on the implementation of the **Food System Transformation Pathway in Nigeria.**

- We are actively participating in the **Implementation Committee on Weather** aims to deliver on **Priority One (**Regular Collection and Dissemination of information on Weather**)** of the Food Systems Pathway.

- Through this collaboration, we aim to
  - **A.** Develop Weather and Climate Content for dissemination
  - **B.** Use existing NiMet social media platforms (Twitter, Instagram, Facebook) for information sharing
  - **C.** Deploy Bulk SMS for weather and climate information
  - **D.** Disseminate weather information through television, radio and print media
  - **E.** Develop a robust mobile application that is simple to use with option for indigenous language.

WAY FORWARD

In conclusion, adequate adaptation strategies towards sustainable livelihood calls for.....

1. Appropriate Government policy framework coupled with adaptation and mitigation strategies of climate change will help reduce vulnerability of the populace and speedup development efforts.

2. Integration of meteorological information into planning and implementation of agricultural activities, is a known strategy for managing weather-related risks.

3. Effective Collaboration with all relevant stakeholders on utilisation of NiMet predictions and Services will minimize risks, reduce losses, improve livelihood and promote sustainable developments through food security

CONCLUSION

In NiMet, we have built infrastructure, develop competencies for effective service delivery

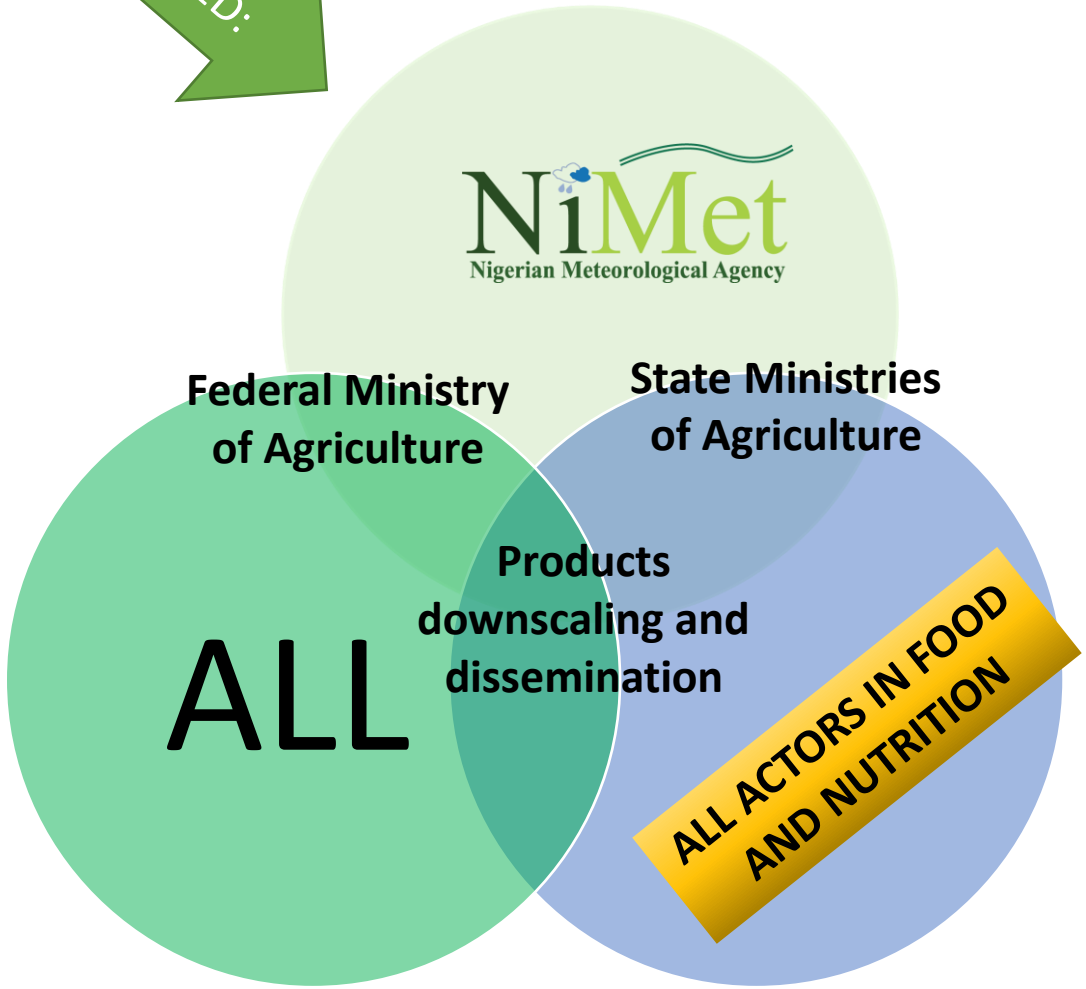
Our service is international in nature with global relevance and visibility

Our products and services are technologically produced and improved for accessibility, reliability and actionable Early Warning Tools

Climate Smart agriculture is the way to go. All predictions are perishable, hence Early Warnings by NiMet must be translated to Early Action by ALL

With Government support, and relevant stakeholders' engagement, we'll improve livelihood and promote food security.

To SUCCEED:



Thank You for Listening!!!

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❖www.nimet.gov.ng