

DAILY CURRENT AFFAIRS (DCA)

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REVISING GROWTH STANDARDS TO MEASURE MALNUTRITION

In Context

- The **Indian Council of Medical Research** has constituted a **committee to revise the Growth Standards to measure malnutrition in India.**

About

- This committee has recommended a detailed rigorous study to be conducted across the country to examine child growth with the purpose of devising national growth charts.

What is Malnutrition?

- Malnutrition refers to **deficiencies or excesses** in nutrient intake, imbalance of essential nutrients or impaired nutrient utilization.
- The term malnutrition covers **2 broad groups of conditions.**
 - ♦ **Undernutrition**—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals).
 - ♦ **Overweight, obesity** and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes, and cancer).

World Health Organization (WHO) Growth Standards To Measure Malnutrition

- The WHO Child Growth Standards are a diagnostic tool used to monitor and assess the nutritional status of infants and children **up to the age of 5.**
- By tracking children's height and body weight, the standards detect children or populations not growing properly, or who are underweight or at risk of being overweight.
- The most common measures of childhood undernutrition are based on anthropometric standards such as **height-for-age (stunting/ chronic undernutrition) and weight-for-height (wasting/acute undernutrition).**
- India, like most other countries, uses the globally accepted World Health Organization (WHO) Growth Standards to measure malnutrition.

Need to Revise the Growth Standards to Measure Malnutrition in India

- **Basis of WHO standards:** The WHO standards are based on a **Multicentre Growth Reference Study (MGRS)** that was conducted in **six countries** between 1997 and 2003 (Brazil, Ghana, India, Norway, Oman and the United States).
 - ♦ The purpose was to determine the **pattern of growth** (from birth to five years) of children who did not face any known deficiencies in their environments.
- **Population Diversity:** India has a very diverse population having different dietary patterns.
 - ♦ The indicators should consider the diverse socio-economic, cultural, and ethnic backgrounds within the country.
- **Breastfeeding Practices:** Take into account the prevalence and duration of breastfeeding practices in India.
 - ♦ Breastfeeding patterns can significantly influence the growth of infants and young children.
- **Can be Misleading:** Such comparisons could also be misleading because the study norms of the WHO-MGRS are very different.
 - ♦ For example, the MGRS included a **component of counselling** to ensure appropriate feeding practices, which is obviously missing in the NFHS or Comprehensive National Nutrition Survey.
- **Misdiagnosis:** Another serious concern is related to inappropriately high standards leading to a misdiagnosis of the situation, and a resultant potential **overfeeding of misclassified children** under programmes of the government introduced to address undernutrition, thereby resulting in an increase in overweight and obesity.
- **Other Parameters:** High levels of child undernutrition have been a persistent problem in India.
 - ♦ It is well recognised that the **determinants of undernutrition are multiple**, and include food intake, dietary diversity, health, sanitation, women's status and the overarching context of poverty.

Steps Taken by Government of India to Eliminate Malnutrition in India

- **Integrated Child Development Services (ICDS):** It provides a package of services, including supplementary nutrition, immunization, health check-ups, and preschool education, to children under the age of 6 years and their mothers.
- **National Health Mission (NHM):** It includes initiatives such as the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) strategy, which addresses maternal and child health, family planning, and nutrition.
- **Poshan Abhiyan (National Nutrition Mission):** Launched in 2018, this mission aims to improve the nutritional status of children from 0-6 years, pregnant women, and lactating mothers.
 - ♦ It focuses on reducing stunting, undernutrition, anemia, and low birth weight.
 - ♦ For maximizing the nutritional outcomes, Government launched 'Saksham Anganwadi and Poshan 2.0' (Mission Poshan 2.0), which inter-alia, subsumes POSHAN Abhiyaan, Supplementary Nutrition Programme under Anganwadi Services and Scheme for Adolescent Girls.
- **Pradhan Mantri Poshan Shakti Nirman:** This program provides free meals to school children to improve their nutritional status, increase school attendance, and encourage education.
 - ♦ The scheme covers primary and upper primary schools across the country.
- **National Food Security Act (NFSA):** Enacted in 2013, this act aims to provide subsidized food grains to approximately two-thirds of the population, including priority households and Antyodaya Anna Yojana (AAY) households.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** This maternity benefit program provides financial assistance to pregnant and lactating mothers to support their health and nutrition during the early stages of motherhood.
- **Rashtriya Kishor Swasthya Karyakram (RKSK):** This program focuses on the health and development needs of adolescents, including nutrition and reproductive health.
- **Anemia Mukht Bharat (AMB):** Launched to combat anemia, this program aims to reduce the prevalence of anemia among pregnant women, lactating mothers, and children.

Conclusion

- There is no doubt that there are also many gaps to fill in the more distal determinants of stunting, mainly; livelihoods and poverty, access to education and women's empowerment.
 - ♦ These goals are inextricably linked to the overall development of the country, with equitable distribution of resources.
- Collaboration among government agencies, researchers, and healthcare professionals is crucial for the successful development and implementation of revised growth standards for measuring malnutrition in India.
- Additionally, periodic reviews and updates may be necessary to reflect changes in the population's health and nutritional status over time.

Source: TH

PRADHAN MANTRI JANJATI ADIVASI NYAYA MAHA ABHIYAN (PM JANMAN)

Context

- The Union Cabinet approved the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN), aimed at providing PVTG households and habitations with basic facilities.

PM JANMAN Scheme

- **The scheme targets** the development of 75 Particularly Vulnerable Tribal Groups (PVTGs) who have been left out by the schemes of various Ministries /Departments.
- **Funding:** The outlay of the scheme is **Rs.24,104 crore** (Central Share:Rs.15,336 crore and State Share: Rs.8,768 crore) to focus on 11 critical interventions through 9 line Ministries.
- **Objective:** The scheme will saturate PVTG households and habitations with basic facilities such as safe housing, clean drinking water and sanitation, improved access to education, health and nutrition, road and telecom connectivity, and sustainable livelihood opportunities.
- **Ministry:** There is focus on 11 critical interventions through 9 Ministries including the **Ministry of Tribal Affairs**. Intervention of following Ministries will also be part of Mission:
 - ♦ **The Ministry of Ayush** will set up Ayush Wellness Centre as per existing norms and Ayush facilities will be extended to PVTG habitations through **Mobile Medical Units**.

- ♦ **The Ministry of Skill Development and Entrepreneurship** will facilitate skill and vocational training in PVTG habitations, Multipurpose centers and hostels as per the suitable skills of the communities.

What does PM-JANMAN do differently?

- **Participatory bottom-up approach:** The scheme abandons the 'one-size-fits-all' approach in favor of customized strategies that respect their unique needs and priorities.
- **Livelihood promotion:** Providing skills training and resources, like land and credit, will help in sustainable livelihoods. Implementing the Forest Rights Act by granting land titles secures access to forest resources.
 - ♦ Additionally, encouraging traditional technologies and skill enhancement through industry partnerships will help maintain cultural heritage while promoting sustainable development.
- **Health, nutrition and education:** Outreach strategies like Mobile Medical Health Units will be crucial for providing healthcare in remote areas.
- **Infrastructure development:** The habitations of PVTGs often don't meet the criteria for schemes such as the Pradhan Mantri Grameen Sadak Yojana, Pradhan Mantri Awas Yojana and Jal Jeevan Mission due to factors like population requirements or lack of surveys.
 - ♦ The schemes have been relaxed to improve access to housing, water, sanitation, electricity, and connectivity.
- **Incorporation of their culture and language** into the curriculum, providing transportation, and training teachers about PVTG cultural contexts to enhance education accessibility.
 - ♦ Also, incentives have been there for personnel working in PVTG areas and special educational institutes focused on PVTG to improve opportunities for these communities.

Particularly Vulnerable Tribal Groups (PVTGs)

- These are a more vulnerable group among tribal groups in India. These groups have primitive traits, geographical isolation, low literacy, zero to negative population growth rate and backwardness.
- There are **75 PVTGs** in India, spread over 18 States and the Union Territory of Andaman & Nicobar Islands.

- ♦ **Odisha** has the largest population of PVTGs followed by **Madhya Pradesh**.
- **Examples:** Great Andamanese (Andaman and Nicobar Islands), Bondo Poraja (Odisha), Paniyas (Kerala), Kattunayakan (Tamil Nadu and Kerala), Bonda (Odisha).

Recognition to PVTGs

- In **1973**, the **Dhebar Commission** created Primitive Tribal Groups (PTGs) as a separate category.
- In **1975**, the Indian government initiated the identification of the most vulnerable tribal groups, designating them as PVTGs, with an initial declaration of 52 such groups.
- An additional **23 groups** were included in this category in **1993**.
- In 2006, this category was renamed Particularly Vulnerable Tribal Groups (PVTGs).

Challenges in the development of PVTGs

- **Social Challenges:** PVTGs are severely marginalized due to their isolation, low population, limited access to basic services, social discrimination, and distinct socio-economic and cultural traits.
- **Displacement:** They struggle with vulnerability to displacement from development and natural disasters.
- **Political Participation:** They have little political representation, hindering their participation in decision-making.
- **Economic issues:** They are also battling loss of traditional livelihoods and resource rights, lack of market knowledge for Non-Timber Forest Produce, and exploitation by middlemen, threatening their traditional occupations.
- **Identification challenges:** The criteria for identifying PVTGs have been criticized for being outdated.
 - ♦ The 2015 report by **Virginus Xaxa highlighted** that Some PVTGs are not recognised as Scheduled Tribes in certain states, and the list containing repetitive names has led to confusion and exclusion.

Other Schemes for PVTGs

- **The PVTG Development Mission:** It provides education, healthcare, and livelihood opportunities while preserving traditional knowledge.

- **The Pradhan Mantri Janjatiya Vikas Mission (PMJVM):** It focuses on market linkages and Minor Forest Produce (MFP) procurement at Minimum Support Prices.
- **Pradhan Mantri Adi Adarsh Gram Yojna:** It aims at transforming villages with significant tribal population into model villages.
- **Eklavya Model Residential Schools:** To provide quality education to tribal students with residential facilities in remote corners.
- Laws such as **land titles under the Forest Rights Act 2006, the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act 1989, The Panchayats (Extension to Scheduled Areas) Act 1996** etc have been implemented for socio-economic development.

Source: **TH**

HIKE IN MSP OF COPRA

Context

- The **Cabinet Committee on Economic Affairs (CCEA)** approved a hike in minimum support prices (MSPs) for copra for 2024 season.

About

- **The MSP for 2024 season** is an increase of **Rs.300/- per quintal** for milling copra and **Rs.250/- per quintal** for ball copra over the previous season.
- **Producer:** The major producers of milling copra are Kerala and Tamil Nadu, whereas ball copra is produced predominantly in **Karnataka**.
- **Use:** Milling copra is used to **extract oil**, while ball/edible copra is consumed as a dry fruit and used for religious purposes.
- **National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED)** and **National Cooperative Consumers' Federation (NCCF)** will continue to act as Central Nodal Agencies (CNAs) for procurement of copra and de-husked coconut under Price Support Scheme (PSS).

What is MSP?

- **Minimum Support Price (MSP)** is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. MSP protects the producer-farmers against distress sale during bumper production years.

- **MSPs have no statutory backing** — a farmer cannot demand MSP as a matter of right.

Crops Covered

- The Centre announces the **MSP for 22** mandated crops. These include:
 - ♦ **14 kharif crops** (paddy, jowar, bajra, maize, ragi, tur/arhar, moong, urad, groundnut, soyabean, sunflower, sesamum, niger seed, cotton),
 - ♦ **6 rabi crops** (wheat, barley, gram, masur/lentil, rapeseed and mustard, and safflower) and
 - ♦ **2 commercial crops** (jute and copra).
- In addition, **MSP for Toria and de-husked coconut** is also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

Fair and Remunerative Price (FRP)

- FRP is the minimum price at which the sugar mills purchase sugarcane from farmers.
- The Cabinet Committee of Economic Affairs announces the FRP on the recommendations of CACP.

Who decides what the MSP would be and how?

- The Cabinet Committee of Economic Affairs announces the MSP at the start of each sowing season, taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- While recommending MSPs, the CACP looks at following factors:
 - ♦ the demand and supply of a commodity;
 - ♦ its cost of production;
 - ♦ the market price trends (both domestic and international);
 - ♦ inter-crop price parity;
 - ♦ the terms of trade between agriculture and non-agriculture (that is, the ratio of prices of farm inputs and farm outputs);
 - ♦ a minimum of 50 per cent as the margin over the cost of production; and
 - ♦ the likely implications of an MSP on consumers of that product.

Calculation Formula

- **The CACP** makes projections using state-wise, crop-specific production cost estimates provided by the Directorate of Economics & Statistics in the Agriculture Ministry.

- ♦ The CACP does not do any field-based cost estimates itself.
- The CACP calculates **three** types of costs — **A2, A2+FL and C2** — for each mandated crop for different states.
 - ♦ **A2 cost:** It is the lowest and covers all paid-out costs directly incurred by the farmer — in cash and kind — on seeds, fertilizers, pesticides, hired labor, leased-in land, fuel, irrigation, etc.
 - ♦ **A2+FL cost:** It includes A2 plus an imputed value of unpaid family labor.
 - ♦ **C2 cost:** It is the highest of the three costs and defined as a more comprehensive cost that factors in rentals and interest for owned land and fixed capital assets, on top of A2+FL.
- **The National Commission for Farmers**, chaired by **MS Swaminathan**, had recommended MSP under the **C2+50 percent formula**. That is, the total cost of the crop (C2) and the profit thereon is **50 percent**.
 - ♦ However, the government announces **MSP on the basis of A2+FL**.

Benefits of Minimum Support Price (MSP)

- **Income Security:** MSP guarantees farmers a minimum price for their crops, ensuring a stable income and protecting them from market price fluctuations.
- **Price Stability:** MSP helps stabilize the prices of agricultural products, preventing extreme fluctuations and ensuring affordable prices for consumers.
- **Encourages Production:** Minimum Support Price motivates farmers to increase their agricultural production by providing them with a fair price for their produce.
- **Food Security:** MSP promotes a steady food supply by encouraging farmers to produce staple crops, reducing dependence on imports, and enhancing domestic food security.

Issues associated with the MSP system

- **Distorted Crop Selection:** The MSP regime often focuses on a few crops, such as rice and wheat, leading to imbalanced crop selection. This can result in overproduction of certain crops and neglect of others, affecting the overall diversity and sustainability of agriculture.

- **Market Distortions:** MSPs can create market distortions by influencing the cropping pattern and leading to surplus production of certain crops. This surplus can lead to storage challenges, market inefficiencies, and distortions in price signals.
- **Limited Coverage:** The MSP system primarily covers a few crops and not all agricultural produce. This leaves farmers growing crops outside the MSP framework vulnerable to market fluctuations and price uncertainties.
- **Storage and Logistics Challenges:** MSP operations require effective storage and logistics infrastructure to handle the procurement of large quantities of crops. Inadequate facilities can lead to wastage and storage-related losses.
- **Fiscal Burden:** Implementing MSPs can impose a significant fiscal burden on the government. Procuring crops at guaranteed prices and managing surplus stocks require substantial financial resources, impacting the government's budget and fiscal health.

Way Ahead

- **Diversify Agriculture:** Emphasize investments in animal husbandry, including fisheries, and fruits and vegetables, which are more nutritious and have the potential for higher income generation.
- **Encourage Private Sector Involvement:** The government should incentivize the private sector to develop efficient value chains for agriculture, following a cluster approach.
- **True MSP Intervention:** A genuine MSP should involve government intervention when market prices fall below a predefined level, especially in cases of excess production, oversupply, or price collapse due to international factors.

Source: *TH*

ELECTRONIC SOIL

In Context

- **A newly developed eSoil** that stimulated root systems helped barley seedlings grow an average of 50 percent more in a new study.

About

- eSoil is a **low-power bioelectronic growth substrate** that can electrically stimulate the root system and growth environment of plants.

- This novel substrate is not only environmentally friendly, being derived from **cellulose and a conductive polymer** called PEDOT, but also offers a low energy, safe alternative to previous methods that required high voltage and non-biodegradable materials.
- **Significance:** This research promotes **more effective and sustainable development** while increasing the variety of crops that can be grown **hydroponically**.

Hydroponics

- In hydroponics, plants are **grown without soil**, requiring only water, nutrients and a substrate - something for their roots to attach to.
 - ♦ This closed system allows water to be recirculated, ensuring that each seedling **receives exactly the nutrients it needs**.
 - ♦ As a result, very little water is used and all the nutrients remain in the system.
- To maximise the use of space, hydroponics also allows **vertical production** in huge towers.
 - ♦ Crops currently grown in this way include **lettuce, herbs and some vegetables**.
- Hydroponics is not usually used to grow grains other than animal feed.
 - ♦ In this paper, the scientists show that barley seedlings can be grown hydroponically and that electrical stimulation improves the plants' growth rate.

Source: *IE*

FACTS IN NEWS

PANDIT MOTIRAM PANDIT MANIRAM SANGEET SAMAROHA

Context

- The Union Home Minister recently released a commemorative Postal Stamp, to mark **50 years of Pandit Jasraj's music festival – 'Pandit Motiram Pandit Maniram Sangeet Samaroha'**.

Pandit Jasraj

- Pandit Jasraj was of the greatest all time **Indian classical vocalist**, belonging to the **Mewati gharana**, a school of thought in **Hindustani classical music**.

- His legacy includes memorable performances of **classical and semi-classical vocal music**, devotional music, albums and film soundtracks, innovations in various genres including **Haveli Sangeeth and popularizing the Mewati Gharana**.
- He took **Indian classical music, Pushtimargiya music and Bhakti Pad of Vaishnav tradition** to greater heights and contributed to the **strengthening of Indian Classical and Bhakti music**.

Pandit Motiram Pandit Maniram Sangeet Samaroha

- This music festival was started by Pandit Jasraj in **1972** to musically express love to his Father, **Sangeet Ratna Pandit Motiram ji** and his elder brother and later his Guru, **Sangeet Mahamahopadhyaya Pandit Maniram ji**.
 - ♦ During his lifetime, for 47 years, without a single break, Pandit Jasraj ji hosted this **annual Sangeet Samaroh** himself.
- It is the **oldest festival of Hyderabad**, and this legacy is carried forward by **Pandit Jasraj Cultural Foundation**. For this unique contribution he was called "**Son of Hyderabad**".

Source: *PIB*

HUNTINGTON'S DISEASE

In Context

- Scientists **genetically engineered fruit flies (*Drosophila melanogaster*)** to understand **Huntington's disease progress at the molecular level**.

About

- Huntington's disease (HD) is a **genetic disorder** that affects the **brain**, leading to progressive motor dysfunction, cognitive decline, and psychiatric symptoms.
- It is an **autosomal dominant disorder**, meaning that if a person inherits the mutated gene from one parent, they will develop the disease, usually in **mid-adulthood**.
- The mutation responsible for Huntington's disease occurs in the **huntingtin (HTT) gene**, leading to the production of a faulty form of the huntingtin protein.

- **Symptoms: Motor Symptoms:** Involuntary movements (chorea), such as jerking or writhing motions.
 - ♦ Difficulty with coordination and balance.
 - ♦ Progressive motor dysfunction, including difficulties with speech and swallowing.
- **Cognitive Decline:** Changes in thinking and reasoning abilities.
 - ♦ Memory impairment.
 - ♦ Difficulty concentrating and making decisions.
- There is currently **no cure for HD**, but there are treatments available to manage symptoms and improve the quality of life for individuals with the disease.

The Huntingtin Gene & Protein

- The DNA error that causes HD is found in a gene called **huntingtin (HTT)**. This gene was discovered in **1993**.
- Everyone has the huntingtin gene, but only those that inherit the mistake, known as the HD mutation, will develop HD and risk passing it on to their children.

Source: *TH*

PANTOEA TAGOREI

In News

- A group of researchers from Visva-Bharati University have discovered a bacteria capable of boosting plant growth and named it '**Pantoea Tagorei**' after **Nobel laureate Rabindranath Tagore**.

About

- Pantoea Tagorei bacteria, classified within the **Pantoea genus**, are a member of the **Enterobacteriaceae family**. These bacteria can be found in diverse settings such as water, soil, humans, animals, and plants.
- The bacteria is **named MR1 (Mine Rhizosphere)**, is a Gram-negative, short-rod, non-motile, facultatively anaerobic, potassium-solubilising species isolated from the rhizospheric soil of an open-cast coal mine in Jharia, Jharkhand.
- Pantoea Tagorei' efficiently extracts potassium from soil which enhances plant growth.

Benefits

- The bacteria has immense potential to revolutionise agricultural practices.
- It is a plant growth promoting bacteria which will prove to be a game-changer in agriculture. It has shown immense capability to boost the cultivation of paddy, pea and chilli.
- The bacteria will reduce the usage of commercial fertilisers and eventually help to cut costs for agriculture and boost crop yield.
- Minimizing reliance on fertilizers, the bacteria offers a cost-effective approach to sustainable agriculture and it can be a potential Biofertilizer.

Source: *TH*

FEAST SOFTWARE

In Context

- The Vikram Sarabhai Space Centre (VSSC) of the Indian space agency ISRO, has developed an analysis software that is used to perform Finite Element Analysis (FEA) of various types of structures including rockets, aircraft, satellites, buildings, etc.

About

- An FEA software known as FEAST (Finite Element Analysis of Structures).
- FEA is a computerised method for predicting how a component or a structure reacts to real-world forces- like various types of structural loads, thermal conditions and other physical effects that a structure experiences while in operation.

Source: *Wion*

SMART LANDER FOR INVESTIGATING MOON (SLIM) MISSION

Context

- The Japan Aerospace Exploration Agency (JAXA) announced that its "Smart Lander for Investigating Moon" (SLIM) successfully went into lunar orbit.

What is SLIM?

- **SLIM** is an experimental mission designed to demonstrate precise and accurate lunar landings.
- It was developed and launched by the **Japan Aerospace Exploration Agency (JAXA)** in September 2023.

- SLIM was launched together **with XRISM**, a next-generation X-ray space telescope, onboard an **H-2A rocket**.

Features of SLIM

- SLIM includes crushable, **3D-printed aluminum lattice landing legs** to absorb the impact of touchdown and ensure proper orientation on the crater slope.
- SLIM will deploy two small rovers called **Lunar Excursion Vehicle (LEV)**, 1 and 2, just before it landing.
 - ♦ **LEV-1, LEV-2, and SLIM** will together study the lunar surface near the landing point, collect temperature and radiation readings, and attempt to study the moon's mantle.
- SLIM will attempt to soft-land on the lunar surface in January with an aim to touch down within a **100 meters** of its target point.
 - ♦ The chosen site is near the **Shioli Crater**, at **13.3° S and 25.2° E**.

Significance of the Mission

- If successful, **Japan** will become the **fifth country** to soft-land a robotic craft on the Moon.
- SLIM's technology could revolutionize future lunar and planetary missions, allowing for targeted landings at scientifically significant sites.

Lunar Polar Exploration (LUPEX)

- LUPEX is a planned joint lunar mission by the Indian Space Research Organisation (**ISRO**) and Japan Aerospace Exploration Agency (**JAXA**).
- The mission would send an uncrewed lunar lander and rover to explore the south pole region of the Moon in **2026**.
- JAXA is likely to provide the under-development H3 launch vehicle and the rover, while ISRO would be providing the lander.

Source: **TH**

SIGNIFICANT CLIMATE MILESTONES OF 2023

In Context

- The following are some climate-related milestones that occurred during the course of 2023.

About

• Hottest year on record:

- ♦ According to Copernicus Climate Change Service (C3S), 2023 was 0.1°C warmer than the ten-month average for 2016, currently the warmest calendar year on record, and 1.43°C warmer than the pre-industrial reference period from January to October.

• Highest sea surface temperature ever recorded:

- ♦ Marine heat waves, which are periods of unusually warm ocean temperatures (warmer than 90% of the previous observations for a given time of year), were widespread in 2023. According to an analysis by the U.S. National Ocean and Atmospheric Administration (NOAA), 48% of global oceans saw marine heat waves in August 2023, which is an area larger than for any other month since the start of the record in 1991.

• Lowest Antarctic Sea ice extent:

- ♦ In 2023, Antarctic Sea ice maintained record low ice growth since April.

• Record carbon dioxide levels:

- ♦ Global carbon dioxide emissions (one of the main greenhouse gases) from burning fossil fuels are predicted to have hit a record high in 2023, up 1.1% from 2022.

• Loss and damage fund Launched

- ♦ The fund, which is aimed at helping developing countries mitigate the impact of climate change, was first announced at the conclusion of COP27 in Sharm El-Sheikh, Egypt, last year.
- ♦ The fund will be based at the World Bank but managed by an independent secretariat. At COP28, Dubai, the \$792 million has been pledged.

• COP28 declaration on climate impact on food systems:

- ♦ The 134 countries at COP28 signed a declaration pledging to tackle the climate impacts of the food industry. These countries represent over 5.7 billion people, 70% of the food we eat, nearly 500 million farmers, and 76% of total emissions from the global food system.

Source: **TH**

GUINEA

In Context

- Several killed and dozens injured after powerful explosion in Guinea

About Guinea



- The Republic of Guinea, located in western Africa
- It is bounded on the north by Guinea-Bissau, Senegal, and Mali;
 - ♦ on the east and south-east by Côte d'Ivoire;
 - ♦ on the south by Liberia and Sierra Leone; and
 - ♦ on the west by the Atlantic Ocean.
- **Major rivers the Gambia, the Niger, and the Sénégal**—rise in Guinea.
- **Fouta Djallon mountains** is in Guinea.

Source: **TH**

MADAGASCAR

In News

- Madagascar is being impacted by climate change, making life harder for millions of people.

About Madagascar

- It is Located off the coast of East Africa in the Indian Ocean with the nearest mainland African country being Mozambique



- It is the **world's fourth-largest island** and its **second-largest island country**,
- **Antananarivo**, the capital city in the Madagascar highlands
- The island country of Mauritius and Réunion lie to the east of Madagascar.
- To the northwest are the French territory of Mayotte and the island country of Comoros.
- Madagascar consists of three parallel longitudinal zones—the central plateau, the coastal strip in the east, and the zone of low plateaus and plains in the west.
- **Maromokotro** is the highest peak in Madagascar

Source: **TH**