

FIRST G20 FINANCE MINISTERS AND CENTRAL BANK GOVERNORS (FMCBG) MEETING **CONCLUDED TO ADDRESS DEBT VULNERABILITIES**

- FMCBG meeting under India's Presidency concluded with issuance of G20 Chair's summary and Outcome Document.
- Addressing debt vulnerabilities in low and Debt Vulnerability is 'a risk that a country will middle-income countries like Ghana, Sri Lanka, Zambia and Ethiopia was an important outcome of FMCBG (refer image for more details).
 - > If left unaddressed, it could trigger global recession and push millions to extreme poverty.
- About Common Framework for Debt Treatments beyond DSSI
 - > It is an agreement of G20 and Paris Club countries to coordinate and cooperate on debt treatments for up to 73 low-income countries that are eligible for DSSI.
 - It includes G20 official bilateral creditors as well like China, India, Turkey or Saudi Arabia that are not members of Paris Club.
 - > It provides a deep debt restructuring, with a reduction in **net present value of debt** sufficient to restore sustainability, if requested by debtor country.



About Debt Vulnerability

- violate the solvency and liquidity conditions and enters a crisis.
- Each country has different debt vulnerability threshold which depends on number of factors such as the current debt, economic policies, governance strength, loan terms etc.



Conditions of Debt Sustainability

A debt is sustainable if:

- · Country has a capacity to pay in the future without strong policy adjustment.
- · Country does not need to default, or renegotiate the loan terms.



Steps agreed at FMCBG

- Strengthening Multilateral coordination by official bilateral and private creditors.
- Predictable, timely, orderly and coordinated Implementation of the Common Framework for Debt Treatments beyond the Debt Service Suspension Initiative (DSSI) of World Bank (launched in 2020).
- International Financial Architecture Working Group will develop a G20 Note on the Global Debt Landscape in a fair and comprehensive manner etc.



Conditions worsening Debt Vulnerabilities

In last few years, countries with high debt the low exposure, especially middle-income countries, either defaulted or vulnerable to sovereign defaults due to:

- Slowdown in Global Growth.
- Flevated Inflation.
- Covid-19 pandemic.
- Tighter Financing Conditions etc.

• Paris Club is an informal group of creditor nations whose objective is to find workable solutions to payment problems faced by debtor nations. It has 22 permanent members. India and China are not its members.

AMAZON JOINS OPEN NETWORK OF DIGITAL COMMERCE (ONDC)

- Amazon will integrate its logistics network and its software suite called SmartCommerce with ONDC.
- > SmartCommerce is an Amazon Web Services-powered suite of SaaS (Software as a service) products that enables MSMEs in India to build and scale their business across digital mediums and will have enablers for onboarding to ONDC network.
- ONDC was launched by Department for Promotion of Industry and Internal Trade (DPIIT) to control digital monopolies.
 - > It promotes open networks for all aspects of exchange of goods and services over digital or electronic networks.
 - > Task to integrate e-commerce platforms on ONDC has been assigned to Quality Council of India.
- Significance of ONDC
 - > Democratisation and decentralization of eCommerce.
 - > Wider access for sellers especially to kirana store owners.
 - > Provide consumers the liberty to choose their preferred local businesses.
- Challenges with ONDC
 - > Growth in seller base will not necessarily improve buyer experience on network.
 - > Switching customers from incumbents, which are offering a satisfactory service, will be difficult.
 - > Lack of clarity on accountability, especially in addressing customer complaints and returns.



WHAT IS ONDC?

- Market and Community-led initiative
- An open network
- Eliminates the need for a central intermediary
- An enabler for massive digital commerce expansion
- An enabler for broad-based innovation



WHAT IS ONDC NOT?

- A Government Regulatory
- An application or a platform
- A central intermediary
- A medium to help digitize businesses







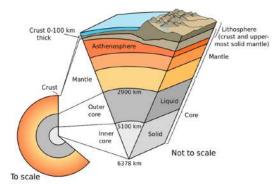
SCIENTISTS DISCOVER NEW LAYER AT EARTH'S INNER CORE

- Discovered by Australian National University seismologists, the new layer is a solid metallic ball is deep inside inner core of Earth, dubbed as "innermost inner core".
 - It is **solid due to high pressure deep within the Earth** that stops iron alloy from melting.
 - ➤ It is a **crystallized structure within inner core's innermost region** that is different from outer layer.
 - > First hypothesised about 20 years ago, it was identified through data gathered from seismic waves caused by earthquakes.
- So far, four layers of Earth's structure had been identified (refer image). This
 includes:
 - > Crust: Topmost or outermost layer of earth which makes up 1% of Earth Volume. It has two parts thinner Oceanic Crust and thicker Continental Crust.
 - ➤ Mantle: Solid/plastic layer of earth which makes up about 84% of Earth Volume. It is divided in two parts Upper Mantle and Lower Mantle. Uppermost mantle and crust constitute lithosphere.
 - > Outer core: Liquid portion of core, composed of 80% iron along with nickel and some other lighter elements.
 - > Inner core: Solid portion of core, composed of Iron and nickel with presence of heavy elements like gold, platinum, palladium, silver and tungsten.

INDIA-GERMANY VISION TO ENHANCE COOPERATION IN INNOVATION AND TECHNOLOGY

- India- Germany cooperation aims at **benefiting humanity** and is firmly guided by their shared democratic values and respect for universal human rights.
 - Their cooperation in technology, research and innovation were institutionalized under intergovernmental agreement on 'Cooperation in Scientific Research and Technological Development' in 1974.
- Flagships of India-Germany Cooperation

• Flagships of India-Germany Cooperation	
Green and Sustainable Development Partnership (GSDP)	 Agreed in 2022, under this, Germany will provide additional development assistance of €10 billion till 2030 to support India's green growth plans.
Indo-German Science and Technology Centre (IGSTC)	 Supports projects on national priority areas such as Advanced Manufacturing, Embedded System and ICT, Sustainable Energy/Environment, etc.
Triangular Development Cooperation	 Agreed in 2022, it represents development projects in third countries by India and Germany. Four projects are at an advanced stages of implementation under it with Cameroon, Malawi, Ghana and Peru as third countries.
Clean technologies	 Indo-German Green Hydrogen Task Force was constituted in 2022. Collaboration between India's Department of Science and Technology (DST) and Germany's Fraunhofer-Gesellschaft (FhG) on Hydrogen Energy Clusters being set up by DST. It focuses on integrating FhG's technologies with Indian technologies, and long-term technology development in renewable energy



Significance of Fifth Layer

- Provide information on past events on Earth that happened hundreds of millions to billions of years ago.
- Provide a new way to probe Earth's inner core and its centremost region.
- Provide information about evolution of earth's magnetic field etc.

KERALA TO USE ROBOTICS TECH EXTENSIVELY FOR MANHOLE CLEANING

- Kerala to use robotics technology for cleaning all its commissioned manholes by pressing into service the robotic scavenger Bandicoot in temple town of Guruvayur.
 - Bandicoot Robot, world's first robotic scavenger, developed as a Make in India and Swachh Bharat Abhiyan initiative by Kerala-based Genrobotics.
 - ➤ It has waterproof, HD vision cameras and gas sensors that identifies harmful gases inside manhole.
 - Recently, Bandicoot had bagged 'Kerala Pride' award.
- Manual scavenging is the practice of removing human excreta by hand from sewers or septic tank.
 - India under Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (PEMSR), 2013 banned the use of any individual for manually cleaning, carrying, disposing of or otherwise handling in any manner, human excreta till its disposal.
- Reasons for prevalence of manual scavenging: Lack of enforcement of PEMSR, poor rehabilitation scheme, indifferent attitude of society etc.
- Steps taken to tackle manual scavenging
 - ➤ National Action for Mechanised Sanitation Ecosystem (NAMASTE) initiative by Ministry of Social Justice and Empowerment and Ministry of Housing and Urban Affairs.
 - > Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS).
 - Scheduled Castes & Scheduled Tribes (Prevention of Atrocities) Act, 1989.





FIRST SYNCHRONIZED VULTURE SURVEY BY KERALA, TAMIL NADU AND KARNATAKA

- Synchronized Vulture Survey-2023 involved Wildlife Conservation Foundation (an NGO) and forest departments of three states to survey vultures in
 - ➤ Bandipur Tiger Reserve, Nagarahole Tiger Reserve and all other forests in Karnataka.
 - > Wayanad Wildlife Sanctuary (WWS), Kerala.
 - > Mudumalai National **Park** and Wildlife **Sanctuary,** Tamil Nadu.
- Synchronized survey is to avoid duplication of data when surveys are conducted at different time periods.
- Vulture, also known as condors, is a large bird of prey with over 20 species in world.
 - ➤ Nine species of vultures are found in India with Himalayas, Rajasthan, Gange Plain and north side of Indian subcontinent as main geographic ranges (refer image for **species** and their **IUCN status**).
 - Out of 9, 3 species are migratory (cinereous vulture, griffon vulture and Himalayan vulture).
 - > Considered to be the most efficient scavengers, they have a unique and important ecological role, as they prevent spread of diseases from rotting corpse.
- Threats: Population decline due to exposure to drug diclofenac; Electrocution, Illegal wildlife trade and hunting, etc.
- Vulture Conservation Initiatives
 - > Ban on Veterinary use of Diclofenac in 2006.
 - > Action Plan for Vulture Conservation prevent species extinction.
 - > In-situ conservation programmes like promoting vulture restaurants, satellite tagging of vultures etc.



ALSO IN NEWS



Fab 4 or Chip 4 Alliance

- U.S.-led Fab 4 semiconductor alliance held its first meeting.
- It is an alliance of world's top producers of semiconductors: Taiwan, United States, Japan and South Korea.
- Chip 4 alliance was proposed by US in 2022 to enhance the "security" and "resilience" of semiconductor supply chains, including by reducing the world's reliance on chips made in China.



Internal Trade in India

- 'India on the move: An examination of the volume and direction of internal trade in India' paper was released by Economic Advisory Council to Prime Minister (EAC-PM).
- Key highlights
 - > Interstate trade flows in India amount to 69% of GDP, when domestic movement of import goods are included and about 35% of GDP, when only domestically produced goods are taken into account.
 - Internal trade appears to be growing at more than twice the pace of growth of GDP.
 - > In terms of net trade balance, some smaller states/UTs like Dadra & Nagar Haveli, Uttarakhand and Sikkim were net internal exporters.



 It is an annual international multilateral air exercise with participation from UAE, India, France, Kuwait, Australia, UK, Bahrain, Morocco, Spain, Republic of Korea, and USA.











- > Maternal mortality declined by 34 % between 2000 and 2020.
- > Every day in 2020, approximately 800 women died from preventable causes related to pregnancy and childbirth i.e., a woman dies around every two minutes.
- > In 2020, about 70% of all maternal deaths were in sub-Saharan Africa.
- Sustainable Development Goal (SDG) target 3.1 aims to reduce maternal mortality to less than 70 maternal deaths per 100 000 live births by 2030.



Trends in maternal mortality 2000 to 2020

report

Mission Shakti

- Supreme Court has directed Union government to present record on current status of Mission Shakti
- Mission Shakti is a scheme in mission mode aimed at strengthening interventions for women safety, security and empowerment.
 - > Launched for a period of 2021-22 to 2025-26 by Ministry of Women and Child Development.
- It has two sub-schemes 'Sambal' and 'Samarthya'.
 - > Sambal is for safety and security of women. It consists of erstwhile schemes of One Stop Centre, Beti Bachao Beti Padhao etc.
 - > Samarthya is for empowerment of women. It consists of erstwhile schemes of Ujjwala, Swadhar

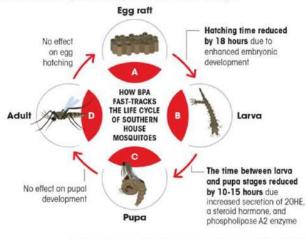


Bisphenol A (BPA) Chemical

breeding in 'Southern House Mosquito' due A bisphenol A (BPA) concentration of 1 mg/L in wastewater can to presence of Bisphenol A in urban drains. shorten the life cycle of mosquitoes from 13 to 10 days

- Bisphenol A or BPA is a chemical produced in large quantities for use primarily in production of **polycarbonate** plastics.
 - ➤ It is commonly used in shatterproof windows, eyewear, water bottles, and epoxy resins.
- It can leach into food and beverages as well, exposing adults to ill effects of it such as high blood pressure, diabetes and cardiovascular disease.
 - > It can disrupt the endocrine system by interfering with hormones and affects brain and prostate gland of foetuses, infants and children.

Recent study has highlighted accelerated Plastics quicken mosquito life cycle



Source: Based on "Bisphenol A acts as developmental agonist in Culex quinquetasciatus Say" published in Environmental Science and Pollution Research on May 31



AIIMS Facial Toolbox for Emotion Recognition (AFTER) device

- AlIMS, New Delhi has developed AFTER (a new tool) to detect human emotions.
- It will create an emotional facial expression database (collection of images with great social and biological relevance).
 - > It will help in treating persons with autism, schizophrenia, and depression.
 - > It rates emotions on a 5-point Likert scale in three dimensions: intensity, clarity, and authenticity.
 - > Likert scale is a unidimensional scale that researchers use to collect respondents' attitudes and opinions.



Siang unying festival

- Siang Unying Festival is an important festival of Adi community was celebrated at Boleng, Arunachal Pradesh.
 - > It is celebrated to mark beginning of Adi community's new year i.e., arrival of spring season; and to strengthen the bond among community.
- Adi constitutes a major group and inhabit lower part of Lower Dibang Valley district especially Roing and Dambuk areas.
 - > Adis are basically dependent on agriculture. Both wet rice cultivation and shifting cultivation are practiced.
 - > Padams, Milangs, Komkars, Minyongs and Pasis collectively call themselves as Adi meaning hill people.