Annual Edition for ESE 2023

ENGINEERS' EXCLUSIVE

Current Affairs MADE EASY

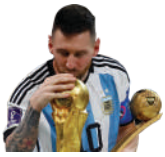
UPSC Engineering Services Examination, State PSCs and other examinations



Rishi Sunak
Indian-origin Rishi Sunak, leader of the 'Conservative Party' becomes UK's 57th Prime Minister.



Nobel Prize, 2022
14 laureates awarded for their work ranges from paleogenomics and click chemistry to documenting war crimes.



Lionel Messi
Argentina wins FIFA World Cup 2022 by defeating France. Argentinian captain Lionel Messi gets Golden Ball for best player.

G20 SUMMIT
INDONESIA, 2022



D.Y. Chandrachud took Oath as 50th CJI

RBI Launched Central Bank Digital Currency

Recent Current Affairs Questions

Advt.

NEXT IAS

In association with

MADE EASY

Offers

IRMSE Prelims 2023-24/ CSE Prelims 2023-24

Indian Railway Management Service/Civil Services : Preliminary Exam

by **NEXT IAS Faculties**

ONLINE COURSES

GENERAL STUDIES COURSE

Duration : 375-400 Hours (4 Months; 6-7 days a week)

Subjects : History, Polity, Economy, Geography, Science Tech, Environment & Ecology, Current Affairs

Mode Live-Online | **Batches in** Jan/Feb/June | **Fee** (with study material) : ₹25000+GST

CSAT COURSE

- **Online (Recorded) Classes :** Accessible 24x7
- **Duration :** 120 Hours

Mode Online (Recorded) | **Batches in** Jan/Feb/June | **Fee** (with study material) : ₹8000+GST

POSTAL PACKAGES

GENERAL STUDIES PACKAGE

11 Theory Books + 1 Book of Previous Years Solved Papers of General Studies

Fee: ₹6000 (Inclusive of GST and Postal Charges)

CSAT PACKAGE

3 Theory Books + 1 Workbook

Fee: ₹1800 (Inclusive of GST and Postal Charges)

GS + CSAT PACKAGE

14 Theory Books + 1 Book of Previous Years Solved Papers of General Studies + 1 Workbook of CSAT

Fee: ₹7000 (Inclusive of GST and Postal Charges)

IRMSE/CSE Mains 2023 & 2024

Indian Railway Management Service/Civil Services : Main Exam

by **MADE EASY Faculties**

IRMSE Optional Subjects Offered :

- CIVIL ENGINEERING
- MECHANICAL ENGINEERING
- ELECTRICAL ENGINEERING
- COMMERCE & ACCOUNTANCY

- **Advance Course for Mains 2023** commencing from **1st June, 2023** (Duration : 3 Months)
- **Foundation Course for Mains 2024** commencing from **15th June, 2023** (Duration : 6 to 7 Months)

NEXT IAS : 27-B, Pusa Road, Metro Pillar No. 118, Near Karol Bagh Metro, New Delhi - 110060 | **Ph :** 8081300200 | www.nextias.com

ENGINEERS' EXCLUSIVE

Current Affairs

MADE EASY

Annual Edition

for

ESE 2023

Preliminary Examination

MADE EASY Publications Pvt Ltd

Corporate Office: 44-A/4, Kalu Sarai, New Delhi-110016

Visit us at: www.madeeasypublications.org

☎ +91 - 9021300500

E-mail: infomep@madeeasy.in

© Copyright 2023

MADE EASY Publications Pvt Ltd has taken due care in collecting the data before publishing this book. Inspite of this, if any inaccuracy or printing error occurs then MADE EASY Publications Pvt Ltd owes no responsibility. MADE EASY Publications Pvt Ltd will be grateful if you could point out any such error. Your suggestions will be appreciated. © All rights reserved by MADE EASY Publications Pvt Ltd. No part of this book may be reproduced or utilized in any form without the written permission from the publisher.

Disclaimer: The views and opinions expressed in this magazine are those of the authors and do not necessarily reflect policy or position of CURRENT AFFAIRS Magazine or MADE EASY Publications Pvt Ltd. They should be understood as the personal opinions of the author/ authors. The MADE EASY assumes no responsibility for views and opinions expressed nor does it vouch for any claims made in the advertisements published in the Magazine. While painstaking effort has been made to ensure the accuracy and authenticity of the informations published in the Magazine, neither Publisher, Editor or any of its employee does not accept any claim for compensation, if any data is wrong, abbreviated, cancelled, omitted or inserted incorrect.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the Publisher.

Contents



Current Economic Issues

PAGE 8

Global Hunger Index (GHI) 2022: India ranks 107 out of 121 countries on the Global Hunger Index jointly published by Concern Worldwide and Welthungerhilfe. 14

LIC launched IPO for subscription: The biggest IPO ever in India, LIC IPO opened for subscription. 23



Environment & Wildlife

PAGE 37

Cheetah reintroduced in India: Eight African Cheetahs sourced from Namibia were introduced to Kuno-Palpur National Park in Madhya Pradesh. 40

Ban on single-use plastic: From July 1, 2022, single-use plastic has been banned in India. 47



National Affairs

PAGE 48

Monkeypox: World Health Organisation (WHO) declared the monkeypox outbreak a Public Health Emergency of International Concern (PHEIC). 54

Agnipath Scheme: The Government of India announced the Agnipath scheme for recruitment of soldiers, the majority of whom will serve for four years.....58

Disclaimer:

The views and opinions expressed in this magazine are those of the authors and do not necessarily reflect policy or position of CURRENT AFFAIRS Magazine or MADE EASY Publications Pvt. Ltd. They should be understood as the personal opinions of the author/ authors.





International Affairs

PAGE 88

Sri Lankan Economic Crisis & its implications: Sri Lanka is experiencing an unprecedented economic collapse that has pushed the government into a deep crisis. 92

Ukraine-Russia Conflict New Developments: On 24th February 2022, Russia invaded Ukraine, marking a major escalation of the Russian-Ukrainan war which began in 2014 when Russia annexed Crimea. 97

Science and Technology

PAGE 107

VPN Networks to store user's data: CERT-In's recent directive mandates service providers such as VPS, VPN, intermediaries, and data centers to retain user data for five years. 115

Defence in News

PAGE 124

India-US 2+2 Ministerial Dialogue: India and the United States recently held a 2+2 Defence and Foreign Minister dialogue in Washington. 124

Miscellaneous 141

ESE-2022 Toppers' Interview 160

Current Affairs Questions 164

MADE EASY Students
Top in Engineering Services Exam 2022

Civil Engineering

Civil Engineering

10	Selection in Top 10
20	Selection in Top 20
106	Selections out of 110 vacancies

97% of total Selections are from MADE EASY



1 AIR
Ishan Gautam
Classroom Course, Test Series, IGP



2 AIR
Abhishek Yadav
Classroom Course, Postal Course, Test Series, IGP



3 AIR
Swastik Sharma
Postal Course, Test Series, IGP



4 AIR
Kunal Dahiya
Classroom Course, Test Series, IGP



5 AIR
D Pavan Swaroop R.
Classroom Course, Test Series, IGP



6 AIR
Hasib Akhtar
Classroom Course, Postal Course, Test Series, IGP



7 AIR
Devam Mishra
Online Course, Test Series, IGP



8 AIR
Rohan Sinha
Online Course, Test Series, IGP



9 AIR
Vaibhav Barsaiya
Online Course, Postal Course, Test Series, IGP



10 AIR
Gopal Singh
Test Series, IGP



11 AIR
Dil Bag Singh
IGP



12 AIR
Jatin Sharma
Online Course, Test Series, IGP



13 AIR
Jayesh Sharma
Classroom Course, Test Series, IGP



14 AIR
Shajar Hasan Abidi
Classroom Course, Test Series, IGP



15 AIR
Abu Nazir Anwar
Classroom Course, IGP



16 AIR
Abhinav Shukla
Online Course, Test Series, IGP



17 AIR
Sakshi Mudliar
Test Series, IGP



18 AIR
Mittapalli Sanath R.
Classroom Course, Test Series, IGP



19 AIR
B. Sai Sumanth
Classroom Course, Test Series, IGP



20 AIR
Puneet Yadav
Test Series, IGP



21 AIR
Tushar Dev
Classroom Course, Test Series, IGP



22 AIR
Madan Gupta
Classroom Course, Test Series, IGP



23 AIR
Alok Mishra
Test Series, IGP



24 AIR
Nitesh Kumar
Online Course, Test Series, IGP



25 AIR
Shweta Upadhyay
Test Series, IGP



26 AIR
Keshav
Test Series, IGP



27 AIR
Shubham Gupta
Classroom Course, Test Series, IGP



28 AIR
Archit Katare
Classroom Course, Test Series, IGP



29 AIR
Amit Kumar
Test Series, IGP



30 AIR
Utkarsh
Online Course, Test Series, IGP



31 AIR
Karan
Classroom Course, Test Series, IGP



32 AIR
Deepak Yadav
Test Series, IGP



33 AIR
Neeraj Sharma
Classroom Course, Test Series, IGP



34 AIR
Vinay Kumar Sahu
Test Series, IGP



35 AIR
Aman Gupta
Classroom Course, Test Series, IGP



36 AIR
Anirudh Kr. Saddi
Test Series, IGP



37 AIR
Rahul Sharma
Test Series, IGP



38 AIR
Abhishek Kumar
Online Course, Test Series, IGP



39 AIR
Subham Modi
Classroom Course, Test Series, IGP



40 AIR
Sachin Agarwal
Classroom Course, Test Series, IGP



41 AIR
Aayush Jain
IGP



42 AIR
Sanchit Mangla
Test Series, IGP



44 AIR
Amit Kumar Rai
IGP



45 AIR
Ritesh Kr. Verma
Classroom Course, Test Series, IGP



46 AIR
Ashutosh Kumar
Classroom Course, Test Series, IGP



47 AIR
Mandadi Bhavith
Online Course, Test Series, IGP



48 AIR
Nunna Bharath
Classroom Course, Test Series, IGP



49 AIR
Shivanand Patel
Classroom Course, Test Series, IGP



50 AIR
Divyadeep Singh
Classroom Course, Test Series, IGP



51 AIR
Safalata
Test Series



52 AIR
Shivansh Kr. Rai
Classroom Course, Test Series, IGP



53 AIR
Nitin
Classroom Course, Test Series, IGP



54 AIR
Komal Pratap
Test Series, IGP



55 AIR
Mohammad Danish
IGP



56 AIR
Chidurala Sunny
Online Course, Test Series, IGP



57 AIR
Heera Lal Yadav
Classroom Course, Test Series, IGP

MADE EASY Students
Top in Engineering Services Exam 2022

Civil Engineering



58 AIR
Gourav Agarwal
Classroom Course, Test Series, IGP



59 AIR
Asaad Amin Ansari
Online Course, Test Series, IGP



60 AIR
Avantika Rathore
Test Series, IGP



61 AIR
Rishita Singh
Classroom Course, Test Series, IGP



62 AIR
Arsh Singh
Test Series, IGP



63 AIR
Vikram Singh
Postal Course, Test Series, IGP



64 AIR
Badugu Rajesh
Test Series, IGP



65 AIR
Seelam Manohar
Test Series, IGP



66 AIR
Divyanshu Meena
Classroom Course, Test Series, IGP



67 AIR
Ved Prakash
Classroom Course, Test Series, IGP



68 AIR
Vangala Amoolya
Test Series, IGP



69 AIR
Digvrat Singh
Test Series, IGP



70 AIR
Sudhanshu Kr.
Test Series, IGP



71 AIR
Akansh Chandrakar
Online Course, Test Series, IGP



72 AIR
Javed Ahmad
Classroom Course, Test Series, IGP



73 AIR
Abhinav Meena
Classroom Course, Test Series, IGP



74 AIR
Ram Chander
Classroom Course, Test Series, IGP



75 AIR
Parmendra Singh
Classroom Course, Test Series, IGP



76 AIR
Deepak Fulwariya
Online Course, Test Series, IGP



77 AIR
Hemant Meena
Test Series, IGP



78 AIR
Amit Meena
Online Course, Test Series, IGP



79 AIR
Pramod Kr. Mahich
Classroom Course, Test Series, IGP



81 AIR
Pooja Kumari M.
Classroom Course, Test Series, IGP



82 AIR
Shivani Jindal
Test Series, IGP



83 AIR
Shyam Sundar
Test Series, IGP



84 AIR
Harshit Srivastava
Test Series, IGP



85 AIR
Pankaj Kr. Meena
IGP



86 AIR
Sanjay Kr. Meena
Test Series, IGP



88 AIR
Rahul Kr. Mahawar
Online Course, Test Series, IGP



89 AIR
Ajay Kr. Meena
Test Series, IGP



90 AIR
Gajendra Singh
IGP



91 AIR
Maneesh Sonker
Test Series, IGP



92 AIR
Sulochana Meena
Classroom Course, Test Series, IGP



93 AIR
Ajay Kr. Raman
Test Series, IGP



95 AIR
Pooja Meena
Test Series, IGP



94 AIR
Himanshu Meena
Test Series, IGP



96 AIR
Madan Lal Beniwal
Classroom Course, Test Series, IGP



97 AIR
Akash Kumar
Classroom Course, Test Series, IGP



98 AIR
Nishant Verma
Online Course, Test Series, IGP



99 AIR
Saurabh Verma
Classroom Course, Test Series, IGP



100 AIR
Viresh Singh
Test Series, IGP



101 AIR
Subodh Kumar
Online Course, Test Series, IGP



102 AIR
Paras Kansotiya
Online Course, Test Series, IGP



103 AIR
Shashank Singh
Test Series, IGP



104 AIR
Puneet Kumar
Online Course, Test Series, IGP



105 AIR
Brajendra Damailiya
Classroom Course, Test Series, IGP



107 AIR
Prem Bhargav
Test Series, IGP



108 AIR
Nitosh Kumar
Test Series, IGP



110 AIR
Ashish
Classroom Course, Test Series, IGP

MADE EASY Students
Top in Engineering Services Exam 2022

Mechanical Engineering

Mechanical Engg.

10	Selection in Top 10
20	Selection in Top 20
33	Selections out of 34 vacancies

97% of total Selections are from MADE EASY



1 AIR — **Abhishek Kumar Tiwari**, Test Series, IGP



2 AIR — **Ravi Agrawal**, Online Course, Test Series, IGP



3 AIR — **B. J. Dosatbhai**, Online Course, Test Series, IGP



4 AIR — **Atul Kumar Patel**, Classroom Course, Test Series, IGP



5 AIR — **Pranshu Srivastava**, Test Series, IGP



6 AIR — **Venkata NSG**, Online Course, Test Series, IGP



7 AIR — **Kanu Raj Anand**, Test Series, IGP



8 AIR — **Sourabh Goswami**, Online Course, Test Series, IGP



9 AIR — **Vishwajeet Kumar**, Test Series, IGP



10 AIR — **Ashok Kumar**, Classroom Course, Test Series



11 AIR — **Jayant Kathuria**, Classroom Course, Test Series, IGP



12 AIR — **A Rama K. Reddy**, Classroom Course, Test Series, IGP



13 AIR — **Mohd Ahamad**, Classroom Course, Test Series, IGP



14 AIR — **Devendra Saini**, Classroom Course, Test Series, IGP



15 AIR — **Kumar Abhishek**, Test Series, IGP



16 AIR — **Nitin Garg**, Online Course, Test Series, IGP



17 AIR — **Siddesh Rao**, Test Series, IGP



18 AIR — **Hari Singh**, Classroom Course, Test Series, IGP



19 AIR — **Nitin Choudhary**, Postal Course, IGP



20 AIR — **Salgar S. Rajendra**, Classroom Course, Test Series, IGP



21 AIR — **Sonelal Yadav**, Online Course, Test Series, IGP



22 AIR — **Saswade M. Narayan**, Online Course, Test Series, IGP



23 AIR — **Kharade Amit A.**, Classroom Course, Test Series, IGP



24 AIR — **Patruni Hemanth**, Online Course, Test Series, IGP



25 AIR — **Vikalp Saini**, Classroom Course, Test Series, IGP



26 AIR — **Bankuru Naveen**, Classroom Course, Test Series, IGP



28 AIR — **Ashu singh**, Classroom Course, Test Series, IGP



29 AIR — **Sanjay Meena**, Classroom Course, Test Series, IGP



30 AIR — **Ankit Kumar**, Test Series, IGP



31 AIR — **Siddharth Singh**, Classroom Course, Test Series, IGP



32 AIR — **Jai Kataria**, Classroom Course, Test Series, IGP



33 AIR — **Radheshyam Meena**, Classroom Course, Test Series, IGP



34 AIR — **Ankit Kr. Meena**, Online Course, Test Series, IGP

MADE EASY Students
Top in Engineering Services Exam 2022

Electrical Engineering

Electrical Engg.

9	Selection in Top 10
18	Selection in Top 20
19	Selections out of 21 vacancies

90% of total Selections are from MADE EASY



1 AIR — **Akhil Kumawat**, Classroom Course, Test Series, IGP



2 AIR — **Kunal Saurav**, Classroom Course, Test Series, IGP



3 AIR — **Lokesh Agrawal**, Test Series, IGP



4 AIR — **Prabhakar Verma**, Test Series, IGP



6 AIR — **Amrendra P. S**, Classroom Course, Test Series



7 AIR — **S Sri Sailesh**, Test Series, IGP



8 AIR — **Amit Kumar**, Classroom Course, Test Series, IGP



9 AIR — **Nilofar Khan**, Classroom Course, Test Series, IGP



10 AIR — **Rajnesh Singh**, Classroom Course, Test Series, IGP



16 AIR — **Arvind S. Arya**, Online Course, Test Series, IGP



11 AIR — **Krishna M.**, Classroom Course, Test Series, IGP



12 AIR — **Singh Hardik B.**, Classroom Course, Test Series, IGP



13 AIR — **Yash Yadav**, Online Course, Test Series, IGP



15 AIR — **Saket Kumar**, Classroom Course, Test Series, IGP



17 AIR — **Shagun**, Classroom Course, Test Series, IGP



18 AIR — **Ajay K. Meena**, Classroom Course, Test Series, IGP



19 AIR — **Sachin Mandawriya**, Classroom Course, Test Series, IGP



20 AIR — **Anshuman T.**, Online Course, Test Series, IGP



21 AIR — **Pankaj Sanodiya**, Online Course, Test Series, IGP

MADE EASY Students
Top in Engineering Services Exam 2022

E&T Engineering

E&T Engineering.

10	Selection in Top 10
19	Selection in Top 20
45	Selections out of 48 vacancies

94% of total Selections are from MADE EASY



1 AIR
Rajeev Daipuriya
Online Course,
Test Series, IGP



2 AIR
Nalla L. Venkatesh
Test Series,
IGP



3 AIR
Devanaboyina T.
Classroom Course,
Test Series, IGP



4 AIR
Ayush K. Tiwari
Classroom Course,
Test Series, IGP



5 AIR
Gupta Vivek V.
Classroom Course,
Test Series, IGP



6 AIR
Ankit Kumar
Classroom Course,
Test Series, IGP



7 AIR
Garima Goel
Online Course,
Test Series, IGP



8 AIR
Vaishnavi Kuna
Online Course,
Test Series, IGP



9 AIR
Nishtha Sharma
Online Course,
Test Series, IGP



10 AIR
Subhradip De
Classroom Course,
Test Series, IGP



11 AIR
Vishnu Priya Velpula
Online Course,
Test Series, IGP



12 AIR
Kase Subha Sai
Classroom Course,
Test Series, IGP



13 AIR
Vishal Sah
Test Series,
IGP



14 AIR
Mayank Chauhan
Classroom Course,
Test Series, IGP



15 AIR
Neha bharti
Classroom Course,
Test Series, IGP



17 AIR
Vertika Kushwaha
Online Course,
IGP



18 AIR
Nishant
Classroom Course,
Test Series, IGP



19 AIR
Gorantla Sai Charan
IGP



20 AIR
Arohi R. Supare
Classroom Course,
Test Series, IGP



21 AIR
Nambi Mridupani
Online Course,
Test Series, IGP



22 AIR
Kallamadi K. Setti
Online Course,
Test Series, IGP



23 AIR
Pawar K. Vilas
Online Course,
Test Series, IGP



24 AIR
Rajvardhan Sharma
Classroom Course,
Test Series, IGP



25 AIR
Yuvraj Biradar
Test Series,
IGP



26 AIR
Mayank Sharma
Online Course,
Test Series, IGP



27 AIR
Ayshi Agarwal
Classroom Course,
Test Series, IGP



28 AIR
Suchika Bhatnagar
Classroom Course,
Test Series, IGP



29 AIR
Anand Kumar
Test Series,
IGP



30 AIR
Bojanki Vinay Ch.
IGP



31 AIR
Prashant Lavania
Classroom Course,
Test Series, IGP



32 AIR
Azad Pathak
Classroom Course,
Test Series, IGP



33 AIR
Anshuman Singh
Classroom Course,
Test Series, IGP



34 AIR
Akhil
Classroom Course,
Test Series, IGP



35 AIR
Sarika devi
Classroom Course,
Test Series, IGP



36 AIR
Ankit Shaw
Online Course,
Test Series, IGP



37 AIR
Ankit Gangwar
Classroom Course,
Test Series, IGP



38 AIR
Thakare Piyush D.
Classroom Course,
Test Series, IGP



39 AIR
Jayant Sencha
Classroom Course,
Test Series, IGP



40 AIR
Ajay Wavhale
Classroom Course,
Test Series, IGP



41 AIR
Sandeep Kumar
Online Course,
IGP



43 AIR
Sandeep Kumar
Test Series,
IGP



44 AIR
D. G. Shailendra
Test Series,
IGP



45 AIR
Vijay Pal
Classroom Course,
Test Series, IGP



46 AIR
Ragni Kumari
Classroom Course,
Test Series, IGP



48 AIR
Manish Kumar
IGP

1 CURRENT ECONOMIC ISSUES

Central Bank Digital Currency (CBDC)

India's first Digital Rupee pilot project launched by Reserve Bank of India (RBI).

- The first pilot in the Digital Rupee - Wholesale segment started on November 1, 2022.
- The nine banks identified for participation are State Bank of India, Bank of Baroda, Union Bank of India, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Yes Bank, IDFC First Bank and HSBC, the RBI said in a release.
- Later, RBI launched a pilot for Central Bank Digital Currency (CBDC)-retail from December 1, 2022 in select locations in closed user groups comprising customers and merchants.

Difference from cryptocurrency

- A cryptocurrency is a decentralized digital asset and a medium of exchange based on blockchain technology and do not have any intermediary like banks, financial institutions, or central authorities.
- On the Contrary, Central Bank Digital Currency (CBDC) issued by the Reserve Bank of India (RBI) will be a legal tender in a digital form.

Benefits of Digital Rupee

- Apart from reducing the transaction cost, having a digitized currency will make it easier for governments to access all transactions happening within the authorized networks thus subjecting every transaction to relevant laws within the country.
- Another benefit of digital currency digital currency is that they do not get torn, burnt or physically damaged. Neither can they be physically lost.
- Digital currency will fuel financial inclusion and bring in resiliency and efficiency to the payments space. CBDC and the central bank's Real time Gross Settlement (RTGS) will jointly augment the Delivery-Versus-Payment mechanism for secured and guaranteed payment and settlement of funds.
- CBDC interfacing with RTGS will complement the Central bank's vision of interoperability, transparency, accessibility and financial inclusivity.

CBDC

A CBDC is a legal tender issued by a Central Bank in a digital form. It is exchangeable at par with existing currency.

Background

RBI, which has repeatedly voiced its opposition to private digital currencies, had proposed to the government in October last year to widen the scope of the paper rupee to include currency in a digital form.

RBI had proposed amendments to the Reserve Bank of India Act, 1934, which would enable it to launch a CBDC.

Government has received a proposal from Reserve Bank of India in October 2021 for amendment to the Reserve Bank of India Act, 1934 to enhance the scope of the definition of 'bank note' to include currency in digital form.



ABOUT Central Bank Digital Currency (CBDC)



- A Central Bank Digital Currency (CBDC) or Digital Rupee is a digital form of currency notes issued by a central bank.
- Digital currency or rupee is an electronic form of money, that can be used in contactless transactions.
- The digital fiat currency or CBDC can be transacted using wallets backed by blockchain.
- Though the concept of CBDCs is directly inspired by Bitcoin, it is different from decentralised virtual currencies and crypto assets, which are not issued by the state and lack the 'legal tender' status.
- Presenting Union Budget 2022, Finance Minister Nirmala Sitharaman announced that the Reserve Bank of India (RBI) would be rolling out its digital currency soon.
- **CBDC can be classified into two types:**
  - **Retail (CBDC-R):** Retail CBDC would be potentially available for use by all.
  - **Wholesale (CBDC-W):** It is designed for restricted access to select financial institutions.

RBI launched Sovereign Gold Bond scheme Series-III

- Reserve Bank of India issues new tranche of Sovereign Gold Bonds. The RBI announced that the issue price for the latest tranche of the Sovereign Gold Bond Scheme 2022-23, which has opened for subscription and has been set at Rs 5,409 per gramme of gold.



- In agreement with the Reserve Bank of India, the Indian government has decided to grant investors who apply online and pay for their applications using digital methods a discount of 50 rupees per gramme compared to the nominal value. The issuing price of a gold bond for these investors is Rs. 5,359/- (Rupees Five Thousand Three Hundred and Fifty Nine only) per gramme.
- The sale of SGBs take place through authorised post offices, Scheduled Commercial Banks (apart from Small Finance Banks, Payment Banks, and Regional Rural Banks), Stock Holding Corporation of India Limited (SHCIL), Clearing Corporation of India Limited (CCIL), and stock exchanges NSE and BSE.

About Sovereign Gold Bonds Scheme

- **Launched in:** November 2015.
- **Objective:** To reduce the demand for physical gold and shift a part of the domestic savings (to purchase of gold) into financial savings.
- **Issuance:** The Gold Bonds are issued as Government of India Stock under the Government Securities (GS) Act, 2006.
- These are issued by the Reserve Bank of India (RBI) on behalf of the Government of India.
- The Bonds will be sold through Scheduled Commercial banks (except Small Finance Banks and Payment Banks), Stock Holding Corporation of India Limited (SHCIL), Clearing Corporation of India Limited (CCIL), designated post offices, and recognised stock exchanges viz., National Stock Exchange of India Limited and Bombay Stock Exchange Limited.

India's first Surety Bond Insurance launched



The country's first ever 'Surety Bond Insurance' product developed by Bajaj Allianz General Insurance, a private general insurer, was launched by Nitin Gadkari, Union Minister of Road Transport & Highways.

Key Highlights:

- Surety Bond Insurance, which is mainly aimed at infrastructure development, is a risk transfer tool that shields the principal from the losses that may arise in case the contractor fails to perform their contractual obligation.
- The new mechanism will help boost liquidity in the infrastructure sector by freeing up the working capital of the constructors that are stuck as bank guarantees.
- These funds can be used by contractors to expand their business and further boost the infrastructure of the country.
- This will help address the challenges associated with highway construction.

About Surety Bond

- A surety bond is **provided by the insurance company** on behalf of the contractor to the entity, which is awarding the project.
- When a principal breaks a bond's terms, the harmed party can make a claim on the bond to recover losses.
- **Definition:** It is a written agreement to guarantee compliance, payment, or performance of an act. Surety is a unique type of insurance because it involves a three-party agreement.
- The three parties in a surety agreement are:
  - **Principal:** The party that purchases the bond and undertakes an obligation to perform an act as promised.
  - **Surety:** The insurance company or surety company that guarantees the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
  - **Obligee:** The party who requires, and often receives the benefit of the surety bond. For most surety bonds, the obligee is a local, state or federal government organisation.

CDRI announced Infrastructure Resilience Accelerator Fund (IRAF)



The Coalition for Disaster Resilient Infrastructure (CDRI) recently announced setting up the Infrastructure Resilience Accelerator Fund (IRAF).

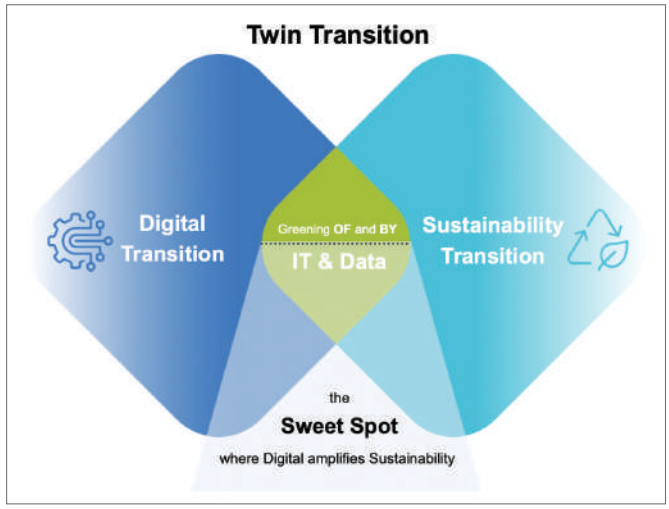
Key Highlights:

- It is a multi-donor trust fund, established with the support of the United Nations Development Programme (UNDP) and United Nations Office for Disaster Risk Reduction (UNDRR).
- It will be managed by the United Nations Multi-Partner Trust Fund Office (UN MPTFO) to support global action on disaster resilience of infrastructure systems, especially in developing countries and Small Island Developing States (SIDS).
- Around $50 million in financial commitments have already been announced for IRAF over an initial duration of five years.
- IRAF will play a crucial role in equipping the Coalition to deliver improved infrastructure governance, inclusive infrastructure services, diversified knowledge, and financing for resilient infrastructure globally.
- One of the first initiatives to be supported by the IRAF is the Infrastructure for the Resilient Island States (IRIS).
- Supported by the Governments of India, the United Kingdom, Australia, and the European Union, IRAF's multi-pronged program focus will offer customized technical assistance, capacity building, research, knowledge management, and advocacy across the infrastructure life cycle for countries at all stages of development.

Coalition for Disaster Resilient Infrastructure (CDRI)

- CDRI was launched by the Prime Minister of India, Narendra Modi at the UN Climate Action Summit in New York in 2019.
- It is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions.
- It aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.
- CDRI promotes rapid development of resilient infrastructure to respond to the Sustainable Development Goals' imperatives of expanding universal access to basic services, enabling prosperity and decent work.

WEF proposed 'Twin Transition' Approach



World Economic forum recently proposed a term "twin transition".

Key Highlights

- A twin transition approach recognizes that there is a huge and largely untapped opportunity for technology and data to drive sustainability goals.
- Rather than treating digital and sustainability in isolation, a twin transition strategy combines these critical functions to unlock huge benefits in terms of efficiency and productivity.
- The twin transition can make a positive impact by 'greening' technology, data assets and infrastructures while accelerating sustainability across the organization.
- By optimizing digital assets and infrastructures to reduce environmental impact, organizations can harness the power of digital to make a positive impact on the environment.
- Digitization has a key role to play in supporting sustainable growth during this decisive decade for action on climate change. Indeed, digital solutions could reduce global emissions by 20%, according to the World Economic Forum.
- By adopting a 'twin transition' approach, leaders can bring the digital and sustainability agendas together to future-proof their organizations.

Union Bank of India launched ' Vyom app'

Union Bank of India launched super app – Union Vyom app & various new products on the occasion of 104th Foundation Day.

Key Highlights:

- Union Bank of India, country's 5th largest public sector bank, established on 11th November 1919 and having its first head office inaugurated by the Father of the Nation, Mahatma Gandhi, celebrated its 104th foundation day. On this occasion Bank launched super app – Union Vyom app & various other digital products.
- Union Vyom App, the super app of the Bank, is a one-stop solution for all financial products. The Vyom app is empowered to deliver a unique experience of banking to customers where customers can do transactions beyond traditional banking. Apart from online transactions, customers can avail of Retail, MSME loan, and credit card, make investments in 5000+ mutual fund schemes, and buy insurance products without any assistance. The app is also enabled with lifestyle category products such as booking of flights, hotels, gift cards, cabs, donations & much more.
- **The following products were also launched**
  - **Union Sparsh:** Touch debit card, specially designed for the visually impaired.
  - **Union Muskaan:** Zero balance saving account for children of 0-18 years ago, having facility of term insurance, accidental death insurance, SMS banking, NEFT, and IMPS at no cost. Also, avail of education loans at a concessional rate.
  - **Union Channel Finance:** A fully automated financing solution for finance to dealers.
  - **Union Digi-Sahaj:** A online account opening platform to open a saving account instantly.
  - **Union SARAS:** A portal named Stressed Asset Recovery Automated Solution, developed for early resolution and effective management of stressed assets having end-to-end processing automation of all recovery and legal proceedings.



RBI's Card Tokenization Rules published

From October 1, 2022 the Reserve Bank of India's card-on-file (CoF) tokenisation norms have become applicable, which aim at improved safety and security of card transactions.

Key Highlights

- The Reserve Bank of India (RBI) has made it mandatory for all credit and debit card data used in online, point-of-sale, and in-app transactions to be replaced with unique tokens
- This added layer of security by way of tokenisation is expected to enhance users' digital payment experience.
- After multiple extensions, the RBI decided not to give any further relaxation in implementing these norms.
- Now, for any purchases done online or through mobile apps, merchants, payment aggregators and payment gateways will not be able to save crucial customer credit and debit card details such as three-digit CVV and expiry date.
- RBI made 1st October as last deadline for merchants, payment aggregators and payment gateways for switchover.
- Close to 35 crore tokens have already been created.
- Earlier, the facility for card tokenisation was available only for mobile phones and tablets of interested card holders. Subsequently, with an uptick in tokenisation volume, the RBI decided to extend the scope of tokenisation to include consumer devices – laptops, desktops, wearables (wrist watches, bands, etc.) and Internet of Things (IoT) devices.

About Tokenization

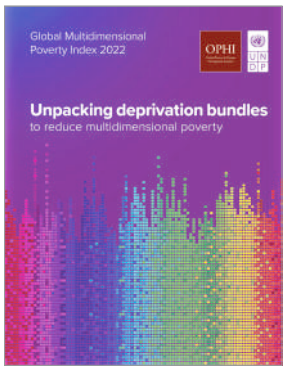
- Tokenization refers to the replacement of actual card details with a unique alternate code called the 'token', which shall be unique for a combination of card, token requester, (i.e. the entity which accepts requests from the customer for tokenisation of a card and passes it on to the card network to issue a corresponding token) and the device.
- A debit or credit card holder can get the card tokenized by initiating a request on the app provided by the token requester. The token requester will forward the request to the card network which, with the consent of the card issuer, will issue a token corresponding to the combination of the card, the token requester, and the device.
- In case of an online transaction, instead of card details, a unique token will be stored on the server. The merchant or transaction platform sends out a message to Visa or Mastercard or a payment gateway, who asks for a token against that card number and will then pass it on to the bank for allowing the transaction.
- The customer will not be charged for availing the tokenization service.

Significance

- A tokenised card transaction is considered safer as the actual card details are not shared with the merchant during transaction processing.
- Actual card data, token and other relevant details are stored in a secure mode by the authorised card networks.
- The token requestor cannot store Primary Account Number (PAN), or any other card details. Card networks are also mandated to get the token requester certified for safety and security that conform to international best practices/globally accepted standards.

Global Multidimensional Poverty Index 2022 released

The Multidimensional Poverty Index (MPI) was recently released jointly by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human development Initiative (OPHI) at the University of Oxford.



Key Highlights

- The number of people living below the poverty line in India decreased by 415 million between 2005-06 and 2019-21, according to the new Multidimensional Poverty Index (MPI).
- However, the index has stated that India still has the world's highest number of poor at 228.9 million, followed by Nigeria (96.7 million projected in 2020).
- The report found that across 111 countries which were assessed using the most recent comparable data available, 1.2 billion people (19.1 per cent) live in acute poverty and almost half of these people (593 million) are children under the age of 18 years.
- The developing region with the largest number of poor people is Sub-Saharan Africa (nearly 579 million), followed by South Asia (385 million), the report highlighted.
- The MPI highlighted that the Covid-19 pandemic had set the global progress in reducing poverty back by 3–10 years.
- According to the report,India had 97 million poor children in 2019-21. This translates into more than one in five children (21.8 per cent)--more than the total number of poor people in any other country covered by MPI.
- According to the report, India is the only country in South Asia where female-headed households are poorer than male-headed households.
- Ninety per cent of India's poor people live in rural areas and 10 per cent in urban areas.
- Bihar continues to be the poorest state in the country. Others among the top 10 poorest states were Jharkhand, Meghalaya, Madhya Pradesh, Uttar Pradesh, Assam, Odisha, Chhattisgarh, Arunachal Pradesh and Rajasthan. West Bengal was the only state among the top-10 poorest in India in 2015-16, and not in 2019-21.
- The poor in India remain vulnerable amid rising food and fuel prices, the report said.
- About 18.7 percent of people in India were found to be vulnerable to poverty because their deprivation score ranges from 20 per cent to 33 per cent. A person with a deprivation score of 50 is considered to be poor.
- In the recently released Global Hunger Index, India ranked 107th out of 121 countries, with worrying figures in child malnutrition and child stunting.
- However, the report also commended India's performance in lifting the poor out of poverty. In the last 15 years, it lifted over 41.5 crore people out of poverty.
- The report said that India is an important case study for the Sustainable Development Goals, the first of which is to end poverty in all its forms and to reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions by 2030, all while leaving no one behind.

About Global Multidimensional Poverty Index

- Global Multidimensional Poverty Index is an international measure published annually by the Oxford Poverty and Human Development Initiative (OPHI) and the Human Development Report Office of the UNDP & it was first published in 2010.
- It reflects the multiple deprivations that poor people face in the areas of education, health, and living standards.
- MPI considers that poverty is not unidimensional (not just depends on income and one individual may lack several basic needs like education, health etc.), rather it is multidimensional.
- The MPI monitors deprivations in 10 indicators spanning health, education and standard of living and includes both incidence as well as intensity of poverty.

Banks Board Bureau (BBB) transformed into Financial Services Institutions Bureau (FSIB)

The Union Government has revamped the Bank Board Bureau by creating Financial Services Institutions Bureau (FSIB).

Key Highlights

- FSIB will work as a single entity for making recommendations for appointments of whole-time directors and non-executive chairman of banks and financial institutions.
- The Appointments Committee of the Cabinet (ACC) has also approved the appointment of Bhanu Pratap Sharma, former Chairman, BBB as initial chairperson of FSIB for a term of two years.
- Guidelines for selection of general managers and directors of public sector general insurance companies have been made part of FSIB.
- The amendments were required as the Delhi High Court in its order last year said the BBB is not a competent body to select the general managers and directors of state-owned general insurers. At least half a dozen newly-appointed directors of non-life insurers had to vacate their positions.

About Banks Board Bureau (BBB)

- The Prime Minister, in 2016, approved the constitution of BBB as a body of eminent professionals and officials to make recommendations for appointment of whole-time directors as well as non-executive chairpersons of public sector banks (PSBs) and state-owned financial institutions.
- It was also entrusted with the task of engaging with the board of directors of all PSBs to formulate appropriate strategies for their growth and development.

Mithila Makhana gets GI Tag

The Central government has awarded a Geographical Indication (GI) tag to Mithila Makhana. With this move, growers will get the maximum price for their premium produce. Over five-lakh farmers of Mithila region of Bihar will benefit from this decision.



Key Highlights:

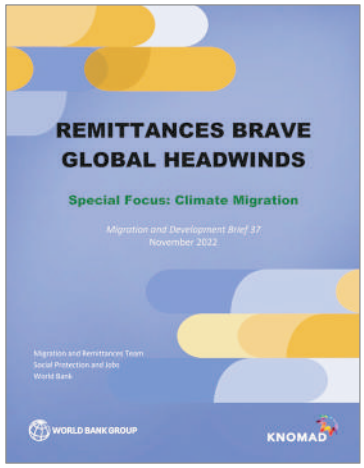
- Due to the Geographical Indication Tag to Mithila Makhana in the festive season, people outside Bihar will be able to use this auspicious material with reverence.
- Once a product gets this tag, any person or company cannot sell a similar item under that name.
- This tag is valid for a period of 10 years and it can be renewed.
- Farmers will get a profit, making it easier for them to earn.

GI Tag

A **Geographical Indication (GI)** is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In addition, the qualities, characteristics, or reputation of the product should be essentially due to the place of origin.

World Bank released 'Remittances Brave Global Headwinds'

Remittances to India are set to touch a record $100 billion in 2022, according to the World Bank's latest Migration and Development Brief titled, 'Remittances Brave Global Headwinds'.



Key Highlights

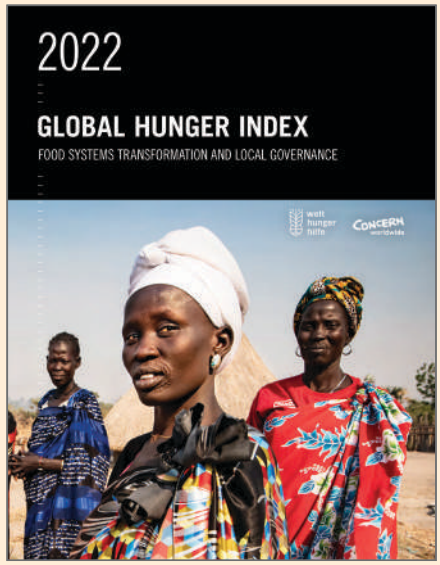
- According to the report, world remittances are expected to touch $794 billion in 2022, up from $781 billion in 2021.
- This represents a growth of 4.9%, compared to 10.2% in 2021, which was the highest since 2010. Of the $794 billion, $626 billion went to low- and middle-income countries (LMICs).
- India received $89.4 billion in 2021 — this is the first time a country will reach the $100 billion mark.
- Remittances represent an even larger source of external finance for LMICs in 2022, compared to foreign direct investment (FDI), official development assistance (ODA), and portfolio investment flows.
- The top five recipient countries this year are expected to be India ($100 billion), followed by Mexico ($60 billion), China ($50 billion), the Philippines ($38 billion) and Egypt ($32 billion).

GLOBAL HUNGER INDEX (GHI) 2022

India ranks 107 out of 121 countries on the Global Hunger Index jointly published by Concern Worldwide and Welthungerhilfe.

Key Highlights

- India was ranked behind its neighbors Nepal (81), Pakistan (99), Sri Lanka (64), and Bangladesh (84).
- India's GHI score has decreased from a 2000 GHI score of 38.8 points, considered alarming, to a 2022 GHI score of 29.1, considered serious.
- Yemen has ranked in the lowest position at 121, while the top of the list is dominated by European nations including Croatia, Estonia and Montenegro.
- Among Asian nations, China and Kuwait have ranked the highest.
- As the world is facing tremendous challenges posed by the COVID-19 pandemic, conflicts, including the war in Ukraine, and climate change, there has been an increase in undernourishment in India and other South Asian nations. Malnutrition in India has increased by 2.9% between 2019–2021 and 2018–2020.
- While India has been consistently recording lower values for the four indicators, it started going up in 2014 for undernourishment and the prevalence of wasting in children. The proportion of undernourishment in the population went from 14.8 in 2014 to 16.3 in 2022, and the prevalence of wasting in children under five years jumped from 15.1 in 2014 to 19.3 in 2022.
- India's proportion of undernourished in the population is considered to be at a medium level, and its under-five child mortality rate is considered low.
- While child stunting has seen a significant decrease from 54.2 percent in 1998–1999 to 35.5 percent in 2019–2021 it is still considered very high.
- At 19.3 percent according to the latest data, India has the highest child wasting rate of all countries covered in the GHI. This rate is higher than it was in 1998–1999, when it was 17.1 percent.



Food and Agriculture Report, 2020 stated that of the 821 million undernourished people in the world, India houses 195.9 million accounting for approximately 24% of the world's hungry.

Prevalence of undernourishment in India is 14.8% higher than both the global and Asian average.

GLOBAL HUNGER INDEX (GHI)

- The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
- Each country's data is standardized on a 100-point scale. Countries scoring less than or equal to 9.9 are slotted in the "low" category of hunger, while those scoring between 20 and 34.9 are in the "serious" category and those scoring above 50 are in the "extremely alarming" category.
- **GHI scores are based on the values of four component indicators - Undernourishment (which reflects inadequate food availability):** calculated by the share of the population that is undernourished (that is, whose caloric intake is insufficient);
- **Child Wasting (which reflects acute undernutrition):** calculated by the share of children under the age of five who are wasted (that is, those who have low weight for their height);
- **Child Stunting (which reflects chronic undernutrition):** calculated by the share of children under the age of five who are stunted (that is, those who have low height for their age);
- **Child Mortality (which reflects both inadequate nutrition and unhealthy environment):** calculated by the mortality rate of children under the age of five (in part, a reflection of the fatal mix of inadequate nutrition.

Kerala gets five new GI Tags

Kerala has been awarded five GI tags for its agricultural produce.

Key Highlights

- Adding to the present collection of Geographical Indications (GIs), nine new items, including gamocha of Assam, Tandur red gram of Telangana, Raktsey Karpo apricot of Ladakh, and Alibag white onion of Maharashtra, have been given the coveted GI tags along with 5 GI tags to Kerala.
- With this, the total number of GI tags in India comes to 432.
- Of these, 401 are Indian-origin products, 31 foreign-origin.
- The top five states holding the maximum number of GI tags are Karnataka and Tamil Nadu followed by Kerala (35), Uttar Pradesh (34), and Maharashtra (31).
- Recently, the government supported the promotion of GIs by approving an expenditure of Rs 75 crore for three years for their advertising at awareness programmes.

About Geographical Indication (GI) Tag

- Recognised by the World Trade Organization (WTO), GI is used to denote the geographical territory from which a product, be it agricultural produce, natural product, or manufactured, conveys the assurance of quality, distinctiveness, and attributes that are unique to that specific geographic region/place of origin.
- India is a signatory to this convention, and enacted the Geographical Indications (Registration and Protection) Act, 1999, which came into effect on September 15, 2003.
- To protect the GI of goods, a GI registry has been established to administer the GI of Goods (Registration and Protection) Act, 1999, under the Controller General of Patents, Designs &Trademarks.
- The registration of a geographical indication shall be for a period of ten years, but may be renewed from time to time.

India's first India International Bullion Exchange (IIBX) launched

Prime Minister Narendra Modi inaugrated India's first bullion exchange at Gujarat's GIFT City.

Key Highlights

- PM recently launched India's first International Bullion Exchange – IIBX at GIFT City.
- It is a market through which buyers and sellers trade gold and silver as well as associated derivatives. E.g. London Bullion Market is known as the primary global market trading platform for gold and silver.
- IIBX was 1st introduced in budget 2020 for easing gold import by Jewellers in India.
- Bullion can sometimes be considered legal tender and is often held as reserves by central banks or held by institutional investors.
- India is the world's 2nd biggest consumer of Gold after China.
- IIBX will help in standard gold pricing in the country.
- It will help dealers and jewellers to trade in precious metals.

US becomes top remittance source for India

US has become the top remittance source after UAE (in 2020-21) for India.

Key Highlights



- India received 87 billion dollars in remittances in 2021, the top remittance recipient, and way ahead of countries like China and Mexico, according to a World Health Organisation report.
- India received $87 billion in remittances in 2021.
- The United States was the largest source country for remittances in 2020, followed by the United Arab Emirates, Saudi Arabia and Switzerland.
- In 2021 the top five remittance recipients in current US dollars were India, China, Mexico, the Philippines and Egypt.
- Remittances are an "important and positive" economic result of migration for migrants themselves and for family and friends remaining in their home countries.
- Once migrants have accessed economic opportunities, they often send remittances to their families. Remittances account for a large fraction of the global movement of funds.
- Despite predictions that remittances would fall due to the COVID-19 pandemic (in part as a result of travel restrictions and the economic downturn), remittances remained resilient.

PFRDA launched NPS Prosperity Planner

The Pension Fund Regulatory and Development Authority (PFRDA) has launched "NPS Prosperity Planner" which is a personalized calculator for subscribers to calculate their retirement Income (Annuity) as per the annuity options based on their existing contribution under NPS.

Key Highlights:

- This initiative is a part of Azadi Ka Amrit Mahotsav (AKAM) and the new calculator will allow subscribers to plan for adequacy retirement income.
- NPP provides the tool for higher Retirement Income through Accelerated Contribution plan in the residual period until retirement duly considering inflation and the projected cost of living expenses.

About National Pension System (NPS)

- In India, the NPS, which is governed by the PFRDA, is a voluntary structured contribution pension scheme that offers old age income, long-term market returns, and old age security coverage to all residents.
- NPS provides low-cost retirement planning options to Indian residents. Pension funds managed by NPS are among the lowest-cost money managers, charging a fee based on assets under management of only 0.0009%

SBI's first dedicated branch for start-ups inaugurated

State Bank of India (SBI) has opened its first-ever startup branch in Bengaluru, which will be dedicated to fund and support early-stage entrepreneurs in setting up new companies till their listing on stock exchanges.

Key Highlights

- The facility comes under a pact between the Karnataka government and SBI to further boost the state's startup ecosystem.
- It is the first in the country to provide financing to support startup growth, facilitating entrepreneurs.
- The exclusive branch for startups will provide services such as loans, deposits, transaction banking, outward and inward remittances, payments, cash management, forex, insurance, custodial services, capital market and legal advisory, structuring, demat and trading.
- This branch will be a hub for various stakeholders involved in startup ecosystem and cater to end-to-end financial and advisory services.
- SBI entered into a memorandum of understanding with the Karnataka Digital Economy Mission (KDEM) to boost the prevailing startup ecosystem for the state. Subsequently, SBI will also explore and open startup branches across three clusters (Mysore, Mangalore and Hubblli-Belagavi) to facilitate and support startups based out of these clusters.
- Karnataka was adjudged the best performer in the central government's States' Startup Ranking-2021 for developing a strong startup ecosystem through holistic and inclusive policies for sector-focused incentives, regulatory sandboxes and supporting innovation in disruptive sectors.

Microsoft joined Open Network for Digital Commerce (ONDC)

US firm Microsoft has become the first big tech company to join the Open Network for Digital Commerce (ONDC), a Government of India backed project.

Key Highlights

- US firm Microsoft has become the first big tech company to join the Open Network for Digital Commerce (ONDC), a government-backed project which is aimed at enabling small merchants and mom-and-pop stores in parts of the country to access processes and technologies that are typically deployed by large e-commerce platforms such as Amazon and Flipkart.
- The software giant intends to introduce social e-commerce group buying experience in the Indian market, which would include a shopping app for Indian consumers along with their social circle, harnessing the ONDC network to discover the best pricing among retailers and sellers.
- A number of participants are currently live on the ONDC network, offering a number of services in the e-commerce supply chain such as buying, selling and offering logistics services. Among those that are live are Paytm which has joined the platform as a buyer, and Reliance-backed Dunzo, which is offering logistics services for hyperlocal deliveries.
- Axis Bank, HDFC Bank and Airtel have already initiated integration with the network.

Open Network for Digital Commerce (ONDC):

- It is an initiative aimed at promoting open networks for all aspects of exchange of goods and services over digital or electronic networks.
- ONDC is to be based on open-sourced methodology, using open specifications and open network protocols independent of any specific platform.

- It is being developed as a counter to the current duopoly in the Indian e-commerce market which is largely dictated by Amazon and Walmart-owned Flipkart.
- The ONDC platform lies in the middle of the interfaces hosting the buyers and the sellers. So far, the buyer side interface is being hosted by Paytm, whereas the seller side interface is being hosted by other players like GoFrugal, etc.
- When a buyer searches for an item on the Paytm app, from where ONDC has gone live, the app will connect to the ONDC platform, which will connect it to seller side interfaces that will list all the companies from where you can buy the particular item.

Government warns of new banking virus "Sova"

Indian Computer Emergency Response Team (CERT-In) released advisory against the 'Trojan' virus, SOVA.

Key Highlights

- Indian banking customers are being targeted by a new type of mobile banking malware campaign using SOVA Android Trojan.
- The virus can stealthily encrypt an Android phone for ransom and is hard to uninstall is targeting Indian customers.
- The first version of this malware appeared for sale in underground markets in September 2021 with the ability to harvest user names and passwords via key logging, stealing cookies and adding false overlays to a range of apps.
- SOVA was earlier focusing on countries like the US, Russia and Spain, but in July 2022 it added several other countries, including India, to its list of targets.
- The latest version of this malware hides itself within fake Android applications that show up with the logo of a few famous legitimate apps like Chrome, Amazon, NFT (non-fungible token linked to crypto currency) platform to deceive users into installing them.
- This malware captures the credentials when users log into their net banking apps and access bank accounts.
- The new version of SOVA targeting more than 200 mobile applications, including banking apps and crypto exchanges/ wallets.

How does the new virus work?

- The Malware is distributed via smishing (phishing via SMS) attacks, like most Android banking Trojan.
- The virus can collect keystrokes, steal cookies, intercept multi-factor authentication (MFA) tokens, take screenshots and record video from a webcam and can perform gestures like screen click, swipe etc. using android accessibility service.

REC Ltd. becomes 12th 'Maharatna' company

Power sector focussed NBFC REC Ltd has been accorded the status of Maharatna central public sector enterprise (CPSE).

Key Highlights

- NBFC REC Ltd has become the 12th company to attain the Maharatna status.
- The move would provide the state-run company greater operational and financial autonomy.
- Centre is also considering granting the status of a development finance institution (DFI) to REC Ltd to enable the state-run company to steer global climate funding and net zero investment in the country.
- The other 11 Maharatna CPSEs at present are: Power Finance Corporation, Bharat Heavy Electricals Ltd, Bharat Petroleum Corp. Ltd, Coal India Ltd, GAIL (India) Ltd, Hindustan Petroleum Corp. Ltd, Indian Oil Corp. Ltd, NTPC Ltd, Oil & Natural Gas Corp. Ltd, Power Grid Corp. of India Ltd, and Steel Authority of India Ltd.
- India has 13 Navratna and 74 Miniratna CPSEs.

Rural Electrification Corporation Limited (REC)

- Rural Electrification Corporation Limited (REC) is a Non-banking Financial Company (NBFC) focusing on power sector financing and development across India.
- It was established in 1969.
- It provides financial assistance to state electricity boards, state governments, central and state power utilities, independent power producers, rural electric cooperatives and private sector utilities.

"Maharatna" Status

- For a company to be categorised as a Maharatna status, a company should be listed on an Indian stock exchange and have an average annual turnover of over 25,000 crore during the previous three years.
- It should also have an average annual net worth during the previous three years of more than 15,000 crore and an average net profit of over 5,000 crore during the same period.
- REC can now invest up to 5,000 crore, or 15% of its net worth, in a single project after its Maharatna status.

RBI released Annual Report 2021-22

- The Reserve Bank of India (RBI) released the RBI Annual Report 2021-22.



Key Highlights

- **Future Path of Growth:** It stressed that the future path of growth would be conditioned by addressing supply-side bottlenecks, calibrating monetary policy to bring down inflation and boosting capital spending.
- **Impact of Russia-Ukraine War:** The immediate impact of geopolitical aftershocks is on inflation. The elevation in international prices of crude, metals and fertilisers has translated into a term of trade shock that has widened trade and current account deficits.
- **Slow Recovery Concerns:** High-frequency indicators already point to some loss of momentum in the recovery that has been gaining traction from the second quarter of 2021-22.
- **RBI on Excise Duty Cut, Curbs on Exports:** RBI further said supply-side policy interventions such as removing customs duty on import of raw cotton, prohibiting wheat exports, reducing road and infrastructure cess (RIC) on petrol etc. have provided some offset.
- **GDP Estimates:** RBI's Monetary Policy Committee had revised downwards real GDP growth for 2022-23 to 7.2 per cent mainly due to higher oil prices weighing on private consumption and higher imports reducing net exports.

Agriculture Land Price Index to be launched



- IIM-Ahmedabad (IIM-A) in collaboration with an e-marketplace for agricultural land, Farms India, is set to develop a farm land price index.

Key Highlights

- Farm land price index based on the sales and purchases done on the platform.
- The index has been designed to record and present the "quality-controlled" data on prices of agricultural land in the country.
- The index will track the price movements in the marketplace (SfarmsIndia) and come up with a composite pricing mechanism on a monthly basis, which will be updated twice a year.
- The index will not have any correlation with circle rates but will use the prices quoted in the online marketplace as their base value for research.
- According to IIM-A, the index will be a reliable source in benchmarking land prices in rural and semi-urban areas and help in signaling the conversion of agricultural land into real estate.

Significance of Index

- Given the complexity of developing an index for land parcels due to price differences, the index has been prepared to address the disparities and ensure accuracy.
- With more data, the index is expected to offer a superior representation of the national context and a more granular index at regional levels.
- The index will benefit stakeholders across the spectrum including policymakers, local governments, environmentalists, investors, real estate developers, and financiers.
- The index can be used by local governments to compensate people who lose land for highway expansion.

Union Govt. launched PM-DevINE Scheme

- The Union Minister for Finance and Corporate Affairs introduced a new scheme called the Prime Minister's Development Initiative for the North-East (PM-DevINE) when presenting the Union Budget 2022-23.

Key Points:

- It will be implemented through the North-Eastern Council. North-Eastern Council (NEC) is the statutory body established after amending the North-Eastern Council Act, 1971 in the year 2002. It is the nodal agency for economic and social development of 8 North Eastern Region States.
- An initial allocation of Rs. 1,500 crore will be made for the new scheme.
- It will fund infrastructure, in the spirit of PM GatiShakti, and social development projects based on the felt needs of the North-East.
- This will enable livelihood activities for youth and women, filling the gaps in various sectors.
- However, it will not be a substitute for existing central or state Schemes.
- Its main objective is to fund infrastructure and social development projects in the North-East.

RBI released guidelines for Digital Banking Units

- Reserve Bank of India released the guidelines for setting up 75 Digital units across the country.
- These guidelines are applicable to all Domestic Scheduled Commercial Banks (excluding Regional Rural Banks, Payments Banks and Local Area Banks).
- Finance minister announced the setting up of Digital Units in 75 districts in the 2022-2023 annual budget.

Definitions under the Guidelines

- **Digital Banking Segment:** It is a sub-segment of the existing 'Retail Banking' Segment which will now be subdivided into:
  (i) **Digital Banking**
  (ii) **Other Retail Banking.** The business involving digital banking products acquired by DBUs or existing digital banking products would qualify to be clubbed under this segment.
- **Digital Banking Products:** Digital banking products and services would generally mean those financial products/ services whose designs and fulfilments have nearly end-to-end digital life cycle with the initial customer acquisition / product delivery necessarily taking place digitally through self-service or assisted self-service.

About Digital Banking

Digital banking are electronic banking services provided by a licensed bank for the execution of financial, banking and other transactions.

About Digital Banking Units (DBUs)

- It is a specialized fixed point business unit / hub consisting of a certain minimum digital infrastructure for delivering digital banking products & services as well as servicing existing financial products & services digitally, in both self-service and assisted mode.
- **Objective:** To enable customers to have cost effective/ convenient access and enhanced digital experience of such digital services and products in an efficient, paperless, secured and connected environment.
- Most services are to be available in self-service mode at any time, all year round.

Who will set up these DBUs?

Commercial banks (other than regional rural banks, payment banks and local area banks) with past digital banking experience are permitted to open DBUs in tier 1 to tier 6 centers, unless otherwise specifically restricted, without having the need to take permission from the RBI in each case.

Service provided by Digital Units

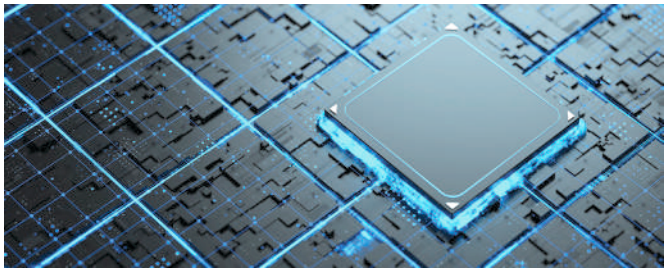
As per RBI:

- Each DBU must offer certain minimum digital banking products and services.
- Such products should be on both liabilities ex- Account Opening, mobile banking, internet banking etc and assets side of the balance sheet.
- Digitally value-added services to conventional products would also qualify as such Cash withdrawal and Cash Deposit through ATM, printing passbook etc.

Benefits of DBU

1. Reduce the burden of banks with a 'light' banking approach.
2. Access to rural markets will be opened which are yet to come under digital as well as financial services ambit.
3. The services will provide a cheaper solution through technology aided customer services.
4. Lesser staff and more automation will increase the efficiency and capacity of the system.
5. Comparatively lesser investment and maintenance due to technological tools and thus higher yield units for parent banks.
6. More financial inclusion as well for financial literacy will be boosted.

Union Government approved India Semiconductor Mission (ISM)



The Ministry of Electronics and Information Technology (MeitY) has inaugurated the first ever Semicon India 2022 Conference under India Semiconductor Mission in Bengaluru.

Semicon India programme with a total outlay of INR 76,000 crore for the development of semiconductor and display manufacturing ecosystem in the country has been approved by Government of India.

Aim

The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.

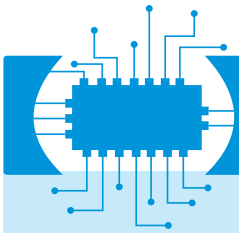
Vision

The Vision of ISM is to build a vibrant semiconductor and display design and innovation ecosystem to enable India's emergence as a global hub for electronics manufacturing and design.

Schemes under programme

Four schemes have been set up under the programme:

- **Scheme for setting up of Semiconductor Fabs in India:** It provides fiscal support to eligible applicants for setting up of Semiconductor Fabs.
- **Scheme for setting up of Display Fabs in India:** It provides fiscal support to eligible applicants for setting up of Display Fabs.
- **Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India:** The Scheme provides a fiscal support of 30% of the Capital Expenditure to the eligible applicants for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab and Semiconductor ATMP / OSAT facilities in India.
- **Design Linked Incentive (DLI) Scheme:** It offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.



What is Semiconductor?

- A semiconductor is a material product usually made of silicon.
- It conducts electricity in the range between insulator and conductor which means more than an insulator, such as glass, but less than a pure conductor, such as copper.
- Their conductivity and other properties for example variable resistance, passing current more easily in one direction than the other, and reacting to light and heat etc can be altered with the introduction of impurities, a process called doping, as per the specific needs of the electronic component.

Applications

- Semiconductor is used in almost all kind of electronics devices and equipment including televisions, switch, refrigerator, phone etc.
- It is used in microprocessors used in computers, microchips, diodes, transistors, integrated circuits etc.

Increasing need of Semiconductors

- **Wide industry use:** The end-use industries such as mobile devices, telecommunication equipment, information technology, office automation (IT & OA), industrial machinery, automobiles and several other industries have had growing demand for semiconductors.
- **Internet of things:** Now with the concept of Internet of Things (IoT) and machine learning picking up momentum, the next generation of interconnected devices would further increase the demand for intelligent computing, thereby creating sustainable demand for semiconductors.

National Asset Reconstruction Company Ltd. (NARCL) to take-over NPAs



The Union Finance Ministry has notified that Rs 6,000-crore National Asset Reconstruction Company (NARCL) or bad bank is expected to take over the first set of non-performing accounts of banks next month.

Reason for setting up NARCL

- Existing Assets Reconstruction Companies (ARCs) have been helpful in resolution of stressed assets especially for smaller value loans.
- Various available resolution mechanisms, including Insolvency Bankruptcy Code (IBC) have proved to be useful.
- However,considering the large stock of legacy NPAs, additional options/alternatives are needed and the NARCL-IRDCL structure announced in the Union Budget is this initiative.
- Insolvency and Bankruptcy Code (IBC), strengthening of Securitization and Reconstruction of Financial Assets and Enforcement of Securities Interest (SARFAESI Act) and Debt Recovery Tribunals, as well as setting up of dedicated Stressed Asset Management Verticals (SAMVs) in banks for large-value NPA accounts have brought sharper focus on recovery.
- In spite of these efforts, substantial amount of NPAs continue on balance sheets of banks primarily because the stock of bad loans as revealed by the Asset Quality Review is not only large but fragmented across various lenders.
- High levels of provisioning by banks against legacy NPAs has presented a unique opportunity for faster resolution.

Working of NARCL

- The NARCL acquire assets by making an offer to the lead bank.
- Once NARCL's offer is accepted, then, IDRCL engage for management and value addition.
- NARCL is intended to resolve stressed loan assets above ₹500 crore each amounting to about ₹2 lakh crore.
- In phase I, fully provisioned assets of about Rs.90,000 crores are expected to be transferred to NARCL, while the remaining assets with lower provisions would be transferred in phase II.

Need for Government Guarantee

- Resolution mechanisms of this nature which deal with a backlog of NPAs typically require a backstop from Government.
- This imparts credibility and provides for contingency buffers.
- Hence, GoI Guarantee of up to Rs.30,600 crore back Security Receipts (SRs) issued by NARCL.
- The guarantee is valid for 5 years.
- The condition precedent for invocation of guarantee is resolution or liquidation.
- The guarantee cover the shortfall between the face value of the SR and the actual realisation.
- GoI's guarantee also enhance liquidity of SRs as such SRs are tradable.
- Further, to disincentivize delay in resolution, NARCL has to pay a Guarantee fee which increase with passage of time.

Significance for banks

- It gives incentives for quicker action on resolving stressed assets thereby helping in better value realization.
- This approach also permit freeing up of personnel in banks to focus on increasing business and credit growth.
- As the holders of these stressed assets and SRs, banks receive the gains.
- Further, it bring about improvement in bank's valuation and enhance their ability to raise market capital.

Capital structure of NARCL

- Capitalization of NARCL is through equity from banks and Non-Banking Financial Companies (NBFCs).
- It also raise debt as required.
- The government guarantee reduce upfront capitalization requirements.

NARCL

- NARCL has been incorporated under the Companies Act.
- NARCL has been set up by banks to aggregate and consolidate stressed assets for their subsequent resolution.
- NARCL is a special purpose asset reconstruction company for taking over the large value NPA accounts (above Rs 500 crore) from banks.
- It takes over NPAs of bank and recover it from the entities.
- PSBs maintain 51% ownership in NARCL.

IDRCL

- IDRCL is a service company/operational entity which manage the asset and engage market professionals and turnaround experts.
- Public Sector Banks (PSBs) and Public FIs hold a maximum of 49% stake and the rest is with private sector lenders.

National Land Monetization Corporation to be established

- The Union Cabinet chaired by PM Narendra Modi has approved the setting up National Land Monetization Corporation (NLMC).

Key facts about NLMC

- National Land Monetization Corporation was first proposed in the Union Budget 2021-22 by Finance Minister Nirmala Sitharaman.
- NLMC will be under the administrative jurisdiction of the Department of Public Enterprise, Ministry of Finance.
- NLMC's initial authorized share capital will be 5000 crores and paid-up share capital is 150 crore.
- Appointment of Chairman and non-Government Directors will be done through a merit-based selection process. The Board of Directors of NLMC will comprise senior Central Government officers and experts. Technical expertise will also be provided to NLMC to professionally manage the monetization process.
- NLMC will support and undertake monetization of excess land and buildings of Central Public Sector Enterprises (CPSEs) and other Government institutions. NLMC will also provide technical advice to the Government in the implementation of the asset monetization program.
- Monetization by National Land Monetization Corporation (NLMC) will speed up the strategic disinvestment process of CPSEs.

RBI permits banks to open special vostro accounts

- The Reserve Bank of India (RBI) has permitted banks to open special "vostro accounts", to facilitate import-export trade in the rupee for trade in rupees.

Key highlights

- RBI put in place a mechanism to settle international trade in rupees "in order to promote growth of global trade with emphasis on exports from India and to support the increasing interest of the global trading community in the rupee".
- The Reserve Bank of India (RBI) permitted banks to open 12 special "vostro accounts", to facilitate import-export trade in the rupee.
- The RBI earlier allowed two Indian lenders-UCO and IndusInd bank to open nine special vostro accounts for facilitating overseas trade in rupee.

About Vostro account

- It is an account that a domestic bank holds for a foreign bank in the domestic bank's currency-which, in the case of India, is the rupee.
- In the case of trade with Russia, payments in rupee for the export and import of goods will go to these Vostro accounts. The owners and beneficiaries of this money will be the exporters and importers in both the countries.
- If an Indian bank like the SBI wants to open an account in the United States, it will get in touch with a bank in the US, which will open a Nostro account and accept payments for SBI in dollars.
- The account opened by the Indian bank in the US will be a Nostro account for the Indian bank, while for the US bank, the account will be considered a Vostro account.

123PAY: RBI launched UPI for feature phones

- Reserve Bank of India (RBI) Governor Shaktikanta Das launched Unified Payments Interface (UPI) for feature phones called 'UPI123PAY'.

Key highlights

- UPI '123PAY' is a three-step method to initiate and execute services for those who use feature phones. Except 'scan and pay' option, all other transactions can be done by feature phones, with the help of UPI123PAY.
- Available services include initiating payments, paying utility bills, recharging FASTag, checking bank account balance, setting or changing UPI PIN.
- Bank account should be linked to feature phone to use UPI123Pay. There is no need for an internet connection, to initiate and execute transactions.
- According to RBI, four technology options can be utilized by users of feature phones for various transactions. They include: Calling an IVR (interactive voice response) number, application functionality in feature phones, missed call-based approach and proximity sound-based payments.

NMMS to assist Union Govt. for MGNREGA

The Union government has made digitally capturing MGNREGA attendance universal from January 1, 2023 through National Mobile Monitoring System (NMMS).

Key Highlights

- From May 16, 2022, capturing attendance via the app was made compulsory for all worksites with 20 or more workers. This required uploading two time-stamped and geotagged photographs of the workers.
- The National Mobile Monitoring Software (NMMS) App was launched by the Ministry of Rural Development in 2021.
- It aimed at bringing more transparency and ensuring proper monitoring of the schemes.
- The NMMS App permits taking real time attendance of workers at Mahatma Gandhi NREGA worksites along with geo-tagged photographs.
- The app helps in increasing citizen oversight of the programme.

Issues:

- Poor internet connectivity, little access to smartphones and glitches in the app have created a problem in the daily activities of the workers.
- The workers are forced to buy a smartphone which is pushing them to leave the job.
- Many workers have complained that the process is very difficult, and they are illiterate.

Bandhan-led consortium acquired IDFC AMC

Markets regulator Securities and Exchange Board of India (SEBI) cleared Bandhan-led consortium's proposed acquisition of IDFC Asset Management Company.

Key Highlights:

- IDFC Asset Management Company Limited (AMC), one of the top 10 AMCs in the country, has received regulatory clearances from regulators for its proposed change in ownership.
- Securities market regulator SEBI granted the necessary no objection for IDFC AMC's acquisition by a consortium comprising Bandhan Financial Holdings Limited (BFHL), GIC (GIC), and ChrysCapital (CC).
- The Reserve Bank of India (RBI) granted its approval, whereas the Competition Commission of India (CCI) had already approved the deal. In April 2022, the Board of Directors of IDFC Limited and IDFC Financial Holding Company Limited approved the sale of IDFC AMC and IDFC AMC Trustee Company Limited to the consortium.

LIC launched IPO for subscription

The biggest IPO ever in India, LIC IPO opened for subscription.

- LIC IPO is the biggest IPO of India opened with a price band at Rs 902-949 per share.
- LIC IPO size is Rs 21,008.48 Crores and the entire proceeds was Offer for Sale (OFS).
- The Government of India issued a notification giving effect to the 27 amendments to LIC Act, 1956, which was passed in the Budget session along with the Finance Bill.
- The amendments paved the way for the listing of LIC in stock markets and bringing it under the provisions of Companies Act and SEBI rules.

Reason for LIC success

- LIC has a transparent and efficient board-managed institution. It submits reports of its functioning every month to the regulator IRDAI.
- It places its accounts in Parliament for scrutiny.
- LIC fully settles all the claims, by waiving even statutory requirements.
- LIC settles 99.86% of claims.

LIC share in India's insurance market

- In the financial year 2020, LIC held approximately 66 percent of the market share of the sector's total insurance premiums.
- LIC is the only public sector insurance company in India.
- Private players entered the insurance sector only in the year 2000.
- The share of premiums held by LIC is even higher compared to the share of more than twenty other private life insurers combined.

India's Insurance market

- Life Insurance is one of the fastest growing segments in India's insurance market.
- A premium income of over 5.7 trillion Indian rupees was recorded in the year 2020.
- Of this, LIC had written premiums that amounted to around 3.8 trillion Indian rupees.
- Private players earned written premiums valued at nearly two trillion rupees.
- **Written premiums:** It is the total amount that customers are required to pay for their insurance coverage for policies already in effect. These make up the principal source of an insurance company's revenue and are deemed vital to growth.

What Is Life Insurance?

Life insurance is a contract that pledges payment of an amount to the person assured (or his nominee) on the happening of the event insured against. The contract is valid for payment of the insured amount during:

- The date of maturity.
- Specified dates at periodic intervals.
- Unfortunate death, if it occurs earlier.

Initial Public Offering (IPO)

- IPO stands for Initial Public Offering.
- Through IPO, a company or corporation can introduce its shares or stocks into the primary market and can raise the equity.
- Generally the purpose is to infuse new equity capital into the firm.

Types of IPO:

- **Fixed Price Offering:** The Company fix the price at which the initial sale of share offering is done.
- **Book Building Offering:** In this issuer fix a price band. The lowest price is called the floor price and highest price is called cap price. The bidding can be done at any price between the price bands.

SEBI

- The Securities and Exchange Board of India was established as a statutory body in the year 1992 and the provisions of the Securities and Exchange Board of India Act, 1992 (15 of 1992) came into force on January 30, 1992.

Objectives and Functions of SEBI

- The objective of SEBI is to protect the interests of investors investing in securities. It also regulates the securities market, Stock market and mutual funds markets.
- Along with regulation and protection, SEBI also works towards the development of a better investing ecosystem and educating investors about the trading and market functions.

Life Insurance Corporation, popularly known as LIC is a state-owned insurance group and investment company.

The Life Insurance Corporation of India came into being in 1956 through an act of Parliament called Life Insurance Act, 1956 which nationalized the insurance industry in India.

LIC started with just Rs 5 crore capital from the government with the motto: "People's money for people's welfare".

Union Finance Minister Nirmala Sitharaman on February 1, 2022, presented a budget worth Rs 39.45 lakh crore with massive push to infrastructure spending.



Nirmala Sitharaman
(Union Finance Minister)

PM GatiShakti

- The seven engines that drive PMGatiShakti are Roads, Railways, Airports, Ports, Mass Transport, Waterways and Logistics Infrastructure.
- The scope of PM GatiShakti National Master Plan will encompass the seven engines for economic transformation, seamless multimodal connectivity and logistics efficiency.

One Station – One Product

- New rail products in the form of 'One Station – One Product', 400 next-gen Vande Bharat trains, and 100 PM Gati Shakti cargo terminals over the next three years provides integration of NIP with Gati Shakti and is likely to prove crucial in employment generation.
- National Ropeways Development Program, Parvatmala to be taken up on PPP mode.
- Draft DPRs for 5 river links Damanganga-Pinjal, Par- Tapi-Narmada, Godavari-Krishna, Krishna-Pennar & Pennar-Kaveri have been finalized.
- 400 Vande Bharat trains with higher efficiency for passengers will be developed in the next three years.
- Four multi-modal national parks contracts will be awarded in FY23.

Agriculture

- Government to promote funds for blended finance (government share limited to 20%) for sunrise opportunities such as climate action, agri-tech, etc.
- Fund to be facilitated through NABARD to finance startups for agriculture and rural enterprise, relevant for farm produce value chain. Startups will support FPOs and provide tech to farmers.
- Use of Kisan Drones to be promoted for crop assessment, digitisation of land records, spraying of insecticides and nutrients.
- Chemical-free natural farming to be promoted in India.

Education

- A Digital University would be established to provide access to students across the country for world-class quality universal education.
- One class one TV channel programme to be expanded to 200 TV channels.
- Virtual labs and skilling e-labs will be established to promote critical thinking skills and simulated learning environments.
- The Digital Ecosystem for Skilling and Livelihood – the DESH-Stack e-portal would be launched.

Healthcare

- The health sector has been allocated Rs 86,200.65 crore in the Union Budget.
- A National Tele Mental Health Programme will be launched to improve access to quality mental health counselling and care services.
- An open platform for the National Digital Health Ecosystem will also be rolled out.
- For the National Health Mission, the budget allocation increased from Rs 36,576 crore in 2021-22 to Rs 37,000 crore in 2022-23.

Tax proposals

- Taxpayers have been allowed a one-time window to correct omissions in income tax returns (ITR). They can file the updated returns within 2 years from the assessment year.
- Digital rupee to be issued using blockchain and other technologies; to be issued by RBI starting 2022-23. This will give a big boost to the economy.
- 30 per cent tax on income from the transfer of virtual digital assets has been proposed.
- One per cent tax deducted at source (TDS) on the transfer of virtual assets above a threshold, gifts would be taxed.
- Both Centre and States govt employees' tax deduction limit to be increased from 10% to 14% to help the social security benefits of state govt employees and bring them at par with the Central govt employees.

MSMEs

- Udyam, e-shram, NCS and ASEEM portals are to be interlinked.
- 130 lakh MSMEs provided additional credit under Emergency Credit Linked Guarantee Scheme (ECLGS). ECLGS to be extended up to March 2023.
- Guarantee cover under ECLGS to be expanded by Rs 50000 Crore to the total cover of Rs 5 Lakh Crore.

PM-DevINE

- New scheme Prime Minister's Development Initiative for North-East Region (PM-DevINE) launched to fund infrastructure and social development projects in the North-East.
- An initial allocation of Rs. 1,500 crore was made to enable livelihood activities for youth and women under the scheme.

Other Social Infr Initiatives

- Vibrant Villages Programme for the development of Border villages with a sparse population, limited connectivity and infrastructure on the northern border.
- Rs. 48,000 crore allocated for completion of 80 lakh houses in 2022-23 under PM Awas Yojana.
- Modernization of building bye-laws, Town Planning Schemes (TPS), and Transit-Oriented Development (TOD) will be implemented.
- Unique Land Parcel Identification Number for IT-based management of land records.

GIFT-IFSC

- World-class foreign universities and institutions to be allowed in the GIFT City.
- An International Arbitration Centre to be set up for timely settlement of disputes under international jurisprudence.

Budget allocation

- A 6.4% fiscal deficit has been projected for India in FY23.
- Revised fiscal deficit estimated at 6.9% of GDP.
- States to get Rs 1 lakh crore as 50-year interest-free loans to help fund PM Gati Shakti-related investments.
- The government's effective capital expenditure is estimated at Rs 10.68 lakh crore in 2022-23, about 4.1% of GDP.
- The outlay for capital expenditure to be stepped up sharply by 35.4% from Rs 4.54 lakh crore to Rs 7.50 lakh crore in 2022-23.

Employment

- Production Linked Incentive (PLI) Scheme for achieving Aatmanirbhar Bharat has received an excellent response, potentially creating 60 lakh new jobs and additional production of 30 lakh crore during the next Keycap digit five years.
- PLI schemes across 14 sectors have achieved a tremendous response and created 60 lakh job opportunities.



According to Article 112 of the Indian Constitution, the annual financial statement of a year is a statement of the estimated receipts and expenditure of the government for that particular year.

ECONOMIC SURVEY 2021-22

Union Finance Minister Nirmala Sitharaman presented the Economic Survey 2021-22 in the Parliament on 31st January, 2022.

State of the Economy

- Indian economy estimated to grow by 9.2 percent in real terms in 2021-22 (as per first advanced estimates) subsequent to a contraction of 7.3 percent in 2020-21.
- GDP projected to grow by 8- 8.5 percent in real terms in 2022-23.
- Projection comparable with World Bank and Asian Development Bank's latest forecasts of real GDP growth of 8.7 percent and 7.5 percent respectively for 2022-23.
- As per IMF's latest World Economic Outlook projections, India's real GDP projected to grow at 9 percent in 2021-22 and 2022-23 and at 7.1 percent in 2023-2024, which would make India the fastest growing major economy in the world for all 3 years.
- Agriculture and allied sectors expected to grow by 3.9 percent; industry by 11.8 percent and services sector by 8.2 percent in 2021-22.
- On demand side, consumption estimated to grow by 7.0 percent, Gross Fixed Capital Formation (GFCF) by 15 percent, exports by 16.5 percent and imports by 29.4 percent in 2021-22.
- Macroeconomic stability indicators suggest that the Indian Economy is well placed to take on the challenges of 2022-23.
- Combination of high foreign exchange reserves, sustained foreign direct investment, and rising export earnings will provide adequate buffer against possible global liquidity tapering in 2022-23.

Impact of pandemic on economy

- Economic impact of "second wave" was much smaller than that during the full lockdown phase in 2020-21, though health impact was more severe.
- Government of India's unique response comprised of safety-nets to cushion the impact on vulnerable sections of society and the business sector, significant increase in capital expenditure to spur growth and supply side reforms for a sustained long-term expansion.
- Government's flexible and multi-layered response is partly based on an "Agile" framework that uses feedback-loops, and the use of eighty High Frequency Indicators (HFIs) in an environment of extreme uncertainty.

Fiscal Developments

- The revenue receipts from the Central Government (April to November, 2021) have gone up by 67.2 percent (YoY) as against an expected growth of 9.6 percent in the 2021-22 Budget Estimates (over 2020-21 Provisional Actuals).
- Gross Tax Revenue registers a growth of over 50 percent during April to November, 2021 in YoY terms. This performance is strong compared to pre-pandemic levels of 2019-2020 also.
- During April-November 2021, Capital expenditures (CapEx) has grown by 13.5 percent (YoY) with focus on infrastructure-intensive sectors.
- Sustained revenue collection and a targeted expenditure policy has contained the fiscal deficit for April to November, 2021 at 46.2 percent of BE With the enhanced borrowings on account of COVID-19, the Central Government debt has gone up from 49.1 percent of GDP in 2019-20 to 59.3 percent of GDP in 2020-21, but is expected to follow a declining trajectory with the recovery of the economy.

External Sectors

- India's merchandise exports and imports rebounded strongly and surpassed pre-COVID levels during the current financial year.
- There was significant pickup in net services with both receipts and payments crossing the prepandemic levels, despite weak tourism revenues.
- Net capital flows were higher at US$ 65.6 billion in the first half of 2021-

22, on account of continued inflow of foreign investment, revival in net external commercial borrowings, higher banking capital and additional special drawing rights (SDR) allocation.

- India's external debt rose to US $ 593.1 billion at end-September 2021, from US $ 556.8 billion a year earlier, reflecting additional SDR allocation by IMF, coupled with higher commercial borrowings.
- Foreign Exchange Reserves crossed US$ 600 billion in the first half of 2021-22 and touched US $633.6 billion as of December 31, 2021.
- As of end-November 2021, India was the fourth largest forex reserves holder in the world after China, Japan and Switzerland.

Prices and Inflation

- The average headline CPI-Combined inflation moderated to 5.2 per cent in 2021-22 (April-December) from 6.6 per cent in the corresponding period of 2020-21.
- The decline in retail inflation was led by easing of food inflation.
- Food inflation averaged at a low of 2.9 per cent in 2021-22 (April to December) as against 9.1 per cent in the corresponding period last year.
- Effective supply-side management kept prices of most essential commodities under control during the year.
- Proactive measures were taken to contain the price rise in pulses and edible oils.

Wholesale inflation

- Wholesale inflation based on Wholesale Price Index (WPI) rose to 12.5 per cent during 2021-22 (April to December).
- **This has been attributed to:**
  - Low base in the previous year,
  - Pick-up in economic activity,
  - Sharp increase in international prices of crude oil and other imported inputs,
  - High freight costs.

Industry and Infrastructure

- Index of Industrial Production (IIP) grew at 17.4 percent (YoY) during April-November 2021 as compared to (-)15.3 percent in April-November 2020.
- Capital expenditure for the Indian railways has increased to Rs. 155,181 crores in 2020-21 from an average annual of Rs. 45,980 crores during 2009-14 and it has been budgeted to further increase to Rs. 215,058 crores in 2021-22 – a five times increase in comparison to the 2014 level.
- Extent of road construction per day increased substantially in 2020-21 to 36.5 Kms per day from 28 Kms per day in 2019-20 – a rise of 30.4 percent.
- Net profit to sales ratio of large corporates reached an all-time high of 10.6 percent in July-September quarter of 2021-22 despite the pandemic (RBI Study).
- Introduction of Production Linked Incentive (PLI) scheme, major boost provided to infrastructure-both physical as well as digital, along with measures to reduce transaction costs and improve ease of doing business, would support the pace of recovery.

Agriculture and Food Management

- The Agriculture sector experienced buoyant growth in past two years, accounting for a sizeable 18.8% (2021-22) in Gross Value Added (GVA) of the country registering a growth of 3.6% in 2020-21 and 3.9% in 2021-22.
- Minimum Support Price (MSP) policy is being used to promote crop diversification.
- Net receipts from crop production have increased by 22.6% in the latest Situation Assessment Survey (SAS) compared to SAS Report of 2014.
- Allied sectors including animal husbandry, dairying and fisheries are steadily emerging to be high growth sectors and major drivers of overall growth in agriculture sector.
- Government facilitates food processing through various measures of infrastructure development, subsidized transportation and support for formalization of micro food enterprises.
- India runs one of the largest food management programmes in the world.
- Government has further extended the coverage of food security network through schemes like PM Gareeb Kalyan Yojana (PMGKY).

Important Terms used in ECONOMY

Unemployment and its types

Unemployment occurs when a person who is actively searching for employment and is unable to find work.

- **Disguised Unemployment:** It is a phenomenon wherein more people are employed than actually needed. It is primarily traced in the agricultural and the unorganised sectors of India.
- **Seasonal Unemployment:** It is an unemployment that occurs during certain seasons of the year. Agricultural labourers in India rarely have work throughout the year.
- **Structural Unemployment:** It is a category of unemployment arising from the mismatch between the jobs available in the market and the skills of the available workers in the market.
- **Cyclical Unemployment:** It is result of the business cycle, where unemployment rises during recessions and declines with economic growth. Cyclical unemployment figures in India are negligible. It is a phenomenon that is mostly found in capitalist economies.
- **Technological Unemployment:** It is loss of jobs due to changes in technology. In 2016, World Bank data predicted that the proportion of jobs threatened by automation in India is 69% year-on-year.
- **Frictional Unemployment:** The Frictional Unemployment also called as Search Unemployment, refers to the time lag between the jobs when an individual is searching for a new job or is switching between the jobs.
- **Vulnerable Employment:** This means, people working informally, without proper job contracts and thus sans any legal protection. These persons are deemed 'unemployed' since records of their work are never maintained.
- **Unemployment Trap:** It is a situation when unemployment benefits discourage the unemployed to go to work. People find the opportunity cost of going to work too high when one can simply enjoy the benefits by doing nothing.

Capital Receipts

- All those receipts of the government which either creates liability or reduces financial asset are capital receipts.

  Examples: Market borrowings by the government from the public, Borrowings from the RBI, Borrowings from commercial banks or financial institutions through the sale of T-BILLS, loans received from foreign governments or international financial institutions, post office savings, post office saving certificates and PSU's Disinvestment.

Revenue Receipts

- These are receipts of the government incomes which cannot be reclaimed back by the citizens from the government.

Capital Expenditure

- All those expenditures of the government which either result in the creation of physical/financial assets or reduction in financial liabilities. Examples: Purchase of land, machinery, building and equipment's; investment in shares; loans and advances by the central government to state governments and UTs.

Revenue Expenditure

- The expenditure incurred by the government that neither creates any physical/financial asset nor reduces the liability of the government.

Perfect Competition

- Pure or perfect competition is a theoretical market structure in which the following criteria are met:
- All firms sell an identical product (the product is a "commodity" or "homogeneous").
- All firms are price takers (they cannot influence the market price of their product).
- Market share has no influence on prices.
- Buyers have complete or "perfect" information—in the past, present and future—about the product being sold and the prices charged by each firm.
- Resources for such a labor are perfectly mobile.
- Firms can enter or exit the market without cost.

Primary Deficit

- The borrowing requirement of the government includes interest obligations on accumulated debt. The goal of measuring primary deficit is to focus on present fiscal imbalances.

Fiscal Policy

- Fiscal policy means the use of taxation and public expenditure by the government for stabilization or growth of the economy. Some of the major instruments of fiscal policy are as follows: Budget, Taxation, Public Expenditure, public revenue, Public Debt, and Fiscal Deficit in the economy.

Privatization

- The transfer of ownership, property or business from the government to the private sector is termed privatization. The government ceases to be the owner of the entity or business.

Fiscal Deficit

- A fiscal deficit is a shortfall in a government's income compared with its spending. A fiscal deficit is calculated as a percentage of gross domestic product (GDP), or simply as total dollars spent in excess of income.

Trade War

- Trade war is a subset of Trade Protectionism. It is a conflict between two or more nations regarding trade tariff imposition on each other's goods.

Current Account Deficit

- It means the value of imports of goods/services/investment incomes is greater than the value of exports. It is sometimes informally referred to as a trade deficit.

Most Favoured Nation (MFN) Status

- Most Favoured Nation is a treatment accorded to a trade partner to ensure non-discriminatory trade between two countries vis-a-vis other trade partners.

Endowment Fund

- It is an investment fund established by a foundation (universities, nonprofit organisations, churches and hospitals etc.) that makes consistent withdrawals from invested capital. It means that endowment funds are basically investment portfolios where initial money is provided by donations to a foundation.

Market Capitalisation (m-cap)

- Market Capitalisation is calculated by multiplying total number of company's outstanding shares by the current market price of one share. The market-cap figure of listed companies changes daily with stock price movement.

External Commercial Borrowing (ECB)

- ECB is an instrument used in India to facilitate Indian companies to raise money outside the country in foreign currency. It may be commercial loans which can be in form of bank loans, bonds, securitised instruments, buyers' and supplier's credit availed from non-resident lenders with minimum average maturity of 3 years.
- It should be noted that ECB is not Foreign Direct Investment (FDI). In case of FDI, foreign money is only used to finance equity capital. But in case of ECB, foreign money is used to finance any kind of funding other than equity.

Fair and Remunerative Price

- It is the minimum price at which rate sugarcane is to be purchased by sugar mills from farmers. FRP is fixed by Union government on basis of recommendations of Commission for Agricultural Costs and Prices (CACP), an attached office of Union Ministry of Agriculture & Farmers Welfare.

Shell Companies

- A shell company is a corporation without active business operations or actual assets. They exist only on paper and have no office and no employees, but may have a bank account or passive investments, etc.

Exchange Traded Derivatives (ETD)

- ETD are traded via central exchange with publicly visible prices i.e. on a centralised exchange while Over the Counter (OTC) derivatives are for companies that are not listed on a formal exchange and traded between two parties (bilateral negotiation) without going through an exchange or any other intermediaries.

Angel Tax

- Angel tax is the tax charged on the closely held company when it issues shares to a resident person at a price which is more than its fair market value.

Securities Transaction Tax (STT)

- STT is restricted only to difference between settlement and strike price in case of exercise of options. STT (a direct tax) is levied on every sale and purchase of securities that are listed on recognised stock exchanges in India.

Multilateral Convention

- The Multilateral Convention (MLI) is an outcome of OECD or G20 Project to tackle Base Erosion and Profit Shifting (called as BEPS Project). BEPS means tax planning strategies which exploit mismatches and gaps in tax rules so as to artificially shift profits to a low or no-tax location where there is little/no economic activity, which further results in little or no overall corporate tax being paid.

Pre-Paid Payment Instrument (PPIs)

- PPIs are instruments which come with a preloaded value and in even with pre-defined purpose of payment. PPIs facilitates financial services, inter-personal remittance transactions (like sending money to friend or a family member), purchase of goods and services (G&S), etc., against amount stored on such instruments.

Currency Chest

- Currency chest is the place where the currency is stored. These chests act as the distributives of RBI cash and enable RBI to take back soiled notes and mutilated notes from the public.

Ways and Means Advances (WMA)

- Ways and Means Advances is the temporary loan facility provided by the RBI to the centre and state governments. The WMA scheme was introduced in 1997 to meet any temporary mismatches in the receipts and payments of the government.
- The WMA needs to be vacated after 90 days. The interest rate for WMA is currently charged at the Repo Rate. The limits for WMA are decided by the RBI and in consultation with the Government of India.

White Label ATMs

- Automated Teller Machines (ATMs) set up, owned and operated by non-bank entities are called White Label ATMs. These White Label ATMs provide banking services to the customers of banks on the basis of the cards (debit/credit/prepaid) issued by banks.

Gratuity

- Gratuity is the monetary benefit provided by the employer to his/her employee for the services rendered by him during the period of employment. A minimum of five years of service with an organisation is mandatory for availing the benefit of gratuity.

Foreign Portfolio Investment (FPI)

- FPI consists of securities and other financial assets passively held by foreign investors. FPI does not provide the investor with direct ownership of financial assets. In India, FPIs are allowed to invest in various debt market instruments such as government bonds, treasury bills, state development loans (SDLs) and corporate bonds, but with certain restrictions and limits. FPI is part of countries capital account and is listed on its balance of payments (BOP).

Foreign Exchange Reserves

- Foreign Exchange Reserves are the reserve assets held by a central bank in foreign currencies. They are used to back liabilities on their own issued currency as well as to influence monetary policy. These reserves act as a buffer during the challenging times to the economy.
- The components of India's FOREX Reserves which is expressed in terms of US dollars include foreign currency assets (FCAs), Gold Reserves, Special Drawing Rights (SDRs) and RBI's Reserve position with International Monetary Fund (IMF). FCAs constitute the largest component of Indian Forex.

Prompt Corrective Action (PCA) Framework

- Prompt Corrective Action (PCA) framework has been issued by the RBI to maintain the sound financial health of banks. The RBI will initiate certain structured and discretionary actions for the bank under the PCA when the Banks breach any of the three key regulatory trigger points:
- Capital to risk-weighted assets ratio
- Net non-performing assets
- Return on assets.

Standard Deduction

- Standard Deduction refers to deduction allowed as per the Income Tax irrespective of the expenses met or the investment made by the individual. An individual is not required to disclose any investment proofs or expense bills for this purpose, the Standard Deduction is allowed at a standard rate.

Authorised Capital

- Authorised Capital refers to the maximum amount of capital for which shares can be issued by a company. The Authorised capital would be mentioned in the Memorandum of Association of the Company and can be increased at any time in future.

Currency Swap Agreements

- A Currency swap agreement is a foreign exchange agreement between two parties to exchange a given amount of one currency for another and, after a specified period of time, to give back the original amounts swapped.

Public Credit Registry

- Public Credit Registry is a digital registry of authenticated granular credit information and will work as a financial information infrastructure providing access to various stakeholders and enrich the existing credit information ecosystem. It would be mandatory for reporting for all material events for each loan, notwithstanding any threshold in the loan amount or type of borrower to the Public Credit Registry.

Electoral Bond

- An Electoral Bond is just like a promissory note that will be payable to bearer on demand and free of interest. It can be purchased by a citizen of India or anybody incorporated in India.

Commodity Market

- It is physical or virtual marketplace for buying, selling and trading raw or primary products. Thus, it is market that trades in primary economic sector rather than manufactured products.

Net Demand and Time Liabilities (NDTL)

- NDTL shows the difference between the sum of demand and time liabilities (deposits) of a bank (with the public or the other bank) and the deposits in the form of assets held by the other bank.

Priority Sector Lending

- It is an important role given by the Reserve Bank of India (RBI) to the banks for providing a specified portion of the bank lending to few specific sectors.

Priority Sectors

- Priority Sector means those sectors which the Government of India and Reserve Bank of India consider as important for the development of the basic needs of the country and are to be given priority over other sectors. The banks are mandated to encourage the growth of such sectors with adequate and timely credit.

Basel III Norms

- It is an international regulatory accord that introduced a set of reforms designed to improve the regulation, supervision and risk management within the banking sectors.

Plan and Non-Plan Expenditure

- Plan expenditure, also known as development expenditure, is used on government programmes and flagship schemes, whereas non-Plan expenditure involves spending on defence, subsidies and transfer to states and the large share of government spending comes from none other than non-Plan expenditure. The Plan expenditure allocation estimates are determined by the Planning Commission whereas in the case of non-Plan expenditure, the finance ministry determines them without consultation with the Commission.

Deficit Financing

- The term 'deficit financing' is used to denote the direct addition to gross national expenditure through budget deficits, whether the deficits are on revenue or on capital account.

Behavioural Economics

- Behavioural economics majorly depends upon emphasising the beneficial social norm and understanding their drivers; changing the default option and understanding the inertia of people to change and; repeated reinforcements to sustain changed behaviour.

Fiscal Rectitude

- An honest and honourable handling of a government's finances (tax revenues, for instance) by those hired or elected to do that job.

Gender Budgeting

- Gender Budgeting is concerned with gender-sensitive formulation of legislation, policies, plans, programmes and schemes; allocation and collection of resources; implementation and execution; monitoring, review, audit and impact assessment of programmes and schemes; and follow-up corrective action to address gender disparities.

Asset Turnover Ratio

- Asset turnover ratio is the ratio between the value of a company's sales or revenues and the value of its assets. It is an indicator of the efficiency with which a company is deploying its assets to produce the revenue.

Capital Adequacy Ratio (CAR)

- CAR is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.

Contagion

- In economics and finance, a contagion can be explained as a situation where a shock in a particular economy or region spreads out and affects others by way of, say, price movements.

Liquidity Trap

- Liquidity trap is a situation when expansionary monetary policy (increase in money supply) does not increase the interest rate, income and hence does not stimulate economic growth.

Non Performing Assets

- A non performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.
- Banks are required to classify NPAs further into Substandard, Doubtful and Loss assets.

Profitability Index

- Profitability index is a financial tool which tells us whether an investment should be accepted or rejected. It uses the time value concept of money.

Venture Capital

- Start up companies with a potential to grow need a certain amount of investment. Wealthy investors like to invest their capital in such businesses with a long-term growth perspective. This capital is known as venture capital and the investors are called venture capitalists.

Regressive Tax

- Under this system of taxation, the tax rate diminishes as the taxable amount increases. In other words, there is an inverse relationship between the tax rate and taxable income. The rate of taxation decreases as the income of taxpayers increases.

Special Drawing Rights

- This is a kind of reserve of foreign exchange assets comprising leading currencies globally and created by the International Monetary Fund in the year 1969.
- Before its creation, the international community had to face several restrictions in increasing world trade and the level of financial development as gold and US dollars, which were the only means of trade, were in limited quantities. In order to address the issue, SDR was created by the IMF.

Proportional Tax

- Proportional tax is the taxing mechanism in which the taxing authority charges the same rate of tax from each taxpayer, irrespective of income. This means that lower class, or middle class, or upper class people pay the same amount of tax. Since the tax is charged at a flat rate for everyone, whether earning higher income or lower income, it is also called flat tax.

Derivatives

- A derivative is a contract between two parties which derives its value/price from an underlying asset. The most common types of derivatives are futures, options, forwards and swaps.

Hedge Fund

- Hedge fund is a private investment partnership and funds pool that uses varied and complex proprietary strategies and invests or trades in complex products, including listed and unlisted derivatives.

Phillips Curve

- The inverse relationship between unemployment rate and inflation when graphically charted is called the Phillips curve.

Laffer Curve

- The Laffer Curve describes the relationship between tax rates and total tax revenue, with an optimal tax rate that maximizes total government tax revenue.

Dividend

- Dividend refers to a reward, cash or otherwise, that a company gives to its shareholders. Dividends can be issued in various forms, such as cash payment, stocks or any other form. A company's dividend is decided by its board of directors and it requires the shareholders' approval. However, it is not obligatory for a company to pay dividend. Dividend is usually a part of the profit that the company shares with its shareholders.

Appropriation Bill

- Appropriation Bill gives power to the government to withdraw funds from the Consolidated Fund of India for meeting the expenditure during the financial year.

Securities Transaction Tax

- STT is a kind of turnover tax where the investor has to pay a small tax on the total consideration paid or received in a share transaction. STT was introduced in the Budget of 2004 and implemented in Oct 2004. The objective behind the levy is to mitigate tax evasion as the same is taxed at source. Stocks, futures, option, mutual funds and exchange traded funds come under the ambit of STT.

Subvention

- Subvention refers to a grant of money in aid or support, mostly by the government. The term finds a mention in almost every Budget.

Treasury Bills

- These are government bonds or debt securities with maturity of less than a year. T- bills are issued to meet short-term mismatches in receipts and expenditure. Bonds of longer maturity are called dated securities.

Credit Rating

- Credit rating is an analysis of the credit risks associated with a financial instrument or a financial entity. It is a rating given to a particular entity based on the credentials and the extent to which the financial statements of the entity are sound, in terms of borrowing and lending that has been done in the past.

Kuznets Curve

- It is a curve used to demonstrate the hypothesis that economic growth initially leads to greater inequality, followed later by the reduction of inequality.

Balance Sheet

- Balance Sheet is the financial statement of a company which includes assets, liabilities, equity capital, total debt, etc. at a point in time. Balance sheet includes assets on one side, and liabilities on the other. For the balance sheet to reflect the true picture, both heads (liabilities & assets) should tally (Assets = Liabilities + Equity).

Debt Consolidation

- Debt consolidation means combining more than one debt obligation into a new loan with a favourable term structure such as lower interest rate structure, tenure, etc. Here, the amount received from the new loan is used to pay off other debts.

Freight Village

- A freight village is a defined area within which all activities relating to transport, logistics and the distribution of goods, both for national and international transit, are carried out by various operators.

Infrastructure Investment Trusts (InvITs)

- These are mutual fund like institutions that enable investments into the infrastructure sector by pooling small sums of money from multitude of individual investors for directly investing in infrastructure so as to return a portion of the income to unit holders of InvITs, who pooled in the money. InvITs are regulated by Securities and Exchange Board of India

Countervailing Duty (CVD)

- Countervailing Duty (CVD) is an additional import duty imposed on imported products (by the importing country) when such products enjoy benefits like export subsidies and tax concessions in the country of their origin.

Safeguard Duty

- Safeguard Duty is duty payable on import of goods which is already being manufactured in India but cost of which is high compared to import price. It is imposed by Central Government on goods so that the Indian manufacturers do not suffer due to import of cheaper goods from outside. It helps in creating a level playing field for Indian manufacturers and importers.

Dumping Duty

- It is said to occur when the goods are exported by a country to another country at a price lower than its normal value. This is an unfair trade practice which can have a distortive effect on international trade.

Anti-dumping Duty

- Anti-dumping Duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value. Dumping is a process where a company exports a product at a price lower than the price it normally charges in its own home market.

Shadow banking

- Shadow Banking is that part of the financial system where credit intermediation involving entities and activities remains outside the regular banking system.

Masala Bonds

- Masala bonds are rupee-denominated debt securities issued outside India by Indian companies. The bonds are directly pegged to the Indian currency. So, investors directly take the currency risk or exchange rate risks.

World Trade Organization (WTO) subsidies

- In WTO terminology, domestic subsidies in agriculture are identified by "Boxes" namely Green Box, Amber Box & Blue Box.
- Green Box - In simple terms, subsidies that not distort trade or at most cause minimal distortion are in this box. Usually these subsidies are not directed at specific products.
- Amber Box - The subsidies that distort the international trade by making products of a particular country cheaper in the international market as compared to same or similar product from another country is slotted under this box.
- Blue Box - These are basically Amber Box subsidies but they tend to limit the production. Countries argue that Blue box subsidies are crucial for ushering in agricultural reforms.

General Anti Avoidance Rule (GAAR)

- GAAR is a set of rules or a framework which helps the revenue authorities decides whether a particular transaction has commercial substance or not. If it does not have commercial substance and is not a genuine transaction, then what should be the tax liability associated with it.

Windfall tax

- A windfall tax is a tax levied by governments against certain industries when economic conditions allow those industries to experience significantly above-average profits. Windfall taxes are primarily levied on companies in the targeted industry that have benefited the most from the economic windfall, most often commodity-based businesses.

Withholding Tax

- A withholding tax is an amount that an employer withholds from employees' wages and pays directly to the government. The amount withheld is a credit against the income taxes the employee must pay during the year. It also is a tax levied on income (interest and dividends) from securities owned by a non-resident as well as other income paid to non-residents of a country.

Minimum Alternate Tax (MAT)

- MAT is a tax to facilitate the taxation of 'zero tax companies' i.e., those companies which show zero or negligible income to avoid tax. Under MAT, such companies are made liable to pay to the government, by deeming a certain percentage of their book profit as taxable income.

Crowdfunding

- Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business venture. Crowdfunding makes use of the easy accessibility of vast networks of people through social media and crowdfunding websites to bring investors and entrepreneurs together, and has the potential to increase entrepreneurship by expanding the pool of investors from whom funds can be raised beyond the traditional circle of owners, relatives and venture capitalists.

Bank Rate

- Bank rate is the rate charged by the Reserve Bank of India for lending funds to commercial banks. It influences lending rates of commercial banks. Higher bank rate will translate to higher lending rates by the banks. In order to curb liquidity, the central bank can resort to raising the bank rate and vice versa.

Gross Domestic Product

- GDP is the final value of the goods and services produced within the geographic boundaries of a country during a specified period of time, normally a year. GDP growth rate is an important indicator of the economic performance of a country.

Gross National Product

- Gross National Product (GNP) is Gross Domestic Product (GDP) plus net factor income from abroad. It measures the monetary value of all the finished goods and services produced by the country's factors of production irrespective of their location. It includes taxes but does not include subsidies.

Wholesale Price Index

- Wholesale Price Index (WPI) represents the price of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organizations instead of consumers. WPI is often used as a measure of inflation.

Inflation

- Inflation is the percentage change in the value of the Wholesale Price Index (WPI) on a year-on year basis. It effectively measures the change in the prices of a basket of goods and services in a year. It occurs due to an imbalance between demand and supply of money, changes in production and distribution cost or increase in taxes on products. When economy experiences inflation the price level of goods and services rises and the value of currency reduces.

Liquidity

- Liquidity means how quickly one can get his cash in hand. In simpler terms, liquidity is to get your money whenever you need it. It might be emergency savings account or the cash lying with you that you can access in case of any unforeseen happening or any financial setback.

Monetary Policy

- Monetary policy is the macroeconomic policy laid down by the Reserve Bank of India. It involves management of money supply and interest rate and it is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity.

Purchasing Power Parity

- Purchasing Power Parity aims to determine the adjustments needed to be made in the exchange rates of two currencies to make them at par with the purchasing power of each other. It is the expenditure on a similar commodity must be same in both currencies when accounted for exchange rate. It is used worldwide to compare the income levels in different countries.

Repo Rate

- Repo rate is the rate at which the Reserve Bank of India lends money to commercial banks in the event of any shortfall of funds. For RBI point of view it is called as short term lending and from banks point of view it is short term borrowing.

Statutory Liquidity Ratio (SLR)

- Statutory Liquidity Ratio (SLR) is the ratio of total deposits of a commercial bank which it has to keep with itself in the form of liquid assets. Liquid assets may consist of cash in hand, gold, reserves with RBI, excess reserves, government securities and other encumbered securities, etc.
- SLR is amount that banks are required to maintain as stipulated proportion of their net demand and time liabilities (NDTL) in form of liquid assets such as cash, gold treasury bills, unencumbered securities and dated securities etc.

Sovereign Risk

- Any risk arising on chances of a government failing to make debt repayments or not honouring a loan agreement is a sovereign risk.

Service Tax

- Service tax is a tax levied by the government on service providers on certain service transactions, but is actually borne by the customers.

Reverse Repo Rate

- Reverse Repo Rate is the rate at which the Reserve Bank of India borrows money from commercial banks within the country. It is a monetary policy instrument which can be used to control the money supply in the country. An increase in Reverse Repo Rate means that commercial banks will get more incentives to park their funds with the RBI, thereby decreasing the supply of money in the market.

Recession

- Recession is a slowdown or a massive contraction in economic activities. A significant fall in spending generally leads to a recession.

Marginal Standing Facility

- Marginal standing facility is a window for banks to borrow from the Reserve Bank of India in an emergency situation when inter-bank liquidity dries up completely.
- MSF is very short term borrowing scheme for scheduled banks and is rate at which scheduled banks borrow funds overnight from RBI against government securities.

Exchange Rate

- Exchange rate is the price of one currency in terms of another currency. Exchange rates can be either fixed or floating. Fixed exchange rates are decided by central banks of a country whereas floating exchange rates are decided by the mechanism of market demand and supply.

Deflation

- When the overall price level decreases so that inflation rate becomes negative, it is called deflation. It is the opposite of the inflation.

Balance of Payment

- According to the RBI, balance of payment is a statistical statement that shows the transaction in goods, services and income between an economy and the rest of the world; changes of ownership and other changes in that economy's monetary gold, special drawing rights (SDRs), and financial claims on and liabilities to the rest of the world, and Unrequited transfers.

Base Rate

- Base rate is the minimum rate set by the Reserve Bank of India below which banks are not allowed to lend to its customers. It is decided in order to enhance transparency in the credit market and ensure that banks pass on the lower cost of fund to their customers. Loan pricing will be done by adding base rate and a suitable spread depending on the credit risk premium.

Cash Reserve Ratio

- Cash Reserve Ratio (CRR) is a specified minimum fraction of the total deposits of customers, which commercial banks have to hold as reserves either in cash or as deposits with the central bank.

Depreciation

- The monetary value of an asset decreases over time due to use, wear and tear or obsolescence. This loss is measured as depreciation.

Equated Monthly Installment

- EMI or equated monthly installment, as the name suggests, is one part of the equally divided monthly outgoes to clear off an outstanding loan within a stipulated time frame.

Microeconomics

- Microeconomics is the study of individuals, households and firms' behaviour in decision making and allocation of resources. It generally applies to markets of goods and services and deals with individual and economic issues.

Ponzi scheme

- A Ponzi scheme is an investment plan in which the operator or the operating company pays returns to investors from the new capital coming in from new investors instead off the profits of the business. The investors get attracted to these schemes because of the unusual high rate of return offered within shorter time spans compared to other conventional investment options.

Demat Account

- The way in which a bank keeps money in a deposit account, the depository company converts share certificates into electronics form and keeps them in a Demat Account.

Vostro Account

- When a foreign bank is opened in India with Indian currency, it is known as Vostro account. eg. Standard Chartered Bank in India.

2 ENVIRONMENT & WILDLIFE

Loss and Damages (L&D) Fund established at COP27

COP27 established a 'Loss and Damage' fund to compensate the most vulnerable countries for damages from climate-linked disasters.

Key Highlights

- Governments took the ground-breaking decision to establish new funding arrangements, as well as a dedicated fund, to assist developing countries in responding to loss and damage.
- It is a fund created to cost rich and developed countries who are majorly responsible for polluting the environment to the poorer and least developed countries who have made negligible contribution to pollution but are more vulnerable to extreme climate events.
- The expected monetary compensation from L&D find is estimated to be nearly $500 billion and rising by $200 billion annually.
- Governments also agreed to establish a 'transitional committee' to make recommendations on how to operationalize both the new funding arrangements and the fund at COP28 next year.
- The first meeting of the transitional committee is expected to take place before the end of March 2023.
- Parties also agreed on the institutional arrangements to operationalize the Santiago Network for Loss and Damage, to catalyze technical assistance to developing countries that are particularly vulnerable to the adverse effects of climate change.
- Santiago Network will connect vulnerable developing countries with providers of technical assistance, knowledge, resources they need to address climate risks comprehensively in the context of averting, minimizing and addressing loss and damage.
- Serious concern was expressed that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 has not yet been met, with developed countries urged to meet the goal, and multilateral development banks and international financial institutions called on to mobilize climate finance.
- The Warsaw International Mechanism (WIM) for Loss and Damages, set up in 2013, was the first formal acknowledgment of the need to compensate developing countries struck by climate disasters.

COP-27

The United Nations Climate Change Conference (COP27) opened at Sharm el-Sheikh, Egypt, with the key aim of ensuring full implementation of the Paris Agreement.

COP27 began near the end of a year that has seen devastating floods and unprecedented heat waves, severe droughts and formidable storms, all unequivocal signs of the unfolding climate emergency. At the same time, millions of people throughout the world are confronting the impacts of simultaneous crises in energy, food, water and cost of living, aggravated by severe geopolitical conflicts and tensions.

COP27 took place against the backdrop of inadequate ambition to curb greenhouse gas emissions. According to the UN's Intergovernmental Panel on Climate Change, CO_2 emissions need to be cut 45% by 2030, compared to 2010 levels to meet the central Paris Agreement goal of limiting temperature rise to 1.5 degrees Celsius by the end of this century.

What is "Loss and Damage"?

It refers to costs already being incurred from climate-fuelled weather extremes or impacts, like rising sea levels.

- The demand for loss and damage finance is quite old, but it has faced strong resistance from the rich and developed countries.
- Inclusion in the formal agenda is just the first step. The actual provision for compensation for climate disasters is a long way ahead.

International Drought Resilience Alliance (IDRA) launched



Spain and Senegal led 30 countries and 20 organizations to launch the International Drought Resilience Alliance (IDRA) at the 27th Conference of Parties (COP27) to the United Nations Framework Convention on Climate Change (UNFCCC) at Sharm El-Sheikh, Egypt.

Key Highlights

- The alliance will help each other to be better prepared for future droughts.
- The group also pledged to drive change in how the world tackles the growing drought risks: Moving from emergency response to building long-term resilience.
- The mission of the alliance is to give political impetus to make the land's resilience to drought and climate change a reality by 2030, they added.
- The alliance will also collaborate with other platforms, including the initiative launched by the United Nations Secretary-General and the World Meteorological Organization to achieve universal coverage of early warning systems and regional initiatives to reap the maximum benefits of working together on drought resilience.
- The alliance is significant as there is no global convention for land, other than UNCCD, which mostly focuses on desertification.
- The alliance is now being seen as a 'specific solution' for the United Nations to the impacts of climate change.

Mangrove Alliance for Climate (MAC) launched

At the 27th Session of Conference of Parties (COP27), this year's UN climate summit, the Mangrove Alliance for Climate (MAC) was launched with India as a partner.

Key Highlights

- An initiative led by the United Arab Emirates (UAE) and Indonesia, the Mangrove Alliance for Climate (MAC) includes India, Sri Lanka, Australia, Japan, and Spain.
- It seeks to educate and spread awareness worldwide on the role of mangroves in curbing global warming and its potential as a solution for climate change.
- The move, in line with India's goal to increase its carbon sink, will see India collaborating with Sri Lanka, Indonesia and other countries to preserve and restore the mangrove forests in the region.
- India is home to one of the largest remaining areas of mangroves in the world — the Sundarbans and has years of expertise in restoration of mangrove cover that can be used to aid global measures in this direction.
- The intergovernmental alliance works on a voluntary basis which means that there are no real checks and balances to hold members accountable.

The significance of mangroves:

- Mangrove forests consisting of trees and shrubs live in intertidal water in coastal areas — host diverse marine life.
- They also support a rich food web, with molluscs and algae-filled substrate acting as a breeding ground for small fish, mud crabs and shrimps, thus providing a livelihood to local artisanal fishers.
- Equally importantly, they act as effective carbon stores, holding up to four times the amount of carbon as other forested ecosystems. Mangrove forests capture vast amounts of carbon dioxide from the atmosphere and their preservation can both aid in removal of carbon from the atmosphere and prevent the release of the same upon their destruction.
- India holds around 3 percent of South Asia's mangrove population.

Kunming-Montreal Global Biodiversity Framework (GBF) adopted



The 15th Conference of Parties (COP15) to the UN Convention on Biological Diversity (CBD) adopted the Kunming-Montreal Global Biodiversity Framework (GBF).

Key Highlights

- The Kunming-Montreal Global Biodiversity Framework (GBF) aims to halt and reverse biodiversity loss by 2030.
- Taking a similar approach to the Paris Climate Agreement, this framework sets a clear mandate for private financial flows to align with the 2050 Vision of "Living in harmony with Nature", providing the finance sector with a landmark agreement for biodiversity-related financial-decision making.

- This agreement has been decisively backed by the financial sector: 150+ financial institutions with US$24+ trillion in global assets called for an ambitious framework to halt and reverse biodiversity loss.
- The framework has 23 targets that the world needs to achieve by 2030.
- COP15 had representatives of 188 governments on site and agreed on the framework that hopes to arrest the ongoing loss of terrestrial and marine biodiversity.
- In 2020, the world had failed to meet the last set of targets, the Aichi Targets.
- Clear indicators to measure progress have been set to avoid the failure as seen in the Aichi Targets.
- The countries will monitor and report every five years or less on a large set of indicators related to progress.
- The Global Environment Facility has been requested to establish a Special Trust Fund to support the implementation of the Global Biodiversity Framework (GBF).

UNEP's Champions of the Earth, 2002 awarded



CHAMPIONS OF THE EARTH

India's Purnima Devi Barman, an Assam-based wildlife biologist, is one of the five 'Champions of the Earth' for this year's United Nations Environment Programme.

Key Highlights:

- The annual awards are the highest environmental honour that the UNEP confers on individuals and organisations whose actions have a "transformative impact" on the environment. She has been honoured in the Entrepreneurial Vision category.
- The other honourees include Arcenciel (Lebanon); Constantino (Tino) Aucca Chutas (Peru); Sir Partha Dasgupta of the United Kingdom and Cecile Bibiane Ndjebet (Cameroon).

E-Waste (Management) Rules, 2022 notified

The government notified E-waste (management) rules 2022, that will come into force from 1 April, 2023.

Key Highlights:

- **Mandatory for different stakeholders:** The rules will apply to every manufacturer, producer, refurbisher, dismantler and recycler involved in manufacturing, sale, transfer, purchase, refurbishing, dismantling, recycling and processing of e-waste or electrical and electronic equipment.



- **Restrict hazardous substances:** The government has restricted the use of hazardous substances in manufacturing electrical and electronic equipment (EEE).
- **Mandatory for manufacturers:** The rules mandate to reduce the use of lead, mercury, cadmium among others in the manufacturing of electronic equipment that have an adverse impact on human health and the environment.
- **Applicability:** This is applicable to all electrical devices and radiotherapy equipment, nuclear medicine equipment and accessories, Magnetic Resonance Imaging (MRI), electric toys, air conditioners, microwaves, tablets, washing machine, refrigerator and iPad among others.
- **Recyclability and Compatibility of components:** Manufacturer shall use the technology or methods so as to make the end product recyclable and shall ensure that components or parts made by different manufacturers are compatible with each other so as to reduce the quantity of e-waste.
- **Increased the range of electronic goods:** Covered laptops, mobile, cameras etc.
- **Targets for recycling:** Producers of electronic goods have to ensure at least 60% of their electronic waste is collected and recycled by 2023 with targets to increase them to 70% and 80% in 2024 and 2025, respectively. Companies will report these on an online portal.
- **Extended Producer Responsibility Certificates:** Similar to carbon credit mechanism, this will allow the offsetting of e-waste responsibility to a third party.
- **'Environmental compensation':** Companies have to provide compensation for the target they don't meet.
- **Industrial space for waste dismantling and recycling:** They will earmark industrial space for e-waste dismantling and recycling facilities, undertaking industrial skill development and establishing measures for protecting the health and safety of workers engaged in the dismantling and recycling facilities for e-waste.
- **Central Pollution Control Board:** It shall conduct random sampling of electrical and electronic equipment placed on the market to monitor and verify the compliance of reduction of hazardous substances provisions.
- **Imports regulations:** Imports or placement in the market for new electrical and electronic equipment shall be permitted only for those which are compliant with provisions laid down by the government. If a product does not comply with the e-waste management rules, the manufacturer will have to withdraw all samples from the market.
- **Exempted products:** The rule does not apply to waste batteries, packaging plastics, micro enterprises and radio-active waste, as covered under the provisions of the law.

CHEETAH REINTRODUCED IN INDIA



Eight African Cheetahs sourced from Namibia were introduced to Kuno-Palpur National Park in Madhya Pradesh, under the first global intercontinental carnivore translocation of African cheetahs. The action plan was launched at the 19th meeting of National Tiger Conservation Authority (NTCA). The Wildlife Institute of India at Dehradun had prepared a ₹260 crore cheetah re-introduction project seven years ago.

Cheetah Reintroduction Plan:

- Under the plan, 50 Cheetahs will be introduced in the different National Parks in the country in a span of 5 years.
- Initially, translocating around 8-12 cheetahs from South Africa, Namibia and Botswana will be done.
- This is the first time in the world that a large carnivore are relocated from one continent to another.

> **'Reintroduction' of a species means releasing it in an area where it is capable of surviving. Reintroductions of large carnivores have increasingly been recognised as a strategy to conserve threatened species and restore ecosystem functions.**

Reasons for extinction

- The reasons for extinction can all be traced to man's interference. Problems like human-wildlife conflict, hunting, loss of habitat and loss of prey, and illegal trafficking, have decimated their numbers.
- Climate change and growing human populations have only made these problems worse.
- With less available land for wildlife, species that required, vast home range animal like the cheetah are placed in competition with other animals and humans, all fighting over less space.

How Cheetahs got extinct in India?

- The Cheetah is believed to have disappeared from the Indian landscape when the Maharaja Ramanuj Pratap Singh Deo of Koriya is believed to have hunted and shot the last three recorded Asiatic cheetahs in India in 1947.
- In 1952, the Indian Government declared the Cheetah extinct in the country.
- Cheetah is the only large carnivore till date to have gone extinct in the country, due to a combination of hunting and loss of habitat.

Facts CHEETAH

The Cheetah, Acinonyx jubatus, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.

The fastest land animal is native to Africa and central Iran. It can attain a running speed of 80 to 128 km/h. Cheetah is listed in the "Vulnerable Category" of the International Union for Conservation of Nature's (IUCN) red list of threatened species.

The cheetah is also the world's fastest land mammal.

African Cheetah is listed as vulnerable in IUCN red listed species.

The Asiatic cheetah is classified as a "critically endangered" species by the IUCN Red List, and is believed to survive only in Iran.

Two more Indian beaches get Blue Flag Certification

Two Indian beaches, Minicoy Thundi beach and Kadmat beach, located in Lakshadweep, have received the International eco-label 'Blue Flag'.

Key Highlights

- Indian beaches in Lakshadweep -- Minicoy, Thundi Beach and Kadmat Beach have received the International eco-label 'Blue Flag' recently.
- India now has a total of 12 "blue beaches", including Shivrajpur, Ghoghla, Kasarkod and Padubidri, Kappad, Rushikonda, Radhanagar, Golden, Kovalam, and Eden.



- Both the beaches -- Minicoy, Thundi Beach and Kadmat Beach have designated staff for beach cleanliness and maintenance and for the safety and security of swimmers.
- Thundi Beach is a pristine and picturesque beach in the Lakshadweep archipelago where white sand is lined by turquoise blue water whereas Kadmat Beach is popular with cruise tourists who visit the island for water sports. It is famous for its pearl white sand, blue lagoon waters and moderate climate.



Blue Flag certification



- International eco-label 'Blue Flag' is an eco-label given to the cleanest beaches in the world.
- The Blue Flag certification is accorded by Foundation for Environment Education (FEE). FEE is a non-profit organisation promoting sustainable development through environmental education. It is based at Copenhagen, Denmark.
- To qualify for the Beaches Blue flag certification, a series of stringent environmental, educational, safety-related and access-related criteria are supposed to be met. The beaches shall comply with all the 33 criteria which are mandated by the Foundation for Environment Education.
- Blue flag mission promotes sustainability in the tourism sector, through environmental education, environmental protection and other sustainable development practices.

WMO released State of the Climate in Asia Report, 2021

The World Meteorological Department (WMO) released its State of Climate in Asia 2021 report.



Key Highlights

- The report produced jointly with the UN Economic and Social Commission for Asia and the Pacific (ESCAP), was presented during the UN climate change negotiations, COP27, in Sharm El Sheikh, Egypt.
- The report revealed that last year alone, weather and water-related hazards caused a total damage of $ 35.6 billion across the continent, affecting nearly 50 million people.
- Last year, there were a total of more than 100 natural hazard events in Asia, of which 80% were flood and storm events. These resulted in almost 4,000 fatalities, about 80%caused by flooding. Overall, 48.3 million people were directly affected by these hazards, causing total economic damage of US$ 35.6 billion.
- Flooding caused the highest economic losses in China ($ 18.4 billion), followed by India ($ 3.2 billion), and Thailand ($ 0.6 billion).
- Storms also caused significant economic damage, especially in India ($ 4.4 billion), China ($ 3.0 billion), and Japan ($ 2 billion).
- The report highlighted how the climate crisis is exacerbating food insecurity and poverty.
- Most glaciers in the High-Mountain Asia region, particularly in the south-eastern Tibetan Plateau, eastern Himalayas and Pamir Alai, suffered intense mass losses as the result of exceptionally warm and dry conditions in 2021, the report said.
- In 2021, the largest relative precipitation deficit was observed in West Asia, including, in particular, the Islamic Republic of Iran, Iraq, Afghanistan and the Arabian Peninsula.
- The largest absolute precipitation excesses, with reference to the 1981–2010 climate normal, were observed along the west coasts of India and Myanmar, in the eastern Himalayas and on the North China Plain.

- The Economic and Social Commission for Asia and the Pacific (ESCAP) Asia-Pacific Disaster Reports 2021 and 2022, referred by WMO in its report, estimate that in Asia, the annual investment in adaptation would need to be highest for China, at $ 188.8 billion, followed by India at $ 46.3 billion, and Japan at $ 26.5 billion. As a percentage of the country's GDP, the highest cost is estimated for Nepal, at 1.9%, followed by Cambodia at 1.8%, and India at 1.7%.

Climate Change Performance Index 2023 released

Climate Change Performance Index 2023 was released jointly by German watch, New Climate Institute and Climate Action Network.



Key Highlights

- India climbed two spots to bag 8th position out of 63 in the Climate Change Performance Index (CCPI) 2023.
- The jump can be attributed to India's low emissions and the increasing use of renewable energy.
- The report leaves the first three places empty as "no country performed well enough in all index categories to achieve an overall very high rating". It puts Denmark in fourth place, followed by Sweden and Chile.
- China, which is the world's biggest polluter now, fell 13 places to 51st in this year's CCPI and received an overall very-low rating due to plans for new coal-fired power plants.
- The US rose by three ranks to the 52nd place. Iran (63rd), Saudi Arabia (62nd) and Kazakhstan (61st) fared the worst.
- India earned a high rating in the GHG Emissions and Energy Use categories, while it got a medium rating in Climate Policy and Renewable Energy sections.
- Despite India's medium rating in the Renewable Energy category, the country has included renewables targets in its updated NDC. Yet, the experts cite missing roadmaps and concrete action plans for achieving the targets.

Government notified Forest Conservation Rules, 2022

The Ministry of Environment, Forest and Climate Change recently notified the Forest (Conservation) Rules, 2022 under Forest (Conservation) Act, 1980.

Key Highlights

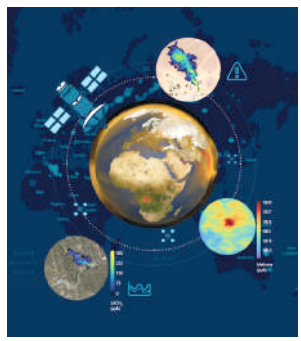
- The rules simplify and shorten the process of diverting forest land for infrastructure and development projects.
- **Committees:** It includes the constitution of an Advisory Committee, a regional empowered committee at each of the integrated regional offices and a screening committee at State/Union Territory (UT) government-level.
- **Compensatory afforestation:** As per new Rules, project developers can purchase land with plantations from private individuals to present them as compensatory afforestation against forest diversion for non-forest activities.This land, however, must be of 10 ha and comprise trees that are at least five years old and have a density of 0.4 or more.
- **Consent:** Previously, the Union government was first required to verify the consent of forest-dwelling communities before forest land was approved to be handed over to private projects.Now, it can first approve the handover of the forest, collect payment for compensatory afforestation, then settle the forest rights of the communities and rehabilitate them.
- **Zoos on Forest Land:** Zoos established on forest land shall be considered as forestry activity.
- **Diversion of compensatory afforestation:** The applicants for diverting forest land in a hilly or mountainous state with green cover covering more than two-thirds of its geographical area, or in a state/UT with forest cover covering more than one-third of its geographical area, will be able to take up compensatory afforestation in other states/UTs where the cover is less than 20%.

Compensatory afforestation:

- It refers to planting activities done in lieu of diversion of forest for non-forest purposes such as mining, setting up of an industry or an infrastructure project.
- Earlier, a project developer had to provide land which is not notified as forest against forest diversion and had to bear the cost of raising compensatory afforestation over the same piece of land.

UN launched Methane Alert and Response System (MARS)

The United Nations announced a high-tech, satellite-based global methane detection system to alert government and private agencies against the emissions.



Key Highlights

- Launched during the ongoing COP27 in Sharm El Sheikh, Egypt, the Methane Alert and Response System (MARS) can be a vital tool to help precisely locate major methane leaks.

- MARS is a data-to-action platform set up as part of the UNEP International Methane Emissions Observatory (IMEO) strategy to get policy-relevant data into the right hands for emissions mitigation.
- MARS will be the first publicly available global satellite system to identify major emission events, alert stakeholders, and support and track mitigation progress. It will help in early detection of methane leaks making it possible to respond faster.
- Beginning with very large point sources from the energy sector, MARS will integrate data from the rapidly expanding system of methane-detecting satellites to include lower-emitting area sources and more frequent detection.
- Data on coal, waste, livestock and rice will be added gradually to MARS to support Global Methane Pledge implementation.
- The new system will provide technical or advisory services to help in assessing mitigation options.
- UNEP will continue to monitor the event location and make the data and analysis available to the public between 45 and 75 days after detection.

Cabinet approved India's new "Nationally Determined Contribution"



Union cabinet approved India's updated Nationally Determined Contribution (NDC).

Key Highlights

- The cabinet has approved the "Nationally Determined Contribution" of country and submitted to the United Nations Framework Convention on Climate Change (UNFCCC).
- Union cabinet chaired by Prime Minister Narendra Modi approved India's updated NDC.
- As per this announcement, India will now reduce emissions intensity of its GDP by 45% by 2030 from 2005 levels.
- India will also achieve 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.
- Updated NDC translates the 'Panchamrit' into enhanced climate targets. India had announced Panchamrit at COP26.
- India is one of the 193 parties signatory to the Paris Agreement, a legally binding international treaty on climate change. Under the Agreement, parties have to keep updating their NDCs (which are commitments made in order to adapt to and mitigate the impacts of climate change) every five years.
- India's first NDC, submitted to the UNFCCC in October 2015, had eight main goals. These also included reducing the emissions intensity of its GDP by 33% to 35% by 2030 (from levels in 2005) and creating an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent by increasing forest and tree cover by 2030.
- The updated NDC also highlights the importance of changing lifestyles for the environment in tackling climate change (the 'LiFE', Lifestyle for Environment, movement, as mentioned by PM Narendra Modi during COP26 in Glasgow last year). One target is "to put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation, including through a mass movement for 'LIFE'– 'Lifestyle for Environment' as a key to combating climate change".

New Environmental Impact Assessment (EIA) Rules give major exemptions

The Ministry of Environment, Forests and Climate Change has notified amendment to the Environment Impact Assessment (EIA) Rules.

Key Provisions

- New Environment Impact Assessment (EIA) Rules, exempt highway projects of strategic and defence importance, which are 100 km from the Line of Control, among other locations, from an environmental clearance before construction.
- The exemption to be accorded to highways of strategic importance, does away with the need for green clearance for construction of the controversial Char Dham project, which includes widening of 899 km roads in ecologically sensitive areas of Uttarakhand to improve connectivity to Kedarnath, Badrinath, Yamunotri, and Gangotri shrines. The case is presently being heard in Supreme Court
- Thermal power plants up to 15 MW based on biomass or non-hazardous municipal solid waste using auxiliary fuel such as coal, lignite or petroleum products up to 15 per cent have also been exempted — as long as the fuel mix is eco-friendly, according to the notification.
- Toll plazas that need more width for installation of toll collection booths to cater to a large number of vehicles, and expansion activities in existing airports related to terminal building expansion without increase in the airport's existing area, rather than expansion of runways, etc., are two other projects exempted.

Lisbon Declaration for Ocean Conservation adopted



Recently, at the UN Ocean conference, 2022 Lisbon Declaration for Ocean Conservation was adopted by member nations.

Key Highlights

- The Ocean Conference was co-hosted by the Governments of Kenya and Portugal.
- All 198 members of the United Nations unanimously adopted the Lisbon Declaration on ocean conservation.
- Member nations committed to empower women and girls, recognizing their participation is crucial to building a sustainable ocean-based economy and achieving the UN-mandated Sustainable Development Goal 14.
- Other pledges include developing and promoting innovative financing solutions to help create sustainable ocean-based economies as well as expanding nature-based solutions to help conserve and preserve coastal communities.
- The nation committed to follow science-based and innovative actions on an urgent basis and to work on preventing, reducing and controlling marine pollution through working on:
  - Nutrient pollution
  - Untreated wastewater
  - Solid waste discharges
  - Hazardous substances
  - Emissions from the maritime sector, including shipping, shipwrecks
  - Anthropogenic underwater noise

WMO announced Executive Action Plan of Early Warnings for All

EARLY WARNINGS FOR ALL
The UN Global Early Warning Initiative for the Implementation of Climate Adaptation
WORLD METEOROLOGICAL ORGANIZATION
COP27 EGYPT 2022

The World Meteorological Organisation (WMO) recently announced a 5-year program – Executive Action Plan of Early Warnings for All – to carry forward the proposal of the India-backed Coalition for Disaster Resilient Infrastructure (CDRI).

Key Highlights

- Under the program, a $3.1 billion investment has been proposed between 2023-27 to improve infrastructure and capacity in early warning systems in order to prevent the damage caused by the growing number of climate disasters.
- The initial investments represent six per cent of the $50 billion requested for adaptation financing, according to a WMO statement.
- WMO's action plan also stated that observations and forecasting preparedness and response need funding of $1 billion for building national and community response capabilities.
- The last pillar of the early warning system — dissemination and communication of risk information — requires $550 million.
- Early warning systems have still not reached 33 per cent of the global population, mainly in the least developed countries and small island developing states.

About Coalition for Disaster Resilient Infrastructure (CRDI)

CDRI
Coalition for Disaster Resilient Infrastructure

- CRDI is an international forum backed by India and launched by the Prime Minister of India during the UN Secretary General's Climate Action Summit in New York in 2019.
- CDRI is an endeavor to bring countries together to share and learn from experiences in protecting essential infrastructure from disasters.

About About World Meteorological Organisation (WMO)

WORLD METEOROLOGICAL ORGANIZATION

- It is a specialized agency of the United Nations (headquartered in Geneva, Switzerland) responsible for promoting international cooperation on atmospheric science, climatology, hydrology and geophysics.
- It evolved from the International Meteorological Organisation (an NGO created in 1873), culminating in the 1947 World Meteorological Convention, which formally established the WMO.
- The Convention took effect in 1950 and the WMO began operations the following year as an intergovernmental (made up of 193 countries) organization within the UN system.

Environmental Performance Index released

India has scored the lowest among 180 countries in the 2022 Environmental Performance Index (EPI).



Key findings

- With a score of 18.9, India ranked at 180th spot.
- India was ranked 168th in EPI-2020, with a score of 27.6.
- Bottom five nations included-India, Pakistan, Bangladesh, Vietnam and Myanmar.
- India has also scored low on rule of law, control of corruption and government effectiveness.
- Top five nations included- Denmark, UK, Finland, Malta, Sweden.
- The report stated that, a number of important countries in the Global South, including India and Nigeria, come out near the bottom of the rankings.
- Their low EPI scores indicate the need for greater attention to the spectrum of sustainability requirements, with a high-priority focus on critical issues such as air and water quality, biodiversity, and climate change.

About Environmental Performance Index (EPI)

- The EPI is a biennial index and was started in 2002 as Environmental Sustainability Index.
- It is prepared by the World Economic Forum in collaboration with the Yale Center for Environmental Law and Policy and the Columbia University Center for International Earth Science Information Network.
- It uses 40 performance indicators across 11 issue categories.
- EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality.
- These indicators provide a gauge at a national scale of how close countries are to established environmental policy targets.

Chhattisgarh recognised Community Forest Resource Rights

- Chhattisgarh has recognised the Community Forest Resources rights of residents of Dhamtari district over 4000 hectares of forest.



Key Highlights

- Chhattisgarh became the first State to recognize the Community Forest Resource Rights in urban areas.
- In addition to Dhamtari district, the State Government also recognized the community resource rights over 5,544 hectares of forest within the core area of the SitanadiUdanti tiger reserve area.
- KangerGhati National Park is the second national park, after Simlipal in Odisha, where CFR rights have been recognised.

About Community Forest Resources Rights

- Community Forest Resources Rights comes under the Forest Rights Act(FRA), 2006 or Scheduled tribes and Other Traditional Forest Dwellers(Recognition of Forest Rights) Act.
- It provides for recognition of the right to "protect, regenerate or manage or conserve " the community forest resources.
- These rights allow the community to formulate rules for forest use by itself and others and thereby discharge its responsibilities under FRA.

Country's first 2G Ethanol Plant launched



Prime Minister Narendra Modi inaugurated India's first "second generation (2G)" Ethanol plant in Panipat, Haryana.

Key Highlights

- The plant is based on state-of-the-art indigenous technology and is built at an estimated cost of over Rs 900 crore by Indian Oil Corporation Ltd. (IOCL) and is located close to the Panipat Refinery.
- The plant can utilize two lakh tonnes of rice straw annually to produce about 30 million liters of ethanol annually.
- It will produce 100 kilolitre ethanol per day, after processing 750 tonne paddy straw in a day.
- This plant would provide employment to around 250 people directly and to 1000 people indirectly.
- For the ethanol production, Paddy straw will be purchased from farmers.
- For this purpose, 12 collection centers have been set up in Panipat and Karnal.
- The project will have zero liquid discharge.
- The plant is based on 'Enfinity' technology developed by private firm Praj Industries Limited.
- Through the reduction in the burning of rice straw (parali), the project will contribute to a reduction of Greenhouse Gases equivalent to about 3 lakh tonnes of Carbon Dioxide equivalent emissions per annum, which can be understood as equivalent to replacing nearly 63,000 cars annually on the country's roads.
- The first generation (1G) ethanol is manufactured from feedstock such as cereals, sugarcane juice and molasses as raw materials while Second Generation (2G) feed stocks include agri-residues like rice & wheat straw, cane trash, corn cobs & stover, cotton stalk, bagasse, Empty Fruit bunches (EFB), etc.

New Ramsar Sites designated in India

India has added 26 more wetlands to the list of Ramsar sites. This has increased total Ramsar sites in India from 49 to 75 to make a total of 75 such sites covering an area of 13,26,677 hectares in the country which also marked 75 Ramsar Sites in 75th Year of Independence India.

New designated wetlands of International importance include:

- **Tamil Nadu:** Karikili Bird Sanctuary, Pallikaranai Marsh Reserve Forest &Pichavaram Mangrove, Koonthankulam Bird Sanctuary, Gulf of Mannar Marine Biosphere Reserve, Vembannur Wetland Complex, Vellode Bird Sanctuary, Vedanthangal Bird Sanctuary, Udhayamarthandapuram Bird Sanctuary, Chitrangudi Bird Sanctuary, SuchindramTheroor Wetland Complex, Vaduvur Bird Sanctuary, Kanjirankulam Bird Sanctuary, Thane Creek Mizoram-Pala wetland.
- **Madhya Pradesh:** SakhyaSagar wetland, Sirpur wetland, YashwantSagar
- **Odisha:** Satkosia Gorge, Tampara Lake, Hirakud Reservoir, Ansupa Lake
- **Goa:** Nanda Lake
- **Karnataka:** Ranganathituu Bird Sanctuary
- **Jammu and Kashmir:** Hygam Wetland Conservation Reserve, Shallbugh Wetland Conservation Reserve.

India State of Forest Report 2021 released

Minister for Environment, Forest and Climate Change released the 'India State of Forest Report 2021'

Key Highlights:

- The total forest and tree cover of the country is 80.9 million hectares which are 24.62 per cent of the geographical area of the country.
- As compared to the assessment of 2019, there is an increase of 2,261 sq km in the total forest and tree cover of the country. An increase in forest cover has been observed in the open forest followed by a very dense forest.

GAINS

State	(sq km)
Andhra Pradesh	647
Telangana	632
Odisha	537
Karnataka	155
Jharkhand	110

LOSSES

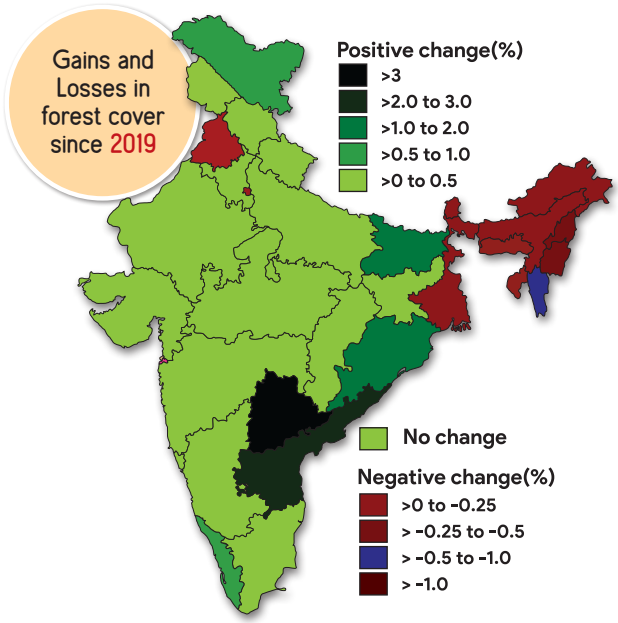
State	(sq km)
Andhra Pradesh	257
Manipur	249
Nagaland	235
Mizoram	186
Meghalaya	73

- The top three states showing an increase in forest cover are Andhra Pradesh (647 sq km) followed by Telangana (632 sq km) and Odisha (537 sq km).
- **Areas wise:** Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.
- **Forest cover as a percentage:** In terms of forest cover as a percentage of total geographical area, the top five States are Mizoram (84.53%), Arunachal Pradesh (79.33%), Meghalaya (76.00%), Manipur (74.34%) and Nagaland (73.90%).
- 17 states/UT's have above 33 per cent of the geographical area under forest cover.
- The total mangrove cover in the country is 4,992 sq km. An increase of 17 sq Km in mangrove cover has been observed as compared to the previous assessment of 2019.

- The forest cover in tiger corridors has increased by 37.15 sq km (0.32%) between 2011-2021 but decreased by 22.6 sq km (0.04%) in tiger reserves.

India State of Forest Report

- It is published every two years by the Forest Survey of India under the Ministry of Environment, Forests and Climate Change. The first survey was published in 1987, and ISFR 2021 is the 17th.
- The ISFR-2021 provides information on forest cover, tree cover, mangrove cover, growing stock, carbon stock in India's forests, forest fire monitoring, forest cover in tiger reserve areas, above ground estimates of biomass.
- In the present ISFR 2021, FSI has included a new chapter related to the assessment of forest cover in the Tiger Reserves, Corridors and Lion conservation area of India.



Ban on Single-use Plastic

From July 1, 2022 single-use plastic has been banned in India. The Centre has banned the manufacturing, distribution, importing, sale, stocking and use of all single-use plastic, comprising polystyrene and expanded polystyrene commodities across the country.



Items banned

- The Ministry of Environment had already banned polythene bags under 75 microns last year, widening the limit from the earlier 50 microns.
- The ministry will also phase out plastic bags of thickness less than 120 microns.
- As per the Plastic Waste Management Rules, 2016, there is also a blanket ban on sachets using plastic material for packing, storing, or selling pan masala, gutkha, and tobacco.

The Central Pollution Control Board (CPCB) has announced a ban on the following items:

- Balloon sticks
- Cigarette packs
- Earbuds
- Sweet boxes
- Invitation cards
- Polystyrene for decoration
- Candy and ice cream sticks
- PVC banners measuring under 100 microns
- Cutlery items including plates, cups, glasses, forks, spoons, knives, trays



Guidelines on Single-use Plastic Ban

- The CPCB and State Pollution Control Boards (SPCBs) to monitor the ban effective from July 1, 2022.
- Directives have been issued at the national, state and local levels to not supply raw materials to industries that operate in banned items.
- Local authorities have been instructed to issue new commercial licenses with the condition that single-use plastic items will not be sold on their premises, and functioning commercial licenses will be canceled if they are found to be retailing these items.
- People found to be flouting the ban can be fined under the Environment Protection Act 1986, which permits jail of up to five years, or a penalty of up to Rs 1 lakh, or both. Furthermore, there are municipal laws on plastic waste, which have their own penal codes.

Reasons for ban

- According to data by the International Union for Conservation of Nature, 300 million tonnes of plastic is produced in the world every year, of which 14 million tonnes wind up in the sea.
- Over 34 lakh tonnes of plastic waste was generated in 2019-20 and 30.59 lakh tonnes in 2018-19 in India, as per data by the environment ministry.
- Plastic neither decomposes nor can be burned as it releases noxious fumes and hazardous gases during the process. Thus, storing plastic items remains the only feasible solution besides recycling. Banning such plastic items can help the government to trim its plastic waste generation numbers.

3 NATIONAL AFFAIRS

KARTAVYA PATH

Prime Minister Narendra Modi recently inaugurated the newly-christened Kartavya Path, the stretch of road from Rashtrapati Bhavan to India Gate earlier known as Rajpath.

- The name of the Rajpath has been changed to Kartavya Path to signify public ownership and empowerment.
- Prime Minister Narendra Modi inaugurated the Kartavya Path and also unveiled the 28-ft statue of Netaji Subhash Chandra Bose at India Gate, housed in its ornamental canopy.
- To cater to the increased traffic and to remodel the area, new red granite walkways spreading 15.5 km have been created.
- The 2 canals running parallel to Kartavya Path have also been revamped. There are 16 bridges on the entire stretch. Boating will be allowed in two canals -- one near Krishi Bhawan and another around Vanijya Bhawan.
- Seventy-four historic light poles and all chain links have been restored. Over 900 new light poles have been installed. Concrete bollards have been replaced with over 1,000 white sandstone bollards.
- The Central Public Works Department (CPWD) has set up five vending zones where 40 vendors each will be allowed and two blocks near the India Gate with eight shops each.
- One hundred and one acres of lawns have been replanted with different species of grass, appropriate to their location. Proper slopes and drain channels have been integrated to minimize damage caused by the stagnation of water.
- The revamped stretch is part of the government's ambitious Central Vista redevelopment project, which also envisages a new triangular Parliament building, a common central secretariat, a new prime minister's residence and office, and a new vice-president's enclave.



CENTRAL VISTA PROJECT

The Central Government announced in 2019, is a redevelopment project to give a new identity to the central administrative corridor of India.

The project is being piloted by the Ministry of Housing and Urban Affairs.

The total project cost is estimated to be 20,000 crore.

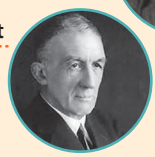
Currently, four projects are under construction — The new Parliament building, redevelopment of the Central Vista Avenue, construction of the three Common Central Secretariat Buildings and construction of the Vice President Residence.

HISTORICAL BACKGROUND

- In 1911, the British government moved their capital from Calcutta to Delhi.
- The plan of a central axis called Kingsway was chalked out by Sir Edwin Lutyens with a view of building a modern imperial city.
- The centerpiece of this new plan was the Raisina Hill complex, housing the majestic Viceroy's House (now Rashtrapati Bhavan) and North Block and South Block forming the Imperial Secretariat.
- Viceroy Lord Irwin inaugurated Parliament House near the Rashtrapati Bhavan built in 1927. The new city was inaugurated on 13 February, 1931.
- Soon after Independence, Kingsway was renamed to Rajpath and Queensway running perpendicular to it was rechristened as Janpath.

"Two of the most eminent architects and urban planners, **Sir Edwin Lutyens** and **Sir Herbert Baker**, were entrusted to take upon the task of building a city on lines of European and American cities."





Union Govt. approved Print and Digital Media Association (PADMA)

The government has approved the Print and Digital Media Association (PADMA) as a self-regulatory body for publishers of news and current affairs across the country.

Key Highlights

- The organisation with 47 digital news publishers on board will look at grievances related to digital media news content on their platforms.
- The organisation will be headed by former HC Judge Mool Chand Garg and have part-time member of Prasar Bharati Ashok Kumar Tandon and journalist Manoj Kumar Mishra as members.
- PDMA shall perform by redressing grievances related to the code of ethics under the rules.
- With this, the Ministry has approved nine self-regulatory bodies under the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- They include DIGIPUB News India Foundation, Confederation of Online Media (India), and NBF- Professional News Broadcasting Standards Authority, among others.
- The organization will primarily look at grievances related to content on digital media platforms pertaining to current affairs that have not been addressed at the level of the platform.

National Anti-profiteering Authority abolished

Government of India has decided to abolish the National Anti-profiteering Authority (NAA) from 1st December 2022 as its terms come to an end on 30th November 2022.

Key Highlights

- From 1st December 2022 the Goods & Services Tax (GST) anti-profiteering complaints would be dealt with by the Completion Commission of India (CCI).
- National Anti-profiteering Authority (NAA) is the anti-profiteering watchdog of GST and it is all set to be subsumed into the Competition Commission of India (CCI).
- NAA's role is to make sure that the benefit of tax rate reduction reaches the consumer immediately.
- This has been the role of NAA primarily because the GST council has been reigning the rates in the last five years. NAA has little to do when rates go up.
- Authorities are still receiving several complaints about the early years of GST, saying that the benefit of the input tax credit has not been fully passed on to consumers.
- Sectors like eateries, cinemas, real estate, fast-moving consumer goods, etc., have faced NAA's scrutiny the most. In many cases, the regulator ordered the business to return the allegedly overcharged amounts to the consumer.

Prime Minister Narendra Modi launched Mission LiFE

Prime Minister Narendra Modi launched the Mission LiFE movement (Lifestyle for the Environment) at the Statue of Unity in Gujarat.



Key Highlights

- First proposed by the Prime Minister at COP 26, Mission LiFE is envisioned as an India-led global mass movement that will nudge individual and collective action to protect and preserve the environment.
- The Prime Minister and UN Secretary-General Antonio Guterres unveiled the LiFE logo and tagline.
- As many as 500 people participated in the event, including 116 Indian Heads of Missions abroad, UN Heads of Agencies in India, Union Minister of External Affairs, the Chief Minister of Gujarat, senior government officials, development partners, and others.
- PM Modi underlined that Mission LiFE makes the fight against climate change democratic, in which everyone can contribute within their capacity.

ABOUT-LIFE
Lifestyle for the Environment



- The concept of LiFE was introduced by the Prime Minister at COP26 at Glasgow on 1 November 2021.
- On 5 June 2022, on World Environment Day, India furthered the vision of LiFE by launching the LiFE Global Movement, inviting academicians, researchers and start-ups across the world to think about specific and scientific ways in which the full potential of collective action can be harnessed to address the environment crisis.
- Mission LiFE is designed with the objective to mobilise at least one billion Indians and other global citizens to take individual and collective action for protecting and preserving the environment in the period 2022 to 2027.

Pradhan Mantri Sangrahalaya inaugurated in Delhi



Pradhanmantri Sangrahalaya was inaugurated by Prime Minister Narendra Modi in New Delhi. The contribution of India's prime ministers will be showcased in the Pradhanmantri Sangrahalaya.

Key facts

- The sangrahalaya has been built adjacent to the Nehru Memorial Museum Library in Teen Murti Bhavan on a 10,000-square metre piece of land.
- The museum will be housing exhibits related to the former prime ministers of the country. The museum will have 43 galleries.
- The design of the museum has incorporated energy conservation practices that are sustainable. To build this museum no trees have been transplanted or felled.
- The logo of this museum represents the hands of the Indian people holding the Dharma Chakra which symbolizes democracy and the nation.
- All the information for the museum has been collected with the help of the institutions like Doordarshan, Prasar Bharati, Sansad TV, Films Division, Media Houses (Indian and foreign), and Ministry of Defence, Foreign News Agencies, etc.
- The contents of the museum are being displayed using Virtual reality, holograms, augmented reality, interactive kiosks, multimedia, smartphone applications, computerized kinetic sculptures, interactive screens, etc.

Union Govt. released National Institute Ranking Framework (NIRF), 2022



Union Education Minister Dharmendra Pradhan released the NIRF (National Institute Ranking Framework) 2022.

Key Highlights

- The Indian Institute of Technology (IIT) Madras was declared the best university in the overall category this year. Followed by Indian Institute of Science (IISc) Bengaluru at a close second, followed by IIT Bombay, IIT Delhi and IIT Kanpur as the top five institutes in the overall category.
- This year too, IITs dominated the list as IIT Kharagpur, IIT Roorkee and IIT Guwahati have followed IIT Kanpur to complete the top 8 ranks.
- AIIMS-Delhi has secured the ninth rank and JNU is ranked tenth.
- Jamia Hamdard has once again taken the top rank in the pharmacy category.
- Indian Institute of Science (IISc) Bengaluru ranked first in the research category.

About NIRF 2022

- 11 categories for which the NIRF Rankings 2022 were announced include- overall, universities, colleges, management, law, architecture, engineering, medical, dental, pharmacy, and research.
- The top institutes and universities of India are judged on the basis of certain predetermined factors for the NIRF Rankings. These include -- Teaching, Learning & Resources (TLR), Research and Professional Practice (RP), Graduation Outcomes (GO), Outreach and Inclusivity (OI), Peer Perception.
- Institutes need to register and submit data for the NIRF Rankings. The same data is also made public through its website. Physical audits and checks are carried out by NIRF to ensure that the data is authentic. Institutes may be debarred from ranking and face consequences if they are providing false data.

Union Govt. announced Common University Entrance Test (CUET)

The Common University Entrance Test (CUET) or the Central University Common Entrance Test (CUCET) is an entrance exam that is computerized and is taken for admission to 45 central universities across the country. Under this exam, the Class 12 marks of a candidate won't matter. The Class 12 marks can be used by the universities only as a form of a criterion

Key Highlights

- This exam to be conducted in the first week of July by the National Testing Agency (NTA).
- In the first week of April, the application window to apply for this exam to be opened.
- After the exams are conducted, the NTA will prepare a merit list based on which admissions will be given. There will be no common counselling sessions.
- This exam will be an MCQ-based computer-based test (CBT). The question standards will be based on the NCERT textbooks.
- **This test will be divided into three sections:**
  - **Section A** will be the language test under which a student has to select one language under the 13 languages.
  - **Section B** will be a domain-specific test and the candidates will have to pick 6 out of the 27 domains.
  - **Section C** is optional having two sub-sections. The sub-section 1 will have general aptitude while sub-section 2 will be a test of 19 uncommon languages which are not included in section A.
- Bengali, Marathi, Hindi, Tamil, Gujarati, Kannada, Telugu, Urdu, Malayalam, Punjabi, Assamese, English, and Odia are the languages offered.

PM Modi inaugurated Liquid Nano Urea plant



Prime Minister Narendra Modi inaugurated India's first Liquid Nano Urea (LNU) plant in Kalol, Gujarat.

Key features of LNU

- Urea is a chemical nitrogen fertilizer used to provide artificial nitrogen to the plants.
- Liquid Nitrogen Urea is nanotechnology-based urea in which nanoparticles of nitrogen are used to provide nutrients to plants.
- It is directly sprayed on the leaves and gets absorbed by the plant easily due to the nano size of nitrogen particles.
- It is developed by Indian Farmers Fertilizers Cooperative (IFFCO).

Advantages over conventional Urea

- Bio-availability of LNU to plants is more because of its desirable particle size about 20-50 nm, more surface area and number of particles.
- According to IFFCO, liquid nano urea contains 4 per cent total nitrogen (w/v) evenly dispersed in water.
- There is targeted supply of nutrients to crops, as it is sprayed directly on leaves which is then absorbed by the stomata, pores found on the epidermis of leaves.

Significance of LNU

- The liquid nano urea produced by IFFCO Limited comes in a half-litre bottle priced at Rs 240 without subsidy while farmer pays Rs 300 for a 50-kg bag of heavily subsidized urea.
- According to IFFCO, a bottle of the nano urea can effectively replace at least one bag of urea.
- Apart from reducing the country's subsidy bill, it is aimed at reducing the unbalanced and indiscriminate use of conventional urea.
- It will help increase crop productivity, and reduce soil, water, and air pollution.

FSSAI Health Star rating to be launched

As per FSSAI (Food Safety and Standards Authority of India), packaged food products in India will soon be labeled with an official health star rating (HSR).

Ky Highlights

- The Health Star Rating is a front-of-pack labeling system that rates the overall nutritional profile of packaged food and assigns it a rating from ½ a star to 5 stars.
- It provides a quick, easy, standard way to compare similar packaged foods. The more stars, the healthier the choice.
- The FSSAI has proposed implementing a health star rating system where the healthier options receive a higher star rating, similar to the star rating of electronics based on their energy efficiency.
- The system was chosen out of five methods based on an FSSAI commissioned survey conducted by the Indian Institute of Management Ahmedabad (IIM-A) of 20,500 consumers
- Health Star Rating provides an easy way to compare similar packaged food and helps to make healthier choices.
- Warning labels allow consumers to recognize whether a product is harmful for health within seven to ten seconds.

- One can choose foods that are higher in positive nutrients and lower in risk nutrients that are linked to obesity and diet-related chronic diseases for example food containing (saturated fat, sodium (salt), sugars and energy).
- All packaged food items or processed food which includes chips, biscuits, nankeen, sweets and chocolates, meat nuggets, and cookies.
- Milk and its products such as chenna and ghee will not be HSR rated.

Election Commission (EC) to launch pilot Remote voting for domestic migrants

The Election Commission (EC) announced that it is ready to pilot remote voting for domestic migrants, so they don't have to travel back to their home states to vote.

Key Highlights

- This comes on the back of EC's acknowledgement of migration-based disenfranchisement.
- EC in a statement said that it hopes that through this move, it will be able to boost voter turnout and strengthen India's democratic process.
- For this, the commission has developed a prototype for a Multi-Constituency Remote Electronic Voting Machine (RVM).
- RVM is developed with the assistance of Bharat Electronics Limited (BEL) and the Electronics Corporation of India Limited (ECIL).
- RVM allows voters to vote remotely, in a safe and controlled environment. It is based on the currently used EVM system.
- RVMs is that a single Remote Ballot Unit (RBU) will be able to cater to multiple constituencies (as many as 72) by using a dynamic ballot display board instead of the usual printed paper ballot sheet on EVMs.

Working of RVMs

- RVMs is a single Remote Ballot Unit (RBU) that will be able to cater to multiple constituencies (as many as 72) by using a dynamic ballot display board instead of the usual printed paper ballot sheet on EVMs.
- The Ballot Unit Overlay Display (BUOD) will show the requisite candidates based on the constituency number read on the voter's Constituency card.
- A barcode scanning system will be used to read these cards.
- After verifying a voter's identity, their constituency card will be read with a public display showing the constituency details and candidates.
- This will also be displayed privately, on the BUOD in the RVM's RBU.
- The voter will then vote and each vote will be stored constituency-wise in the control unit of the voting machine.

India's First Center of Excellence for Green Port and Shipping unveiled

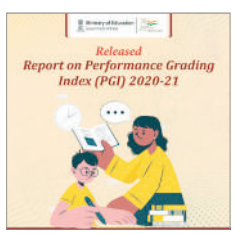


The first National Center of Excellence for Green Port & Shipping (NCoEGPS) in India was unveiled by the Union Minister of Ports, Shipping, and Waterways, Sarbananda Sonowal.

Key Highlights:

- This is a significant effort on the part of the Ministry of Ports, and Shipping to provide greener solutions.
- The Deendayal Port Authority Kandla, Paradip Port Authority, Paradip, V.O Chidambaranar Port Authority, Thoothukudi and Cochin Shipyard Limited, Kochi have all extended their support to the ministry to set up this centre. The Energy and Resources Institute (TERI) is the knowledge and implementation partner for this project.
- The center wants to promote carbon neutrality and the circular economy (CE) in India's maritime industry by creating a legislative framework and road map for adopting alternative technologies. India wants to expand the current contribution of renewable energy—less than 10%—to 60% of the total electricity required by each of its main ports. This will be done using energy produced by the sun and the wind.

Performance Grading Index (PGI) 2020-21 released



The Department of School Education and Literacy, Ministry of Education released the Performance Grading Index (PGI) for States/UTs for 2020-2021.

Key Highlights

- A total of 7 States and UTs-, Kerala, Punjab, Chandigarh, Maharashtra, Gujarat, Rajasthan, and Andhra Pradesh have attained Level II (score 901-950) in 2020-21 as compared to none in 2017-18 and 4 in 2019-20.
- Gujarat, Rajasthan and Andhra Pradesh are the new entrants to the highest achieved level of any State so far.
- The report highlighted that the most significant performer in 2020-21 is Ladakh, a newly formed union territory, which attained Level 4 in 2020-21, jumping from Level 10 in 2019-20.
- It is a unique index for evidence-based comprehensive analysis of school education systems across State/UTs.
- It classified the States/UTs into ten grades viz., highest achievable Grade is Level 1, which is for State/UT scoring more than 950 points out of a total of 1000 points.
- The PGI structure comprises 70 indicators grouped into 2 categories- Outcomes, Governance Management (GM). These categories are further divided into 5 domains, viz., Learning Outcomes (LO), Access (A), Infrastructure & Facilities (IF), Equity (E) & Governance Process (GP).
- The lowest grade is Level 10 which is for scores below 551.
- The ultimate aim of PGI is to propel States & UTs towards undertaking multi-pronged interventions that will bring about the much-desired optimal education outcomes covering all dimensions.
- The PGI is expected to help States and UTs to pinpoint the gaps and accordingly prioritize areas for intervention to ensure that the school education system is robust at every level.
- The Indian Education System is one of the largest in the world with about 14.9 lakh schools, 95 lakh teachers, and nearly 26.5 crore students from varied socio-economic backgrounds.

Modhera: India's first solar-powered village

Prime Minister Narendra Modi declared Modhera village, which is home to the famous Sun Temple, as India's first solar-powered village.

Key Highlights

- Making Modhera the country's first round-the-clock solar-powered village involved developing a ground-mounted solar power plant and more than 1,300 rooftop solar systems on residential and government buildings.
- The government used to produce electricity and citizens purchased it but the people are not only getting free electricity, they even make money by selling the extra power generated.
- Here, the household owners and farmers are generators and users of electricity. Whatever extra power is generated, they sell it to the government.
- Thus, not only are their power bills reduced to zero, they can even make some extra income by selling power to the government.

Udyami Bharat Programme held

Prime Minister Narendra Modi participated in the 'Udyami Bharat' programme at Vigyan Bhawan in New Delhi.

Key Highlights

- Prime Minister Narendra Modi digitally transferred assistance to beneficiaries of PMEGP for 2022-23, announced results of MSME Idea Hackathon, 2022, distributed National MSME Awards, 2022 and issued Digital Equity Certificates to 75 MSMEs in the Self-Reliant India (SRI) Fund.
- Prime Minister Narendra Modi also launched the following schemes:
  - **'Raising and Accelerating MSME Performance' (RAMP) scheme:** With an outlay of around 6000 crore, it aims to scale up the implementation capacity and coverage of MSMEs in the States, with impact enhancement of existing MSME schemes.
  - **'Capacity Building of First Time MSME Exporters' (CBFTE) scheme:** It aims to encourage MSMEs to offer products and services of international standards for the global market. This will enhance the participation of Indian MSMEs in the global value chain and help them realize their export potential.
  - **New features of the 'Prime Minister's Employment Generation Programme' (PMEGP):** These include increase in the maximum project cost to 50 lakhs (from 25 lakhs) for manufacturing sector and 20 lakhs (from 10 lakhs) in the service sector and inclusion of applicants from Aspirational districts & Transgenders in the Special Category applicants for availing higher subsidies. Also, handholding support is being provided to applicants/ entrepreneurs through engagement of banking, technical & marketing experts.

MONKEYPOX



World Health Organisation (WHO) declared the monkeypox outbreak a Public Health Emergency of International Concern (PHEIC).

- The World Health Organisation (WHO) declared the monkeypox epidemic a global health emergency.
- The committee of independent advisers were split on their decision on whether to call the growing monkeypox outbreak a public health emergency of international concern (PHEIC) the highest level of alert. The head of the WHO, Dr Tedros Adhanom Ghebreyesus, broke the deadlock and declared the outbreak a PHEIC.
- The first case of monkeypox was reported in a child in the Democratic Republic of the Congo (then Zaire) in 1970. Since then, outbreaks have generally been small and traceable to an individual who recently returned from a country where the virus is endemic that is, countries in west and central Africa. But the current outbreak is unlike any previous one outside of Africa in that there is sustained person-to-person transmission of the infection.
- Most infections were reported from Europe.

About MONKEYPOX

- Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of central and west Africa and is occasionally exported to other regions. It is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae.
- Monkeypox virus is transmitted from one person to another by close contact with lesions, body fluids, respiratory droplets and contaminated materials such as bedding.
- Monkeypox is usually a self-limited disease with the symptoms lasting from 2 to 4 weeks. Severe cases can occur. In recent times, the case fatality ratio has been around 3–6%.



Government Constituted V.K. PAUL *task Force for* MONKEYOX



Dr. V. K. Paul
Member (Health),
NITI Aayog

- The central government constituted a task force in the wake of monkeypox cases.
- The task force has been constituted to monitor and provide guidance on the expansion of diagnostic facilities and to explore vaccination for the infection in the country.
- The team was headed by V.K. Paul, member (Health), NITI Aayog, and had senior officials from the health ministry and government, including health secretary Rajesh Bhushan.
- The task force is to also help and guide the WHO on diagnostic facilities expansion and to explore vaccination in the country.
- National Institute of Virology (NIV) confirmed the first case of monkeypox fatality in the country.
- Kerala reported four monkeypox cases.

National Initiative for Promoting Upskilling of Nirman workers (NIPUN) launched

Union Minister of Housing and Urban Affairs Hardeep Singh Puri launched an innovative project named National Initiative for Promoting Upskilling of Nirman workers (NIPUN) for skill training of 100,000 construction workers.

Key Features

- NIPUN project is under flagship scheme of the Deendayal Antyodaya-Yojana National Urban Livelihoods Mission (DAY-NULM) to train construction workers through fresh skilling and upskilling programs which will provide them with work opportunities in foreign countries also.
- The National Skill Development Corporation (NSDC), the nodal agency under the Ministry of Skill Development & Entrepreneurship (MSDE), Government of India will implement the NIPUN project.
- The aim is to create a future labor force for the construction industry which will propel innovation and large-scale development in the country.
- Onsite skill training will be provided to approximately 80,000 construction workers through industry associations under the RPL certification, co-branded with MoHUA.
- About 14,000 candidates will receive fresh skilling through plumbing and infrastructure Sector Skill Council (SSC) in trades having promising placement potentials.
- It will provide trainees with 'Kaushal Bhima', three-year accidental insurance with coverage of Rs 2 lakhs, digital skills such as cashless transactions and the BHIM app, orientation about entrepreneurship, and EPF and BOCW facilities.

Union Govt launched PlastIndia 2023

- Union Minister for Chemicals & Fertilizers and Health & Family Welfare, Dr Mansukh Mandaviya launched Plastindia 2023.

Key highlights

- Plastindia 2023 will showcase India as the global hub for sourcing processed items related to Plastics, Raw materials, Machinery and products for use in all segments of human life.
- The exhibitions are aimed to attract international plastic players to the country and provide a platform to learn and exchange ideas and technology.

About PlastIndia

- Plastindia is a series of exhibitions under the aegis of Plastindia Foundation
- Plastindia covers the entire gamut of plastics producers, processors and users of plastics.
- The exhibitions are used to promote the exchange of ideas and technologies and give a boost to India's Petrochemical and plastic industries.
- The foundation promotes the petrochemicals industry to develop a strategy to reduce high carbon footprint, and ocean pollution and focus on adopting green technologies to achieve net-zero emissions.

Union Cabinet approved amendments to the National Policy on Biofuels, 2018

The Union Cabinet approved amendments to the National Policy on Biofuels, 2018, to advance the date by which fuel companies have to increase the percentage of ethanol in petrol to 20%, from 2030 to 2025.

Key Highlights

- The main amendment in National Biofuel Policy is for advancing the target of blending 20 per cent ethanol in petrol (20 percent ethanol, 80 percent petrol) to 2025-26 from 2030.
- India achieved 10% ethanol blending in 2022.
- More feedstocks have been allowed for the production of biofuels which can be doped with auto fuels.
- The NITI Aayog projects an ethanol demand of 10.16 billion liters by 2025.
- The current ethanol production capacity in India of 4.26 billion liters derives from molasses based distilleries, and 2.58 billion liters from grain based distilleries.
- This is expected to expand to 7.6 billion liters and 7.4 billion liters respectively, and will require six million tonnes of sugar and 16.5 million tonnes of grains per annum by 2025.

Ethanol Blended Petrol Programme

- The Government of India decided to launch Ethanol Blended Petrol (EBP) Programme in 2003 for supply of 5% ethanol blended Petrol.
- This programme was started in a few states and union territories initially.

- Then the programme has been extended to the whole of India except Union Territories of Andaman Nicobar and Lakshadweep islands with effect from 01st April, 2019 wherein OMCs sell petrol blended with ethanol up to 10%.

Ethanol:

- Ethanol, an anhydrous ethyl alcohol having chemical formula of C2H5OH, can be produced from sugarcane, maize, wheat, etc which are having high starch content.
- In India, ethanol is mainly produced from sugarcane molasses by fermentation process.
- Ethanol can be mixed with gasoline to form different blends.
- As the ethanol molecule contains oxygen, it allows the engine to more completely combust the fuel, resulting in fewer emissions and thereby reducing the occurrence of environmental pollution.
- Since ethanol is produced from plants that harness the power of the sun, ethanol is also considered as renewable fuel.

Peace agreement signed between Centre, Assam Government and Tribal groups



The Centre and Assam government has signed a tripartite peace accord with eight tribal outfits of the state in the presence of Union Home Minister Amit Shah.

Key Highlights

- Except the Paresh Baruah-led hardline faction of the banned ULFA and the Kamatapur Liberation Organisation, all other rebel groups active in the state have now entered into peace agreements with the government.
- According to reports, among the rebel outfits to have signed the peace deal are All Adivasi National Liberation Army, Adivasi Cobra Militant of Assam, Birsa Commando Force, Santhal Tiger Force, and Adivasi People's Army.
- The outfits are currently under a ceasefire deal with the government since 2012 and living in designated camps.
- A special development package of INR 10 billion, to be provided over a period of five years, for infrastructure development in Adivasi populated villages/areas.
- In January 2020, Amit Shah had presided over the signing of an agreement between the Centre, Assam and Bodo representatives in New Delhi to end the over 50-year-old Bodo crisis that has cost the region over 4,000 lives.
- A total of 1,615 cadres of three National Democratic Front of Bodoland (NDFB) factions laid down their arms on January 30, 2020. Over 4,800 weapons, including AK 47 rifles, light-machine guns and stun guns, were laid down by the NDFB members at the time.

According to the Union Ministry of Home Affairs (UMHA), the groups agreed to:

- Abandon armed group violence.
- Follow the rule of law established by the Constitution of the country.
- Join the peaceful democratic process.
- UMHA also shared the major provisions of the agreement which included:
  - Fulfilling political, economic and educational aspirations.
  - Protecting, preserving and promoting social, cultural, linguistic and ethnic identities.
  - Ensuring rapid and focused development of tea gardens along with Adivasi villages/areas throughout the state
  - Establishment of an Adivasi Welfare and Development Council by the Government of Assam.

Union Govt. announced Parvatmala Project



Union Finance Minister announced National Ropeways Development Programme – "Parvatmala" while presenting Union Budget for 2022-23.

Key Highlights

- The Parvat Mala approach is driven by seven engines like roads, railways, airports, ports, mass transport, waterways and logistics infrastructure.
- It will be taken up on PPP mode.
- It will be a preferred ecologically sustainable alternative in place of conventional roads in difficult hilly areas.
- The Ministry of Road Transport and Highways (MORTH) will have responsibility for the development of ropeway and alternative mobility solutions technology, as well as construction, research, and policy in this area.

'Golden Joint' of Chenab Railway inaugurated

'Golden Joint' of the Chenab railway bridge, which is the World's highest railway bridge, was inaugurated recently.



Key Highlights

- To commemorate 'Azadi Ka Amrit Mahotsav', the world's highest bridge in Reasi district of Jammu and Kashmir was decked up with the Tricolor by the workers on this occasion.
- The project is part of the ambitious 272-km long railway line from Udhampur to Baramulla joining Jammu with the Kashmir valley as an all-weather high-speed alternative, named the 'Udhampur-Srinagar-Baramulla Rail Link Project'.
- The bridge comprises 93 deck segments, each weighing around 85 tonnes, launched simultaneously from both ends of the valley over the massive steel arch and work on joining five segments in full progress on the single line linking Katra (Jammu) with Qazigund (Kashmir), some 75 km away.
- Given the height, the extreme weather conditions, and strong gales that often lash the valley, the sophisticated automatic signaling system installed on both sides will stop the trains from crossing the bridge if wind speeds there touch 90-kmph.
- To ensure quality and safety, a National Accreditation Board for Testing and Calibration Laboratories (NABL) was set up at the Afcons site to monitor quality at all stages, weld sample tests, etc, saving huge time, and NR permitted the use of a Phased Array Ultrasonic Testing Machine to inspect welds for the first time in the country.

Government approved e-marketplace for cooperatives

- Government has approved cooperatives as buyers in e-marketplace.

GeM Government e Marketplace
Efficient • Transparent • Inclusive

Key Highlights

- The move will help over 8.54 lakh registered cooperatives and their 27 crore members as they would get products at competitive rates from the GeM portal.
- The GeM will provide technological infrastructure to support new users, as well as aid cooperatives with onboarding and transaction journeys, via available contact centers, in-field training and other support services.

About Government e-marketplace

- Government e-Marketplace (GeM) is a one stop portal to facilitate online procurement of common use Goods & Services required by various Government Departments / Organizations / PSUs.
- GeM aims to enhance transparency, efficiency and speed in public procurement.
- It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users achieve the best value for their money.
- All Central government and State Government Ministries/ Departments including its attached/subordinate offices, Central and State autonomous bodies, Central and State Public Sector Units and local bodies etc. are authorized to make procurement through GeM portal.

India Hypertension Control Initiative report released

- The India Hypertension Control Initiative report showed that one in four Indian adults in India have hypertension.

IHCI India Hypertension Control Initiative

Key Highlights

- According to a report, it is estimated that at least one in four adults in India has hypertension but only about 10% have it under control.
- The analysis found that over half the people – 55% – received treatment at primary health centers, 18% in community health centers, and 10% in district and sub-district hospitals.

About India Hypertension Control Initiative

- The IHCI was launched in 2017 to achieve the target of 25% relative reduction in prevalence of raised blood pressure.
- The project aims to accelerate implementation of quality hypertension treatment for over 15 crore people.
- Nearly 23% of the total estimated hypertension patients have been enrolled in the programme in the five Phase I state.
- The interventions under the programme include:
- Ensuring uninterrupted supply and availability of drugs
- Use of standard drug algorithm for management of hypertension
- Training of staff at all levels, and opportunistic screening when patients come for treatment of other diseases.

AGNIPATH SCHEME

The Government of India announced the Agnipath scheme for recruitment of soldiers,the majority of whom will serve for four years.



- **Younger Army:** Under the Ministry of Defense's new "Agnipath" scheme,the government hopes to create a younger profile for the three services.
- **Agniveers:** The Agniveer, as these recruits will be called,will be hired on contract at the minimum age of 17.5 years. Those selected will undergo a maximum training of six months, after which they will serve for three-and-a-half years the irrespective services.
- **SevaNidhi Package:** Apart from drawing a composite packages Rs 40,000 per month in the fourth year, they will each get Rs 11.71 lakh through the SevaNidhi package in which their contribution of 30 percent of the monthly salary will be matched by an equal amount by the government.
- **Assurances:** Life insurance cover of Rs 48 lakh will be given. In case of death the payout will be over Rs. 1 crore including pay for the unserved tenure.



- **Regular cadre:** The best among the Agniveers, upto 25 percent in each batch,will be selected for regular cadre to serve for another minimum of 15 years, based on a transparent and merit based assessment.
- **Eligibility and training:** Recruitment will be open to those between the ages of 17½ to 21. The upper age limit has been relaxed 21 years to 23 years for 2022-23. The minimum educational requirement would be Class 10 or Class 12, depending on the service. Medical eligibility and rigorous training standards will be maintained.
- **Not Optional:** The scheme is not optional as all personnel below officer rank will be hired only through this route from now on.

CONCERNS

- **Imbalances:** Generally, vacancies of states from North East, Gujarat, and Goa get undersubscribed and MP, UP, Haryana and Punjab get oversubscribed. If the recruitment goes up by 1.5-2 times, the intake will only aggravate the imbalance disproportionately.
- **Require a massive organizational and cultural shift:** To create new regimental cultures, sources of loyalty and discipline, longer terms of service is needed rather than shorter ones. Also it might be harder to integrate recruits that are on two different professional tracks.
- **Social implications :** Militarizing a lot of young people, without the future safeguard of military discipline, may possibly result in the potential for the militarization of society and has huge sociological implications.
- **Job insecurity:** Given the short duration of recruitment and job insecurity may be a challenge to attract young Indians who are presently facing employment challenge.
- **Compromise commitments and morale:** Shorter duration service could be questioned in regard to keeping the morale and commitment may be compromised.
- **Transparency:** Transparency in terms of selecting the best 25% is also an issue of concern.

TriHob: India's 'first' tribal health observatory setup in Odisha

A memorandum of understanding was inked for setting up TriHob between the ST and SC Development Department and the RMRC, regional center of Indian Council of Medical research.

Key Highlights

- 'Odisha Tribal Family Health Survey' which would be the first of its kind and comprehensive survey among tribal communities in India was also launched.
- Through the survey high quality demographic and health data will be made available for informed policy making.

About TriHob

- The Tribal Health Observatory (TriHOb) is the "first in the country" health observatory for tribal people.
- It is designed to be an effective, evidence-based and a policy-oriented center.
- TriHOb will establish a repository on the health of tribal population of Odisha.
- It will perform systematic and ongoing observation on disease burden, health-seeking behavior and healthcare delivery system pertaining to tribal health in the state.

Key areas of work

- Development of interdisciplinary approaches is throughout the value chain from primary chemical and plastic production to waste management and also promotes industry growth.
- Reducing reliance on single-use plastics other than for essential non-substitutable functions
- Improving waste management practice.
- Raising consumer awareness about the multiple benefits of recycling.

India Innovation Index, 2021 released

NITI Aayog recently released the India Innovation Index 2021.



Key Highlights

- The Index has found that the country's overall spending on R&D has been one of the lowest in the world.
- R&D investment in India, in fact, has declined from 0.8% of the GDP in 2008–09 to 0.7% in 2017-18.
- As per NITI Aayog's report, India's Gross Expenditure on Research and Development (GERD) is lower than the other BRICS nations.
- Brazil, Russia, China and South Africa spend around 1.2%, 1.1%, above 2% and 0.8% respectively.
- The world average is around 1.8%.
- Developed countries the United States, Sweden, and Switzerland spend about 2.9%, 3.2% and 3.4%, respectively.
- Israel spends 4.5% of its GDP on R&D, the highest in the world.
- Karnataka has retained its top spot in the 'Major States' category, followed by Telangana and Haryana in innovation.
- Manipur has emerged as the best performer among the north-eastern and hilly states, followed by Uttarakhand and Meghalaya.
- Among the Union Territories and city-states, Chandigarh is the top performer, followed by Delhi.

About India Innovation Index

- The India Innovation Index is prepared by the NITI Aayog and the Institute for Competitiveness. It assess States performance in the innovation ecosystem.
- The number of indicators has increased from 36 (in the India Innovation Index 2020) to 66 (in the India Innovation Index 2021).

National Educational Alliance for Technology (NEAT) 3.0 launched

The Union Education Minister launched the National Educational Alliance for Technology (NEAT) 3.0.

N·E·A·T
प्रौद्योगिकी के लिए राष्ट्रीय शैक्षणिक सहयोग
National Educational Alliance for Technology

Key Points:

- The Ministry of Education announced NEAT as a Public-Private partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies across India.
- It is an initiative to provide the use of best-developed technological solutions in the education sector to enhance the employability of the youth on a single platform for learners' convenience.
- These solutions use artificial intelligence for a personalised and customised learning experience for better learning outcomes and skill development in niche areas.
- It aims to bring the best technological products in education pedagogy on a single platform for the convenience of learners.

Raisina Dialogue 2022 held



The Raisina Dialogue 2022 was inaugurated by Prime Minister Narendra Modi.

Key Highlights

- The President of European Commission Ursula Von Der Leyen was the chief guest of the event.
- The theme of the event was "Terranova- Impassioned, Impatient, Imperiled".
- This year's dialogue had near about 100 sessions with more than 210 speakers from 90 different countries. In this dialogue, there were various conversations and panel discussions across multiple formats on the six thematic pillars.
- This year's dialogue featured participation from Carl Bildt, former PM of Sweden; Stephen Harper, former PM of Canada; Mohamed Nasheed, former President of Maldives; and Anthony Abbott, former PM of Australia.
- The Foreign Ministers of Argentina, Armenia, Portugal, Poland, Norway, Slovenia, Netherlands, Lithuania, Nigeria, Guyana, Madagascar, Luxembourg, and the Philippines also attended this event physically.

About Raisina Dialogue

- Raisina Dialogue is the India's premier conference on geo-economics and geo-politics. It was started in the year 2016.
- The conference aims to address the most challenging issues that are being faced by the global community.
- The Ministry of External Affairs organizes this conference in collaboration with the Observer Research Foundation (ORF).
- This conference brings together various leaders in business, politics, civil society, and media annually to explore cooperation opportunities and to discuss the current state of the world.

NABARD to release Farmer Distress Index

- The National Bank for Agriculture and Rural Development (NABARD) is planning to create the Farmer Distress Index (FDI) with the aim of tracking, identifying, and supporting the real distressed and needy farmers of India.

Key Highlights

- Depending on the distress level, the financial institutions and the government can decide on an appropriate support package instead of handing out a distress package to all the farmers as is the current practice.
- This index won't be uniform across the nation as it will be changing depending upon the place's stress levels.
- This index will help the government departments, financial sector, and insurance companies.
- The distress of a farmer is generally calculated by the extent of damage to their crops.
- The index will be integrating high-frequency data regarding climatic conditions, weather conditions, agricultural commodities, the debt burden on farmers, and the market.
- This index will be measuring variables like excessive rainfalls, monsoon rains, variations in soil moisture and temperature, dry spells and drought, the area under irrigation, the yield of major crops in each district, unusual frost, and depth of underground water.
- The marketing opportunities that are available to the farmer such as MSP support will also be assessed by this index.
- Based on the distress severity, the lenders and the government will be able to provide crop loan restructuring, unconditional grants, or complete debt waivers.

Union Govt. launched Unique Land Parcel Identification Number (ULPIN)

- The Ministry of Rural Development and Panchayati Raj launched Unique Land Parcel Identification Number (ULPIN) in Assam.

About ULPIN Project

- Under this project, every land parcel in Assam will have a 14-digit alphanumeric geospatial Unique Identification Number (UIN). Thus, ULPIN will act as an Aadhaar card for land.
- The first step in this process is the survey of non-cadastral villages and a re-survey of all cadastral villages. The next step is end-to-end integration of digitalized land records and maps, which will pave the way for the generation of ULPIN for the land parcel.
- ULPIN project will pave the way towards the implementation of conclusive titling and will help in the quick resolution of the land disputes in the state.

Note

Mission Basundhara is a mission launched by the government of Assam to streamline and make land revenue services accessible to all, thereby promoting ease of doing business environment in the land management ecosystem of Assam. 'Mission Basundhara' aims to reduce the pendency in the updation of the land records.

Mandate document for National Curriculum framework released

Ministry of Education released a "mandate document" for National Curriculum framework.

National Curriculum Framework

Key Highlights

- The mandate document will act as a guidebook for the experts working on revising the National Curriculum Framework (NCF) for which a deadline of December 2022 is decided.
- The mandate encourages the development of teaching-learning-materials (such as graded readers to tackle foundational learning across the languages of India), training programs, and all other relevant initiatives for the effective implementation of such priorities .

National Education Policy

NEP is a comprehensive framework to guide the development of education in the country.

It guides the development of education and provides directions for regulating and promoting education.

The education policy covers education at all stages including early childhood care and education, school education, higher education, teacher education and vocational education.

As per the policy the aim is to have an education system by 2040 that is second to none, with equitable access to the highest-quality education for all learners regardless of social or economic background.

Atal Tunnel: Longest Highway Tunnel above 10,000 feet height



- Atal Tunnel has officially been certified by the World Book of Records as the 'World's Longest Highway Tunnel above 10,000 Feet'.
- World Book of Records, UK, is an organisation that catalogues and verifies extraordinary records across the world with authentic certification.

About Atal Tunnel

- Atal Tunnel is the longest highway single-tube tunnel above 10,000 feet (3,048 m) in the world and is named after former PM Atal Bihari Vajpayee.
- It is a 9.02 km long, strategically significant Tunnel that runs under the 'Rohtang Pass' that was constructed on the Manali - Leh Highway.
- Constructed by the Border Roads Organisation (BRO).
- It cuts through a mountain west of the Rohtang pass and shortens the distance between Solang Valley and Sissu by around 46 km.

Assam-Meghalaya Border Pact signed



A border agreement was recently signed between Assam and Meghalaya. With this newly signed Memorandum of Understanding (MoU), Meghalaya will be gaining 18.33 square kilometers and Assam will be gaining 18.46 sq km out of the total of 36.79 sq km in 6 out of 12 areas of differences that were resolved between the two states.

Key Highlights

- This MoU was signed between the Chief Minister of Assam Himanta Biswa Sarma , and Chief Minister of Conrad K Sangma. The Union Home Minister Amit Shah was also present during this signing.
- The boundary dispute has been going on between both states for a long period of time and over the years 50 meetings have been conducted to resolve this issue.
- The MoU will be considered to be a full and final agreement in respect of the six areas of difference.
- The total 12 areas of difference are Gizang, Tarabari, Langpih (Lumpi), Hahim, Boklapara, Borduar, Khanapara-Pillangkata, Nongwah-Mawtamur (Garbhanga) Block-I & Block-II, Deshdoomreah, Khanduli and Psiar, and Ratacherra
- Gizang, Tarabari, Boklapara, Hahim, Ratacherra, and Khanapara-Pillangkata are the 6 areas of difference that have been taken into consideration in the first phase.

Government transferred shares of Air India to TATA



- The Union government transferred its shares in Air India to Tata Sons subsidiary, Talace.

Key Facts

- Apart from Shares, its control and management were also transferred to Talace.
- With this, disinvestment process ended which started five years ago.
- Air India has been a public sector undertaking from 1953.
- The transaction covers Air India Express, Air India, entire 50% stake of government in a joint-venture ground handling company named AI SATS.



Air India was founded in 1932. The inaugural flight was piloted by JRD Tata, between Karachi and Bombay. It was then known as Tata Airlines. In the year 1948, government acquired a 49% stake in it. The airline was nationalised in 1953.

Key facts about the deal

- Tata Sons have paid Rs 2,700 crore in cash for Air India, along with taking on a debt of Rs 15,300 crore. Balance debt of Rs 62,057 crore has been absorbed by government. Some non-core assets of the airline, with value of Rs 14,718 crore will also remain with the government.
- Tata will get Air India's fleet of 141 planes. It will also get ownership of iconic Brands such as Indian Airlines, Air India, and the Maharajah. Around 13,500 permanent and contractual employees will also move to Tata and they will remain there at least for one year.

Remarks

- Tata Group owns three airlines. In Vistara, tata has 51% stake while in AirAsia India, it has 84% stake. These three airlines together account for 24% of the market share in aviation sector.

Background

- Union Cabinet gave in principle nod for disinvestment of Air India, in June 2017. In 2018, government invited bids for a 76% stake in the airline. However, it failed to attract any buyers. In January 2020, government launched a fresh effort to offer sell of its 100% stake in Air India. In 2000-2001, Atal Bihari Vajpayee Government also attempted to sell 40% stake in Air India, but the attempt had failed.

India's first multi-modal logistics park to be developed

Reliance Industries Limited (RIL) is going to develop India's first multi-modal logistics park (MMLP).



Key Highlights

- According to the Ministry of Road Transport and Highways (MoRTH), Reliance Industries Ltd (RIL) has been awarded the project to build India's first multimodal logistics park (MMLP).
- The MMLP will be set up in Chennai, Tamil Nadu.
- MMLP will be spread over 184 acres and cost Rs 1,424 crore.
- The project will get adequate connecting infrastructure support through a special purpose vehicle (SPV) formed between central and state agencies.
- The Centre expects the first phase of the project to be completed in two years.
- The project falls under the high-priority list of projects inaugurated by Prime Minister Narendra Modi under the Centre's project monitoring system. It is one of the several flagship projects announced under the Bharatmala Project of MoRTH, which envisions the building of 35 such MMLPs.
- The Centre plans to build 15 of these within the next two years. Under the National Logistics Policy (NLP) and PM-GatiShakti, it wants to bring down logistics costs to under 10 percent of the GDP in a bid to make exports competitive and supply chains more efficient.

First-Ever Tribal Winter Festival observed

Jammu and Kashmir's Bandipora district hosted the first-of-its-kind Tribal Winter Festival.



Key Highlights:

- The festival highlighted the customs and traditions of tribals and also assured the development of sports infrastructure in the area to engage the local youth.

- Tribal areas have the potential to attract tourists and boost employment opportunities the role of various government sponsored, public-oriented schemes for the economic upliftment of people.
- People from the Kashmiri community, Gujjars and Bakerwals danced together to the beats of dhol (drum) in a unique portrayal of cultural unity in diversity.
- The 'gatka' was another attraction performed by two tribal communities portraying the fighting spirit of the Gujjars amid all geographic, social and political odds.

National Logistic Policy launched

Prime Minister Narendra Modi announced the National Logistic Policy aimed at easing the movement of goods and boosting the trade sector in the Indian economy.



Key Highlights

- The policy aims to lower the cost of logistics from the existing 13-14% and lead it to on par with other developed countries.
- The policy is an endeavor to improve the competitiveness of Indian goods, enhancing economic growth and increasing employment opportunities.

The new framework comes with a special emphasis on:

- Streamlining processes for seamless coordination
- Reduction in overall logistics cost
- Pushing employment generation and skilling of the workforce.

The policy focuses on key areas:

- Process re-engineering
- Digitisation
- Multi-modal transport

The significant steps to be undertaken for NLP include:

- **Unified Logistics Interface Platform (ULIP):** ULIP will bring all the digital services related to the transportation sector into a single portal, freeing the exporters from a host of very long and cumbersome processes.
- **Integration of Digital System (IDS):** There will be digital integration of different systems of seven various departments (like road transport, railways, aviation, commerce ministries and foreign trade).
- **Ease of logistics Services:** e-logs-Through this portal, industry associations can directly take up any such matters which are causing problems in their operations and performance with the government agencies.
- **System Improvement Group:** will monitor all logistics-related projects regularly.
- **Standardisation of physical assets and benchmarking of service quality standards:** By standardizing physical assets and comparing service quality standards in logistics, one may increase interoperability, reduce handling risks, optimize processes, and make it easier to conduct business.
- Service Improvement framework: Enhancing the regulatory interface to encourage standardization, formalization, and interoperability.
- EXIM (Export-Import) Logistics: To boost trade competitiveness and further India's inclusion into regional and global value chains to build an effective, dependable logistics network.

What is Logistics?

Logistics refers to the overall process of planning, coordinating, storing, and moving resources —people, raw materials, inventory, equipment, etc., from one location to another, from the production points to consumption, distribution, or other production points.

Logistics cost in India

Logistics costs in the country are estimated to be 14% of Gross Domestic Product (GDP), compared to 8-10% in advanced economies.

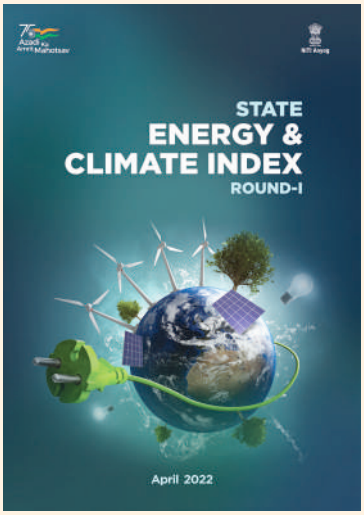
In 2018, India was ranked 44th in the Logistics Performance Index, a measure through which the World Bank ranks countries based on their logistics performance.

NITI Aayog

NITI AAYOG IN NEWS

State Energy and Climate Index

NITI Aayog launched the first ever State Energy & Climate Index.



Objective of index

- Ranking the States based on their efforts towards improving energy access, energy consumption, energy efficiency, and safeguarding the environment.
- Helping drive the agenda of affordable, accessible, efficient and clean energy transition at the State level.
- Encouraging healthy competition among the states on different dimensions of energy and climate.

Parameters of Ranking

The State Energy & Climate Index (SECI) Round I ranks the states' performance on 6 parameters

1. DISCOM's Performance
2. Access, Affordability and Reliability of Energy
3. Clean Energy Initiatives
4. Energy Efficiency
5. Environmental Sustainability
6. New Initiatives.

Based on the composite SECI Round I score, the states and UTs are categorized into three groups:

- Front Runners
- Achievers
- Aspirants.

Weightage of parameters

- **DISCOMS** are the important link in the entire energy value chain, their performance has been assigned with higher weightage (40%) in the overall index.
- **Other parameters:** 'access, affordability & reliability of energy', 'clean energy initiatives', 'energy efficiency', 'environmental sustainability' and 'new initiatives' have been assigned weights of 15%, 15%, 6%, 12% and 12% respectively.

Key Findings of Index

- The states have been categorized based on size and geographical differences as larger states, smaller states, and UTs.
- Gujarat, Kerala, and Punjab have been ranked as the top three performers in the category of larger states.
- Goa, which got overall score 51.4 emerged as the top-performing state in the smaller states category, followed by Tripura, and Manipur.
- Among UTs, Chandigarh, Delhi, and Daman & Diu/Dadra & Nagar Haveli are the top performers.
- Amongst the larger states, the bottom three performers were Madhya Pradesh, Jharkhand and Chhattisgarh.
- Among smaller states least performing states included Meghalaya, Nagaland and Arunachal Pradesh.
- In the union territories, Andaman and Nicobar islands, J&K and Lakshadweep island performed the worst.

Significance of Index

- The findings will help the states to take timely remedial measures for better management, thereby, meeting expectations of the citizens.
- The overall objective of the index is to develop healthy competition among the states to perform better and provide quality energy services to users.

Experience Studio on Drones



An experience studio on drones was launched by NITI Aayog.

Key Highlights

- It is said to be an imperative to boost the usage of drones in different industrial- and defense-related sectors to leverage the benefits of drone technology.
- The Union Minister also announced the launch of the following challenges, which will be held by NITI Aayog in collaboration with the Ministry of Civil Aviation (MoCA):
  - '**Drones for Social Impact Competition':** For the start-up community to showcase their capabilities to solve critical problem statements in various use cases.
  - **'Robotics Workshop and Competition':** For students of Atal Tinkering Labs to foster the spirit of innovation and problem-solving.

Objectives

- Working towards making drone services easily accessible.
- Promote various applications of drone technology to public and private stakeholders.
- Help stakeholders to fast-track adoption of drone technology within their organizations and aid in building a robust drone industry in India.
- Promoting manufacturing and Drones-as-a-Service.
- Providing impetus to innovation.
- Government as an adopter.

AIM PRIME Playbook



The AIM-PRIME Playbook was launched by NITI Aayog.

Key points:

- This is an initiative of Atal Innovation Mission, NITI Aayog.
- The AIM PRIME (Program for Researchers in Innovation, Market Readiness and Entrepreneurship) program is aimed at promoting early-stage science-based, deep technology ideas to market through training and guidance over a period of 12 months using a blended learning curriculum.

Aim:

- It is a guide for science-based entrepreneurs and ventures.
- The PRIME Library is a curated resource shared by the faculty and expert mentors associated with the program.
- The PRIME Video is an open-access video collection of the lectures delivered as part of the PRIME Classroom.

STATES/ UTs
in news

Uttarakhand: 30% reservation to women in state government services

Uttarakhand Legislative Assembly passed a Bill to provide 30 per cent horizontal reservation to local women in state government services.



Key Highlights

- The domicile-based job reservation bill states that "In direct recruitment in public services and posts, in the vacancies to be recruited, 20 percent horizontal reservation shall be given till July 24, 2006 and 30 percent after that in favor of concerned women candidates permanently domiciled in Uttarakhand".
- The bill is aimed at providing employment to women across the state who miss out on job recruitments and other opportunities due to the difficult terrain in several parts of the of the hill state.
- The bill also aims to provide the recruitment reservation to increase women's representation in local administration and governance.

Kerala: First carbon neutral farm in the country

Kerala Chief Minister Pinarayi Vijayan declared a seed farm, located in Aluva, as the first carbon neutral farm in the country.



Key Highlights

- A significant reduction in carbon emission has helped the seed farm, under the Agricultural Department, achieve carbon neutral status.
- The total amount of carbon emission from the farm, located at Thuruthu in Aluva, in the last one year was 43 tons but its overall procurement was 213 ton.
- Compared to the emission rate, as many as 170 tons of more carbon have been procured at the farm, which helped it to be declared as the first carbon neutral seed farm in the country.
- Carbon neutral agricultural methods would be implemented through women's groups and such interventions would be made in the tribal sector as well.
- Even as the state moves towards the goal to achieve food self-sufficiency, plans to maintain ecological equilibrium are also equally important
- As many as 30 per cent of greenhouse gas emissions come from agriculture and this can be prevented and climate change can be regulated through carbon neutral agricultural practices.

Kerala : Fiber Optic Network (KFON)

Kerala Chief Minister Pinarayi Vijayan launched the KFON (Kerala Fiber Optic Network) in the state and with this Kerala became the first state in the country with its own internet service.

Key Highlights

- Announced in 2019, the KFON initiative envisages a total of 35,000 km of optical fiber network across 14 districts.
- KFON aims to create a core network infrastructure that will provide free internet access to 20 Lakh economically-backward households.
- Close to three years after it was announced, the Kerala Fiber Optic Network (KFON) initiative has received the Internet Service Provider (ISP) license from the Department of Telecommunications (DoT).
- With the Kerala government inaugurating the first phase of the ambitious Kerala Fiber Optic Network (KFON) project, over 8,000 government offices and educational institutions in the state will get to enjoy the benefits of high-speed connectivity.

Kerala : Kerala Savaari Taxi Service

Kerala launched 'Kerala Savaari', the country's first taxi service owned by the government, to ensure fair and decent service to passengers along with fair remuneration to auto-taxi workers.

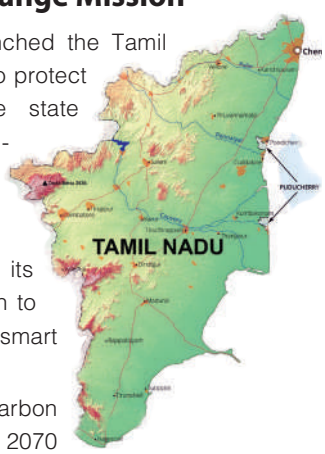
STATES/ UTs in news

Key Highlights

- Operated by the Motor Workers Welfare Board under the aegis of the Labor Department, the Kerala Savaari ensures safe travel for the public at 'government approved fares' without any 'surge pricing'.
- The 'Kerala Savaari' app would be made available to the public on online platforms shortly as it is under the scrutiny of Google now.
- Unlike other online platforms, there will be no fluctuation in fares on Kerala Savaari.
- In Kerala Savaari, there will be a single fare. A service charge of only eight per cent will be charged, making it cheaper than other online taxi services.
- The amount collected as service charge along with the rate fixed by the government will be utilised for the implementation of the scheme and for providing promotional incentives to passengers and drivers etc.
- Safety is another specialty of Kerala Savaari. Every driver must have a police clearance certificate. The Kerala Savaari app will have a panic button system for help in case of emergencies. Either driver or passenger can press this button without letting know each other. This will help in getting the services of the concerned enforcement agencies faster.

Tamil Nadu : Climate Change Mission

Tamil Nadu Chief Minister launched the Tamil Nadu Climate Change Mission to protect the natural resources in the state besides restore them on a long-term basis.



Key Highlights

- The state is first to launch its own Climate Change Mission to make Tamil Nadu a climate smart state.
- The state will achieve carbon neutrality much ahead of 2070 target set by Prime Minister Narendra Modi.
- The state government announced the launch of the Tamil Nadu Climate Change Mission for an outlay of Rs 500 crore to undertake climate change management and mitigation activities.
- The government also established India's first 'Tamil Nadu Green Climate Company – a special purpose vehicle – to implement three major nature conservation projects namely Green Tamil Nadu Mission, Tamil Nadu Wetlands and Tamil Nadu Climate Change.

Tamil Nadu : Chief Minister's Breakfast Scheme

The Tamil Nadu government issued an Order to implement the first phase of the 'Chief Minister's Breakfast Scheme'.

Key Highlights

- It will be implemented at 1,545 government primary schools to benefit more than 1.14 lakh children in Classes I-V across the State during 2022-23.
- As much as possible, breakfast prepared with millets available in the region could be provided to students at least two days every week.
- Every student is to be provided with a cooked meal of 150–500-gram breakfast with sambar and vegetables.

Telangana : Nethanna Bima Scheme

On the occasion of National Handloom Day, Telangana government launched the Nethanna Bima scheme.



Key Highlights

- Under the scheme, the Telangana government has joined hands with Life Insurance Corporation (LIC) of India for the 'Nethanna Beema' scheme and termed the state department of handlooms and textiles as the nodal agency for its implementation.
- The annual premium of the beneficiaries will be paid by the government on their behalf to the LIC.
- The new scheme will provide Rs 5 lakh insurance cover to the families of weavers in case of the unfortunate demise of an eligible beneficiary.
- In India, the National Handloom Day is observed on August 7 every year to recognise the contributions of the handloom weavers of the country. In 2015, the first National Handloom Day was organized by Prime Minister Narendra Modi in Chennai.

STATES/ UTs in news

Haryana : Cheerag Scheme

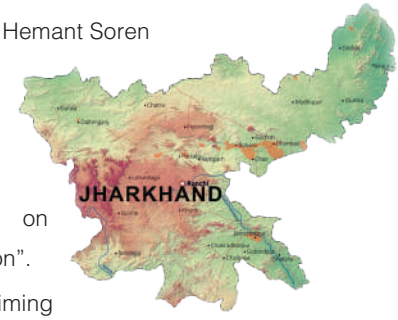


Haryana government launched to offer "free education" to Economically Weaker Section (EWS) students of government schools in "budget" private schools.

Key Highlights

- Haryana Chief Minister Manohar Lal Khattar's government launched the "Chief Minister Equal Education Relief, Assistance and Grant (Cheerag)" scheme.
- It was introduced in place of a similar scheme launched by Bhupinder Singh Hooda's government in 2007 under Rule 134 A of the Haryana School Education Rules, 2003.
- Under the Cheerag scheme, government school students whose parents have an annual verified income of less than Rs 1.8 lakh can enroll in private schools from Class II to XII.
- The government will reimburse Rs 700 per student from Classes II to V, Rs 900 per student from Classes VI to VIII, and Rs 1,100 per student from Classes IX to XI.
- Haryana Vidyalaya Adhyapak Sangh, a body of government school teachers, is not impressed with the Cheerag scheme and has already staged protests against it across the state. The union leaders have apprehensions that the scheme may be aimed at encouraging private schools at the cost of government school.

Jharkhand's : New Tourism Policy



Jharkhand Chief Minister Hemant Soren launched the Jharkhand tourism Policy.

Key Highlights

- The policy focuses on "extraction to attraction".
- The government is aiming to encourage Indian and foreign private investment and participation in tourism infrastructure projects. The new tourism policy includes strategic joint ventures with private tour operators for setting up tourist packages and services, upgrading tourist information centres, and conducting a detailed assessment of tourism potential in every district.
- The government will provide a single-window system and 20-25 per cent capital investment subsidy (up to Rs 10 crore) and a reimbursement of 75 per cent of net goods and services tax paid for five years, to those investing in the state's tourism sector.
- Other incentives include not levying holding tax for five years, reimbursing electricity duty and stamp duty, and captive power generating subsidy of 30 per cent up to Rs 5 lakh. The fiscal incentives include an interest subsidy at 50 per cent (up to Rs 20 lakh) for five years.

Delhi: Mission Kushal Karmi



Mission Kushal Karmi is a Delhi Govt's scheme to improve construction workers' skills.

Key Highlights

- It was started by Manish Sisodia, the Deputy Chief Minister of Delhi.
- Mission Kushal Karmi programme has been started with the objective of providing on-the-job skill development training to around 2 lakh registered construction workers in a year.
- Workers will be trained for industry demand-driven job roles in construction sector. Training would be provided for 15 days or 120 hours at their workplaces.
- Under the programme, productivity of the workers will be enhanced by 40%. It will enhance product quality by 25 % while reducing the material wastage by 50%.
- The Programme will enhance the domain skills and soft skills of workers. This will make them more confident and proficient.
- The Programme will help in enhancing the worker's understanding of standard safety norms. Thus, their work longevity social security will increase.

Delhi : New Startup Policy approved



- To turn Delhi into the preferred destination for startups by 2030, the Delhi Cabinet approved the implementation of its startup policy.

Key Features

- **Rent support:** The Delhi government will pay up to 50% of the rent of a startup's office lease or contribute towards the salaries that these startups will pay to their employees.
- **Rental cost** of 100% for women/underprivileged/differently-abled individuals and 50% for others up to 5 lakh per annum and a monthly allowance towards operational or employee costs of up to 30,000 per month
- **Patents and copyrights:** The government will reimburse the startups for the costs incurred on applying for patents, copyrights and trademarks.
- **Interest free loans:** The government will also offer collateral free and interest-free loans to incentivise incubation centers and fabrication labs.
- **Expert services:** There will be panels of lawyers, experts, CAs and other such professionals who will provide their services to the startups and will be paid by the Delhi government.

New Startup Policy

- The policy aims to provide an enabling ecosystem for an innovation-based economy to help the Capital become a global innovation hub.
- **Vision:** Under the policy the state wants to stimulate, assist and support 15,000 companies, creating new job opportunities.

Business Blasters Programme

- The policy will also focus on teaching entrepreneurship to students in Classes IX-XII and giving them seed capital under the government's existing Business Blasters Programme.
- The initiative will also be replicated at the college level. Students working on startups, while studying in Delhi government colleges, will be able to seek up to two years leave to work on their businesses.

Monitoring committee

- The government will form a monitoring committee to oversee the startup policy.
- This committee will be headed by Delhi's Finance Minister.
- The composition of this committee will be — 85% representatives from the private sector, 10% from education institutions and 5% from government.

Task Force

- A 20- member task force will also be set up to oversee the registration of startups.
- This task force will have a government official, academics, as well as business and trade representatives.

Delhi : First police force to make forensic evidence mandatory



Delhi Police has become the first police force in the country to make collection of forensic evidence mandatory in crimes punishable by more than six years.

Key Highlights

- Delhi Police Commissioner Sanjay Arora issued a "standard order" to all police units.
- It said "In order to take conviction rate higher and integrate the criminal justice system with forensic science investigation, it has been decided to use forensic tools mandatorily in all cases where punishment provided is more than six years."
- According to the Delhi police order, the force has its own 'mobile crime team van' in each district and in addition to that, one 'forensic mobile van' shall be allotted to each district to provide scientific and forensic assistance on the spot whenever any need arises.

- These forensic mobile vans shall not be under the administrative control of the police but shall be an independent entity responsible to the court of law. However, they shall visit the scene of crime whenever called by the Station House Officer or any other investigating agency of Delhi Police.

Bihar : 106 Years old observatory gets UNESCO tag



The 106 year old astronomical observatory of Langat Singh College, Muzaffarpur, under Bhim Rao Ambedkar Bihar University (BRABU) has been included on the UNESCO list of important endangered heritage observatories of the world.

Key Highlights

- The observatory, the first of its kind in eastern India, was established in the college in 1916 to impart astronomical knowledge to the students in detail.
- A planetarium was also set up in the college in 1946. After 1970, the condition of the observatory, as well as the planetarium, started declining gradually and most of the machines installed there have either been lost or become junk.
- According to the college records, it was established by efforts of Prof Romesh Chandra Sen. He consulted J Mitchell, an amateur astronomer and principal of Wesleyan College, Bankura in West Bengal, seeking his guidance.
- In 1915, the college acquired a telescope, astronomical clock, chronograph and other equipment from England after which the astronomical observatory started functioning in 1916.

Bihar : India's largest Rubber Dam

Bihar Chief Minister Nitish Kumar inaugurated the country's largest rubber dam and a steel bridge over the Falgu river near Vishnupad temple in Bihar.

Key Highlights

- Water Resources Department has completed the construction of Bihar's first rubber dam "Gayaji Dam" to provide water throughout the year in the Falgu river near Vishnupad temple.
- The dam has been built at an estimated cost of `324 crores. The project included experts from IIT Roorkee.
- The dam is 411 meters long, 95.5 meters wide and 3 meters high.
- Apart from the rubber dam, the banks along the Falgu River have also been developed and a steel bridge has been built for pilgrims to visit Sita Kund.
- The Falgu river has water only in the monsoon season and remains dry for the remaining period. The dam will ensure water storage in the river throughout the year, helping the pilgrims who visit the place for Pind Daan (ritual to offer homage to departed souls).

Gujarat : Semiconductor Policy, 2022-27



Gujarat Government unveiled a dedicated 'Gujarat Semiconductor Policy 2022-27'. The policy aims creating at least 2,00,000 new employment opportunities over the five years.

Key Highlights

- Gujarat is the first state in India to release a dedicated semiconductor policy.
- Under the Gujarat Semiconductor Policy 2022-27, Gujarat Government will provide heavy subsidies on power, water and land tariffs for entrepreneurs who are interested in investing in semiconductors or display fabrication manufacturing in Gujarat.
- The policy is aimed at making the state first in developing Electronics System Design & Manufacturing (ESDM) ecosystem.

- It will provide for effective and timely execution of eligible projects, in a bid to set up a robust semiconductor and display fabrication ecosystem.
- It focuses on providing guidance to a significant portion of investments under the India Semiconductor Mission policies towards Gujarat.

About India Semiconductor Mission

- Ministry of Electronics and IT (MeitY) launched 'India Semiconductor Mission' in 2021, with total financial outlay of Rs 76,000 crore.
- The mission is aimed at providing financial support to companies that invest in semiconductors, design ecosystem and display manufacturing.

Himachal Pradesh : Vehicle Location Tracking Device(VLTS)



Himachal Pradesh becomes first state in the country to connect all registered commercial vehicles equipped with Vehicle Location Tracking Device (VLTS) with Emergency Response Support System (ERSS).

Key Highlights

- Chief Minister of Himachal Pradesh, Jai Ram Thakur formally inaugurated the initiative at a program organized at Peterhof, in Shimla.
- With this, the registered commercial vehicles can be tracked anywhere in the country through VLTD.
- More than 9,423 vehicles have been registered, equipped with VLTS and linked with ERSS which will be monitored by both the police and the transport department.
- A facility of panic buttons for the safety of women and children in public vehicles was also introduced.

Himachal Pradesh : Atal Tunnel certified as World's Longest Highway Tunnel

- Atal Tunnel has officially been certified by the World Book of Records as the 'World's Longest Highway Tunnel above 10,000 Feet'.
- World Book of Records, UK, is an organisation that catalogues and verifies extraordinary records across the world with authentic certification.

About Atal Tunnel

- Atal Tunnel is the longest highway single-tube tunnel above 10,000 feet (3,048 m) in the world and is named after former PM Atal Bihari Vajpayee.
- It is a 9.02 km long, strategically significant Tunnel that runs under the 'Rohtang Pass' that was constructed on the Manali - Leh Highway.
- Constructed by the Border Roads Organisation (BRO).

Andaman and Nicobar Islands : Swachh Sujal Pradesh



The A&N Islands have been declared the First 'Swachh Sujal Pradesh' in the entire country by the Jal Shakti Ministry.



Key Highlights

- Union Jal Shakti Minister Gajendra Singh Shekhawat declared Andaman and Nicobar Islands as India's first Swachh Sujal Pradesh.
- He handed over the certificate to Lieutenant Governor Admiral DK Joshi.
- With this accomplishment, all villages on the Andaman and Nicobar Islands have received the Har Ghar Jal certification and have been verified as ODF plus open defecation free.

- Andaman and Nicobar Islands was declared to have achieved 100% coverage of rural households with tap water connection.
- It became the third State/UT in the country to achieve 100% coverage of rural households with tap water supply.
- On A&N Island, there are 62,000 rural households spread across 266 villages in 9 blocks across three districts. The UT has given piped water supply to all 368 schools, 558 Anganwadi centres, and 292 public institution centres.

Key components of 'Swachh Sujal State'

- Safe and secure drinking water supply and management
- ODF Plus: ODF Sustainability and Solid and Liquid Waste Management (SLWM)
- Cross-cutting interventions like convergence, IEC, action planning, etc

Uttar Pradesh : Varanasi - The First Cultural and Tourism Capital of SCO

The holy city of Varanasi, showcasing India's culture and traditions over the ages, will be declared the first "Cultural and Tourism Capital" of the Shanghai Cooperation Organisation (SCO).

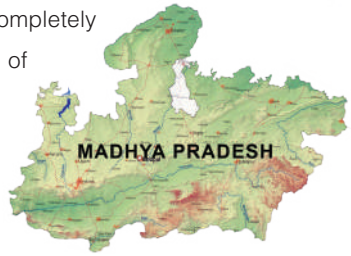


Key Highlights

- Secretary General of SCO, Zhang Ming said Varanasi will become the Cultural and Tourism Capital of the SCO for 2022-23 under a new rotating initiative by the eight-member organization to promote people-to-people contacts and tourism among the member states.
- Under this initiative of SCO, each year a city of the cultural heritage of a member country that will take over the rotating Presidency of the organization will get the title to highlight its prominence.
- The new initiative will come into force after the Samarkand, Uzbekistan summit of SCO, following which India will take over the Presidency and host the next Heads of the State summit.
- India hosted the Head of the Government of the SCO meet in 2020.
- SCO member states were considering several initiatives to promote tourism to enhance people-to-people contacts once the COVID travel restrictions ease. Kazakhstan has announced a visa-free policy for tourists from India and other countries.

Madhya Pradesh : Mandla India's first completely "functionally literate" district

Tribal-dominated Mandla district of Madhya Pradesh has become the first completely "functionally literate" district of India.



Key Highlights

- Literacy rate in the district was 68 per cent as per a survey in 2011, while another report in 2020 pointed out that over 2.25 lakh people were not literate in the district and most of them were tribals living in the forest areas.
- A person can be called functionally literate when he or she is able to write his or her own name, to count and read and write in Hindi.
- Keeping this in mind, the government launched a major campaign to make tribals of Mandla functionally literate by roping in the school education department, women and child development department, anganwadi and social workers to educate women and senior citizens.
- Within two years, the entire district has become functionally literate, claiming that people were able to write their names, count and read, making Mandla the first district in the country to achieve this distinction.



Prevention of Money Laundering Act (PMLA,) 2002

The Supreme Court upheld the 2018 amendments to Prevention of Money Laundering Act (PMLA).

Key Highlights

- Supreme Court accepted that the definition of Money Laundering includes every aspect of the proceeds of crime and not just the final act of money laundering.
- Statement recorded before ED will be accepted as ED is not a police official (and therefore can't be challenged on the ground of being self-incriminatory)
- Enforcement Case Information Report (ECIR) cannot be equated with an FIR (as ECIR is an internal document of ED) and therefore directive to share ECIR with the accused can't be issued.
- The key amendments provided extensive power to Enforcement Directorate (ED) for summons, arrests and raids, and makes bail provisions difficult while shifting the burden of proof of innocence onto the accused rather than prosecution.

About PMLA 2002

- PMLA act was enacted in 2002 to fight the menace of money laundering (under the commitment of the Vienna Convention). It is being implemented by ED (under Department of Revenue, Ministry of Finance).

Objectives:

- To prevent and control money laundering
- To confiscate and seize the property obtained from the laundered money
- To deal with any other issue connected with money laundering in India.

Benami Transactions (Prohibition) Act, 1988

The Supreme Court has ruled that Section 3(2) of the Benami Transactions (Prohibition) Act, 1988 is unconstitutional as it is manifestly arbitrary.

Key highlights

- In an attempt to curb black money, in July 2016, government decided to amend the original act which was subsequently passed by the Parliament of India as "The Benami Transactions (Prohibition) Amendment Act, 2016".
- The act bans all benami transactions and gives the government the right to recover property held benami without paying any compensation.
- Section 3(2) prescribes the punishment for entering into a transaction.
- The Court further held that Benami Transactions (Prohibition) Amendment Act 2016 cannot be applied retrospectively.
- The court has held that the criminal provisions under the 1988 Act are arbitrary and incapable of being applied; the law, through the 2016 amendment, cannot retrospectively apply to the transactions between September 5, 1988, and October 25, 2016.
- The Benami Act, 2016, had expanded the definition of transactions classified as "benami" and imposed stiff penalties, which put many firms and individuals under the scanner because it had been used retroactively. The tax department had issued thousands of notices for cash transfers and property deals for earlier periods.

Energy Conservation (Amendment) Bill, 2022

The Energy Conservation (Amendment) Bill, 2022 was passed in Lok Sabha.

Key Highlights

- The Act promotes energy efficiency and conservation. It provides for the regulation of energy consumption by equipment, appliances, buildings, and industries.

- The Bill adds that the government may require the designated consumers to meet a minimum share of energy consumption from non-fossil sources. Designated consumers include: (i) industries such as mining, steel, cement, textile, chemicals, and petrochemicals, (ii) transport sector including Railways, and (iii) commercial buildings, as specified in the schedule.
- Failure to meet the obligation for use of energy from non-fossil sources will be punishable with a penalty of up to Rs 10 lakh.
- The central government or any authorized agency may issue carbon credit certificates to entities registered under and compliant with the scheme.
- The Bill includes 'energy conservation and sustainable building code'. This new code will provide norms for energy efficiency and conservation, use of renewable energy, and other requirements for green buildings.
- The Bill expands the scope of the energy consumption standards to vehicles and vessels which was till now limited to for equipment and appliances which consume, generate, transmit, or supply energy.
- The Act empowers the State Electricity Regulatory Commissions (SERCs) to adjudge penalties under the Act.
- The Bill expands governing council of Bureau of Energy Efficiency (BEE) between 31 and 37.

Gender Budgeting Act

Government think-tank Niti Aayog's monitoring and evaluation office DMEO has pitched for finalising a national policy for women and mainstreaming of gender-based budgeting across all ministries and states through formulation of the Gender Budgeting Act.

Key Highlights

- Development Monitoring and Evaluation Office (DMEO) released the report titled 'Gender Mainstreaming in Governance'.
- It also said there is a need to improve social acceptance of transgender persons in the society.
- As per the report, gender budgeting is not practised in most states and also not captured for many schemes in different sectors.
- The report said that a Gender Budgeting Act is needed to mainstream gender-based budgeting across all ministries and states/Union Territories and legally mandate all data collecting institutions to analyse and publish gender-disaggregated statistics.
- The report recommended that the Ministry of Women & Child Development (MWCD) should encourage state governments to increase their budgetary allocation towards women and child development, protection and welfare schemes to ensure improved fund availability and utilisation of schemes.
- DMEO also emphasised on the need of 'finalising the National Policy for Women with revision in 2016 draft policy'.
- DMEO report pointed out that only 62 out of 119 centrally-sponsored schemes are practicing Gender-based Budgeting.

About Gender Budgeting

- Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels.
- It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated.

National Anti Doping Bill

National Anti-Doping Bill, 2022 has been passed by both Rajya Sabha and Lok Sabha.

Key Highlights

- The bill seeks to provide a statutory framework for the functioning of the National Anti-Doping Agency (NADA) and the National Dope Testing Laboratory in sports.
- It also seeks to give effect to the United Nations Educational, Scientific and Cultural Organisation International Convention against doping in sports and compliance with such other obligations and commitments.
- It includes a statutory framework in the form of legislation for prohibition of doping in sports and enforcing anti-doping activities in the country.

The proposed Bill intends to accomplish:

- Building institutional capabilities in anti-doping and enabling hosting of major sports events
- Protecting rights of all sportspersons
- Ensuring time-bound justice to athletes
- Enhancing cooperation among agencies in fighting doping in sports
- Reinforcing India's commitment to international obligations for clean sports

- Independent mechanism for anti-doping adjudication
- Providing legal sanctity to National Anti Doping Agency (NADA) & National Dope Testing Laboratory (NDTL)
- Establishing more Dope Testing Labs
- Creating job opportunities both, directly & indirectly
- Creating opportunities for academic research, science and manufacturing relating to Anti-Doping.
- Establishing standards for the manufacturing of nutritional supplements for sports in India.

About NADA

- National Anti Doping Agency (NADA) was set up as registered society under the Societies Registration Act of 1860 on November 24, 2005 with a mandate for Dope free sports in India.
- The primary objectives are to implement anti-doping rules as per WADA code, regulate dope control programme, to promote education and research and creating awareness about doping and its ill effects.

Biological Diversity (Amendment) Bill, 2021

- Member of Joint Parliamentary committee expressed concern over exemptions given under Biological Diversity (Amendment) Bill, 2021.

Key Issue

- Biological Diversity (Amendment) Bill, 2021 amends Biological Diversity Act that came into existence in 2002.
- Under the amendment the exemptions are given to AYUSH practitioners from the provisions of the law, which prohibits any person or organisation from obtaining any biological resource occurring in India for its research and commercial utilization without prior approval from National Biodiversity Authority.
- Distinction has been drawn between a registered AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) practitioner and a company, exempting the former from the Act.
- This distinction is said to be an artificial distinction since the registered AYUSH practitioner may well be having informal links with a company.
- The government brought in the amended Bill because of the push from many AYUSH companies.
- The concerns are also related to distinction made in the law between cultivated biodiversity and forest-based biodiversity

About Biological Diversity Act, 2022

- Act provides for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
- National Biodiversity Authority (NBA) had been set up under the Ministry of Environments and Forest in 2003 to give effect to the provisions of the act.
- In the context of biological resources and biodiversity, the act aims the following:
  - Regulation
  - Conservation
  - Sustainability
  - Protection
  - Rehabilitation
  - Sharing of benefits

Anti-Piracy Bill, 2022

Rajya Sabha passed a bill in Parliament that provides for stringent punishment, including death penalty, for those involved in piracy at sea.

Key Highlights

- The introduction of the bill came after some 18 Indians aboard a crude oil carrier were kidnapped off the coast of Nigeria.
- The Anti-Maritime Piracy Bill 2019 is aimed at promoting the safety and security of India's maritime trade, and the safety of its crew members.
- The aim of drafting the proposed legislation is to keep up with India's commitment to the United Nations Convention on the Law of the Sea (UNCLOS), which concluded in 1982. India had ratified the UNCLOS in 1995.
- Section three of the bill says that "whoever commits any act of piracy, shall be punished (i) with imprisonment for life; or (ii) with death, if such person in committing the act of piracy causes death or an attempt thereof."
- The bill noted that incidents of piracy have been growing since 2008, with the Gulf of Aden seeing a major uptick in attacks by pirates from Somalia. This route is used by about 2,000 ships each month for trade between Asia and Europe and East Coast of Africa. With the enhanced (international) naval presence in the Gulf of Aden, pirates shifted their area of operations eastwards and southwards. This led to a flurry of piracy incidents towards the western coast of India as well.

Places of Worship (Special Provisions) Act, 1991

The Supreme Court to hear the issue of Kashi Vishwanath-Gyanvapi complex.

Places of Worship Act

- Places of Worship (Special Provisions) Act came into existence in 1991.
- As per the act, the status of all the places of worship in the country were frozen as on August 15, 1947.
- Which means the Act says that no person shall convert any place of worship of any religious denomination into one of a different denomination or section.
- It prohibits any legal proceedings from being instituted regarding the character of a place of worship, and declares that all suits and appeals pending before any court or authority on the cut-off date regarding the conversion of the character of a place of worship shall abate.
- In other words, all pending cases will come to an end, and no further proceedings can be fled.
- However, any suit or proceedings relating to any conversion of status that happened after the cut-of date can continue.

Cases in which law does not applies

- The law does not apply to ancient and historical monuments and archaeological sites and remains that are covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
- It also does not apply to any suit that has been finally settled or disposed of, any dispute that has been settled by the parties before the 1991 Act came into force, or to the conversion of any place that took place by acquiescence.
- An exception was made to keep the Babri Masjid-Ramjanmabhoomi dispute out of its ambit as the structure was then the subject of litigation.

Punishment under the law

- Anyone contravening the prohibition on converting the status of a place of worship is liable to be imprisoned for up to three years, and a fine.
- Those abetting or participating in a criminal conspiracy to commit this offense will also get the same punishment.

Supreme court on "Status Freeze" in Ayodhya Dispute

- The court described the law as one that preserved secularism by not permitting the status of a place of worship to be altered after Independence.
- In its final verdict on the Ayodhya dispute, the Supreme Court had observed that the Act "imposes a non-derogable obligation towards enforcing our commitment to secularism".
- The five-judge Bench said, "Historical wrongs cannot be remedied by the people taking the law in their own hands. In preserving the character of places of public worship, Parliament has mandated in no uncertain terms that history and its wrongs shall not be used as instruments to oppress the present and the future."

Places of Worship Act effect on Gyanvapi proceedings

- Gyanvapi mosque administration argues that the ongoing civil cases filed by Hindu devotees constitute an attempt to change the status of the place of worship and violate the Act.
- The Vishwa Hindu Parishad, contends that the Places of Worship Act is not applicable to the Gyanvapi issue, as there was no change to the religious structure since 1947.
- The outcome of the case will depend on whether the courts deem the proceedings contrary to the Act, or rule that it is not applicable to the dispute in Varanasi.

Gyanvapi Mosque Case

- **1991:**
  - A bunch of petitioners, who were local priests, moved to the Varanasi court contending that the Gyanvapi mosque was built on the order of the Mughal emperor Aurangzeb after demolishing a part of the Kashi Vishwanath Mandir in 1669.
  - They demanded that the mosque be removed and the land be given to the Hindus.
  - They also sought permission to worship in the Gyanvapi Masjid area.
  - However, the matter remained dormant and the hearing was suspended by the Allahabad High Court.
- **2019:**
  - When the Supreme Court verdict in the Babri Masjid-Ram Janmabhoomi title dispute of Ayodhya came, the Gyanvapi case was revived in December 2019.
- **2021:**
  - The present case of Shringar Gauri worship dates back to April 8, 2021, when five Delhi-based women Rakhi Singh, Laxmi Devi, Sita Sahu, and others filed a case, demanding permission for daily worship and performing rituals at Shringar Gauri, Lord Ganesha, Lord Hanuman and Nandi located on the outer wall of the Gyanvapi mosque.
  - The petitioners had also sought to refrain the opponents from causing any damage to the idols.

Schemes & Programmes



PM-SHRI Yojana

- Prime Minister Narendra Modi announced development and upgrade of 14,500 schools across India under the Pradhan Mantri Schools For Rising India (PM-SHRI) Yojana.

Key Highlights

- The PM-SHRI schools will have a modern, transformational and holistic method of imparting education.
- The centrally sponsored scheme will be implemented by strengthening existing schools selected from amongst those managed by the Central government, states, Union Territories and local bodies.
- PM SHRI Schools will showcase all components of the National Education Policy 2020 and act as exemplar schools and also offer mentorship to other schools in their vicinity.
- The aim of these schools will not only be qualitative teaching, learning and cognitive development, but also creating holistic and well-rounded individuals equipped with key 21st century skills.
- Pedagogy adopted in these schools will be more experiential, holistic, integrated, play/toy-based (particularly, in the foundational years) inquiry-driven, and discovery-oriented.
- Focus will be on achieving proficiency in learning outcomes in every grade.
- Assessment at all levels will be based on conceptual understanding and application of knowledge to real life situations and will be competency-based.
- These schools will be equipped with modern infrastructure including labs, smart classrooms, libraries, sports equipment, art room etc.
- These schools shall also be developed as green schools with water conservation, waste recycling, energy-efficient infrastructure and integration of organic lifestyle in curriculum.

PM PRANAM Yojana

The Centre will soon introduce its Pradhan Mantri-Promotion of Alternate Nutrients for Agriculture Management Yojana (PM-PRANAM) to encourage states to cut down on their use of fertilisers.

Key Highlights

- On August 15, Prime Minister Narendra Modi had urged the farmers to reduce their dependence on chemical fertilisers. He appealed to the farmers to adopt natural farming practices.
- The PM-PRANAM scheme is aimed at discouraging the use of chemical fertilisers and promoting sustainable agriculture practices.
- The government under the proposed scheme will reduce the subsidy on chemical fertilisers which is expected to increase to Rs 2.25 lakh crore in 2022-2023 – a 39 per cent hike compared to the previous year's Rs 1.62 lakh crore.
- The scheme will incentivise those states that use lesser amounts of chemical fertilisers in a particular year as compared with the average quantity used over a period of the last three years by providing incentive grants at the rate of 50 per cent of the total amount of subsidy saved by using less fertiliser.
- States can use 70% of such incentive grants for the welfare of farmers like setting up of bio/organic fertiliser plants.
- The remaining 30% grant can be used for incentivising those panchayats, farmers and self-help groups who helped in reducing fertiliser use.
- Farmers rely extensively on fertilisers like urea, diammonium phosphate (DAP), and Muriate of Potash (MOP) to increase their yields.

Pradhan Mantri Awas Yojana-Urban (PMAY-U)

Union Cabinet has approved continuation of Pradhan Mantri Awas Yojana-Urban (PMAY-U) - Housing for All Mission up to 31st December 2024.

Key Highlights

- Under the proposal, financial assistance is to be provided for the completion of already sanctioned 122.69 lakh houses till March 31, 2022.

- Pradhan Mantri Awas Yojana (PMAY) is an initiative by the Union government, under which the Centre is aiming to provide affordable housing to the urban poor with a target of building two crore affordable houses by 31 March, 2022. The policy has two components -- Pradhan Mantri Awas Yojana (Urban) (PMAY-U) for the urban poor and Pradhan Mantri Awas Yojana (Rural) (PMAY-G) for the rural poor.
- As per the official statement, during 2004-2014, 8.04 lakh houses were completed under the urban housing scheme. In 2017, the originally projected demand was 100 lakh houses. Against this projection, construction work for 62 lakh houses has been completed.
- According to the data released by the government, central assistance approved since 2015 stands at 2.03 lakh crore against 20,000 crore in 2004-2014. Up to March 31, this year, the central assistance of 1,18,020.46 crore has already been released and 85,406 crore will be released till December 31, 2024.

PARVAZ Market Linking Scheme

A market linking scheme named PARVAZ was recently launched in Jammu and Kashmir.

PARVAZ
MARKET LINKAGE SUPPORT SCHEME

Key Highlights

- Under the scheme, 25 per cent subsidy on freight charges is given for carrying perishable fruits harvested in Jammu and Kashmir for shipment through Air Cargo.
- The subsidy is provided to farmers through Direct Benefit Transfer (DBT) mode.
- 25% subsidy as provisioned under 'Parvaz' scheme, shall be provided on the air cargo rates on horticulture/agriculture perishables- cherry, strawberry, plum, peach, pear, litchi, and exotic and organic vegetables only.
- The organic/exotic vegetables eligible under the scheme would be identified by an expert committee.

Parivar Kalyan Card Scheme

The Central Government has given its nod to the Uttar Pradesh government's Family ID plan — the Parivar Kalyan Card — adding to the list of state-specific unique id schemes in India.



Key Highlights

- The Parivar Kalyan Card (PKC) Scheme was announced by the UP state's government to establish a comprehensive database of the state's family units and identify beneficiaries for its various schemes including employment, pensions, and housing benefits.
- The PKC will provide a unique 12-digit ID number for each family, and the initial collection of data for families will be conducted through Ration cards.
- The Ministry of Electronics and Information Technology (MEITY) has allowed state government to link Aadhaar data with the PKC.
- The initial registration for the PKC has been kept voluntary, and those seeking avail of the various government schemes will be able to register with their Aadhaar numbers.
- Once registered, the data for each member of the family would be verified against the centralised database, and they would then be individually linked to specific government schemes according to their eligibility.
- The planning department cannot begin mapping the families without informing and educating the residents regarding the exact reason for obtaining their Aadhaar Data, and thereafter acquiring their consent.
- Aadhaar numbers cannot be displayed on government websites except for the last four digits.
- Those UP residents who already have ration card will be able to use them as their family ID. At present, there are nearly 150 million Aadhaar-validated ration-card holders (60 per cent of the state's population) who can use these as their family ID.

SURE Scheme

A new scheme called SURE by Science and Engineering Research Board (SERB), was launched to create a robust R&D ecosystem in state and private universities and colleges.

SERB SURE
STATE UNIVERSITY RESEARCH EXCELLENCE

Key Highlights

- State University Research Excellence (SERB-SURE) is a new innovative scheme of the Science and Engineering Research Board (SERB), a statutory body of the Department of Science and Technology (DST).
- It is a scheme to augment the research capabilities in a structured way to create a robust R&D ecosystem in state universities and colleges by fostering collaboration for high-end research.
- The growth of existing research capabilities at these institutions is imperative to ensure horizontal diffusion of

research excellence reaching all research students hoping to contribute to the national R&D ecosystem and promoting the enhancement of quality through SERB support.

- Under the scheme the total research grants not exceeding Rs. 30 lakhs for a period of three years are provided for minor equipment/s, research personnel, consumables, domestic travel, contingency and other costs (analytical charges, equipment user charges, fieldwork charges, etc.) "Overhead" is provided to the implementing institution as per prevailing norms of SERB.

Mission Vatsalya

Ministry of Women and Child Development (WCD) released new guidelines for the "Mission Vatsalya", which was launched to provide child protection services.



Key Highlights

- The Mission Vatsalya will be implemented as a Centrally Sponsored Scheme. For the implementation of the scheme, state governments and UT administrations will also partner with the central government. Funds will be shared among both in 60:40 ratio.
- For the Northeast states, Uttarakhand, Himachal Pradesh and UT of Jammu and Kashmir, funds will be shared in 90:10 ratio. For UTs without a legislature, total cost will be shared by centre.
- In the guidelines, states have been mandated to retain the official and original name of the Mission Vatsalya, in order to access Central funds and benefits.
- States have been mandated to comply with each guideline or instruction issued by the ministry for the Scheme.
- Guidelines on Mission Vatsalaya also talks about process in details, through which funds will be given to states by defining institutionalized arrangements.
- State governments are mandated to engage in exercise to provide grades to child care institution (CCI) at fixed intervals. Grading will be done on the basis on quality of services, infrastructure, wellbeing of children, etc.
- The Mission Vatsalya Project Approval Board (PAB) will approve the funds under scheme, to states.
- The board will be chaired by Secretary of women and child development ministry. He will be tasked to scrutinise& approve annual plans as well as financial proposals that will be received from states and UTs in a bid to release grants.

Mission Vatsalya PAB

- Mission Vatsalya Project Approval Board (PAB) will be created to approve funds for states, under the scheme.
- It will be chaired by Secretary of women and child development ministry.

NAMASTE Initiative

NAMASTE is an initiative to ensure the safety of sanitation workers.

Key Highlights

- NAMASTE is a Central Sector Scheme of the Ministry of Social Justice and Empowerment (MoSJE) as a joint initiative of the MoSJE and the Ministry of Housing and Urban Affairs (MoHUA).
- NAMASTE envisages safety and dignity of sanitation workers in urban India by creating an enabling ecosystem that recognizes sanitation workers as one of the key contributors in operations and maintenance of sanitation infrastructure.
- NAMASTE aim at providing access to alternative livelihoods support and entitlements to reduce the vulnerabilities of sanitation workers and enable them to access self-employment and skilled wage employment opportunities and break the inter-generationality in sanitation work.
- In addition, NAMASTE would bring about a behavior change amongst citizens towards sanitation workers and enhance demand for safe sanitation services.
- **NAMASTE aims to achieve the following outcomes:**
  - Zero fatalities in sanitation work in India.
  - All sanitation work is performed by skilled workers.
  - No sanitation workers come in direct contact with human fecal matter.
  - Sanitation workers are collectivized into SHGs and are empowered to run sanitation enterprises.
  - All Sewer and Septic tank sanitation workers have access to alternative livelihoods.
  - Strengthened supervisory and monitoring systems at national, state and ULB levels to ensure enforcement and monitoring of safe sanitation work.
  - Increased awareness amongst sanitation services seekers (individuals and institutions) to seek services from registered and skilled sanitation workers.

Paalan 1000 National Campaign

Union Government launched the Early Childhood Development Conclave, Paalan 1000 National Campaign and Parenting App in Mumbai.

Key Highlights

- Paalan 1000, Journey of the First 1000 Days', focuses on the cognitive developments of children in the first 2 years of its life.
- Paalan 1000 combines early years coaching for parents, families and other caregivers with services designed to meet families' basic needs. Infants and toddlers are shaped by their experiences – and those experiences are shaped by their caregivers.
- Caregivers are crucial for a strong start in the first years of life.
- The programme is aligned with the mission of the Rashtriya Bal Swasthya Karyakram (RBSK), emphasizing responsive care and focusing interventions on the first 1000 days.
- PAALAN 1000 parenting app will provide caregivers with practical advice on what they can do in their everyday routine and will help resolve the various doubts of parents and will direct our efforts in the development of a child.
- Cognitive development of children under 2 years is a major focus area of this PAALAN 1000, and have focused on the 6 principles on Maximize Love, Talk & Engage, explore through Movement and Play, Read and Discuss Stories, Mother's Engagement with the Child while Breastfeeding and Managing Stress and Staying Calm.

Smile-75 Initiative

The Union Ministry of Social Justice & Empowerment has identified 75 Municipal Corporations to implement comprehensive rehabilitation of persons engaged in the act of begging.

Key Highlights

- In the spirit of Azadi KaAmritMahotsav campaign, SMILE-75 initiativehas been launched under "SMILE: Support for Marginalized Individuals for Livelihood and Enterprise".
- Under the SMILE-75 initiative, seventy-five (75) Municipal Corporations in collaboration with NGOs and other stakeholders will cover several comprehensive welfare measures for persons who are engaged in the act of begging with focus extensively on rehabilitation, provision of medical facilities, counseling, awareness, education, skill development, economic linkages and convergence with other Government welfare programmes etc.
- The Ministry of Social Justice & Empowerment has allocated a total budget of Rs.100 crore for the SMILE project for coming years till 2025-26.
- Through this project, the Ministry envisions to develop a support mechanism for holistic rehabilitation of those engaged in the act of begging and build an India where no person is forced to beg in order to survive and fulfill their basic needs.

Mukhyamantri Anuprati Coaching Yojana

Rajasthan Government plans to spend over Rs 17 crore this financial year for providing coaching to students for competitive exams under "Mukhyamantri Anuprati Coaching Yojana".

Key Highlights

- 'Mukhyamantri Anuprati Coaching Yojana' was introduced by Rajasthan Chief Minister Ashok Gehlot in 2021-22.
- The state government aimed to provide free coaching to 10,000 students last year and out of more than one lakh applications, around 9,000 students were selected. The government allotted Rs 3.65 crore for the year 2021-22 and spent Rs 3.54 crore.
- For the current financial year, the state government has allotted Rs 17.15 crore and the number of seats, too, has increased to 15,000.

Key features

- Students from scheduled caste, scheduled tribe, other backward classes, minority, economically-backward classes and specially-abled — whose family's annual income is Rs 8 lakh or less — are eligible to avail the benefits of this free coaching scheme.
- Under the coaching scheme, students are prepared for various exams, including civil services, Rajasthan Administrative Service or Rajasthan State Subordinate Service Combined Competitive Examination, Rajasthan Eligibility Examination for Teacher (REET), IIT JEE and medical college entrance exams, among others.
- Under this scheme, 116 coaching institutes submitted their proposal online to impart coaching for one or two examinations and the state-level committee listed 47 coaching institutions.
- If any student is allotted a coaching institute in another city, the government pays an additional Rs 40,000 per annum for boarding and lodging.

PM Gatishakti Scheme

The Union Minister of Commerce and Industry, Piyush Goyal chaired a review meeting on Prime Minister Gati Shakti National master programme.

Key Features

- It incorporates the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc.
- Economic Zones like textile clusters, pharmaceutical clusters, defense corridors, electronic parks, industrial corridors, fishing clusters, agri zones are covered to improve connectivity & make Indian businesses more competitive.
- It also leverages technology extensively including spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).
- PM GatiShakti addresses the past issues through institutionalizing holistic planning for stakeholders for major infrastructure projects.
- Instead of planning & designing separately in silos, the projects are designed and executed with a common vision.
- It incorporates the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc.

Pillar of Mission

PM GatiShakti is based on six pillars:

1. **Comprehensiveness:** It include all the existing and planned initiatives of various Ministries and Departments with one centralized portal.
2. **Prioritization:** Through this, different Departments will be able to prioritize their projects through cross–sectoral interactions.
3. **Optimization:** The National Master Plan will assist different ministries in planning for projects after identification of critical gaps.
4. **Synchronization:** PM GatiShakti will help in synchronizing the activities of each department, as well as of different layers of governance.
5. **Analytical:** The plan will provide the entire data at one place with GIS based spatial planning and analytical tools having 200+ layers, enabling better visibility to the executing agency.
6. **Dynamic:** All Ministries and Departments will now be able to visualize, review and monitor the progress of cross-sectoral projects.

About PM Gatishakti National Master programme

- It was launched in Oct,2021.
- It is essentially a digital platform to bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects.
- The multi-modal connectivity provides integrated and seamless connectivity for movement of people, goods and services from one mode of transport to another.
- It will facilitate the last mile connectivity of infrastructure and also reduce travel time for people.

Atal Innovation Mission

- The continuation of the Atal Innovation Mission (AIM) has been approved by the Union Cabinet until March 2023.

Key highlights

- The AIM will be working on creating an entrepreneurial ecosystem and innovation culture in India.
- Along with AIM's extension, other targets have been included like the setting up of 101 Atal Incubation Centers (AICs) and 10,000 Atal Tinkering Labs (ATLs).
- 200 start-ups will also be supported by the mission via the Atal New India Challenges.
- Rs 2000 crore has been allocated keeping in mind the new targets for the support and establishment of the beneficiaries.

About Atal Innovation Mission

- The Atal Innovation Mission was announced in 2015 under the NITI Aayog. The aim of this mission was to promote and create innovation and an entrepreneurial ecosystem across the country.
- The mission was launched with the intention of reaching out to the key stakeholders at various universities, schools, MSMEs, research institutions, and industries and involving them in this mission.
- The focus of the Atal Innovation Mission lies in the creation of necessary institutions and infrastructure to promote innovation across the country.
- Rs. 2000 crore have been raised by AIM-supported start-ups from private equity and government investors.
- AIM has also helped in the creation of thousands of jobs and has helped in providing employment opportunities in the rural areas as well as tier 2 and tier 3 cities.
- This programme is being run across all the states and Union Territories of the country.

Unnat Bharat Abhiyan 2.0

Unnat Bharat Abhiyan 2.0 (UBA 2.0) has successfully completed four years on 25th April 2022.

Key Highlights

- The Unnat Bharat Abhiyan is a flagship programme that falls under the ambit of the Ministry of Education and aims to link the country's Higher Education Institutions with a set minimum of five villages so that these higher institutions can help in contributing to the social and economic betterment of the communities of these villages by using their knowledge base.
- Indian Institute of Technology Delhi (IIT Delhi) is the national coordinating institute for the UBA.
- Under UBA, two major domains for the holistic development of villages are covered which are: Human development and economic development in an integrated manner.
- UBA's objective is to engage the students and the faculties of the Higher Educational Institutions (HEIs) to understand the country's rural realities.
- Under this scheme, the students and the faculties help in identifying the developmental issues that are being faced in the rural areas and coming up with sustainable solutions.
- At present, under this scheme 748 Institutions are participating. 605 institutions have been selected for Phase-2. Out of the selected 292 are Non-Technical Institutions and 313 are Technical Institutions.

SHRESTHA Scheme

Union Minister of social Justice and empowerment Dr. Virendra Kumar launched the Scheme "SHRESHTA"-Scheme for residential education for students in High school in Targeted Areas.

Key Provisions

- The Scheme for Residential Education for Students in Targeted Areas (SHRESHTA) has been formulated with the objective to provide quality education and opportunities for the poorest Scheduled Caste students, as per the Constitutional mandate.
- Scheme provides for high quality education for meritorious but poor SC students in CBSE-affiliated reputed residential schools across the country.
- Approximately 3,000 seats are provided each year for admission in class 9th and 11th and the entire cost of the school fee and residential charges are borne by the Department.
- The students, belonging to Scheduled Castes, studying in class 8th and 10th in the current academic year are eligible for availing the benefits of scheme are selected through a transparent mechanism through a National Entrance Test for SHRESHTA (NETS), which is conducted by the National Testing Agency (NTA) for admission in class 9th and 11th.
- Students belonging to marginalized income groups within the SC community, whose parental annual income is upto Rs.2.5 Lakh are eligible.
- Successful candidates, after following the e-counselling process, are given admission in the school of their choice anywhere in the Country for their academic persuasion.
- The Department shall bear the total cost of the school fee and hostel charges till completion of their academic upto class 12th.
- Thereafter the students of the scheme may avail benefits of other schemes of the Department for their higher education.

SVANidhi se Samriddhi Programme

The 'SVANidhi se Samriddhi' program was launched by the Ministry of Housing and Urban Affairs (MoHUA) in additional 126 cities across 14 States and UTs of India.

Key highlights

- Despite the COVID-19 pandemic-related challenges in 2020-21, this program was successful in providing social security benefits to lakhs of street vendors and their families across the country thus protecting them from the livelihoods risks.
- The Phase-1 of the 'SVANidhi se Samriddhi' was launched on 4th January 2021, an additional program under the PM SVANidhi was launched in 125 cities across India. In the first phase, 35 lakh street vendors and their families were covered.
- Scheme sanctions of 22.5 lakh have been extended to them along with 16 lakh insurance benefits under the Pradhan Mantri Suraksha Bima Yojana and the Pradhan Mantri Jeeban Jyoti Yojana.

- Pension benefits of 2.7 Lakh have also been extended under the Pradhan Mantri Shram Yogi Maandhan Yojana.
- After Phase 1's success, MoHUA has expanded this program to additional 126 cities and has the aim of covering an additional 28 lakh street vendors and their families across the country.

About PM SVANidhi

- The Prime Minister Street Vendors AtmaNirbhar Nidhi (PM SVANidhi) program was launched by MoHUA in June 2020.
- Under this scheme, an affordable working capital loan is provided to the street vendors of the country. The scheme not only extends loans to the country's street vendors but also aims for their economic upliftment and holistic development.
- Up to Rs 10 thousand rupees is provided to the street vendors as a working capital loan for the facilitation of the resumption of their livelihoods that was affected due to the COVID-19 pandemic.

Rashtriya Gram Swaraj Abhiyan

The Cabinet Committee on Economic Affairs approved Rs. 5911 crores for the continuation of the 'Rashtriya Gram Swaraj Abhiyan' (RGSA).

Key highlights

- Rashtriya Gram Swaraj Abhiyan scheme has been extended for a period of four years from 1st April 2022 to 31st March 2026 with the aim of developing the Panchayati Raj Institutions (PRIs) governance capabilities.
- The scheme will also be focusing on empowering the elected representatives of Panchayati raj institutions for various leadership roles
- It will also be aiming to help 2.78 lakh rural local bodies across the country achieve sustainable development goals (SDGs).
- The revamped RGSA will ensure that development happens in villages and will bridge the gap present between the urban and rural areas.
- The total financial outlay for this scheme is Rs. 5,911 crore with the central government providing Rs 3,700 crore while the states will provide Rs 2,211 crore.
- Under this scheme, capabilities will be developed to deliver the SDGs through local governance that will be inclusive along with a focus on the optimum utilisation of all available resources.
- Through this scheme, the PRIs will be able to deliver SDG localization based on the themes that are:
  - healthy, child-friendly, and water sufficient village
  - enhanced livelihood and poverty-free villages
  - village infrastructure that will be self-sufficient and socially secured villages
  - green and clean village
  - engendered development in the village
  - village with good governance
  - Strengthening of Gram Sabhas
- This initiative will also be strengthening the Gram Sabhas so that they can function as an effective institution and also include vulnerable groups.
- Under this scheme, the Panchayats will be able to strengthen themselves progressively through various incentives that will be provided on the basis of the criteria of recognizing Panchayats' roles in achieving SDGs.

PM Mitra Scheme

A National Conference on PM Mega Integrated Textile Regions and Apparel Park (PM MITRA) Parks Scheme was organized by the Ministry of Textiles.

Key Highlights

- The Ministry of Textile announced to set up 7 Mega Integrated Textile Region and Apparel (PM MITRA) Parks with a total outlay of Rs. 4,445 crore.
- These are aimed at helping India to achieve the United Nations Sustainable Development Goal 9: "Build resilient infrastructure, promote sustainable industrialization and foster innovation".
- It is hoped that the PM MITRA Parks will have world-class industrial infrastructure which would attract cutting edge technology and boost FDI and local investment in the textiles sector.
- It is a scheme that aspires to fulfill the vision of building an AtmaNirbhar Bharat and to position India strongly on the Global textiles map.

Key Features

- **5F vision:** Farm to Fiber to Factory to Fashion to Foreign.
- **PM MITRA Park:** PM MITRA Parks will offer an opportunity to create an integrated textiles value chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing at 1 location.
- Integrated Textile Valuechain at 1 location will reduce logistics cost of Industry.
- Intended to generate 1 lakh direct and 2 lakh indirect employment per park.
- Sites for PM MITRA Parks will be selected by a Challenge Method based on objective criteria.

e-Sanjeevani

According to National Health Authority (NHA) government's 'eSanjeevani' telemedicine service has been integrated with the Ayushman Digital Mission (ABDM).

Key Highlights

- This integration allows the existing eSanjeevani users to easily create their Ayushman Bharat Health Account (ABHA) and use it to link and manage their existing health records.
- The users would also be able to share their health records with doctors on eSanjeevani leading to better clinical decision making and ensuring the continuum of care.
- 22 crore ABHA holders can link and store their health records created via eSanjeevani in the health lockers of their choice.
- ABDM aims to build digital highways to bridge the gaps in existing digital health solutions and stakeholders in India.

About eSanjeevani

- eSanjeevani is a first of its kind online OPD service offered by government to its citizens.
- It aims to provide healthcare services to patients in their homes.
- Safe & structured video based clinical consultations between a doctor in a hospital and a patient in the confines of his home are being enabled.
- eSanjeevaniOPD is developed by Centre for Development of Advanced Computing (C-DAC) in Mohali.
- Salient features of this citizen friendly web-based National Teleconsultation Service (eSanjeevani OPD) are:
  - Patient registration
  - Token Generation
  - Queue Management
  - Audio-Video Consultation with a Doctor
  - ePrescription
  - SMS/Email Notifications
  - Serviced by State's Doctors
  - Free Service
- Fully configurable (no. of daily slots, no. of doctors/clinics, waiting room slots, consultation time limit, etc.

About Ayushman Bharat Digital Mission

- The Ayushman Bharat Digital Mission (ABDM) aims to develop the backbone necessary to support the integrated digital health infrastructure of the country.
- It will bridge the existing gap amongst different stakeholders of healthcare ecosystem through digital highways.
- **Vision:** To create a national digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, that provides a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensures the security, confidentiality and privacy of health-related personal information.

Stand-Up India

On 5th April 2022, Stand-up India scheme completed its six years.

Key facts

- Stand-Up India scheme was launched by the Union government with the aim of encouraging entrepreneurship from the grass-root level so that job creation and economic empowerment can be fostered especially among the ST, SC, and women entrepreneurs of the country.
- Under this scheme over 1.33 lakh new job-creators and entrepreneurs have been facilitated.
- Over 1 lakh women entrepreneurs have been benefited under this scheme in the last six years.
- Under this scheme, Rs. 30,160 crores have been sanctioned by the government to a total of 1,33,995 accounts up to 21st March 2022.

- To 1,08,250 women entrepreneurs who held accounts, Rs. 24809.89 crore has been sanctioned.
- A few positive changes were introduced for this scheme in the Union Budget 2022 which include the margin money extent that is to be brought by the borrower has been reduced from 25 percent to 15 percent of the project cost though, the borrower has to keep on contributing a minimum of 10 percent of the cost of the project as their own contribution.
- Under this scheme, loans for allied agriculture activities like rearing, beekeeping, dairy, poultry, grading, fishery, pisciculture, aggregation agro-industries, rearing, livestock, sorting, grading, agribusiness centers, agriclinic, food & agro-processing, etc. and the services supporting these, will be covered.

Intensified Mission Indradhanush (IMI) 4.0



Union Minister of Health and Family Welfare launched the Intensified Mission Indradhanush (IMI) 4.0.

The IMI 4.0 had three rounds and conducted in 416 districts (including 75 districts identified for Azadi ka Amrit Mahotsav) across 33 States and UTs.

Key Points:

- In the first round (Feb-April 2022), 11 states conducted IMI 4.0. These are Assam, Uttarakhand, Gujarat, Jammu & Kashmir, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura and Chhattisgarh.
- The others (22 states) conducted the rounds from April to May 2022. These states/UTs include Himachal Pradesh, Maharashtra, Andhra Pradesh, Manipur, Arunachal Pradesh, Odisha, Bihar, Puducherry, Delhi, Punjab, Goa, Tamil Nadu, Haryana, Telangana, Jharkhand, Dadra & Nagar Haveli and Daman & Diu, Karnataka, Uttar Pradesh, Kerala, West Bengal, Madhya Pradesh, A & N Islands.
- Three rounds of IMI 4.0 had planned to catch up on the gaps that might have emerged due to the COVID-19 pandemic

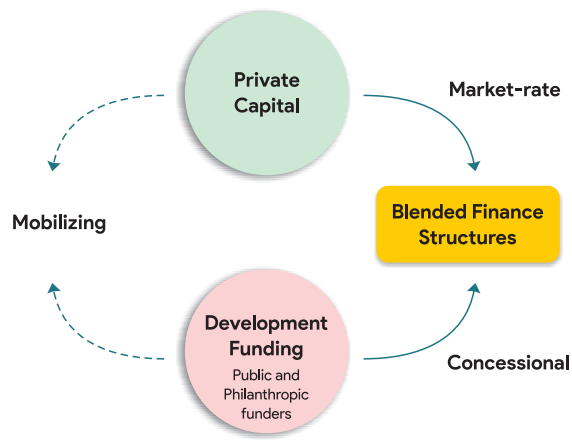
Mission Indradhanush

- Mission Indradhanush was launched by the Ministry of Health and Family Welfare (MOHFW) on 25th December 2014 with the aim of achieving full immunization coverage for all children and pregnant women.
- The Ministry of Health is being technically supported by WHO, UNICEF, Rotary International and other donor partners.
- Intensified Mission Indradhanush (IMI): has been launched by the Government to reach each and every child under two years of age and all those pregnant women who have been uncovered under the routine immunisation programme.

SAMRIDH Initiative

The Atal Innovation Mission (AIM), NITI Aayog, and the U.S. Agency for International Development (USAID) announced a new partnership under the SAMRIDH initiative.

- In 2020, USAID, IPE Global, and stakeholders from the Indian government, academia, and the private sector developed the innovative SAMRIDH blended finance facility.



Source: Convergence, Blended Finance

Objectives:

- To improve access to affordable and quality healthcare for vulnerable populations in tier-2 and tier-3 cities, and rural and tribal regions.
- To mobilize a capital pool of $100+ million from the private sector and bilateral organizations across the healthcare landscape.
- Tackle Pandemic, and its continued threat to the healthcare system.
- Bridge supply-side gaps in healthcare facilities.

Blended Finance

- It is an approach towards financing where catalytic funding (e.g., grants and concessional capital) from public and philanthropic sources is utilized to mobilize additional private sector investment to realize social goals and outcomes.

One Nation One Fertilizer Scheme

Prime Minister Narendra Modi launched the 'One Nation, One Fertilizer' scheme.

Key Highlights:

- The prime minister also released PM-KISAN funds worth Rs 16,000 crore through Direct Benefit Transfer, as well as inaugurated the PM Kisan Samman Sammelan 2022 at the Indian Agricultural Research Institute. An e-magazine on fertilisers, called Indian Edge was launched by the prime minister, while 600 Pradan Mantri Sammridhi Kendra were inaugurated.
- This scheme will result in reduction of the cost of fertilisers and increase their availability.
- Under this scheme, the all type of fertilisers, whether it is DAP, NPK or urea will be sold under the brand name of 'Bharat'. This will standardise fertiliser brands across the nation irrespective of the company that manufactures it, said Union Agriculture and Farmers Welfare Minister, Narendra Singh Tomar.
- The Prime Minister said that the 'One Nation, One Fertiliser' scheme will ensure affordable quality fertiliser of Bharat brand to the farmers.
- PM Modi said that with the 'One Nation, One Fertiliser' scheme, the farmer will get rid of all kinds of confusion about the quality of the fertilisers and its availability.
- Now the urea sold in the country will be of the same name, same brand and same quality and this brand is Bharat! Now urea will be available only under 'Bharat' brand name in the entire country.
- During the event the prime minister also inaugurated 600 'PM-Kisan Samruddhi Kendras (PM-KSK) which are expected to act as one- stop-shop providing multiple services to farmers.
- PM-KSK will supply agri-inputs like seeds, fertilisers and farm implements, along with providing testing facilities for soil, seeds and fertilisers, besides information about government schemes. PM Modi said about 3.25 lakh fertiliser retail shops will be converted into PM-KSKs across the country.

PM WANI Scheme

RailTel launched Prime Minister Wi-Fi Access Network Interface (PM-WANI) scheme based access to its Public WiFi services.



Key Highlights

- RailTel launched the Prime Minister Wi-Fi Access Network Interface (PM-WANI) scheme based on access to its fast & free public WiFi services across 100 Indian Railways stations having 2,384 WiFi hotspots.
- These railway stations are spread in 22 states and include 71 Category A1, A railway stations as well as 29 railway stations of other categories.
- To access this WiFi network, an android based mobile application 'Wi-DOT' can be used at present, which is available on Google Play Store.
- This mobile application has been developed in coordination with C-DOT.
- This method of accessing WiFi through 'mobile application' would be in addition to the existing method of accessing WiFi at these railway stations through the conventional way of selecting RailWire Service Set Identifier.

About PM WANI Scheme

- PM-WANI is an ambitious program of the Department of Telecom in order to facilitate ease of use and proliferate broadband usage for the masses.
- CDOT has designed as well as developed the framework of PM-WANI.
- PM WANI also encourages App providers who offer services for registering and authenticating users.
- The small shopkeepers can become Public Data Offices as the last mile access service providers and take services from PDO aggregators for internet and backend services.

About PM WANI Wi-Fi

- Users need to download the app and get authenticated.
- When the user reaches a Public Wi-Fi hotspot , the App on the mobile phone will show various networks available.
- The user can choose the Public Wi-fi network of choice, pay an amount and use the network till the balance is exhausted.

SHAKTI Scheme

The Ministry of Power launched a scheme for the procurement of aggregate power of 4500 MW for five years under B (v) of the SHAKTI (Scheme for Harnessing and Allocating Koyala Transparently in India) Policy.

Key Highlights:

- The aim of the Shakti scheme is to ensure the availability of coal to all the thermal power Plants in India, in a way that is transparent and objective and at the same time, it aims to transfer the benefits of linkage coal to the end consumers.
- The scheme is supposed to be beneficial not just for the

infrastructure sector, but also for the public sector banks which have huge loans unpaid at the end of the power companies.
- The scheme also aims to reduce the dependence on imported coal and promote domestic industries.

Tele MANAS scheme

On the occasion of World Mental Health Day the Indian Government launched the Tele-MANAS initiative.

Key Highlights

- Launched by the Union Ministry of Health and Family Welfare, Tele Mental Health Assistance and Networking Across States (Tele-MANAS) initiative is a round-the-clock mental health service that aims to increase access to mental healthcare across India.
- The Tele-MANAS will boost access to mental healthcare across the country by providing nationwide networks offering counseling, consultation with specialists and e-prescriptions.
- It aims to make mental healthcare services accessible to even the remotest and difficult-to-reach terrains in the country.
- The initiative was first announced by the Central Government during the 2022-23 Budget, while acknowledging that the COVID-19 pandemic has exacerbated the mental health crisis in India.
- Initially, the service will be launched in 20 states and union territories. It will later be expanded to include other parts of the country as well.
- This mental health service can be accessed by calling the helpline number 14416 and 1-800-91-4416.
- The callers will first reach the interactive voice response (IVRS) and then the call will be transferred to a trained counselor in their areas.
- If required, callers will be connected to mental health specialists like psychiatric social workers, psychiatric nurses, psychiatrists and clinical psychologists.
- In case the caller requires an in-person service, he/she will be referred to a health and wellness centre or primary healthcare or tertiary healthcare.
- Tele-MANAS initiative will be the digital arm of the National Mental Health Programme and District Mental Health Programme.
- The nodal centre for its implementation is National Institute of Mental Health and Neuroscience (NIMHANS).
- Technical support for this initiative will be provided by IIT Bombay.
- The initiative will also involve five regional coordination centres and 23 mentoring institutes like PGIMER, AIIMS and Delhi-based Institute of Human Behaviour and Allied Sciences.

Ambedkar Circuit

The Indian Government is looking to use special AC trains to promote the proposed Ambedkar Circuit that covers various places in India associated with B.R. Ambedkar.

Key Highlights

- The Union Tourism Minister, while inaugurating a 3-day conference of state tourism ministers in Dharamshala, announced the launch of a special train to cover the Ambedkar Circuit.
- The Ambedkar Circuit was first proposed in 2016 by the Central Government.
- It includes Janma Bhoomi (Ambedkar's birthplace in Madhya Pradesh), Deeksha Bhoomi (place in Nagpur where Ambedkar embraced Buddhism), Mahaparinirvan Bhoomi (the place in Delhi where he passed away) and Chaitya Bhoomi (the place of his cremation in Mumbai).
- The proposed Ambedkar Circuit will be similar to the recently launched Ramayana Circuit and Buddhist Circuit.
- Currently, special trains are available for the Ramayana, Buddhist, and North East Circuits.
- Now, the Ambedkar circuit is expected to be the fourth.
- It aims to attract a wider tourist base besides Dalit community, who frequent these key destinations as a pilgrimage.
- The journey would cover meals. Ground transportation and entry to historic sites concerning Ambedkar.

SRESTHA-G Programme

The World Bank has approved a loan of $350 million to the state of Gujarat for spending on healthcare services.

Key Highlights

- World Bank has approved a USD 350 million or over 2,832 crore loan to Gujarat for augmenting health services with a special focus on adolescent girls and disease surveillance.
- The funding will come from the World Bank arm International Bank of Reconstruction and Development (IBRD), carrying a maturity of 18 years including a grace period of 5.5 years.
- According to the World Bank, the loan amount will be utilised through the state government's Systems Reform Endeavours For Transformed Health Achievement In Gujarat (SRESTHA-G) programme which will enable more people to access a wider range of high-quality health services.
- It further stated that SRESTHA-G will put special emphasis on improving the health and nutrition of adolescent girls and boys with priority accorded to 14 districts where more than 70 percent of adolescent girls are anaemic.

4 INTERNATIONAL AFFAIRS

India's Presidency of G20

As formally assumed the presidency of G–20 on December 1, 2022, India will hold the presidency till 30th November 2023.

The Group of 20 is a premier forum comprising world's advanced and developing economies, as well as the European Union, which meets every year to discuss global issues. India's start of the presidency is marked by several people-centric activities. 100 monuments will be lit up across the country with the G-20 logo.

India's G-20 agenda will be inclusive, ambitious, action-oriented and decisive. India's G-20 presidency theme is One Earth, One Family, One Future.

- The G20 was formed in 1999 in the backdrop of the financial crisis of the late 1990s that hit East Asia and Southeast Asia in particular. The G20 is made up of 19 countries and the European Union.
- Its aim was to secure global financial stability by involving middle-income countries.
- ***Objectives:***
  - Policy coordination between its members in order to achieve global economic stability, sustainable growth;
  - To promote financial regulations that reduce risks and prevent future financial crises; and
  - To create a new international financial architecture.
- ***Members:*** Argentina, Australia, Brazil, Canada, China, France, Germany, Japan, India, Indonesia, Italy, Mexico, Russia, South Africa, Saudi Arabia, South Korea, Turkey, the United Kingdom, the United States, and the European Union.
- Spain is also invited as a permanent guest.

G20 SHERPA MEETING



- India's key priorities for the upcoming year, spanning across resilient economic growth, climate action, women-led development and more were discussed. The structure of India's G20 Presidency and various working and engagement groups were explained during the briefing. Priorities of the working groups were also highlighted. It was reasserted that in spite of facing several global challenges, India will advocate a sense of oneness for all and find solutions collectively with other nations. There was also focus on India's stand as a voice for the global south.
- G20 platform is in a unique position to provide leadership and financial resources and work together to bring the world back on track to achieve the SDGs.
- India formally assumed the year-long Presidency of the G-20 on 1st of December. During the course of its Presidency, India will be holding about 200 meetings in 32 different sectors in multiple locations across the country.

The first Sherpa Meeting of India's G20 Presidency was hosted in Udaipur Rajasthan.

G20 Summit

The Annual G20 Summit held recently in Bali, Indonesia with world leaders discussed over for two days challenges triggered by the COVID-19 pandemic and more recently topped by Russia's war in Ukraine.

- Under the Indonesian Presidency, the G20 in 2022 focused on the theme, 'Recover Together, Recover Stronger'.
- The Leaders' Summit is the climax of the G20 process and the intense work carried out over the year through Ministerial Meetings, Working Groups, and Engagement Groups.
- Recognizing the impact of the COVID-19 pandemic on every aspect of society and many countries' lack of capacity to address the crisis, the Indonesian Presidency focused on three main pillars for its G20 2022 Presidency:
  - Global health architecture.
  - Sustainable energy transition.
  - Digital transformation.
- Through these pillars, Indonesia aims to continue leading on ensuring equitable access to COVID-19 vaccines, promoting sustainable and inclusive economic development through participation of micro-, small and medium-sized enterprises (MSMEs), and digital economy.

Pakistan comes out of 'gray list' of the Financial Action Task Force (FATF)



Financial Action Task Force (FATF) has excluded Pakistan from the grey list of the global watchdog on terror financing and money laundering after four years.

Key Highlights

- According to FATF, Pakistan is no longer subject to FATF's increased monitoring process; to continue to work with APG (Asia/Pacific Group on Money Laundering) to further improve its AML/CFT (anti-money laundering & counter-terrorist financing) system.
- Pakistan was put in the list in 2018 for its failure to check risk of money laundering, leading to corruption and terror financing.
- Pakistan needed 12 votes out of 39 to exit the grey list and move to white list. To avoid black list, it needed support of three countries. China, Turkey and Malaysia are its consistent supporters.
- Following being placed on the gray list by FATF in June 2018, the country was given a plan of action to complete it by October, 2019. Since then the country continues to be in that list due to its failure to comply with the FATF mandates.
- With Pakistan's continuation on the grey list, it had increasingly become difficult for Islamabad to get financial aid from the IMF, the World Bank, the Asian Development Bank (ADB) and the European Union, thus further enhancing problems for the cash-strapped country.

About FATF

- The FATF is an inter-governmental body established in 1989 to combat money laundering, terrorist financing and other related threats to the integrity of the international financial system.
- The FATF currently has 39 members including two regional organizations -- the European Commission and Gulf Cooperation Council.
- India is a member of the FATF consultations and its Asia Pacific Group.

BRICS Summit 2022 held



14th Summit of BRICS, hosted by China was held virtually and attended by five member countries- Brazil, Russia, India, China and South Africa.

Key Highlights

- Strong criticism of the US and Europe over sanctions against Russia came from both President Putin and Chinese President Xi Jinping.
- The BRICS declaration backed Russia-Ukraine talks, and called for the UN to strengthen efforts to manage the humanitarian situation in and around Ukraine
- **Common position on Afghanistan:** Calls for inclusive and representative government, ensure Afghan soil isn't used for attacks against other countries and provide shelter to terrorist groups.
- **Brazil President Bolsonaro made a push for UN reform to become a BRICS initiative:** Significant since China and Russia are UNSC permanent members
- **BRICS Plus:** BRICS countries agreed to push for expansion of the group to a "BRICSPlus", and this year saw outreaches to Argentina, Egypt, Indonesia, Kazakhstan, Saudi Arabia, UAE, Nigeria, Senegal and Thailand to attend development meetings.

About BRICS

- BRICS is an acronym of a group comprising Brazil, Russia, India, China and South Africa.
- In 2009, the leaders of the four countries met and formed BRIC, adding South Africa in 2010.
- BRICS together represents 27% of the world's land mass, and 42% of the world's population, 24% of global GDP, and 16% of Global trade, and produce 33% of the world's food.

I2U2 Leaders' Summit held



The first India-Israel-UAE-USA (I2U2) Leader's Summit was organised, in virtual mode.

Key Highlights

- I2U2 will focus on ensuring continuity. Four countries are holding "Sherpa-level interactions on regular basis, to discuss the possible areas of cooperation.
- It will encourage joint investments across six non-securities areas viz., food security, health, water, space, transportation and energy.

About I2U2 Grouping

- I2U2 is a new partnership involving governments of India, Israel, the United Arab Emirates and the United States. It represents the first letters of English names of the four countries.
- I2U2 grouping was first assembled in October 2021, through a foreign ministers' meeting in virtual mode.
- I2U2 grouping emerged as a result of rapidly increasing cooperation among its member countries.

Russia suspended from UN Human Rights Council (UNHRC)

Russia has been suspended from the UN Human Rights Council (UNHRC) after there were allegations that its soldiers violated human rights in Ukraine.

Key Highlights

- The United States first moved the resolution to suspend Russia over its military aggression in Ukraine. The resolution to remove Russia was titled 'Suspension of the rights of membership of the Russian Federation in the Human Rights Council'.
- Under this resolution, grave concerns regarding human rights abuses committed by Russia in Ukraine were highlighted.
- The campaign to suspend Russia started after photos and videos of civilians killed by the Russian army in Bucha came to the fore.
- The UNGA can suspend any Council member that committed human rights violation during its membership term. A two-thirds majority vote is required by the General Assembly to suspend a member.

About UNHRC

- The UNHRC is an inter-governmental body under the United Nations. It is responsible for the protection and promotion of human rights across the world.
- It also investigates human rights breaches and addresses various human rights issues.
- It was established on 15th March 2006 by the United Nations General Assembly (UNGA). The UNHRC replaced the earlier formed United Nations Commission on Human Rights.
- There are 47-member states in the UNHRC and they serve for three years. They cannot be re-elected immediately after serving two consecutive terms.

US-Israel inked Jerusalem Declaration

American President Joe Biden and Israeli Prime Minister Yair Lapid signed a joint strategic declaration in Jerusalem, in which the US vowed to prevent Iran from obtaining nuclear weapons.



Key Highlights

- The statement said that the US will use "all elements of national power" available to it to deny Iran the ability to arm itself with nuclear weapons.
- The joint declaration also included a pledge by Washington to continue US military aid to Israel. A record 10-year $38bn aid package was signed in 2016 under the administration of former US President Barack Obama when Biden was vice president.
- Both President Joe Biden and Prime Minister Yair Lapid spoke of their support for the US-Israeli relationship, and the perceived threat from Iran.
- President Joe Biden reiterated his support for a two-state solution to the Israeli-Palestinian conflict but did not mention Palestinians by name.

Russia reduced gas delivery through Nordic Stream

Russia's Gazprom reduced gas deliveries through Nord Stream 1 by 20% for 'repairs,' cutting the flow in half.



Key Highlights

- Russian gas giant Gazprom cut gas delivery by 33% daily, that would correspond to 20% of the pipeline's capacity.
- The full capacity of Nord Stream 1 is over 160 cubic meters of gas exported daily. Stopping the turbine resulted in reduced capacity of 33 million cubic meters.
- The EU is heavily reliant on Russian gas. Last year, Russia supplied some 40 percent of the EU's natural gas.

About Nordic Stream

- Nord Stream 1, which is majority-owned by Gazprom, is the single biggest pipeline bringing crucial supplies of Russian natural gas to Europe via Germany.
- Nord Stream 1 begins north of Saint Petersburg in Russia and ends at a station near Greifswald on Germany's northern Baltic Sea coast.

Partners in Blue Pacific initiative launched

The US and its allies- Australia, New Zealand, Japan and the United Kingdom have launched a new initiative called 'Partners in the Blue Pacific'.



Key Highlights

- The initiative is launched for "effective and efficient cooperation" with the region's small island nations.
- The PBP is a five-nation "informal mechanism" to support Pacific islands and to boost diplomatic, economic ties in the region.
- It speaks of enhancing "prosperity, resilience, and security" in the Pacific through closer cooperation.
- It simply means that through the PBP, member countries together and individually will direct more resources for small island nations.

Focus areas

- The initiative members declared that they will "elevate Pacific regionalism", and forge stronger ties with the Pacific Islands Forum.
- In a joint statement released to announce the initiative, the five member nations said that the forum remains open to cooperating with additional partners.
- The areas where PBP aims to enhance cooperation include "climate crisis, connectivity and transportation, maritime security and protection, health, prosperity, and education".

Countering China's growing Pacific ambition?

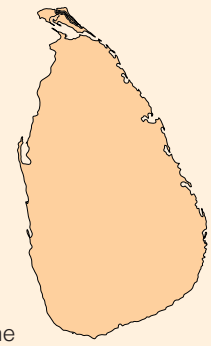
- As China signed a security pact with Solomon Islands in April, 2022 the deal flagged serious concerns about the Chinese military getting a base in the southern Pacific, close to the US island territory of Guam, and right next to Australia and New Zealand.
- The deal, which boosted Beijing's quest to dominate crucial shipping lanes criss-crossing the region, rattled the US and its allies.

Strategic importance of Pacific

- Among the 10 largest standing armies in the world, 7 reside in the Indo-Pacific; and 6 countries in the region possess nuclear weapons.
- Nine of the world's 10 busiest seaports are in the region, and 60 percent of global maritime trade transits through Asia, with roughly one-third of global shipping passing through the South China Sea alone.

Sri Lankan Economic Crisis & its implications

Sri Lanka is experiencing an unprecedented economic collapse that has pushed the government into a deep crisis.



- Faced with a shortage of foreign exchange and defaulting on its foreign debt repayment, the country is unable to pay for its food, fuel, medicine, and other basic necessities. The Sri Lankan rupee fell to nearly 364.15 against the U.S. dollar in 2022.
- National Consumer Price Index rose 39.9 per cent year-on-year in June 2022. Sri Lanka needs to repay foreign debt of nearly $7 billion this year.

Reason for Sri Lanka's crisis:

- **Economic Mismanagement:**
  - Economic mismanagement by successive governments created a sustained twin deficit – a budget shortfall alongside a current account deficit
  - The present crisis is not sudden but the gradual deterioration due to inappropriate strategy adopted by Sri Lanka after about 2005.
  - The strategy focused on development through domestic economy while the country has prospered over the millennias through international trade.
  - Export was not given the due importance it needed resulting in a drop to 15% in 2010 from 26% in 2005 of GDP.
  - It was 12% of GDP in 2020.
  - Domestic economy could not create the demand and economic growth fall from 9% in 2012 to 2.3% in 2019.
- **Tourism fall:**
  - COVID-19 wiped out much of Sri Lanka's revenue base, most notably from the lucrative tourism industry, while remittances from nationals working abroad dropped and were further slapped by an inflexible foreign exchange rate.
- **Ukraine war:**
  - The Ukraine war has also increased food and oil prices globally, making imports more unaffordable
- **Corruption:**
  - The corruption, nationalism and authoritarianism of the Rajapaksa administration is one of the prime reason for crisis.

Policy Failures

- **Tax cuts:**
  - Deep tax cuts were enacted by the Rajapaksa government soon after it took office in 2019.
  - Tax cuts to income tax and value-added tax payers resulted in loss of Rs 500 bn almost 4% of GDP.
  - Creditors downgraded Sri Lanka's ratings, blocking it from borrowing more money as its foreign reserves nosedived.
- **Refusal to borrow from IMF:**
  - For months, opposition leaders and some financial experts urged the government to act, but it held its ground, hoping for tourism to bounce back and remittances to recover. And IMF loan was accepted only when situation got out of hand.
- **Food hoarding:**
  - The government declared emergency regulations for the distribution of essential food items. It put wide import restrictions to save dollars which in turn led to consequent market irregularities and reported hoarding.
- **Unchecked government's borrowings:**
  - Government borrowed from central bank and commercial banks in unprecedented amount. For instance borrowing shot up by 173% in 25 months from 2019.
- **Increase in money stock:**
  - The result of unchecked borrowing was "money printing" to increase in money supply. It accelerated domestic inflation.



India's response to crisis

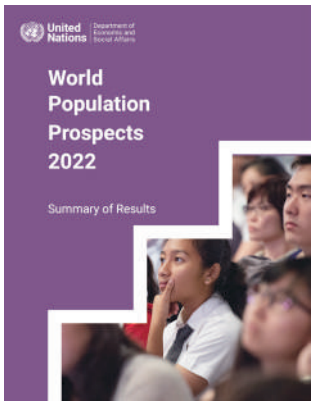
India is working to help towards the stability and economic recovery of the country.

India has said that it will not send any troops or military to combat the crisis.

India has provided support worth over $4 bn in 2022.

$1 billion credit line signed for supply of essential commodities.

India to surpass China in population by next year

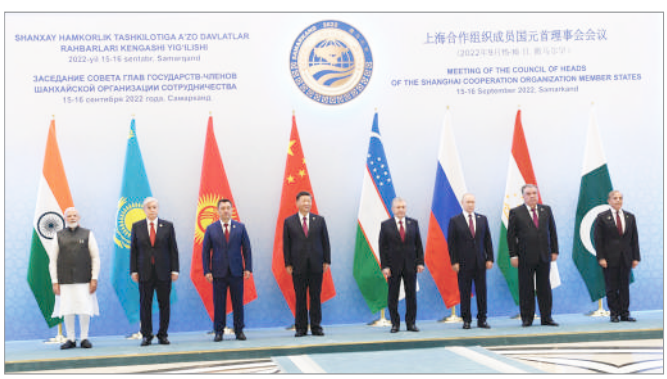


On World Population Day, the United Nations released a report projecting India to surpass China as the world's most populous country next year.

Key Highlights

- According to World Population Prospects 2019, China with a 1.44 billion population and India with 1.39 billion are the two most populous countries in the world, representing 19 and 18 per cent of the world's population, respectively.
- However, by around 2023, India's population will overtake China to become the most populous country.
- India's population will reach 1.428 billon on July 1, 2023 while China's population projected to decrease and reach 1.426 billion
- The report also stated that the world population is forecast to reach 8 billion by mid-November 2022.
- Currently, with 4.7 billion Asia is the most populous continent and has 61 per cent of the global population,17 per cent reside in Africa (1.3 billion), 10 per cent in Europe (750 million), 8 per cent in Latin America and the Caribbean (650 million), and the remaining 5 per cent in Northern America (370 million) and Oceania (43 million).
- The forecast by the UN Department of Economic and Social Affairs said the world's population is growing at its slowest pace since 1950.
- It should hit 8.5 billion in 2030 and 9.7 billion in 2050, peaking at around 10.4 billion people in the 2080s before steadying at that level until 2100.

SCO Summit, 2022 held in Uzbekistan



The Shanghai Cooperation Organization (SCO) summit 2022 was held recently in Samarkand, Uzbekistan.

Key Highlights

- The Samarkand declaration advocated "commitment to peaceful settlement of differences and disputes between countries through dialogue and consultation".
- Members stressed upon "the principles of mutual respect for **sovereignty, independence, territorial integrity of States**, equality, mutual benefit, non- interference in internal affairs, and non-use or threat of use of force are the basis for sustainable development of international relations".
- The member countries are planning to develop common principles and approaches to form a **unified list of terrorists, separatist and extremist organizations** whose activities are prohibited on the territories of the SCO member states.

India's Perspective

- The Prime Minister had separate bilateral meetings with Russian President Putin, Uzbek President Mirziyoyev and Iranian President Raisi.
- Indian and Chinese leaders expressed their concerns to the Russian President over the Ukraine war which caused a disturbance in the food, oil and fertilizers supply chain.
- Prime Minister Narendra Modi met Iranian President Ebrahim Raisi on the sidelines of the SCO summit and the two leaders reviewed the progress in the development of Chabahar Port and regional developments including Afghanistan.
- Prime Minister Narendra Modi met Turkish President Recep Tayyip Erdogan and they discussed ways to deepen bilateral cooperation in diverse sectors.

About Shanghai Cooperation Organization (SCO)

- The SCO was founded at a summit in Shanghai in 2001 by the presidents of Russia, China, the Kyrgyz Republic, Kazakhstan, Tajikistan and Uzbekistan.
- India and Pakistan joined as full members in 2017.
- The SCO now comprises eight member states.
- Afghanistan, Belarus, and Mongolia are observer states, while Armenia, Azerbaijan, Cambodia, Nepal, Sri Lanka and Turkiye are dialogue partners.
- Significance: The SCO is the world's largest regional organisation consisting of 40% of the world's population and 30% of global gross domestic product (GDP).
- The SCO has been an observer in the UN General Assembly since 2005.

Objectives:

- Strengthen relations among member states
- Promote cooperation in political affairs, economics and trade, scientific-technical, cultural, and educational spheres as well as in energy, transportation, tourism, and environmental protection
- Safeguard regional peace, security, and stability
- Create a democratic, equitable international political and economic order.

China announced Global Security Initiative



Chinese President Xi Jinping has put forward a new Global Security Initiative which aims to promote security for all in the world and to oppose unilateralism, and group politics and bloc confrontation.

Key highlights

- The initiative is aimed at countering the initiatives of west like the Indo-Pacific strategy of the USA, the QUAD and the AUKUS (Australia-U.K.-U.S.) security pact.
- **The six areas defined by Chinese president are:**
  - Stay committed to the vision of common, comprehensive, cooperative peace & security.
  - Stay committed to respecting the sovereignty and territorial integrity of all countries.
  - Stay committed to abiding by the purposes and principles of the UN Charter.
  - Stay committed to taking the legitimate security concerns of all countries seriously.
  - Stay committed to peacefully resolving differences and disputes between countries.
  - Stay committed to maintaining security in both traditional and non-traditional domains.

Nepal to use India's UPI System



The first country to adopt India's UPI system will be Nepal which will be critical in modernising the neighbouring country's digital economy.

Key facts

- To deliver the services in Nepal, NPCI International Payments Ltd (NIPL), NPCI's international arm, has partnered with Manam Infotech and Gateway Payments Service (GPS). In Nepal, GPS is the authorized payment system operator, and Manam Infotech will implement the Unified Payments Interface (UPI) there.
- According to NPCI, the collaboration will benefit Nepal's greater digital public good by strengthening interoperable real-time person-to-merchant (P2M) and person-to-person (P2P) transactions in the neighbouring country.
- This collaboration will allow the citizens of Nepal's last-mile consumers to benefit from an interoperable, open payment system that enables real-time financial transfers between merchant payments and bank accounts.
- It will open the way for real-time cross-border P2P transfers between Nepal and India in the future.
- UPI's real-time payment system can help accelerate Nepal's financial inclusion process while also expanding business opportunities.
- It will aid in the modernization of Nepal's digital payment infrastructure and provide citizens with the convenience of digital payments.

About NPCI

- The Reserve Bank of India's specialized section, the National Payments Corporation of India which was founded in the year 2008 is managed by the Ministry of Finance of the Government of India.
- It was established by the Reserve Bank of India to manage India's retail payment and settlement systems.

About NPCI International Payments Limited (NIPL)

- NPCI has established a separate business to market its product internationally. Countries in Africa, Asia, and the Middle East have approached NPCI to strengthen their payment infrastructure.
- NIPL wants closer cooperation with international partners in areas such as cross-border remittance, UPI implementation, and the use of indigenously produced technologies in digital payments.

Russia quits UN World Tourism Organization (UNWTO)



Recently, Russia decided to quit the UN World Tourism Organization (UNWTO).

Key highlights

- According to the UNWTO, Russia decided to withdraw from this organization ahead of a vote by the body to suspend Russia for its war against Ukraine.
- The UNWTO had earlier called the Russian aggression against Ukraine as being inconsistent with the United Nations Charter and being against the UNWTO's fundamental aim.
- The decision to suspend Russia must be approved by 2/3rd of its members (159 members).
- This is the first time the UNWTO met to discuss the suspension of one of its member nations.

About UNWTO

- The UNWTO is an organization of the United Nations that has been entrusted with the promotion of sustainable, responsible, and universally accessible tourism.
- It is an international organization that promotes tourism to drive economic growth, environmental sustainability, and inclusive development.
- **Headquarters:** Madrid, Spain.
- **Secretary-General:** Zurab Pololikashvili.

India assumed chairmanship on Wassenaar Arrangement

India assume chairmanship of the plenary of the Wassenaar Arrangement for a year on January 1, 2023.

Key Highlights:

- At the 26th annual plenary of the Wassenaar Arrangement held in Vienna, Ireland's ambassador Eoin O'Leary handed over the chairmanship to India's ambassador Jaideep Mazumdar, who is the permanent representative to the UN and international organisations in Vienna.
- India joined the Wassenaar Arrangement in December 2017 as its 42nd participating state.
- Wassenaar Arrangement is a multilateral export control regime that works to promote transparency and greater responsibility in transfers of conventional arms and dual-use goods and technologies through regular exchanges of information among its members.
- The regime is aimed at tracking such transfers and preventing "destabilizing accumulations" of conventional arms and dual-use goods.
- The plenary of the Wassenaar Arrangement is the main decision-making body that operates on consensus. As the incoming chair of the body, India remains ready and committed to work in close cooperation with other members to further the WA goal of contributing to regional and international security and stability.

IORA Council of Ministers meeting held



India participated in the 22nd Council of Ministers's meeting of the Indian Ocean Rim Association (IORA) held at Dhaka in Bangladesh.

Key Highlights:

- India reaffirmed strong commitment to strengthen IORA to promote peace, security and prosperity in Indian Ocean Region and in Indo-Pacific.
- IORA priority areas of Disaster Risk Management and Science, Technology and Innovation towards capacity building and strengthening of IORA Secretariat.
- IORA is the largest and pre-eminent organization in the Indian Ocean Region with 23 Members and 10 Dialogue Partners. The Council of Ministers adopted the IORA's Outlook on the Indo-Pacific' which would guide enhancement of IORA's engagement in the Indo-Pacific region.

Ukraine-Russia Conflict

New Developments

On 24th February 2022, Russia invaded Ukraine, marking a major escalation of the Russian-Ukrainan war which began in 2014 when Russia annexed Crimea. The main reasons for Russian invasion are the proximity of Ukraine to NATO countries and geo-politics in the region. So far, Russia has captured many strategic towns and regions of Ukraine.

Black Sea Grain Deal

Russia, after pulling out, took a U-turn and rejoined an agreement allowing the shipment of Ukrainian grain through the Black Sea.



- Russia has blamed Ukraine and Britain for the suspension of Black Sea Grain Deal.
- According to Russia, Ukraine launched a massive drone attack on the Black Sea Fleet in Sevastopol, Crimea.
- Without providing evidence, Russia also accused British troops of being involved in the attack. It also accused the UK of blowing up gas pipelines last month.
- Ukraine has denied the claims of the attack and President Volodymyr Zelensky called the Russian move “rather predictable”.

Black Sea Grain Initiative

- The deal was brokered by the United Nations (UN) and Turkey in July 2022.
- The deal was to provide for a safe maritime humanitarian corridor for Ukrainian exports (particularly for food grains) from three of its key ports, namely, Chornomorsk, Odessa and Yuzhny/Pivdennyi in the Black Sea.
- The UN-led Initiative was aimed at stabilizing and subsequently lowering global food prices and moving precious grain from one of the world’s breadbaskets to the tables of those in need.
- Ukraine is among the largest exporters of wheat, maize, rapeseed, sunflower seeds and sunflower oil, globally.
- The first vessel left Ukraine’s port of Odessa on August 1 carrying more than 26,000 metric tons of corn.
- Since Russia and Ukraine signed the Initiative in Turkey, millions of tonnes of corn, wheat, sunflower products, barley, rapeseed and soya have been exported.

Joint Coordination Centre (JCC)

The deal put in place a Joint Coordination Centre (JCC), comprising senior representatives from Russia, Turkey, Ukraine and the UN for oversight and coordination.

All commercial ships are required to register directly with the JCC to ensure appropriate monitoring, inspection and safe passage.

Montreux Convention

- Following Russia's invasion of Ukraine, the Ukrainian government requested that Turkey use its authority under the Montreux Convention to restrict Russian vessels' movement from the Mediterranean to the Black Sea.
- The Montreux Convention Regarding the Straits Regime, or simply the Montreux Convention, is an international treaty that governs Turkey's Bosporus and Dardanelles Straits
- It was signed on July 20, 1936, in the Montreux Palace in Switzerland, and took effect on November 9, 1936.
- This convention was signed to address the long-running Straits Question of who should manage the strategically important route between the Black and Mediterranean Seas.
- During peacetime, it grants full freedom of passage for all civilian vessels and allows Turkey to limit the movement of navies who do not belong to the Black Sea states.
- During wars, this pact gives Turkey the right to regulate the naval warship transits and blocking of the strait for warships of the countries in conflict. Military warships are restricted in terms of tonnage, number, and weaponry, with specific rules that govern their duration of stay and mode of entry.



Operation Ganga

- The Ministry of External Affairs set-up 24×7 control centres in order to assist the evacuation of Indian nationals from Ukraine. India also launched a multi-prong evacuation plan titled 'Operation Ganga'.
- Under this Operation, Indian nationals were evacuated through border crossing points with Poland, Hungary, Romania, and Slovak Republic. Ministry activated a dedicated Twitter handle, 'OpGanga'.
- India started the evacuation of stranded citizens on February 26, under Operation Ganga, as Russia intensified its offensive against Ukraine. Evacuation operation started after Ukrainian airspace was shut for civil aircraft operations from February 24.
- The Indian Government bore the cost of evacuation, amid prevailing emergency situation.
- Government also facilitated evacuation of stranded Indians from its borders crossing Hungary, Romania, Slovakia and Poland.

Under Operation Ganga, around 15,000 stranded Indians evacuated from Ukraine

'No Money For Terror' Conference held



Prime Minister Narendra Modi recently addressed the 'No Money for Terror' (NMFT) Ministerial Conference on Counter-Terrorism Financing.

Key Highlights

- The two-day conference offered a unique platform for participating nations and organisations to deliberate on the effectiveness of the current international regime on Counter Terrorism Financing and the steps required to address emerging challenges.
- It was attended by about 450 delegates from across the world, including Ministers, Heads of Multilateral organizations and Financial Action Task Force (FATF) Heads of Delegations.
- During the Conference, deliberations held in four sessions which focus on 'Global Trends in Terrorism and Terrorist Financing', 'Use of Formal and Informal Channels of Funds for Terrorism', 'Emerging Technologies and Terrorist Financing' and 'International Co-operation to Address Challenges in Combating Terrorist Financing'
- Addressing the 'No Money for Terror' conference in New Delhi, Prime Minister Narendra Modi called for penalising countries supporting terrorism as part of their foreign policy.
- India's position was reiterated that all countries will have to agree on one common definition of 'terrorism' and 'terror financing', adding that it "should not become a political issue."
- India offered to establish a permanent secretariat for NMFT in the country.

New members of United Nations Security Council (UNSC) elected

The United Nations Security Council got five new members as Albania, Brazil, Gabon, Ghana and the United Arab Emirates.



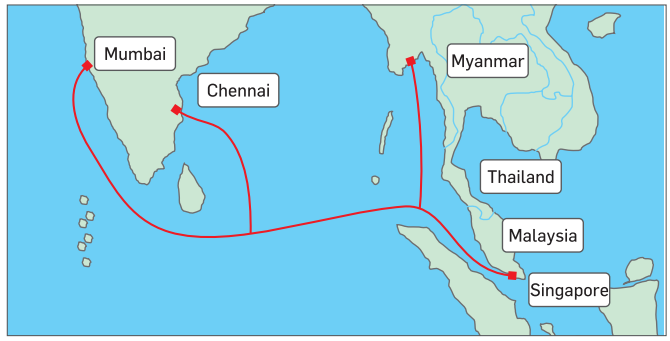
Key Highlights

- Estonia, Niger, St Vincent and the Grenadines, Tunisia and Vietnam completed their terms.
- Each year the General Assembly elects five non-permanent members (out of 10 in total) for a two-year term.
- To be elected to the Council, candidate countries need a two-thirds majority of ballots of the Member States that are present and voting in the Assembly.
- The UNSC elections were traditionally held in the General Assembly hall with each of the 193 member states casting its vote in a secret ballot.

About UNSC

- United Nations Security Council (UNSC) is one of the UN's six main organs and is aimed at maintaining international peace and security.
- It held its first session on 17th January 1946 in Westminster, London.
- Its headquarter is in New York City.
- The Council is composed of 15 Members:
  - **Permanent members with veto power:** China, France, Russia, the United Kingdom and the United States.
  - **Ten non-permanent members:** Albania, Brazil, Gabon, Ghana, India, Ireland, Kenya, Mexico, Norway and United Arab Emirates.

Myanmar/Malaysia-India-Singapore Transit (MIST) Submarine cable System to get clearance



The Expert Appraisal Committee (EAC) under the Ministry of Forests has recommended Coastal Regulatory Zone (CRZ) clearance for Myanmar/Malaysia-India-Singapore Transit (MIST) Submarine Cable System connecting Mumbai and Chennai in India.

Key Highlights

- The EAC suggested that considering increasing number of international cables landing in the Chennai coast, the government shall make appropriate corridor for laying of such cables in the coastal area for better management and to avoid conflict with other stakeholders.

- MIST is an international submarine cable communication network. Cable will traverse undersea to connect India with other Asian countries such as Myanmar, Thailand, Malaysia and Singapore.
- MIST cable system will provide secure, reliable, robust and affordable telecom facilities in Asia.
- The main trunk route is from Tuas (Singapore) to Mumbai (India).

About MIST

- Myanmar/Malaysia-India-Singapore Transit (MIST) Submarine Cable System is an 8,100km-long undersea transnational fiber optic cable system connecting Mumbai to Singapore, via Chennai.
- The communication network Cable will traverse undersea to connect India with other Asian countries such as Myanmar, Thailand, Malaysia and Singapore.
- The total cost of the MIST project was pegged at around USD 400 million.
- This will be the 17th such optical fiber cable system to land in Mumbai, and is expected to be ready for service sometime in 2023.
- The 17 submarine cable projects mentioned above include six upcoming undersea cables which will connect with Mumbai between 2023 and 2025, including the MIST.
- Two of them are Reliance Jio Infocomm's India Asia Xpress (IAX), connecting India to the Maldives, Singapore, Sri Lanka and Thailand, and the India Europe Xpress (IEX) which will connect India to Italy via Saudi Arabia and Greece.
- Others include the SeaMeWe-6 project, owned by a consortium of telecom providers, which will connect Singapore to France via India, Bangladesh, Maldives, and the multi-stakeholder-owned Africa2 cable, which will connect India with the United Kingdom via several African countries.

5th BIMSTEC Summit held

The 5th BIMSTEC Summit was held in Sri Lanka in a hybrid mode.



Key Highlights

- The main outcome of BIMSTEC Summit 2022 was the BIMSTEC Charter's adoption and signing. This charter formalizes the BIMSTEC grouping into an organization that will have a flag, an emblem, and formally listed principles that are to be adhered to by the member nations.
- The BIMSTEC leaders also oversaw the signing of 3 different BIMSTEC agreements that represent the progress being achieved by the group in the ongoing cooperation activities.
- India will provide USD 1 million to the BIMSTEC secretariat for increasing its operational budget. The scope of the BIMSTEC scholarship program that is offered by the Nalanda International University is also being expanded.
- The theme of the summit was "Towards a Resilient Region, Prosperous Economies, Healthy People".
- **The agreements that were signed are:**
  - A BIMSTEC MoU on mutual cooperation for diplomatic training
  - A BIMSTEC convention on mutual legal assistance related to criminal matters
  - A MoA on the establishment of the BIMSTEC technology transfer facility.

Note

India, Sri Lanka, Bangladesh, Thailand, Myanmar, Bhutan, and Nepal are member countries of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).

Asia-Pacific Economic Cooperation (APEC) meeting held



Ministerial meeting of ministers of APEC countries was held in Bangkok.

Key Highlights

- The trade ministers' meeting of the Asia Pacific Economic Cooperation (APEC) meet in Bangkok.
- The members expressed concern about the challenges of economic recovery after the pandemic and proposed to promote the realization of an open, peaceful, dynamic and flexible regional community by maintaining the multilateral trading system.

- Meeting reaffirmed the importance of the WTO centered and rule-based multilateral trading system.

About APEC

- The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum.
- It was established in 1989 to leverage the growing interdependence of the Asia-Pacific.
- It aims to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.
- APEC members account for about 60 percent of the world's total gross domestic product and about 50 percent of the global trade.
- APEC groups Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, the United States and Vietnam.

India joined First Movers Coalition



India has joined the First Movers Coalition, a global initiative launched at World Economic Forum (WEF).

Key Highlights

- The initiative was launched by US President Joe Biden.
- Besides India, Denmark, Italy, Japan, Norway, Singapore, Sweden and the United Kingdom have also joined the US as government partners.
- The First Movers Coalition is a global initiative harnessing the purchasing power of companies to decarbonize seven "hard to abate" industrial sectors.
- The sectors currently account for 30% of global emissions: Aluminum, Aviation, Chemicals, Concrete, Shipping, Steel, and Trucking; along with innovative Carbon Removal technologies.
- There are 50+ companies who make up the Coalition seek to send a powerful market signal to commercialize zero-carbon technologies
- The coalition's members have committed to purchasing - out of their total industrial materials and long-distance transport spending - a percentage from suppliers using near-zero or zero-carbon solutions, despite the premium cost.

India joined Indo-Pacific Economic Framework (IPEF)



- India has joined the Indo-Pacific Economic Framework (IPEF).
- During the Quad summit in Tokyo, Japan, the Indo-Pacific Economic Framework for prosperity was launched.
- IPEF is a U.S. led economic grouping with a total of 14 members. Fizi is the latest country to join IPEF.
- Along with QUAD members, 7 out of 10 ASEAN members, South Korea and New Zealand agreed to join the consultations.
- **Member Countries:** India, U.S., Japan, Australia, Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Vietnam, South Korea, New Zealand and Fizi.

Four pillars of IPEF

- **Fair & resilient trade:** Establish high standard, inclusive, free and fair trade commitments.
- **Supply-chain resilience:** Secure access to key raw and processed materials, semiconductors, crucial minerals and clean energy tech.
- **Clean energy, decarbonization & infrastructure:** Provide technical assistance and help mobilize finance, enhance competitiveness and connectivity for adopting renewable energy.
- **Taxation & anti-corruption:** Promote fair competition by enforcing robust tax, anti-money laundering and anti-bribery regimes in line with existing multilateral obligations.

Significance:

- **Countering China:** The grouping offers an economic cooperation alternative in contrast of groupings containing nationalistic, monopolistic and expantionist China.
- **Economic Cooperation & Integration:** Cooperation in investment and technology development for clean energy can offer immediate economic results to member countries. It could also become the foundation for longer term economic integration between the members.

- **Opportunity for India:** Since India missed the opportunity to become a major economic player by not signing RCEP (Regional Comprehensive Economic Partnership), IPEF offers an opportunity for India to strengthen its goal in the Indo-Pacific.

East Timor to be admitted in ASEAN



The Association of Southeast Asian Nations (ASEAN) has agreed in principle to admit East Timor as the group's 11th member.

Key Highlights

- The half-island nation, officially called Timor Leste, will also be granted observer status at high-level ASEAN meetings.
- The country would be the first new member of the regional grouping in more than two decades, since Cambodia was admitted in 1999.
- However, it might take years for East Timor to gain full ASEAN membership.
- East Timor President Jose Ramos-Horta welcomed the decision, saying a membership would open up his country to wider diplomatic relations with ASEAN's partners, potentially more foreign direct investment, as well as give Timorese wider travel access within the region.
- The East Timor people voted for independence from a brutal occupation by neighboring Indonesia in a 1999 U.N.-supervised referendum, and the country was officially recognised by the United Nations in 2002, making it Asia's youngest democracy.
- The resource-rich country has a population of 1.3 million people.
- The process of accession to ASEAN was started immediately once the country was recognised, but it formally applied for membership in 2011.

QUAD meeting held in Tokyo

Second in-person meeting of QUAD (Quadrilateral Security Dialogue) was recently held in Tokyo, Japan.



QUAD countries:

- Combined population approx 1.8 billion
- Over $30 trillion in combined GDP
- Trade between 4 countries exceeded $440 billion in 2018

Conception of Quad

The conception and formation of QUAD was gradual over a period of time with four countries realizing the converging goals and coming together to fulfill the shared vision:

- Malabar Exercise called as PASSEX in 1992 was conducted between the Indian Navies and the U.S.
- Following the 2004 Tsunami four countries formed an alliance to collaborate for disaster relief.
- Later Japan and Australia joined Malabar as non-permanent members.
- The group (four country) met for the first time in 2007 on the sidelines of ASEAN.
- Japanese President Shinzo Abe floated the idea of Quad in 2007.
- The Japanese PM, in 2012, emphasized the idea of Asia's 'Democratic Security Diamond', with US, Japan, India, Australia.
- In 2015 Japan joined as a permanent member of Malabar Exercise strengthening Quad idea.
- Australia has been participating in Malabar on-off due to economic pressure from China.
- In March 2021, U.S. President Joe Biden convened a virtual quad meeting attended by four countries
- In Sep 2021, the first in-person meeting between leaders of four countries was held.

QUAD

The Quad is also known as 'Quadrilateral Security Dialogue' (QSD). It is an informal strategic forum comprising four nations, namely, the United States of America (USA), India, Australia, and Japan.

The group for the first time met in 2007 on the sidelines of the Association of Southeast Asian Nations (ASEAN).

Objectives of Quad

- **Countering China's increasingly** assertive behavior in the Indo pacific region.
- **Keep the strategic sea routes in the Indo-Pacific**, free of any military or political influence
- **Secure** a rules-based global order, freedom of navigation, and a liberal trading system.
- **Collaborate** together on security issues.
- **Exchange views on global issues**, like emerging technologies, infrastructure,cyber security, terrorism, humanitarian assistance, disaster relief, climate change, pandemic etc

Recently Released

Reports & Indices

India Discrimination Report, 2022



Oxfam India released India Discrimination Report, 2022 showing Women, religious minorities and historically oppressed communities, such as Dalits and Adivasis continue to face discrimination in getting jobs, livelihoods, and agricultural credit.

Key Highlights

- As per report, discrimination in India causes 100 per cent of employment inequality faced by women in rural areas in the labour market and 98 per cent in urban areas.
- Apart from women, historically oppressed communities such as Dalits and Adivasis, along with religious minorities such as Muslims, also continue to face discrimination in accessing jobs, livelihoods, and agricultural credits.
- The report said that in rural areas, the sharpest increase of 17 per cent in unemployment was for Muslims compared to non-Muslims during the first quarter of the Covid-19 pandemic making the rural Muslim unemployment rate 31.4 per cent.
- The lower wages for salaried women are due to 67 percent of discrimination and 33 percent due to lack of education and work experience.
- Oxfam India calls on the government of India to actively enforce effective measures for the protection and right to equal wages and work for all women. It should also incentivise the participation of women in workforce, including enhancements in pay, upskilling, job reservations and easy return-to-work options after maternity.

Human Development Report 2021-22



India has been ranked 132 out of 191 countries in the Human Development Report 2021-22 by the United Nations Development Program (UNDP).

Key Highlights

- India's rank on the Human Development Index has slipped from 130 in 2020 to 132 in 2021, as per Human Development Report 2021-22.
- According to the report, released by the United Nations Development Programme (UNDP), India's HDI value stood at 0.633 during 2021, which was lower than the world average of 0.732.
- In 2020, too, India recorded a decline in its HDI value (0.642) in comparison to the pre-Covid level of 2019 (0.645).
- Ninety percent of countries have registered a reduction in their Human Development Index value in 2020 or 2021, reversing much of the progress toward the Sustainable Development Goals.
- A large contributor to the Human Development Index's recent decline is a global drop in life expectancy, down from 72.8 years in 2019 to 71.4 years in 2021.
- The last two years have had a devastating impact on billions of people worldwide when crises like Covid-19 and the war in Ukraine hit back-to-back and interacted with sweeping social and economic shifts and dangerous planetary changes.

Human Development Index (HDI)

HDI, a composite index developed by United Nations Development Programme, measures average achievement in human development taking into account four indicators: life expectancy at birth (Sustainable Development Goal 3); expected years of schooling (SDG 4.3); mean years of schooling (SDG 4.4); and gross national income (GNI) per capita (2017 PPP$) (SDG 8.5).

The Global Employment Trends for Youth 2022 Report

According to Global Employment Trends for Youth 2022 report, Indian youth employment deteriorated in India in 2021 compared to 2020.



Key Highlights

- According to Global Employment Trends for Youth 2022 report released by the International Labour Organisation India experienced severe working-hour and employment losses in 2020 and 2021.
- The recovery in youth employment is still lagging globally, the report says confirming that COVID-19 has hurt young people more than any other age group.
- As per report, the total global number of unemployed youths is estimated to reach 73 million in 2022, a slight improvement from 2021 (75 million), but still six million above the pre-pandemic level of 2019,
- In India, the report said survey conducted by Center for Monitoring Indian Economy (CMIE), show that the youth employment participation rate declined by 0.9 percentage points over the first nine months of 2021 relative to its value in 2020, while it increased by 2 percentage points for adults over the same time period.
- Indian young women experienced larger relative employment losses than young men in 2021 and 2022.
- It also warns that the unemployment rate of young people in the Asia and Pacific region is projected to reach 14.9% in 2022.
- In India, the report added that school closures lasted 18 months and among the 24-crore school-going children, only 8% of such children in rural areas and 23% in urban areas had adequate access to online education. School closures not only prevented new learning, but also led to the phenomenon of "learning regression", that is, children forgetting what they had learned earlier.

International Labour Organisation:

- It is the only tripartite United Nation (UN) agency. It brings together governments, employers and workers of 187 member States (India is a member), to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- Received the Nobel Peace Prize in 1969.
- Established in 1919 by the Treaty of Versailles as an affiliated agency of the League of Nations.
- Became the first affiliated specialized agency of the UN in 1946.
- **Headquarters:** Geneva, Switzerland
- **Reports released by ILO:**
  - World work report
  - World employment and social outlook trends 2022
  - World social protection report
  - Social dialogue report
  - Global wage report

Asia Pacific Sustainability Index, 2021

Global property consultant Knight Frank's APAC Sustainably Led Cities Index rated 36 cities based on urbanization pressure, climate risk, carbon emissions and government initiatives.

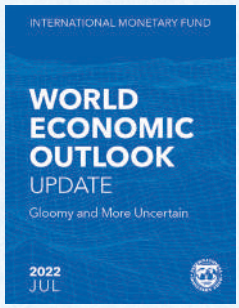
Key Findings

- Singapore, Sydney, Wellington, Perth, and Melbourne were the top five green-rated cities in commercial real estate in the Asia-Pacific region.
- **Four Indian cities:** Bengaluru, Delhi, Hyderabad and Mumbai made it to the list of top 20 sustainable cities.
- Bengaluru led the sustainability index amongst the top Indian cities and ranked 14th in the APAC region.
- Bengaluru was the only Indian city to achieve the 'Gold' standard category.

- Delhi ranked second amongst the Indian cities (ranked 17th in the APAC region) followed by Hyderabad (ranked 18th) and Mumbai (ranked 20th).
- **Green Bonds:** The report also noted that India's green bond issuances increased 523% on a yearly basis, from $1.1 billion in 2020 to $6.8 billion in 2021. As of now, India is the sixth-largest country in APAC in terms of the total amount of green bonds issued in 2021. Green bond issuances that were negatively impacted by the pandemic in 2020 recovered in 2021, surpassing pre-pandemic levels and posting an increase of 116.9% from $3.1 billion raised in 2019.
- APAC issued $126 billion in green bonds in 2021, with China issuing the largest amount, $68 billion, exceeding the combined value of the other APAC nations.

World Economic Outlook Update

The International Monetary Fund (IMF) lowered India's economic growth forecast for the 2021-2022 fiscal to 7.4% from the 8.2%.



Key Highlights

- The multilateral agency also cut India's growth forecast for the next fiscal by 0.8 percentage points to 6.1% amid growing economic risks.
- Despite the growth downgrade, India will remain one of the fastest growing major economies in the world in 2022-23 and 2023-24
- Meanwhile, the IMF also cut the 2022 Global Domestic Product (GDP) estimate to 3.2%.
- In its latest World Economic Outlook update, IMF suggested policymakers prioritize taming inflation through further monetary policy tightening.
- The IMF also cut the global growth outlook and warned that the world may soon be on the brink of a recession.
- Global economic expansion will likely slow to 3.2% this year, slower than the 3.6% forecast by the fund previously.

Global Gender Gap Index, 2022

The Global Gender Gap Index for 2022 was released by the World Economic Forum (WEF) and India ranked at 135 out of 146 countries.



Key Findings

- Iceland, Finland, Norway, New Zealand and Sweden are the best performing countries.
- In 2021, India was ranked 140 out of 156 countries and when the report was started in 2006, India ranked 98th among 115 countries.
- The country has improved the rank from the previous year but is still under the worst performing country.
- In 2022, India scores 0.629, which is its seventh-highest score in the last 16 years.
- **Primary and tertiary Education:** India was ranked the top globally in terms of gender parity for primary education enrolment and tertiary education enrolment.
- **Head of state:** The country is in eighth place for the position of head of state.
- **Labor-force participation (LFP):** LFP shrunk for both men (by -9.5 percentage points) and women (-3 percentage points) since 2021.
- **Women legislators, senior officials and managers:** The share of women legislators, senior officials and managers increased from 14.6% to 17.6%, and the share of women as professional and technical workers grew from 29.2% to 32.9% as compared to 2021.

ABOUT
Global Gender Gap Index Report

The report was started in 2006 by World Economic Forum.

It benchmarks countries on their progress towards gender parity in four Key dimensions with Sub Metrices:

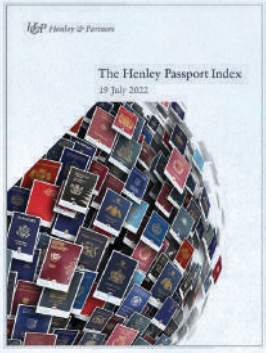
- Economic Participation and Opportunity
- Educational Attainment
- Health and Survival
- Political Empowerment

Each sub-indices provide score between 1 to 0. 1 shows full gender parity and 0 is complete imparity.

- **Estimated Earned Income:** The gender parity score for estimated earned income improved while values for both men and women diminished.
- **Sex ratio, health and survival:** Two main reasons for poor rank of the country-As per the report, India ranks fifth from the bottom when it comes to the sex ratio at birth and it ranks as the bottommost country in terms of health and survival, ranking at bottommost position.
- **Political Empowerment:** In the political empowerment subindex, India ranks relatively higher at 48th.
- **Wage Equality:** India ranks 122nd when it comes to wage equality.

Henley Passport Index, 2022

Henley & Partners released the Henley Passport Index which lists the World's Most Powerful Passports for the year 2022.



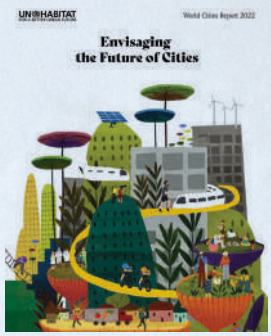
Key Highlights

- Three Asian nations Japan, Singapore and South Korea bagged the top three positions on the list, reversing pre-pandemic rankings that were dominated by European nations.
- Japan, with the world's most powerful passport, provides hassle-free entry to 193 countries.
- India's passport ranked 87th among 199 countries, offering visa-free access to 60 countries.
- Countries to which Indians have 'visa-on-arrival' access include Asian destinations like Thailand, Indonesia, Maldives and Sri Lanka. There are also 21 countries in Africa that provide visa-on-arrival services to Indian citizens. There are only two European countries that do the same.
- China placed 69th with access to 80 countries, and Afghanistan's passport is the least useful, getting the holder into only 27 countries.
- As for Bangladesh, it occupies the 104th position - five spots higher than Pakistan.
- According to latest government data, as many as 1,63,370 Indians renounced their citizenship to become citizens of other countries in 2021. Most Indians transferred their citizenship to the United States (78,284), followed by Australia (23,533), Canada (21,597) and the UK(14,637).
- The Henley Passport Index uses 17 years of data and helps the government, as well as the global authorities, assess the value of citizenships of different countries. The index also ranks countries on the basis of which passports offer the most prolific visa-free, or visa-on-arrival access.
- The ranking is based on data from the International Air Transport Association, which maintains the world's largest database of travel information, and it is enhanced by extensive, ongoing research by the Henley & Partners Research Department.

Habitat World Cities Report, 2022

The United Nations-Habitat's World Cities Report 2022 was released stating that rapid urbanization was only temporarily delayed by the COVID-19 pandemic.

Key Highlights



- After the COVID-19 pandemic, the global urban population is back on track to grow by another 2.2 billion by 2050.
- India's urban population is estimated to stand at 675 million in 2035, the second highest behind China's one billion.
- India's urban population is projected to be 67,54,56,000 in 2035, growing from 48,30,99,000 in 2020 to 54,27,43,000 in 2025 and 60,73,42,000 in 2030.
- By 2035, the percentage of population in India at mid-year residing in urban areas will be 43.2%.
- China's urban population in 2035 is projected at 1.05 billion while the urban population in Asia will be 2.99 billion in 2035 and that in South Asia 98,75,92,000
- Big economies like China and India have a large share of the world's population and their development trajectories have greatly influenced global inequality.
- The report said that urban poverty and inequality remain one of the most intractable and highly complex problems confronting cities.
- The notoriously overcrowded slums in Mumbai, India; Nairobi and Rio de Janeiro; chronic homelessness in London; and persistent concentrated poverty in Baltimore, U.S., all send one clear message to policymakers: tackling urban poverty and inequality is one of the key priorities for building inclusive and equitable urban futures.
- Cities, especially those in warm climates or low-lying coastal areas, face existential threats due to the risks and impacts of climate change and extreme weather events "such as increased heatwaves in Delhi, India, and the pervasive flooding in Jakarta, Indonesia, and Durban, South Africa.

State of Food and Agriculture report, 2022

The Food and Agriculture organization (FAO) released the 2022 edition of State of Food and Agriculture report, 2022.



Key Highlights

- The report released by FAO is aimed at bringing to a wider audience balanced science-based assessments of important issues in the field of food and agriculture.

- It looks into the drivers of agricultural automation, including the more recent digital technologies.
- According to report, key barriers to adoption of technologies are low digital literacy and lack of an enabling infrastructure, such as connectivity and access to electricity, in addition to financial constraints.
- The report looked at 27 case studies from all over the world, representing different technologies.
- Only 10 of the 27 service providers are profitable and financially sustainable.
- High-income countries in North America, Europe and Oceania were highly mechanized by the 1960s. But regions dominated by low-and middle-income countries were less mechanized.
- Crucially, there are wide disparities in the spread of automation between and within countries, with adoption being particularly limited in sub-Saharan Africa.
- For instance, Japan had more than 400 tractors per 1,000 hectares of arable land, compared with just 0.4 in Ghana in 2005.
- Agriculture reliant on human and animal power continues to dominate in sub-Saharan Africa, limiting productivity.
- The report suggest that an agricultural automation policy should ensure that agrifood systems are sustainable and resilient.
- However, policymakers should avoid subsidizing automation in labor-abundant contexts as agricultural automation can lead to unemployment in places where rural labor is abundant and wages are low.
- Policymakers should focus on creating an enabling environment for adopting automation.
- Social protection should be provided to the least skilled workers, who are more likely to lose their jobs during the transition.

World Press Freedom Index, 2022

India slipped by 8 positions from position 142nd to 150th in World Press Freedom Index by Reporters Without Borders.

Key Findings of Report

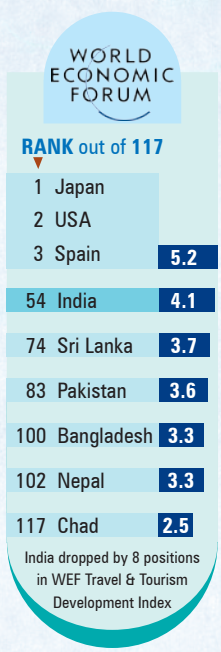
- India's ranking in the World Press Freedom Index has fallen down to 150th position from last year's 142nd rank out of 180 countries.
- The ranking of India's neighbors, except that of Nepal, have also slid down, with the index placing Pakistan at 157th position, Sri Lanka 146th, Bangladesh 162nd and Myanmar at 176th position.
- Nepal has climbed up by 30 points in the global ranking at 76th position.
- Norway (1st) Denmark (2nd), Sweden (3rd) Estonia (4th) and Finland (5th) grabbed the top positions
- North Korea remained at the bottom of the list of the 180 countries and territories ranked by the Reporters Without Borders.
- Russia was placed at 155th position, down from 150th last year.
- China climbed up by two positions from 177th to 175th.

World Press Freedom Index

- It has been released every year since 2002 by Reporters Without Borders (RSF).
- World Press Freedom Index is an advocacy tool based on the principle of emulation between states.
- The Index ranks 180 countries and regions according to the level of freedom available to journalists.
- It is a snapshot of the media freedom situation based on an evaluation of pluralism, independence of the media, quality of legislative framework and safety of journalists in each country and region.
- It does not rank public policies nor is it an indicator of the quality of journalism in each country or region.

Travel and Tourism Development Index, 2022

India dropped by 8 positions in WEF Travel and Tourism Development Index.



Key Findings

- India ranked at the 54th spot in the overall rankings, down from 46th in 2019.
- India is the top scorer in South Asia.
- The index assessed a total of 117 countries for the study.
- Japan was ranked at first position followed by the US, Spain, France and Germany among the top five.
- According to study, overall international tourism and business travel are still below pre-pandemic levels.
- The tourism sector recovery has been bolstered by greater vaccination rates, a return to more open travel, and growing demand for domestic and nature-based tourism.
- As per the study, international tourist arrivals globally have increased by 18 million in January 2022 as compared to the same period in 2021, they were still 67 per cent below 2019 levels.

5 SCIENCE & TECHNOLOGY



5G SERVICES LAUNCHED IN INDIA

PM Narendra Modi launched the first phase of 5G services in 13 cities across India in Pragati Maidan, New Delhi. The launch took place during the four days inauguration of India's biggest technology festival India Mobile Congress (IMC) 2022.

- The launch took place during the four days inauguration of India's biggest technology festival India Mobile Congress (IMC) 2022.
- PM Modi also inaugurated the sixth edition of the India Mobile Congress (IMC) with the theme of "New digital Universe". It will bring together leading thinkers, entrepreneurs, innovators, and government officials to discuss and showcase unique opportunities emerging from the rapid adoption and spread of digital technology.
- In first phase, prominent cities like Delhi, Mumbai, Chennai, Kolkata and Hyderabad etc. are likely to experience 5G services first.
- Telecom minister Ashwini Vaishnaw has claimed that as government will expand the rollout of the network and people will not be charged premium for 5G services.
- In July 2022, Government of India auctioned 51,236 MHz of 5G airwaves and allocated by the telecom department to telcos and the government garnered a gross revenue of Rs 1,50,173 crore.
- On the occasion, the three major telecom operators of the country demonstrated one use case each in front of the Prime Minister to show the potential of 5G technology in India.
- The cumulative economic impact of 5G on India is expected to reach $450 billion by 2035.
- An inter-ministerial committee on 5G use cases has been functioning since 2021 in coordination with 12 central ministries, enabling the setting up of 5G use-case labs.

PM MODI INAUGURATED 5G TESTBED

Prime Minister Narendra Modi inaugurated the country's first 5G testbed to enable startups and industry players to test and validate their products locally and reduce dependence on foreign facilities.



Key developments

- In the absence of a 5G testbed, startups and other industry players were required to go abroad to test and validate their products for installation in a 5G network.
- The other institutes that participated in the project are IIT Delhi, IIT Hyderabad, IIT Bombay, IIT Kanpur, IISc Bangalore, Society for Applied Microwave Electronics Engineering & Research (SAMEER) and Centre of Excellence in Wireless Technology (CEWiT). The testbed facility will be available at 5 different locations.

5G testbed

The 5G testbed has been developed as a multi-institute collaborative project by eight institutes led by IIT Madras.

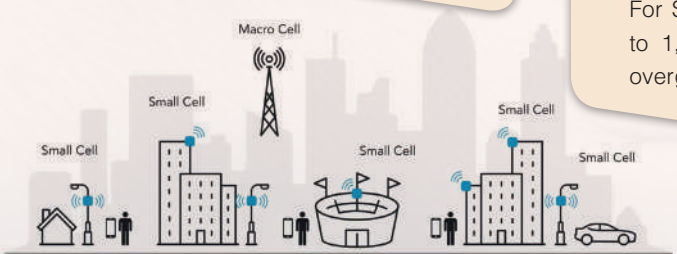
5G Small Cells

To expedite the roll out of 5G, telecom operators in the country will leverage street furniture such as poles, advertisement hoardings and bus shelters for deploying low power base stations called 'Small Cells' that will help bring the network closer to the consumers.



Key Features

- Small Cells are needed for deploying 5G as opposed to earlier generations such as 4G, because of the frequency. The higher the frequency, the lower the wavelength, which means that the distance they travel is less.
- Higher frequencies in the range of 3.3-3.6 GHz, which are expected to be used for offering 5G services, the waves will travel around 100-150 metres.
- At present, telecom towers, which are about 30 meters high, are placed at a distance of about 5 km apart.
- Telecom Regulatory Authority of India (TRAI) has also issued a consultation paper on the Use of street furniture for small cell and aerial fiber deployment, wherein it states that Small Cells will play a critical role in success of 5G as these are needed to exploit features of 5G such as low latency (minimal delay times), ultra-high speeds, and massive connection densities.
- Lower height (6-7 metres) poles are sufficient to install Small Cells, and a good ecosystem of such poles already exists in the form of street lights, electricity and traffic poles.



Rules for for 5G

- The Department of Telecom notified the amended Right of Way (RoW) Rules, which pave the way for deployment of 5G Small Cells on existing street infrastructure, and these reforms enabled launch of 5G services in the country in October 2022.
- To facilitate faster 5G roll-out, RoW application procedures for Small Cells have now been simplified and telecom licensees will be able to use street infrastructure to deploy telecom equipment at a cost of 150/annum in rural areas and 300/annum in urban areas.
- As per the amended rules, telecom licensees can enter into agreement with private property owners and will not require any permission from any government authority for installing telecom infrastructure such as towers, poles or optical fibre.
- Additionally, no administrative fee shall be charged by the Central government for the establishment of poles on land owned/controlled by it. For State/UTs, this fee will be limited to 1,000 per pole. The fee for laying overground optical fibre shall be limited to 1,000/ km.

ABOUT Small Cells

- Small Cells are low-powered radio access nodes or base stations that have a coverage range from a few metres to a few hundred metres.
- They are portable, easy to deploy and help provide localised coverage.
- As per the TRAI paper, Small Cells provide coverage for very short distances and therefore they are installed in a large number – even more than 200 per sq. km – for good geographical coverage to provide highly reliable and high-capacity broadband.
- Most countries are in the process of studying and initiating Small Cell architecture for 5G rollouts, TRAI notes. It is estimated that globally 1.56 million private 5G Small Cells will be deployed by 2027.

OpenAI launched ChatGPT Chatbot

OpenAI has unveiled a chatbot called ChatGPT that was available for public testing for free. It has crossed one million users in less than a week since it was officially made available to the public.

Key Highlights

- Artificial intelligence (AI) research laboratory OpenAI has announced ChatGPT, which is a dialogue-based AI chat interface for GPT-3 family of large language models.
- ChatGPT is the latest in a series of AIs which the firm refers to as GPTs, an acronym which stands for Generative Pre-Trained Transformer.
- A chatbot is a software application designed to mimic human-like conversation based on user prompts.
- OpenAI states that their ChatGPT model, trained using a machine learning technique called Reinforcement Learning from Human Feedback (RLHF), can simulate dialogue, answer follow-up questions, admit mistakes, challenge incorrect premises and reject inappropriate requests.
- A tool like ChatGPT could be used in real-world applications such as digital marketing, online content creation, answering customer service queries or as some users have found, even to help debug code.
- The bot can respond to a large range of questions while imitating human speaking styles.
- OpenAI has acknowledged the tool's tendency to respond with "plausible-sounding but incorrect or nonsensical answers", an issue it considers challenging to fix.

India's first private launch vehicle took maiden flight

India's first private mission by Skyroot Aerospace, called 'Prarambh' (the beginning) carried two Indian and one foreign customer payloads on the launch vehicle named 'Vikram'.

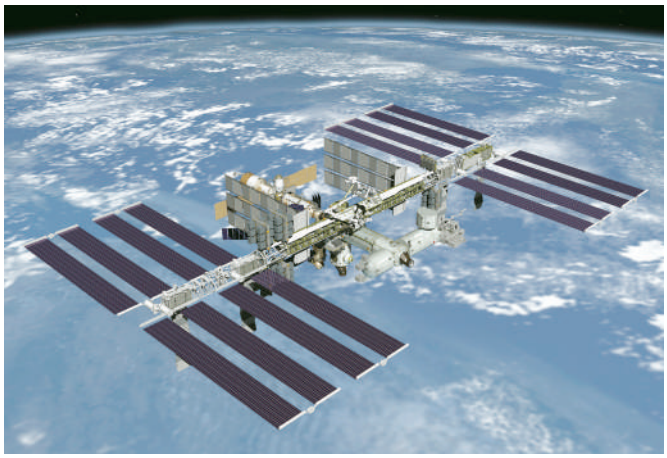


Key Highlights

- Vikram-S carried three customer satellites in a sub-orbital flight. Sub-orbital flight travels slower than orbital velocity- they are fast enough to reach outer space but not fast enough to stay in orbit around the Earth.
- Also, Spacekidz, a Chennai based aerospace startup, fly 'Fun-Sat', a 2.5 kg payload developed by students from India, the US, Singapore and Indonesia, on Vikram.
- Skyroot was the first startup to sign a memorandum of understanding with ISRO for launching its rockets.
- Its launch vehicles have been crafted specially for the small satellite market, and are named 'Vikram' as a tribute to Vikram Sarabhai, founder of the Indian space programme. They come in three forms, Vikram I, II, and III.
- According to Skyroot, "More than 20,000 small satellites are estimated to be launched in the coming decade, and Vikram series is designed to enable this through unprecedented mass producibility and affordability.
- Skyroot claims a Vikam rocket can be assembled and launched within 24 hours from any launch site, and has the "lowest cost in the payload segment".
- In India, ISRO is capable of launching satellites into space, and the demand is quickly outrunning its capacity, especially as the space agency also has other, larger goals it needs to focus on. Therefore, the sector is being opened up to private players, with ISRO helping them with facilities and knowledge. The use of facilities can be chargeable, providing ISRO with revenue.

Russia to quit International Space Station (ISS)

In response to sanctions by western countries, Russia has decided to pull out from the International Space Station officially.



Key points

- After the recent tensions between Russia and the U.S.-led West due to Ukraine war and sanctions on Russia, led the pull out of Russia from ISS.
- The U.S. has put many sanctions on Russia like ban on new investments, ban on Russian flights, ban on exporting dual-use goods, ban on Russian banks, ban on all Russian gas and oil imports and others.
- ISS was one the few rare cooperation between Russia and US which came to an end after the pull out.

About International Space Station (ISS)

- The ISS was launched in 1998 jointly by the U.S., Russia, Japan, Canada and Europe and was built to operate for 15 years
- ISS is a man-made satellite or space station which is built to habitat humans in space.
- It is located in near earth orbit and there are astronauts that are onboard and conduct different experiments in space.
- **Space agencies of five countries:** NASA (USA), Roscosmos (Russia), European Space Agency (ESA-Europe), JAXA (Japan) and the Canadian Space Agency (CSA-Canada) came together to build the ISS.
- Originally it was to be operative for 15 years but now it is in operation since 23 years.

Fast and Secured Transmission of Electronic Records (FASTER) launched



The Fast and Secured Transmission of Electronic Records (FASTER) software was launched by the Supreme Court of India so that court orders can be transmitted securely and swiftly via electronic mode thus ensuring that judicial orders can be communicated quickly.

Key Highlights

- Through the use of this software the orders that were passed by the High Courts (HC) and the Supreme Court (SC) will be transmitted safely without any third-party interference.
- 73 nodal officers have been nominated at the HC level and jail authorities have also been selected through a network of judicial communication.
- For this software a secure pathway email id has also been established.
- Bail orders will be communicated via FASTER and for authentication purposes, it will have the digital signatures of the notified nodal officers of the SC as well as the Institutional digital signatures. In this manner, without much loss of time, bail orders would be received by all the concerned parties and quick necessary actions will be taken at their end.

Union Government launched iRAD

- The Union Government launched a central accident database management system, named Integrated Road Accident Database (iRAD) that will help in analyzing the causes of road accidents and devise safety interventions with the aim of reducing such accidents in India.

Key facts

- It is an initiative of the Ministry of Road Transport and Highways.
- It has been developed by Indian Institute of Technology-Madras (IIT-M) and being implemented by the National Informatics Centre.
- The cost of the project is Rs 258 crore and it has been supported by the World Bank.
- The system has been launched as a pilot in 59 districts of six States which are Madhya Pradesh, Karnataka, Rajasthan, Maharashtra, Uttar Pradesh, and Tamil Nadu in February 2022.
- Recently, this project has been launched in Chandigarh.

About iRAD

- iRAD is a web-based Information Technology (IT) solution that will help in enabling various agencies like the Public Works Department (PWDs), police, etc. to enter details about the road accident from various perspectives like road engineering, investigation, condition of the vehicle, etc.
- The iRAD mobile application will allow the police personnel to enter details regarding a road accident, along with videos and photos, after which a unique ID will be created for the uploaded incident. Then, an engineer from the local body or the PWDs will receive an alert on their mobile device. Then, they will visit the site, examine it, and upload all the required details like road design, etc. The data collected will be analyzed by a team at IIT-M and then corrective measures that need to be taken will be suggested.

India's first Drone Yatra "Operation 777" inaugurated



Union Minister Anurag Singh Thakur inaugurated India's first Drone Yatra at Drone Skilling & Training Conference in Chennai.

Key Highlights:

- Towards empowering and mobilising farmers across the nation with the use of agri-drones, Information and Broadcasting Minister Anurag Singh Thakur inaugurated India's first Drone Skilling and Training Virtual E-Learning Platform at the Chennai manufacturing facility of Garuda Aerospace, a drone-based startup of India.
- Garuda Aerospace's drone yatra, 'Operation 777' which will educate and demonstrate the efficacy of drones for different agricultural uses across 777 districts in India.
- The I&B Minister also launched the first of 1000 planned Drone Centre of Excellence at the company's Manufacturing unit in Chennai which is also the largest in India.

Union Government launched WEST initiative

Union Government launched a new i-STEM (Indian Science Technology and Engineering Facilities) initiative named "Women in Engineering, Science and Technology (WEST)".

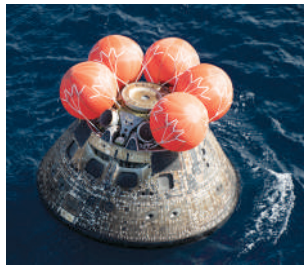
Key Features

- The WEST programme will cater to women with a STEM background and empower them to contribute to the science, technology, and innovation ecosystem.
- Through the WEST initiative, I-STEM shall provide a separate platform to scientifically inclined women researchers, scientists, and technologists for pursuing research in basic or applied sciences in frontier areas of science and engineering.
- Women may join the WEST program and explore opportunities to become stakeholders in various domains and pursue careers in R&D at various levels: technicians, technologists, scientists, and entrepreneurs.
- Opportunities range from operating scientific equipment and maintaining them, to designing and manufacturing them.
- The Skill Development programmes under the WEST initiative will provide training for women with S&T backgrounds to brush up on their abilities and become engaged "in the field" as lab technicians and maintenance engineers, filling crucial gaps in the R&D infrastructure of the country.
- This initiative will also help bring women back into S&T domains after a career break.

I-STEM

It is a national web portal for sharing research equipment/ facilities and is the umbrella under which many programmes for promoting collaborations in R&D and technological innovation among and between academia and industry, especially startups, are underway.

NASA's Orion capsule back to Earth

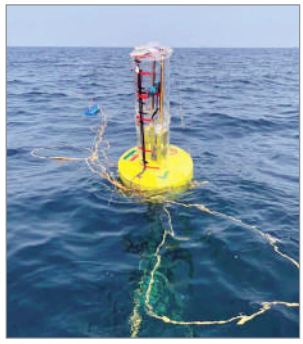


NASA's Orion capsule splashed down back to Earth. This event marked the end of the Artemis 1 lunar mission exactly 50 years after Apollo's final moon landing.

Key Highlights

- An experimental mission, to check if the capsule can be trusted to ferry humans to the moon and back in future missions.
- It is the first in a series of missions that are planned to not only take humans back to the Moon, but to also explore the possibilities of extended stay there, and to investigate the potential to use the Moon as a launch pad for deep space explorations.
- It will work towards extracting the resources found on the Moon, building from the materials available there, and harnessing hydrogen or helium as energy sources.

Sindhuja-I: The Ocean Wave Energy Converter



The Indian Institute of Technology, Madras researchers have developed Sindhuja-I- an ocean wave energy converter that is capable of generating electricity straight from the moving sea waves.

Key Highlights

- Researchers successfully completed the trials for Sindhuja-I device at a location around 6 kilometres off the coast of Tuticorin, Tamil Nadu, with a depth of 20 meters.

- The device is targeted towards remote offshore locations that need reliable electricity and communication either by supplying electric power to payloads that are embedded on the device or located nearby on a seabed and in the water column.
- Key target stakeholders for this project are oil and gas, defence and security installations as well as communication sectors.
- The project is the brainchild of IIT Madras faculty professor, AbdusSamad, who has been working on wave-energy tech for over a decade.
- He set up the state-of-the-art 'Wave Energy and Fluids Engineering Laboratory' at IIT Madras.

Yotta D1: North India's First Hyper-Scale Data Center launched



Hiranandani Group has launched North India's first hyperscale data center, Yotta D1 in Uttar Pradesh, inaugurated by Chief Minister Yogi Adityanath.

Key Highlights

- North India's first hyper-scale data center Yotta D1 is built at the cost of Rs 5,000 crore and spread over an area of 3,00,000 square feet at the upcoming Data Centre Park in Greater Noida.
- Memorandums of Understanding worth Rs 39,000 crore were also signed between the Yogi Government and Hiranandani Group to be spent on projects in the next five years.
- The data centre will increase the data storage capacity of the country, which until now stood at two percent only despite the fact that 1.5 billion mobile phones and 650 million internet users in the world are from India using 20 percent of data.

Hyper-Scale Data Center

- A hyperscale data center is a facility which houses critical computer and network infrastructure.
- These facilities allow companies like Amazon, Google, and Microsoft to draw on their processing power to deliver key services to customers worldwide.
- According to International Data Corporation, for a data center to be hyperscale, it must exceed at least 5000 servers with around 10,000 square feet of physical space. A typical hyperscale data center can use almost the same amount of electricity as a small town.

World's first Hydrogen-powered Passenger Train launched

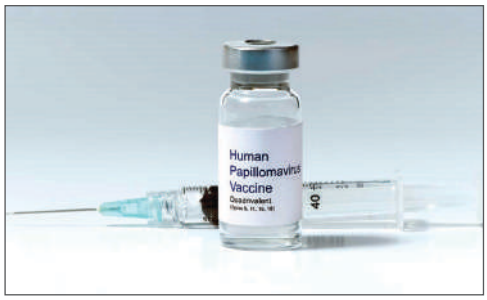


Germany has launched the world's first fleet of hydrogen-powered passenger trains Coradia iLint.

Key Highlights

- The world's first completely emission-free train powered by hydrogen is officially running in Germany.
- The train cost $86 million, according to a report by Fuel Cell Works, and will begin by transporting passengers between two stops just outside of Hamburg.
- Coradia iLint trains have a range of up to 1,000 kilometres (621 miles) and a maximum speed of 140 kmph (87 mph).
- By using hydrogen produced with renewable energy the trains will save 1.6 million litres (more than 422,000 gallons) of diesel fuel a year.
- Hydrogen is currently produced as a byproduct in chemical processes, but German specialty gas company Linde plans to manufacture it locally using only renewable energy within three years.
- Initial service on the train is "preliminary," and older diesel-fueled trains will serve as a backup in case there are adjustments needed in the first few months of service.
- The trains manufactured by French company Alstom are operated by regional rail company LNVG on routes between the northern towns of Cuxhaven, Bremerhaven, Bremervoerde, and Buxtehude.

India's first indigenously developed qHPV vaccine for cervical cancer launched



Serum Institute of India (SII) and Department of Biotechnology (DBT) launched indigenously developed quadrivalent Human Papilloma Virus (qHPV) vaccine called Cervavac for prevention of cervical cancer.

Key Highlights

- India's first indigenously developed vaccine to prevent cervical cancer is called CERVAVAC.
- The most promising intervention for preventing cervical cancer is vaccination against human papillomavirus (HPV).
- It is estimated that HPV types 16 and 18 (HPV-16 and HPV-18) together contribute to approximately 70% of all invasive cervical cancer cases worldwide.
- HPV vaccines are given in two doses and data has shown that the antibodies that develop after both are administered can last up to six or seven years.
- National Technical Advisory Group on Immunization (NTAGI) recently announced that India will soon immunize girls aged 9-14 from HPV under a national vaccination program. The nationwide drive will begin by mid-May 2023.
- The quadrivalent vaccine called Cervavac which will be used for the nationwide vaccination drive of adolescent girls is developed by the Serum Institute of India (SII).
- The approval of SII's vaccine was granted by the country's drug regulator (DGCI) in July 2022.
- The vaccines available in the market currently are priced at Rs 2,500-3,300 per dose but with the nationwide drive it will be priced at Rs 200-400 per dose.

Cervical Cancer Stats

- Cervical cancer ranks as the 2nd most prevalent cancers in India and accounts for nearly one-fourth of the world's cervical cancer deaths despite being largely preventable.
- Despite being largely preventable, cervical cancer is the fourth most common cancer among women globally, according to the WHO. In 2018, an estimated 570,00 women were diagnosed with the disease and it accounted for 311,000 deaths across the world
- Current estimates indicate that every year approximately 1.25 lakhs women are diagnosed with cervical cancer, and over 75 thousand die from the disease in India, and 83 % of invasive cervical cancers are attributed to HPVs 16 or 18 in India, and 70% of cases worldwide.
- Screening and vaccination are two powerful tools that are available for preventing cervical cancer. Still, there is little awareness among women about the prevention of this cancer and less than 10% of Indian women get screened.

Human papillomavirus (HPV)

- Human papillomavirus (HPV) is the most common sexually transmitted infection (STI).
- HPV can cause cervical and other cancers, including cancer of the vulva, vagina, penis, or anus. It can also cause cancer in the back of the throat (called oropharyngeal cancer). This can include the base of the tongue and tonsils.

India's first Dark Sky Reserve to be set up in Ladakh



Department of Science & Technology (DST) has announced the setting up of India's first dark sky reserve at Hanle in Ladakh in the next three months.

Key Highlights

- A part of Changthang Wildlife Sanctuary at Hanle, Ladakh is set to become India's first Dark Sky Reserve.
- The site will host activities to promote astronomy-tourism, giving a boost to local tourism and economy through science.

- The Hanle Dark Sky Reserve (HDSR) will be an area spanning 22 km in radius centred around the Hanle observatory.
- Once declared as the Dark Sky Reserve, the administration, local council members along with the scientists will collectively work towards preservation of the night sky from unwanted light pollution and illumination which is a serious threat to the scientific observations and natural sky conditions and a growing menace, world over.
- At a height of 4,500 metres, Hanle is already home to an optical, a gamma ray and an infrared telescope at the Indian Astronomical Observatory complex operated by the IIA.
- These telescopes have been used to study stars, galaxies, exoplanets and the evolution of our Universe.

Why Ladakh?



- The Hanle Dark Sky Reserve (HDSR) will come up within the Changthang Wildlife Sanctuary, situated 4,500 metres above sea level, which makes it a perfect host for telescopes.
- Ladakh's cold desert region, away from any form of human disturbance and clear sky conditions and dry weather conditions exist throughout the year.
- Ladakh is also ideal for long-term observatories and dark-sky sites because of its large arid area, high elevation, and sparse population.

What is Dark Sky Reserve?

- A dark sky reserve requires a "core" area that has a clear sky without any light pollution, which can enable telescopes to see the sky in its natural darkness.
- To support the core, it should be surrounded by a "peripheral" or "buffer" area that supports dark sky values in the core while receiving the same benefits.

Dark Sky Reserves in other countries

At present, there are 20 dark sky reserves around the world, seven in the United Kingdom; four in France; two each in the USA and Germany; and one each in New Zealand, Canada, Namibia, and Australia.

India's first underwater Train to be operational

India's first underwater train in Kolkata is all set to be fully completed by 2023.



Key Highlights

- The Kolkata Metro Rail Corporation (KMRC) has made a way to pass under the Hooghly River.
- The East and West corridor will be connected via this twin tunnel over 500 metres.
- The train will be 13 metres below the Hooghly River.
- This is a one-of-a-kind underwater metro train which is built in India and is being compared to Eurostar which joins London and Paris.
- As per reports, the train will be running at a depth equal to a 10-story structure while underwater.
- The tunnel will be built with 1.4 m-wide concrete rings, which will be part of the metro station.
- The tunnel will have hydrophilic gaskets to prevent water from entering the tunnels.
- According to the reports, the project has been completed at a cost of roughly INR 8600 crore.
- The project is likely to become operational by March 2023.

GitHub: Open Source Software Platform

The Github, an open-source software repository service was used to create and share an offensively named app that sexually harassed a women in India.

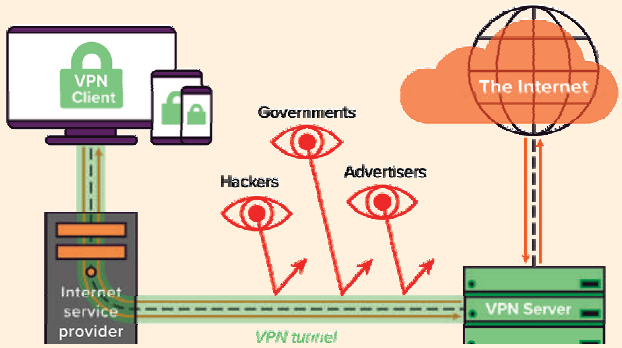
Key Highlights

- GitHub is the world's largest open-source developer community platform where users upload their projects and code for others to view, edit, and tweak.
- Under this platform, any developer can upload whatever software code or app code or software idea they have on the platform and have others collaborate with them to help improve it, find errors, and fix problems.
- The platform uses the software Git, which was created in 2005 by Linus Trovalds, the developer of the open-source operating system Linux, to track changes in a set of files and for coordination in software development.
- GitHub has longstanding policies against content and conduct involving harassment, discrimination, and inciting violence.

Note

Open Source Software (OSS) is software that is distributed with its source code, making it available for use, modification, and distribution with its original rights. Source code is the part of software that most computer users don't ever see.

VPN Networks to store user's data



CERT-In's directive mandates service providers such as VPS, VPN, intermediaries, and data centers to retain user data for five years.

Key Highlights

- Computer Emergency Response Team (CERT) which works under the Ministry of Electronics and Information Technology, passed a regulation that VPN providers, as well as cryptocurrency exchanges, must maintain records of users for five years.
- CERT-In's recent directive is to bridge the gap in cyber incidence analyses by having access to more information and data to enhance cyber security.
- The policy requires VPN service providers to collect as well as report a wide amount of customer data even after the customer has canceled their subscription or account.
- This includes but is not limited to names of subscribers/ customers, validated physical, email and IP addresses, contact numbers, and other such personally identifiable information.

About Virtual Private Network (VPN)

- VPN is used to hide location as well as encrypt information being transferred between the sender and receiver.
- This can be the data of an enterprise sent over cloud network and storage, or two individuals exchanging files.
- A VPN hides user identity and encrypts data while also giving access to an IP in a country of the user's choice. It shields the user's identity by replacing the computer's IP (Internet Protocol) address with a temporary IP address hosted on a remote server.

Concerns over new directives

- Against the user's anonymity and security.
- Companies are also required to keep track and maintain user records even after a user has canceled his/her subscription to the service.

AAI successfully conducted GAGAN Satellite Technology



The Airports Authority of India (AAI) successfully conducted a trial through GAGAN the latest indigenous satellite-based augmentation system.

Key Facts

- IndiGo became the first airline in Asia that used the indigenously developed satellite-based navigation system while landing at the Kishangarh airport, Rajasthan.
- India is the first country in the Asia Pacific region that has achieved this.

GAGAN:

- GAGAN which is an acronym of GPS Aided GEO Augmented Navigation, is a Satellite-Based Augmentation System (SBAS) that provides Satellite-based Navigation services with integrity and accuracy that is required for civil aviation applications.
- GAGAN has been jointly developed by the Indian Space Research Organisation (ISRO) and the Airports Authority of India (AAI).
- This system provides corrections to the global positioning system (GPS) signal to improve the management of air traffic.
- The GAGAN Signal-In-Space (SIS) is available via the GSAT-10 and GSAT-8 satellites.
- This system is interoperable with the other international SBAS systems that are being used across the world and will be able to provide seamless navigation across the regional boundaries.

Google Pay worked on Near Field Communication Technology

Google Pay launched a new payment feature in India called 'Tap to pay for UPI', in collaboration with Pine Labs.

Key Highlights

- The feature makes use of Near Field Communication (NFC) technology.
- The functionality will allow users with NFC-enabled Android smartphones and UPI accounts linked to Google Pay to carry out transactions just by tapping their phones on any Pine Labs Android point-of-sale (POS) terminal across the country.
- Till now, Tap to Pay was only available for cards.

NFC Technology



- NFC is a short-range wireless connectivity technology.
- It allows NFC-enabled devices to communicate with each other and transfer information quickly and easily with a single touch.
- It can be used for different purposes like to pay bills, exchange business cards, download coupons, or share a document.
- NFC transmits data through electromagnetic radio fields, to enable communication between two devices.
- Both devices must contain NFC chips, as transactions take place within a very short distance.
- NFC-enabled devices must be either physically touching or within a few centimeters from each other for data transfer to occur.

Working of Technology

- The technology allows users with UPI accounts configured on Google Pay to make payments just by tapping their NFC-enabled Android smartphones on any Pine Labs Android POS terminal.
- Once users tap their phones on the POS terminal, it will automatically open the Google pay app with the payment amount pre-filled.
- Users can then verify the amount and merchant name and authenticate the payment, using their UPI PIN.
- They will be notified once the payment is successful.
- The process is much faster compared to conventional ways of payment like scanning a QR code or entering the UPI-linked mobile number.

Other Applications of Technology

- It is used in contactless banking cards to perform money transactions. To generate contact-less tickets for public transport.
- Contactless cards and readers use NFC in several applications like securing networks and buildings to monitor inventory and sales, preventing auto theft etc.
- NFC is used in card readers in subway turnstiles and on buses to check tickets.
- It is used in speakers, household appliances, and other electronic devices that are monitored and controlled through our smartphones.
- With just a touch, NFC can set up WiFi and Bluetooth devices in our homes.
- It also has an application in healthcare, to monitor patient stats through NFC-enabled wristbands.
- It is used in wireless charging.

Other companies using NFC

- Apple introduced Tap to Pay on the iPhone.
- It will allow merchants across the U.S. to use their iPhones to accept Apple Pay, contactless credit and debit cards, and other digital wallets through a tap to their iPhone without the need for any additional hardware or payment terminal.

Advantages of NFC

- NFC technology is designed for an operation between devices within a few centimeters from each other. This makes it difficult for attackers to track the communication.
- Since touch gesture is involved, it becomes more difficult for the attacker to get connected.
- The security level of the NFC communication is by default higher compared to other wireless communication protocols.
- Human errors are less since the data is read the instant you send it.

Limitations of NFC

- It only works over a shorter distance of 10-20 cm.
- Technology is expensive and requires the developed ecosystem like related devices, equipment and updated standards.
- The technology is not completely secure and error free.

FIFA used Semi-Automated Offside Technology (SAOT)

For for the quick decision making, new technology called Semi-Automated Offside Technology (SAOT) was used.

Key Highlights

- There are two parts to the technology —a sensor inside the match ball that is held using suspension technology and Video Assistant Referee (VAR).
- Kinexon, a German company has designed a small in-ball device which gives precise positional data and detects ball movement in a three-dimensional space.
- Every time the ball is hit, data is sent in real time (at a whopping 500 frames per second) to a network of antennae installed around the playing field.
- These two data sets are run through artificial intelligence software which generates automated alerts about offsides to the match officials. This replaces the manual effort taken in poring over replays for minutes on end.
- Additionally, there are 12 Hawk-Eye cameras set up around the turf that shadow both the ball and the players, with as many as 29 separate points in the human body tracked.
- The coming together of the ball sensor and the Hawk-Eye cameras is in effect SAOT.

- Further, to synchronize the data from the ball sensor and Hawk-Eye, a Precision Time Protocol clock is used.
- As per FIFA, SAOT is only a confirmatory tool and the final decision always belongs to the match official — on the VAR, the video assistant referee, on the field of play, to the referee

Significance

- It allows for highly accurate and quick decisions.
- The data transmission rate from the ball (500 frames per second or 500Hz) makes the process accurate.
- The time between two frames is two milliseconds (1/500), which is 10 times better than a standard 50Hz video that is commonly used in High Definition monitors.
- It gets down the precision to up to one-millionth of a second.

Neuralink under investigation for animal trials

Neuralink, the Elon Musk company, is the target of a federal investigation over its animal trial program.

Key Highlights

- Neuralink is building a brain chip interface that can be implanted within the skull, which it says could eventually help disabled patients to move and communicate again, and restore vision.
- Neuralink's device has a chip that processes and transmits neural signals that could be transmitted to devices like a computer or a phone.
- Neuralink has produced several examples of testing aspects of its technology successfully on animals, including a video in 2021 that showed a macaque playing a simple video game after being implanted with a brain chip.
- It has yet to secure U.S. regulatory approval to move to human trials.

TiHAN : India's first Autonomous Navigation facility inaugurated

Union Minister of State for Science & Technology, Jitendra Singh, inaugurated India's first Autonomous Navigation facility called TiHAN.

Key highlights

- TiHAN testbed seeks to make India a global leader in terms of autonomous navigation technologies.
- TiHAN-IITH testbed on Autonomous Navigations (Aerial & Terrestrial) will help in accurate testing of next generation autonomous navigation technologies.
- The testbed comprises of simulation platforms, which is turn permit for non-destructive testing of algorithms and prototypes.
- TiHAN was inaugurated at the campus of IIT Hyderabad.
- Union Ministry of Science and technology has developed the navigation facility with an outlay of Rs. 130 crores.

About TiHAN

- TiHAN stands for "Technology Innovation Hub on Autonomous Navigation".
- It is a multidisciplinary initiative, that has been launched to make India a global player in 'smart mobility' technology for futuristic and next generation.
- This platform will provide for high quality research facility between industry, academia and R&D labs at local and global levels.

ParamPorul Supercomputer inaugurated

A state-of the art Supercomputer at NIT Tiruchirappalli dedicated to the National Supercomputing Mission (NSM) was inaugurated.



Key Highlights

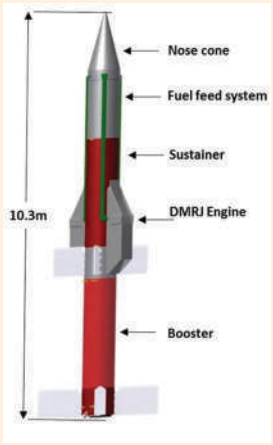
- The system is equipped with a mix of CPU nodes, GPU nodes, High Memory nodes, High throughput storage and high-performance band interconnect to cater the computing needs of various scientific and engineering applications.
- PARAM PORUL system is based on Direct Contact Liquid Cooling technology to obtain a high-power usage effectiveness and thereby reducing the operational cost.

About National Supercomputing Mission

- The Government of India launched the National Supercomputing Mission (NSM) in 2015.
- Under NSM, the plan was to connect R&D institutions and academic institutions in the country using a supercomputing grid.
- Under NSM, till date 15 supercomputers have been installed across the nation with compute capacity of 24 petaflops
- Considering the top 500 supercomputers in the world, China has the largest number of Supercomputers in the top 500 list -173 followed by US-149 and Japan-32.
- India has so far only three supercomputers in the list- PARAM Siddhi AI, Pratyush and Mihir in which PARAM Siddhi features in the top 100 list.

Scramjet Engine Technology

Indian Space Research Organisation (ISRO) successfully conducted the hot test of scramjet engine.



Key Highlights

- The ISRO successfully conducted the hot test of Scramjet Engine, a type of Air Breathing Engine.
- India is the fourth country to demonstrate the flight testing of a Scramjet Engine.
- The test was conducted at ISRO's Propulsion Research Complex at Mahendragiri in Tirunelveli district of Tamil Nadu in the presence of ISRO Chairman and Secretary, Department of Space S. Somanath.
- The scramjet is a more advanced version of the ramjet engine and can operate efficiently at hypersonic speeds.
- In air breathing scramjet engine, air from the atmosphere is rammed into the engine's combustion at a supersonic speed more than Mach two.
- A scramjet (supersonic combustion ramjet) is a variant of a ramjet airbreathing jet engine in which combustion takes place in supersonic airflow.
- As in ramjets, a scramjet relies on high vehicle speed to compress the incoming air forcefully before combustion (hence ramjet), but whereas a ramjet decelerates the air to subsonic velocities before combustion using shock cones.

Web3 Technology

The concept of Web3 used to describe a potential next phase of the internet, created quite a buzz in 2021-2022.



Key Points:

- Web3 is a decentralised internet to be run on Blockchain technology. Gavin Wood, the founder of Ethereum (a blockchain technology company) used the term Web3 first in 2014 and in the past few years, many others have added to the idea of Web3.
- It would be different from the versions in use, Web 1.0 and Web 2.0.
- In web3, users will have ownership stakes in platforms and applications unlike now where tech giants control the platforms.
- Web3 will deliver a "decentralized and fair internet where users control their own data". It enables peer to peer (seller to buyer) transactions by eliminating the role of the intermediary.

Earlier versions

- **Web 1.0**
  - It is the worldwide web or the internet that was invented in 1989. It became popular in 1993.
  - The internet in the Web 1.0 days was mostly static web pages where users would go to a website and then read and interact with the static information.
- **Web 2.0**
  - It started in some form in the late 1990s itself though 2004 was when most of its features were fully available. It is still the age of Web 2.0 now.
  - The differentiating characteristic of Web 2.0 compared to Web1.0 is that users can create content.
  - In Web 2.0, most of the data on the internet and the internet traffic is owned or handled by very few behemoth companies. This has created issues related to data privacy, data security and abuse of such data.
  - Web3 offers a solution to these problems.

N-Treat Technology

To prevent sludge and sewage from 25 storm water drains between Bandra and Dahisar from flowing into the sea, Brihanmumbai Municipal Corporation (BMC) has planned in-situ treatment of sewage from the drains through N-Treat technology.



Key Highlights

- The project will be undertaken with the help of Indian Institute of Technology-Bombay's (IIT-B) N-Treat Technology.
- The floating matter will be removed daily, silt deposits from the silt traps will be removed once in four months, and plants will be trimmed as required.
- N-Treat technology is a seven-stage process for waste treatment that uses screens, gates, silt traps, curtains of coconut fibers for filtration, and disinfection using sodium hypochlorite.
- It is a natural and environment friendly way for sewage treatment.

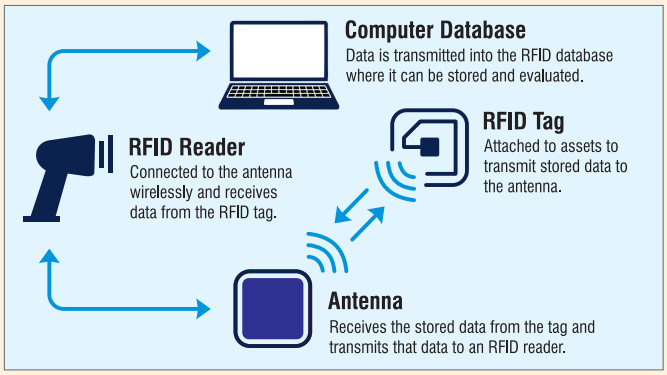
LTTD Technology

National Institute of Ocean Technology (NIOT) has developed Low Temperature Thermal Desalination (LTTD) technology for conversion of seawater to potable water.

Key highlights

- National Institute of Ocean Technology (NIOT) has developed Low Temperature Thermal Desalination (LTTD) technology for conversion of seawater to potable water.
- The technology has been successfully demonstrated in Lakshadweep islands.
- The capacity of each of these LTTD plants is 1 Lakh litre of potable water per day.
- The LTTD technology is found suitable for Lakshadweep islands where the required temperature difference of about 15°C between sea surface water and deep-sea water is found in the vicinity of Lakshadweep coasts only as of now.

RFID Technology



Soon, at Indira Gandhi International Airport, baggage tags equipped with Radio-Frequency Identification (RFID) will be available.

Types of RFID Technology

Passive tags, semi-passive tags, and active tags are the three types of RFID tags that are commercially available.

- **Passive tags:** There is no power supply for passive tags. They acquire their power from the readers' incoming radio waves. Passive RFID tags do not have a battery and are powered by the reader.
- **Semi-passive tags:** Semi-passive tags comprise an internal circuit with a power source, but rely on the radio waves received from the reader to transmit the response.
- **Active tags:** The internal circuit of active tags is powered by a power source. Batteries are being used to power active RFID tags. It also utilizes its own power supply to send the response to the reader.

Radio-frequency identification (RFID) technology Vs barcodes

- **Waves used:** RFID uses radio waves to communicate data from RFID chips to readers that do not require line of sight in order to obtain the data, whereas barcodes use light to read the black-and-white pattern printed on the sticky tag. An RFID tag can communicate with a powered reader even when the tag is not powered.
- **Durability:** When printed on paper or sticky labels, barcodes are more susceptible to wear and breakage, which can affect their readability. RFID tags, on the other hand, are sometimes placed in plastic labels or into the object itself, making them more durable than barcodes.
- **Usability:** In contrast to barcode scanners, RFID scanners can process dozens of tags in a single second. Also, barcodes are simple and easy to copy or counterfeit, whereas RFID is more complicated and difficult to replicate or counterfeit.
- **Line of sight:** Unlike barcodes, which must in line of sight, RFID tags need not be.
- **Cost:** Also, RFID tags are expensive compared to barcodes.
- **Error:** Barcodes must be read manually, making them more susceptible to human error and more difficult to evaluate their accuracy. However, RFID's accuracy may be compromised if the tags are applied to metals or liquid.
- **Safety:** RFID technology raises data protection issues, resulting in personal information becoming accessible without consent.

About RFID Technology

- Radio-frequency identification (RFID) is a technology that uses radio waves to automatically identify various tagged objects.
- Transponder, receiver, and transmitter are the three components of an RFID system.
- The RFID reader continually sends radio waves of a specific frequency in RFID system.
- If the object to which the RFID tag is attached is within the range of the radio waves, it provides feedback to the RFID reader, which then identifies the object based on the feedback.
- The Low Frequency, High Frequency, and Ultra-High Frequency bands are used by RFID systems.

ISRO's Projects *in News*

AzaadiSAT

Indian Space Research Organisation (ISRO) launched its smallest commercial rocket to unfurl Tricolour in space.

Key Highlights

- To mark country's celebrations of 'AzaadiKaAmritMahotsav', the SSLV had a co-passenger satellite called 'AzaadiSAT' comprising 75 payloads.
- The launch took place from the Satish Dhawan Space Centre in Sriharikota.
- This project was specially conceptualised for the 75th Independence Day year celebrations to encourage scientific temper and create opportunities for young girls to choose space research as their care.
- The satellite was built by 750 girl students of 75 schools across India .
- The eight-kg satellite has 75 Femto experiments, selfie cameras to click pictures of its own solar panels and long-range communication transponders.
- The mission life of the satellite is six months.
- This is the first of its kind space mission with an all-women concept to promote women in STEM (science, technology, engineering and mathematics) as this year's UN theme is 'Women in Space'.
- ISRO has developed the Small Satellite Launch Vehicle (SSLV) launch vehicle to put in low earth orbit satellites weighing less than 500 kg.

POEM

Indian Space Research Organization (ISRO) successfully launched the PSLV Orbital Experimental Module or 'POEM'.

Key Highlights

- The PSLV Orbital Experimental Module (POEM) is a platform that will help perform in-orbit experiments using the final, and otherwise discarded, stage of ISRO's workhorse rocket, the Polar Satellite Launch Vehicle (PSLV).
- The PSLV is a four-stage rocket where the first three spent stages fall back into the ocean, and the final stage (PS4) — after launching the satellite into orbit — ends up as space junk.
- It is the first time that the PS4 stage would orbit the earth as a stabilized platform and will help in performing in-orbit experiments.
- POEM carried six payloads, including two from Indian space start-ups Digantara and Dhruva Space.
- POEM will derive its power from solar panels mounted around the PS4 tank, and a Li-Ion battery. It will navigate using "four sun sensors, a magnetometer, gyros & NavIC".

PSLV-C53

The Indian Space Research Organisation (ISRO) has launched PSLV-C53 mission from Sriharikota, Andhra Pradesh. It carried three satellites from Singapore.



Key Highlights

- PSLV-C53 is the second dedicated commercial mission of the ISRO's commercial arm NewSpace India Limited (NSIL).
- PSLV-C53 successfully injected the satellites at an altitude of 570 km with 10-degree inclination.
- The four-stage, 44.4-metre-tall rocket had a lift-off mass of 228.433 tonnes.
- This was the ISRO's 55th mission of PSLV.
- The launch vehicle has carried three satellites – DS-EO, a 365 kg and NeuSAR, a 155 kg satellite and 2.8 kg Scoob-1 satellite.
- DS-EO carries an Electro-Optic, multi-spectral payload which will provide full colour images for land classification, and for serving humanitarian assistance and disaster relief needs.
- NeuSAR satellite will provide images in day and night and under all weather conditions.
- The Scoob-I satellite is the first satellite in the Student Satellite Series (S3-I), which is a hands-on student training programme.

GSAT-24 Satellite

GSAT-24 satellite was recently successfully placed into geostationary orbit by the Ariane 5 rocket, operated by French company Arianespace, from Kourou in French Guiana (South America).

Key Features of Satellite

- The satellite is built by Indian Space research Organization (ISRO).
- As part of "space reforms" announced by the Government in June 2020, NSIL was mandated to undertake operational satellite missions on a "demand driven" model, wherein it has the responsibility to build, launch, own & operate satellites and provide services to its committed customer.

NewSpace India Limited (NSIL)

- NewSpace India Limited (NSIL), incorporated in 2019, is a wholly owned Government of India company, under the administrative control of Department of Space (DOS).
- NSIL is the commercial arm of Indian Space Research Organisation (ISRO) with the primary responsibility of enabling Indian industries to take up high technology space related activities.

Gaganyaan



The Indian Space & Research Organization (ISRO) successfully conducted a 25-second qualification test for its liquid propellant-based Vikas engine to be used under the Gaganyaan mission.

Key Highlights

- The engine met the test objectives and the engine parameters were closely matched with the predictions during the entire duration of the test.
- Gaganyaan Mission envisages undertaking the demonstration of human spaceflight to Low Earth Orbit (LEO) in the short term and will lay the foundation for a sustained Indian human space exploration programme in the long run.
- Its objective is to demonstrate the indigenous capability to undertake human space flight missions to LEO. As part of this programme, two unmanned missions and one manned mission are approved by the Government of India (GoI).
- This manned mission will be the first of ISRO's human spaceflight missions. The US, Russia and China are the only three countries to have conducted human spaceflights yet.

Note

Low-Earth orbit (LEO) encompasses Earth-centered orbits with an altitude of 2,000 km (1,200 mi) or less.

Chandrayaan-3

The Indian Space Research Organisation (ISRO) is planning launch Chandrayaan-3 in June 2023, according to the ISRO chairmen Dr. S. Somnath.

Key Highlights

- The ISRO has planned 19 missions until December 2022 consisting of eight launch vehicle missions, seven spacecraft missions and four technology demonstrator missions.
- Chandrayaan-3 is the third Moon mission of the Indian Space Research Organisation (ISRO) and the successor of the Chandrayaan-2 mission which aimed to land a rover on the lunar South Pole. It was sent aboard the country's most powerful geosynchronous launch vehicle, the GSLV-Mk 3.
- However, instead of a safe landing, lander Vikram crashed on the moon's surface on September 7, 2019, preventing rover Pragyaan from reaching the surface. It would have been the first time a country landed a rover on the moon in its first attempt if the mission had been successful.

Inflatable Aerodynamic Decelerator (IAD)

ISRO successfully demonstrated a new technology with Inflatable Aerodynamic Decelerator (IAD).



Key Developments

- An IAD, designed and developed by ISRO's Vikram Sarabhai Space Centre (VSSC), was successfully test flown in a 'Rohini' sounding rocket from Thumba Equatorial Rocket Launching Station (TERLS).
- The IAD was initially folded and kept inside the payload bay of the rocket.
- At around 84 km altitude, the IAD was inflated and it descended through atmosphere with the payload part of sounding rocket.
- The pneumatic system for inflation was developed by ISRO's Liquid Propulsion Systems Centre (LPSC).

- The IAD has systematically reduced the velocity of the payload through aerodynamic drag and followed the predicted trajectory.
- This is the first time that an IAD is designed specifically for spent stage recovery.
- Rohini sounding rockets are routinely used for flight demonstration of new technologies being developed by ISRO as well as by scientists from India and abroad.

IAD Technology

- IAD is an inflatable structure made of kevlar fabric, coated with Polychloroprene.
- As the IAD is made of fabric, it can be packed into a small volume of 15litres and can be packed into the nosecone of RH300 rocket (which was used for the test).
- Once the test rocket reaches an altitude of about 84kilometre, the IAD is deployed and begins to slow down the rocket body as it undergoes atmospheric re-entry and finally splashes down in the sea.
- Once the IAD falls into the sea, it is deflated by firing a pyro valve to prevent it from floating and thereby causing any harm to sea vehicles.
- Inflation of the IAD was carried out by compressed nitrogen gas stored in a gas bottle.
- It can be used to systematically decelerate a re-entering vehicle by gradually inflating the decelerator.
- As such, the IAD is not guided. For sea landing precise guidance is not a must.
- By suitably sizing the IAD, the need for a retro rocket can be avoided for spent stages of vehicle first stage, where energy of spent stage is comparatively less.

Need of the technology

- The IAD has huge potential in variety of space applications like recovery of spent stages of rocket, for landing payloads on to Mars or Venus and in making space habitat for human space flight missions.
- When it comes to performing interplanetary missions and recovering spent rocket stages(re-usability), it is crucial to slow down a rocket/spacecraft.
- The rocket stages that are re-entering earth's atmosphere travel at supersonic speeds and spacecraft entering other planets travel at hypersonic speeds.
- In the case of re-entry, the rocket is travelling at high speeds owing to the energy added by its propulsion system and gravitational pull on its mass.
- So, the same engines used for lift-off are fired again to slow it down to a suitable speed for landing. The IAD aims to do something similar without firing rocket engines. It just uses friction or aerodynamic drag.

ISRO System for Safe & Sustainable Operations Management (IS4OM)



ISRO launched 'ISRO System for Safe & Sustainable Operations Management' (IS4OM)' to manage India's space facilities.

Key Highlights

- The new facility will help the country in space situational awareness (SSA) and space traffic management.
- This system will provide timely, accurate, and efficient information on on-orbit collision, fragmentation, atmospheric re-entry risk, space-based strategic information, hazardous asteroids, and space weather forecast.
- Continuous monitoring of debris with the new system will help ISRO warn people about incidents of space debris falling accurately.
- Along with observation of space objects, IS4OM will also safeguard India's operational space assets.
- Other nations are also cooperating in this project and when space debris is returned to Earth, it will be given back to the respective countries when they make a claim.
- Strategic applications of SSA will include identification and monitoring of other operational spacecrafts with close approaches which have overpasses over Indian regions and those who conduct intentional manoeuvres with suspicious motives and seek a re-entry within the region.
- Startups which are working towards space debris management are also working on mechanisms like towing away and re-fuelling and refunctioning of objects in space to help manage the traffic in space.
- In 1952 the amount of space debris was only two, but today the number has crossed 25,000.

SpaceTech Innovation Network (SpIN)

Indian Space Research Organisation (ISRO) has signed a Memorandum of Understanding (MoU) with Social Alpha to establish a SpaceTech Innovation Network (SpIN).



Key Highlights

- Indian Space Research Organisation (ISRO) and Social Alpha signed a MoU to launch SpaceTech Innovation Network (SpIN), India's first dedicated platform for innovation curation and venture development for the burgeoning space entrepreneurial ecosystem.
- SpIN will primarily focus on facilitating space tech entrepreneurs in three distinct innovation categories: Geospatial Technologies and Downstream Applications; Enabling Technologies for Space & Mobility; and Aerospace Materials, Sensors, and Avionics.
- In line with the partnership announcement, SpIN has launched its first innovation challenge.
- Early-stage start-ups for developing solutions in areas of maritime and land transportation, urbanisation, mapping and surveying, disaster management, food security, sustainable agriculture, environmental monitoring, and natural resources management among others are encouraged to apply.
- The selected start-ups and innovators will be able to access both Social Alpha's and ISRO's infrastructure and resources as per the prevailing guidelines.
- They will be provided active handholding in critical areas including access to product design, testing and validation infrastructure, intellectual property management, go-to-market strategy, and access to long-term patient capital, among other technical and business inputs.

India's first High-Throughput Satellite (HTS)

Satellite internet provider Hughes Communications India has partnered with the Indian Space Research Organisation (ISRO) to bring the country's first satellite internet service.



Key Highlights

- Satellite internet provider Hughes Communications India announced the commercial launch of India's first high-throughput satellite (HTS) broadband service powered by the Indian Space Research Organisation (ISRO).
- The service aims to deliver high-speed broadband across the country, including in the most remote areas beyond the reach of terrestrial networks, thus connecting enterprise and government networks.
- HCI provides satellite broadband across more than 200,000 business and government sites in India, supporting enterprises as well as strategic central and state government projects.
- This new broadband service will support the high-bandwidth requirements of government organisations, financial companies, cellular operators, mining and energy companies, among other businesses, large and small.

About High-throughput Satellite (HTS)?

- High-throughput Satellite differs from a conventional satellite in the sense that it increases capacity when using the same amount of orbital spectrum while simultaneously reducing the cost per bit.
- HTS refers to satellite connectivity that offers a higher bandwidth which in turn increases the amount of data that could be transferred between a satellite and a ground station. Conventional satellite connectivity has seen low bandwidth, as well as high latency of connectivity.
- HTS uses spot-beam to perform its operations, unlike traditional satellites which use a broad single beam or few beams. Spot beam technology allows focus on a limited area and provides seamless and fast connectivity.

6 DEFENCE IN NEWS

INDIA-US 2+2 Ministerial Dialogue

India and the United States recently held a 2+2 Defence and Foreign Minister dialogue in Washington. In this annual meeting, the fourth of its kind, Defence Minister Rajnath Singh and External Affairs Minister S Jaishankar participated.



- Talks were held with the United States' Defense Secretary Lloyd Austin and Secretary of State Antony Blinken. Under the Biden administration, this was the first such dialogue to be held.
- Following the dialogue, a pact on Space Situational Awareness was also signed.
- In this dialogue, topics like the Comprehensive Global Strategic Partnership between India and the US were discussed.
- Other topics related to science, defence, technology, emerging technology, public health, climate, COVID-19 pandemic management, etc. were also discussed.
- Along with the 2+2 dialogue, the Foreign and the Defence Ministry also held bilateral meetings. Defence Minister Rajnath Singh discussed major defence-related deals with Lloyd Austin, Defense Secretary. The purchase of 30 Predator armed drones by India was the major talking point in this meeting. Also, the tender by the Navy for 26 decks-based fighter aircraft for INS Vikramaditya, and INS Vikrant was discussed.

SIGNIFICANCE OF MEETING

- The Dialogue would enable both sides to undertake a comprehensive review of cross-cutting issues in the India-US bilateral agenda related to foreign policy, defence and security with the objective of providing strategic guidance and a vision for further consolidating the relationship.
- The 2+2 Dialogue will also provide an opportunity to exchange views about important regional and global developments and how we can work together to address issues of common interest and concern.

What is the Status of India's 2+2 Dialogue with the US?

- The US is India's oldest and most important 2+2 dialogue partner.
- The first 2+2 dialogue between the two countries was held during the Trump Administration in September 2018.
- The launch of the dialogue was seen as a "reflection of the shared commitment" by India and the US to promote synergy in their diplomatic and security efforts.
- The second and third editions of the 2+2 dialogues were held in Washington DC and New Delhi in 2019 and 2020 respectively.
- The strengthening of the mechanisms of cooperation between the two militaries are of significance in the context of an increasingly aggressive China.
- 2+2 meeting is an opportunity for the two countries to further discuss their differences over Russia and elaborate on the bilateral agenda in terms of the progress that has been made on new initiatives.

National War Memorial and Amar Jawan Jyoti to be merged



- The Amar Jawan Jyoti flame at the India Gate in the national capital will be merged with the flame at the National War Memorial in a ceremony.
- The National War Memorial was inaugurated in February 2019 by the Prime Minister of India and built over a 40-acre area close to India Gate. It is a national monument built to honor and remember soldiers of the Indian military who fought in armed conflicts of independent India.
- The names of armed forces personnel killed during the armed conflicts with Pakistan and China as well as the 1961 War in Goa, Operation Pawan and other operations such as Operation Rakshak are inscribed on the memorial walls in golden letters.

Amar Jawan Jyoti:



- The flame of Amar Jawan Jyoti was established to pay tributes to the soldiers who had died in the 1971 war.
- It was inaugurated by Prime Minister Indira Gandhi on Republic Day 1972.
- It commemorates the dead and unknown soldiers who lost their lives in the conflict that resulted in the creation of independent Bangladesh. The burning flame is considered immortal.

DRDO successfully tested Autonomous Flying Wing Technology

The Defence Research and Development Organisation (DRDO) successfully carried out the maiden flight of the autonomous flying wing technology.



Key Highlights

- The Defense Research and Development Organization (DRDO) successfully carried out the inaugural flight of the Autonomous Flying Wing Technology Demonstrator.
- The exercise was carried out at the Aeronautical Test Range, Chitradurga, Karnataka.
- Operating in a fully autonomous mode, the aircraft exhibited a perfect flight, including take-off, way point navigation and a smooth touchdown.
- This flight marks a major milestone in terms of proving critical technologies towards the development of future unmanned aircraft and is a significant step towards self-reliance in such strategic defense technologies.
- Designed and developed by the Bengaluru-based Aeronautical Development Establishment (ADE), a premier research laboratory under the DRDO, the unmanned fighter aircraft is powered by a small, turbofan engine.
- The vehicle's airframe, as well as its undercarriage, flight controls and avionics system, were developed indigenously.

Him Drone-a-thon Programme launched

The Indian Army in collaboration with the Drone Federation of India has launched the 'Him Drone-a-thon' programme.

Key Highlights

- This initiative in line with Atmanirbharta in defense manufacturing is aimed to catalyze and provide focused opportunities to the Indian drone ecosystem to develop path-breaking drone capabilities for meeting requirements of frontline troops.
- The Indian Army's support to the indigenous drone ecosystem is based on the principle that 'good available indigenously' is better than the 'best available globally'. However, gradual enhancement in technology demanded by defense forces is likely to incentivise manufacture of better and more capable drone products.
- The 'Him Drone-a-thon' programme is pan India sustained connect between all stake holders including industry, academia, software developers and drone product manufacturers.
- It will be conducted in stages with quantifiable parameters (like altitude, weight, range, endurance etc) being progressively enhanced based on demonstrated capabilities. Broad activities planned include interactions & ideation between users, development agencies, academia etc, seeking of industry responses, visits by development agencies to operational locations to understand the ground perspective & requirements, handholding of development agencies for internal development & on-ground trials and actual conduct & evaluation of drone products.
- **As a start point, development in the following categories are included:**
  - Logistics/ Load carrying Drone in High Altitude Areas.
  - Autonomous Surveillance/ Search & Rescue Drone.
  - Micro/ Nano Drones for Fighting in Built Up Areas.

PM Narendra Modi laid foundation stone of C-295MW project

PM Narendra Modi laid foundation stone of C-295MW project. With this, India is moving towards becoming a global manufacturing hub with growing cost-effective manufacturing capabilities, global-standard comparative environment and ease of doing business.



Key Highlights:

- The foundation stone of C-295MW transport aircraft manufacturing project at Vadodara, Gujarat, will be a milestone in achieving goals of Atmanirbhar Bharat.
- With this Make in India initiative, the country will acquire capabilities to make transport aircraft and in future, will be able to make even passenger aircrafts in India. PM said this project will help in achieving the goal of defence products manufacturing worth 25 billion dollar and defence export worth five billion dollar.
- It will be India's first transport aircraft manufacturing project worth around 22,000 crore rupees. C-295MW transport aircrafts will be manufactured in India by private companies, Airbus Defence and TATA consortium.
- India will be the 12th such country which have capabilities of transport aircraft manufacturing. This project will strengthen the logistic capabilities of the Indian Air Force. 40 aircrafts will be manufactured in the country.
- The C-295MW transport aircraft manufacturing project will strengthen the India Air Force and create an entire new ecosystem for the domestic aviation sector.

DEFENCE EXERCISES

Samanvay 2022



Indian Air Force conducted the Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise "Samanvay 2022" at Air Force Station in Agra.

Key Highlights:

- The exercise aims to provide a unique platform for the exchange of domain knowledge, experience and best practices with the participating Association of Southeast Asian Nations (ASEAN) member countries. Various representatives of the ASEAN countries are supposed to participate in the exercise.
- The exercise includes assessing the efficacy of institutional Disaster Management structures and contingency measures and to build a deep understanding of it.
- In India various national and regional stakeholders are involved in Disaster Management. The exercise will promote a synergistic approach by involving various institutions like the Armed Forces, National Disaster Management Authority (NDMA), National Disaster Response Force (NDRF), Defence Research and Development Organisation (DRDO), Border Roads Organisation (BRO), India Meteorological Department (IMD) and the Civil Administration.
- The exercise would aid in the evolution of institutional frameworks for effective communication, interoperability, cooperation and their application for the successful conduct of HADR.

Austra-Hind 2022 Exercise



Bilateral training exercise between the armies of India and Australia began in Rajasthan.

Key Highlights:

- This is the first exercise in the AUSTRA HIND series, with all arms and services contingents from both armies participating.
- According to the Defence Ministry, it will be a yearly event held alternately in India and Australia.The exercise aims to strengthen military ties, share best practises and promote the ability to work together.
- The two armies will be able to share best practises in tactics, techniques, and procedures for conducting tactical operations at the company and platoon levels to neutralise hostile threats during this joint exercise.
- The armies of India and Australia are to engage in variety of tasks during the exercise, including joint planning, joint tactical drills, sharing the fundamentals of special weapons skills, and raiding a hostile target.

Steadfast Noon Exercise

The North Atlantic Treaty Organization (NATO), also called the North Atlantic Alliance conducted its annual nuclear exercise code-named "Steadfast Noon". The week-long exercise took place over Southern Europe and involved aircraft and personnel from 14 NATO countries.

Key Highlights:

- Steadfast Noon involves training flights with dual-capable fighter jets, as well as conventional jets, backed by surveillance and refuelling aircraft. No live weapons are used. This exercise helps to ensure that NATO's nuclear deterrent remains safe, secure and effective.
- The North Atlantic Treaty, which was signed in Washington, D.C., on April 4, 1949, is implemented by the organisation, which was founded during World War II.
- As a collective security structure, NATO's autonomous member nations have agreed to defend one another from outside threats. NATO functioned as a check on the imagined Soviet Union threat during the Cold War. NATO Secretary-General Jens Stoltenberg.

Tiger Triumph Exercise



The Indian and US militaries carried out a three-day joint humanitarian assistance exercise in Visakhapatnam in line with the growing strategic cooperation between the two countries.

Key Highlights

- The "Tiger Triumph" tabletop simulation was organized at India's Eastern Naval Command in Visakhapatnam.
- It is a comprehensive endeavor of the Indian and US military and diplomatic representatives to provide coordinated disaster relief.
- Tiger Triumph exercise sought to improve interoperability between India and the US and create a multinational command and control model for humanitarian assistance in the Indian Ocean Region (IOR).
- Its objective was to streamline diplomatic, operational, and logistical coordination between the two countries while responding to disasters.
- 50 individuals from India and the United States took part in this exercise.
- The 2022 edition of the Tiger Triumph exercise is the second joint exercise between India and the US focusing on disaster relief.
- It is the first tri-services exercise between the US and India. It was organized under the aegis of the Integrated Defence Staff headquarters.

Exercise Vajra Prahar 2022



Indo-US Joint Special Forces exercise "Ex Vajra Prahar 2022" commenced at the Special Forces Training School at Bakloh of Himachal Pradesh.

Key Highlights

- The 13th edition of the Indo-US joint special forces drill, Exercise Vajra Prahar 2022, commenced at the Special Forces Training School (SFTS) at Bakloh in Himachal Pradesh. It was spread over a period of 21 days.
- The Vajra Prahar series of joint exercise aims to share best practices and experiences in areas such as joint mission planning and operational tactics as also to improve inter-operability between the Special Forces of both the nations.
- This annual exercise is hosted alternatively by India and the United States. The 12th edition was conducted at Joint Base Lewis McChord in Washington in 2021.
- This joint exercise is stated to be a significant step in strengthening the bond of friendship between the special forces of both nations as well as improve bilateral defence cooperation between India and the USA.

Skylight Mega Exercise

The Indian Army conducted an exercise to evaluate the operational readiness of the country's satellite communication systems.



Key Highlights

- To test the operational readiness of satellite systems and personnel manning them, the Indian Army carried out Exercise Skylight validating and showcasing the resilience of its communication capabilities in case terrestrial connectivity is disrupted in future conflicts.
- During the two-week long exercise, all satellite communication assets in the Army were activated and military personnel simulated various technical and operational scenarios, including disruption of terrestrial connectivity in the event of an attack.
- Various agencies responsible for space and ground segments, as also the Indian Space Research Organisation (ISRO) participated in the exercise.
- The exercise covered the eastern part of the country, northern borders and the island territories.

Exercise VINBAX 2022

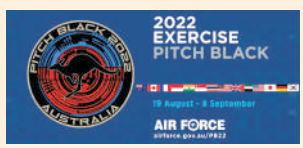


The 3rd edition of Vietnam-India bilateral army drill, "Exercise VINBAX 2022", was conducted at the Chandimandir Military Station.

Key Highlights

- The third edition of Vietnam India Bilateral Army Exercise "Ex VINBAX 2022" was recently conducted at Chandimandir.
- The theme of "Ex VINBAX" was 'employment and deployment of engineers' company and a medical team as part of a United Nations contingent for peace-keeping operations.
- The Indian Army was represented by troops from the 105 Engineer Regiment.
- VINBAX exercise is commonly defined as the India and Vietnam army's collaboration, which helps reinforce the India-Vietnam defence and security cooperation and endorses India-Vietnam relations.
- It is considered as a vital step taken by India and Vietnam and is also the first of a kind military exercise among the two nations.

Exercise Pitch Black



India was one of 17 nations to participate in the Pitch Black air combat exercises.

Key Highlights

- The exercise was organised by Australia in which different countries (17) participate.
- The biennial exercises were being conducted after a hiatus of four years due to the COVID-19 pandemic.

- The air combat exercises are conducted by the Royal Australian Air Force (RAAF) and will see 2,500 personnel from 17 countries that will be engaging in Offensive Counter Air (OCA) and Defensive Counter Air (DCA) combat exercises.
- Exercise Pitch Black 2022 was the latest iteration of Exercise Pitch Black, a war game or warfare exercise that first started in Australia's Northern Territories in the 1980s between different RAAF units.
- Since then, Australia has invited international partners to practice combat readiness, interoperability, and new doctrines.
- The exercise has been held every two years.

Udarashakti Exercise



- Indian Air Force (IAF) contingent participated in a four-day bilateral exercise 'Udarashakti' with the Royal Malaysian Air Force (RMAF).

Key Highlights

- Exercise secure the long-standing bond of friendship and enhance the line of defence cooperation between both the armies. Thus, it strengthen security in the region.
- Through this exercise, IAF got an opportunity to share and learn best practices with the Royal Malaysian Air Force. They also discussed mutual combat capabilities.
- In Udarashakti 2022, Indian Air Force took part in air exercise with Su-30 MKI and C-17 aircraft.
- On the other hand, Malaysian Air Force is taking part with Su 30 MKM aircraft.
- During the four days, various aerial combat drills were conducted between two Air Forces.

Sea Guardians-2 Exercise



Sea Guardians-2 Maritime Exercise was held at military port in Wusong, Shanghai.

Key highlights

- The exercise was held in waters and airspace in Shanghai. It comprised of two phases viz., Port planning and maritime exercise.
- During the Port planning phase, navies of China and Pakistan conducted onshore activities like professional expertise exchanges and operational planning.
- During the Maritime exercise phase, training courses were features such as strikes against maritime targets, joint anti-submarine warfare, tactical maneuvering, and joint support for damaged vessels.

About Sea Guardians-2 Maritime Exercise

- It was organised by Pakistan Navy and Chinese People's Liberation Army Navy.
- The navel exercise focuses improving joint response towards maritime security threats.
- It is aimed at promoting the defence cooperation and enhance naval capabilities of navies from both the country.

Japan-India Maritime Exercise (JIMEX)

The sixth edition of Japan India Maritime Exercise (JIMEX) took place in the Bay of Bengal.



Key Highlights

- As part of the two phases of JIMEX, which involves exercises at sea and a harbour phase in Visakhapatnam, Japan was represented by two of its Maritime Self-Defense Force Ships (JMSDF) — Izumo, a helicopter carrier, and Takanami, a guided missile destroyer.

- India, meanwhile, brought three of its indigenously-built naval warships, two of which are Anti-Submarine Warfare Corvettes in Kadmatt and Kavaratti, and a multi-purpose stealth frigate in the Sahyadri.
- Guided Missile Destroyer Ranvijay, Fleet Tanker Jyoti, Offshore Patrol Vessel Sukanya, submarines, MIG 29K fighter aircraft, Long Range Maritime Patrol Aircraft and ship borne helicopters also participated in the exercise.
- The sixth edition of JIMEX is not only significant due to India and Japan's involvement in the Quad, but the occasion also marks 10 years since the exercise's first edition. It is also 70 years since diplomatic relations between India and Japan were established.

Varuna Exercise

The 20th edition of 'Varuna' bilateral naval exercise conducted between India and France in the Arabian Sea.



Key Highlights

- In this exercise, various units of the two navies which include submarines, ships, fighter aircraft, maritime patrol aircraft, and helicopters participated.
- The participating units also look to improve their inter-operability so that they can undertake various maritime security operations.
- This exercise plays the role of the significant driver for interactions at the operational level between the navies of India and France. Also, this exercise has highlighted the shared commitment of both countries to the safety, security, and freedom of the global maritime sector.

Background

- In 1993, this bilateral naval exercises between the navies of the two countries were first initiated.
- In 2001, the name of the exercise was christened 'Varuna' and it has become an important part of the bilateral strategic relationship between India and France.

CORPAT Exercise



The Navies of India-Bangladesh conducted the fourth edition of the Coordinated Patrol (CORPAT) exercises.

Key Highlights

- Two of the Indian Navy's indigenous warships - INS Kora and INS Sumedha participated in this exercise.
- From the Bangladeshi side BNS Ali Haider and BNS Abu Ubaidah have been deputed.
- In addition, maritime patrol aircraft of both navies undertook joint patrols along the international maritime boundary line, the Indian Navy said.

About CORPAT Exercise

- CORPAT Exercises are the navy exercises held by India with various countries like Bangladesh, Indonesia, Vietnam, Philippines, Singapore, Thailand, Kenya, UAE, Qatar, Brunei, Bahrain, Egypt, UK, and Germany.
- It is held twice a year to develop coordination and learn the techniques to ensure the safety and security of the Indian Ocean region.
- CORPAT aims to build understanding and interoperability between navies and facilitate measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery, and piracy.
- It is in alignment with India's vision of SAGAR (Security And Growth for All in the Region), to promote growth of all by ensuring security.

SLINEX 2022 Exercise



The ninth edition of the Indian and Sri Lankan Navy bilateral maritime exercise SLINEX (Sri Lanka–India Naval Exercise) was held at Visakhapatnam.

Key Highlights

- In two phases, this exercise conducted with the Harbour Phase taking place at Visakhapatnam and the Sea Phase taking place in the Bay of Bengal.
- The SLNS Sayurala, an advanced offshore patrol vessel, represented the Sri Lankan Navy, while the Indian Navy represented by the INS Kirch, a guided missile corvette. Advanced Light Helicopter (ALH), Seaking, INS Jyoti, a Fleet support tanker, Dornier Maritime Patrol Aircraft, and Chetak Helicopters are among the Indian Navy's other participants.
- The aim of SLINEX is to increase mutual understanding, interoperability, and the exchange of best procedures and practices for multi-faceted maritime operations between the two navies.
- SLINEX also exemplifies Sri Lanka and India's deep maritime engagement and has grown in scope over time to improve bilateral cooperation, in line with India's 'Neighbourhood First' policy and Prime Minister Narendra Modi's vision of 'Security and Growth for All in the Region (SAGAR)'.

Eastern Bridge-VI Air Exercise



Indian Air Force (IAF) and Royal Air Force of Oman (RAFO) took part in a bilateral exercise names "Eastern Bridge-VI", in a bid to bolster operational efficiency through interoperability.

Key Facts

- The Eastern Bridge- VI Air Exercise was started from February 21, 2022 and concluded on February 25.
- This was the 6th edition of the exercise, taking place at Air Force Station Jodhpur.
- This exercise is being held with the aim of providing an opportunity to enhance operational capability as well as interoperability between two Air Forces.
- Participation of IAF and RAFO in the exercise promoted professional interaction, enhancement of operational knowledge and exchange of experiences. It also strengthens bilateral relations between both the countries.

Note

Oman is among one of the strongest defence partners of India in Gulf region. All the three services in India have bilateral exchanges and exercises with Oman's services. Oman also provides operational support to Indian Navy in Arabian Sea.

Dharma Guardian Exercise



Dharma Guardian- the Indo-Japan Joint Military Exercise was held in Belagavi, Karnataka.

Key Facts

- This exercise with Japan is significant and crucial in the matters of security challenges that are faced by both nations in the backdrop of the current global situation.
- This exercise covers platoon-level joint operations training in semi-urban and urban environments and forests.
- Indian Army's 15th Battalion the MARATHA LIGHT INFANTRY Regiment and Japan's 30th Infantry Regiment of Japanese Ground Self Defence Forces are participating in this year's exercise.
- This exercise is being conducted between the two troops to share various experiences gained during operations so as to enhance inter-operability in the execution and planning of various operations in jungle, urban and semi-urban terrain.

Sea Dragon 22 Exercise



India and five other nations participated in anti-submarine exercise 'Sea Dragon 22' in the Pacific Ocean.

Key Highlights

- It was held at Andersen Air Force Base in Guam in the Western Pacific and included contingents from India, the US, Australia, Canada, Japan and South Korea.
- India, Japan, Australia and America are also part of the Quad and also participate in the Malabar exercise.
- Sea Dragon is an annual US-led multinational exercise designed to practice and discuss Anti-submarine warfare tactics to operate together in response to traditional and non-traditional maritime security challenges in the Indo-Pacific region.
- It will involve more than 270 hours of in-flight training and activities ranging from tracking simulated targets to tracking a US Navy submarine.
- It will strengthen cooperation and deepen mutual understanding among the participating navies and air forces.
- The Indian Navy has recently inducted two more Poseidon 8I maritime reconnaissance and anti-submarine warfare aircraft, which would further boost its ability to keep an eye over the Chinese ships and submarines in the region.

DEFENCE EQUIPMENTS

INS Mormugao



The second of the Project 15B stealth-guided missile destroyers built by Mazagon Dock Shipbuilders Limited (MDSL), INS Mormugao commissioned into the India Navy.

Key Highlights

- The ship, named after a key port in Goa, was commissioned a day before the Goa Liberation Day celebrations.
- Measuring 163 m in length and 17m in breadth with a displacement of 7,400 tonnes, INS Mormugao is packed with sophisticated state-of-the-art weapons and sensors such as Surface-to-Surface Missile and Surface-to-Air Missiles.
- The ship is fitted with a modern Surveillance Radar which provides target data to the gunnery weapon systems.
- Its Anti-Submarine Warfare capabilities are provided by the indigenously-developed Rocket Launchers, Torpedo Launchers and the ASW helicopters.

- The ship is equipped to fight under Nuclear, Biological and Chemical warfare conditions.
- It is propelled by four powerful Gas Turbines, in a Combined Gas and Gas configuration, capable of achieving speeds in excess of 30 knots.
- The ship has enhanced stealth features resulting in a reduced Radar Cross Section.
- INS Mormugao has a complement of about 300 personnel.
- With over 75% indigenous content, all its major weapons and sensors have been developed and manufactured in India either directly through design and development by Indian Original Equipment Manufacturers (OEMs) or through strategic tie-ups and Transfer of Technology with reputed foreign OEMs.

Project 15B

- Over the last decade, the Indian Navy has commissioned three guided missile destroyers of the Kolkata class, INS Kolkata, INS Kochi, and INS Chennai — under the project codenamed 15A. These ships were a step ahead of their precursor Delhi class of ships — INS Delhi, INS Mysore, and INS Mumbai.
- All these ships were built by MDSL, one of the country's most important Defence PSUs. A ship 'class' describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.
- The contract for four guided missile destroyers more advanced than the Kolkata class was signed in January 2011. This was Project 15B, and the lead ship, INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.
- Designed by the Warship Design Bureau, Indian Navy's in-house warship design body, and built by MDSL in Mumbai, the four ships of Project 15B were to be named after four major cities around the country — Visakhapatnam, Mormugao, Imphal, and Surat. A ship class is identified by its lead ship, in this case, INS Visakhapatnam.

Agni-V Missile



India recently successfully carried out night trials of Agni-V Nuclear-Capable Ballistic Missile (NCBM) which can hit targets beyond 5,000 km.

Key Highlights

- The test was carried out to validate new technologies and equipment on the missile which is now lighter than before.
- In October 2021, India carried out the successful launch of the surface-to-surface ballistic missile, Agni-5 from APJ Abdul Kalam Island, Odisha.
- The night trials are necessary to validate new technology on the missile, as well as new equipment added to the NCBM.
- The missile uses a three-stage solid-fuelled engine and is capable of striking targets at ranges up to 5,000 km with a very high degree of accuracy.
- Existing variant Agni IV is capable of hitting targets at a range of 4,000 km while Agni-III has a range of 3,000-km, and Agni II can fly up to 2,000-km.
- The successful test of Agni-5 is in line with India's stated policy to have 'credible minimum deterrence' that underpins the commitment to 'No First Use'.

M777 Ultra-Light Howitzer



The Indian Army has deployed M-777 ultra-light howitzers in mountainous regions along the Line of Actual Control (LAC).

Key Highlights

- The Indian Army has deployed a significant number of easily transportable M-777 ultra-light howitzers in mountainous regions along the Line of Actual Control (LAC) in Arunachal Pradesh.
- The Army's bolstering of firepower in the forward locations of Arunachal Pradesh comes after the howitzers were deployed in several sensitive areas in the Ladakh sector amid the lingering border standoff with China.

- India has been ramping up its overall military might in all strategically key areas along the nearly 3,500-km-long LAC after the Galwan Valley clash in June 2020 that triggered a major escalation in tensions between the Indian and Chinese armies.
- Deployment of M-777 howitzers coupled with additional air assets including unmanned aerial vehicles, military aircraft and surveillance equipment has enhanced India's military preparedness in the Arunachal Pradesh sector.
- The ultra-light M-777 can be transported quickly in Chinook helicopters. Thus, giving flexibility of quickly moving them from one place to another based on operational requirements,
- The Army deployed M-777 guns in Bum-La last year but now the howitzers are being pressed into service in Arunachal Pradesh's RALP area, comprising several key mountainous regions.
- India ordered 145 M-777 guns from the US under a USD 750 million deal in 2016.
- The addition of upgraded L70 air defense guns to the existing Bofors guns in the forward locations in Arunachal Pradesh also added additional might to the Army's combat prowess.

Prachand



Indian Defence Minister Rajnath Singh formally inducted the indigenously-developed Light Combat Helicopters (LCH) 'Prachanda' in the Indian Air Force at a ceremony held at Air Force Station, Jodhpur in Rajasthan.

Key Highlights:

- This helicopter will be inducted into the 143 Helicopter Unit. LCH not only adds to the combat capability of the Air Force but is also a great leap towards the goal of Atmanirbhar Bharat.
- The need for a combat helicopter was seriously felt during the Kargil War and LCH is a culmination of two decades of effort to address this need.
- "Prachanda' has been developed by Hindustan Aeronautics Limited. It is a state-of-the-art modern combat helicopter, primarily designed for deployment in high-altitude regions.
- LCH is the only attack helicopter in the world which can land and take-off at an altitude of 5,000 meter with a considerable load of weapons and fuel.
- This helicopter is powered by two Shakti engines and is equipped with stealth features, all-weather combat capability, armour protection, night attack capability, and crash-worthy landing gear.
- The helicopter is armed with air-to-air and air-to-ground missiles, 70 milimeter rockets and a 20 milimeter gun.
- It boasts of a full glass cockpit, Electronic Warfare suite and helmet-mounted display for the flying crew.

INS Vikrant



India commissioned the nation's first Indigenous Aircraft Carrier (IAC-1), INS Vikrant to Indian Navy.

Key Highlights

- INS Vikrant is the largest warship to have ever been built in India, and the first indigenously designed and built aircraft carrier for the India.
- With the construction of 'Vikrant', India has joined a select group of nations having the niche capability to indigenously design and build an aircraft carrier.
- The Navy said the aircraft carrier would be commissioned into the Navy and it would bolster India's position in the Indian Ocean Region (IOR) and its quest for a blue water Navy.
- Trials of the Dhruv, Sea King and Chetak helicopters are already over and now Vikrant will be tested for MiG-29K trials to begin in October-November this year.
- Trials of the new submarine-hunting MH-60 "Romeo" helicopter acquired from the US as well as the Russian-origin early-warning Kamov-31 choppers is also in work.

Key points of INS Vikrant

- The aircraft carrier, built at a cost of around Rs 20,000 crore, successfully completed the fourth and final phase of the sea trials last month.
- The ship has 14 decks, over 2,300 compartments, designed for a crew of around 1700 people, including specialised cabins to accommodate women officers.

- Vikrant has a top speed of around 28 knots and a cruising speed of 18 knots with an endurance of about 7,500 nautical miles.
- The aircraft carrier is 262 metres long, 62 metres wide and it has a height of 59 metres. Its construction began in 2009.
- The ship is powered by four gas turbines totalling 88 MW power and has a maximum speed of 28 Knots.
- The IAC has a capacity to carry around 30 fighters and choppers in different configuration depending on the mission.

Other Aircraft Carrier in India

- **INS Vikrant [old] (decommissioned):** It served India from 1961 to 1997.
- **INS Viraat (decommissioned):** INS Vikrant served in the Indian Navy from 1987 to 2016.
- **INS Vikramaditya:** INS Vikramaditya, a modified Kiev-class aircraft carrier, joined the Indian Navy on 16 November 2013. It is the Indian Navy's largest aircraft carrier and warship converted from the Russian Navy's decommissioned Admiral Gorshkov/Baku.
- **INS Vishaal:** This warship is the future of the Indian Navy and is in the project phase as of now. Vishaal is to be India's second indigenous aircraft carrier.

AGM-88 HARM



United States has confirmed that it has supplied some anti-radiation missiles "AGM-88 HARM" to Ukraine which could be fired from Ukrainian Air Force aircrafts.

Key Highlights

- The acronym 'HARM' in the AGM-88 HARM air-to-surface missile stands for High-Speed Anti-Radiation Missile.
- It is a tactical weapon fired from fighter aircraft, and has the capability to detect and home into radiation emitted by hostile radar stations that have surface-to-air detection capabilities.
- The AGM-88 HARM is 14 metres in length, but only 10 inches in diameter. It weighs around 360 kg and carries a fragmentation type warhead that is optimised for radar targets. It also has an anti-radar homing seeker broadband RF antenna and receiver, and a solid-state digital processor.
- The missile has a range of more than 100 km.
- AGM-88 HARM is a part of NATO inventory.
- Russia-Ukraine war is the first in which the weapon has been confirmed to have been used by a military other than the US. However, report also said that Ukraine does not have aircraft known to be compatible with the missile, there is speculation that the missiles may have been fired by NATO aircraft secretly supporting the Ukraine military in combat roles.

Laser Guided Anti-Tank Missile System

DRDO successfully test-fired the indigenously developed Laser Guided Anti-Tank Missile System.



Key Highlights

- Made-in-India laser-guided Anti-Tank Guided Missiles (ATGM) were successfully test-fired from Main Battle Tank (MBT) Arjun by the Defence Research and Development Organisation (DRDO) and the Indian Army from the KK Range in Maharashtra's Ahmednagar.
- The missiles hit targets with precision and successfully defeated them from two different ranges. Telemetry systems recorded the flight performance of the missiles.
- The all-indigenous Laser Guided ATGM employs a High Explosive Anti-Tank (HEAT) warhead to defeat Explosive Reactive Armour (ERA)-protected vehicles.
- The ATGM has been developed with multi-platform launch capability and is currently undergoing technical evaluation trials from a 120 mm rifled gun of MBT Arjun.
- With the trials, conducted with the support of Armoured Corps Centre & School (ACC&S), Ahmednagar, the consistency of ATGM's capability to engage targets from minimum to maximum range has been established successfully.

Stealth Frigate Dunagiri



The 4th ship of the Project 17A Frigates, the in-house initiative of the Indian Navy as part of India's 'self-reliance' objective, "Dunagiri" was launched in the Hooghly River at Kolkata.

Key Highlights

- Named after a mountain range in Uttarakhand, 'Dunagiri' is the fourth ship of P17A Frigates.
- These are follow-on of the P17 Frigates (Shivalik Class) with improved stealth features, advanced weapons and sensors, and platform management systems.
- The first two ships of the P17A Project were launched in 2019 and 2020 at MDL (Mazagon Dock Shipbuilders Limited) and GRSE (Garden Reach Shipbuilders and Engineers Limited) respectively.
- The third ship (Udaygiri) was launched at MDL on 17 May 22 earlier this year.
- P17A ships have been designed in-house by the Indian Navy's Directorate of Naval Design (DND).

Aerial Target "Abhyas"



Defense Research and Development Organization (DRDO) successfully flight-tested Abhyas, which is a high-speed expendable aerial target (HEAT).

Key Highlights

- Abhyas is basically a target aircraft which has been developed by the Aeronautical Development Establishment (ADE), a Bengaluru-based facility of the DRDO.
- Abhyas has been tested multiple times by the DRDO in the recent past in different configurations.
- The performance of the aircraft at low altitude including sustained level and high maneuverability was demonstrated with precision.
- The target aircraft was flown from a ground-based controller in a pre-designated low altitude flight path, which was monitored by various tracking sensors deployed by ITR, including radar and electro-optical targeting system.

About Abhyas

- Abhyas- an originally Sanskrit word for practice or preparatory exercise – offers a realistic threat scenario for practice of various weapon systems and has been designed for autonomous flying with the help of an autopilot system onboard.
- It is powered by a small gas turbine engine to sustain a long endurance flight at high subsonic speed.
- The target aircraft is equipped with Micro-Electromechanical Systems-based Inertial Navigation System for navigation along with the flight control computer for guidance and control.
- The system has an indigenous radio altimeter for very low altitude flight and data link for encrypted communication between the ground control station and target aircraft.
- Abhyas system is equipped with radar cross-section (RCS) and infrared signatures which can be used to simulate a variety of aircraft for the practice of anti-aircraft warfare and also for the testing designed to target aerial targets.

Stealth Frigate Taragiri



Project 17A's third stealth frigate 'Taragiri' was launched by Mazagon Dock Shipbuilders Limited (MDL) in Mumbai.

Key Highlights

- Taragiri is the third stealth frigate built as part of Project 17A under which a series of such guided-missile frigates are being constructed for the Navy.
- The 149-metre-long and 17.8-metre-wide ship is propelled by a combination of two gas turbines and two main diesel engines which are designed to achieve a speed of more than 28 knots at a displacement of as much as 6,670 tonnes,.
- The indigenously designed Taragiri will have state-of-the-art weapons, sensors, advanced action information system, integrated platform management system, world-class modular living spaces, sophisticated power distribution system and a host of other advanced features.

- The ship has been built using integrated construction methodology which involves construction of the hull blocks in different geographical locations and integration and erection on the slipway at MDL.
- The ship is designed by the Indian Navy's in-house design organisation, the Bureau of Naval Design. MDL has undertaken the detailed design and construction of the ship which is also overseen by the Warship Overseeing.

Advanced Light Helicopter (ALH) Mark-III



The Indian Coast Guard Region (East) inducted the Advanced Light Helicopter (ALH) Mark-III, indigenously developed by Hindustan Aeronautics Ltd (HAL), in Chennai.

Key Highlights

- The ALH will be the first aircraft of the newly created "840 Squadron" that will be stationed in Chennai and will be the first ALH MK-III to be positioned in the Coast Guard Region East.
- The aircraft was received at Coast Guard Air Station, Chennai, with a traditional water cannon salute.
- By positioning the ALH MK-III in Chennai, the Coast Guard has achieved a multifold capability of Beyond Visual Range detection, using the state-of-the-art radar integrated with long-range imaging and identification using the Electro Optical Pad and Automatic Identification System.

Advanced Light Helicopter (ALH)

- Advanced Light Helicopter or ALH-DHRUV is an indigenously developed utility aircraft by Hindustan Aeronautics Limited (HAL) with a twin-engine.
- It has a multi-role, multi-mission dimension to it.
- It now has 'Shakti' (Safran Ardiden 1H1) turboshaft engine; a full glass Integrated Architecture Display System (IADS) glass cockpit and a slew of new systems installed by the HAL's Bengaluru-based Rotary Wing Research and Design Center (RWRDC).
- Even though its development was started in 1984, and was initially designed with Germany's assistance Messerschmitt-Bolkow-Blohm (MBB), the helicopter was first flown in 1992 but entered service after certification in 2002.

Sarmat Missile



- Russia has tested its new Inter-Continental Ballistic Missile (ICBM) Sarmat.

Key facts

- The target was set in the Kamchatka peninsula which is around 6,000 km away.
- Before being inducted into the Russian army, the missile will be undergoing five more test launches in 2022.
- Russia has been developing a new ICBM to replace the older ones and an announcement regarding this was made by President Vladimir Putin in 2018. By the end of 2022, a regiment will be fully armed with Sarmat ICBM will be operational.

Key features:

- It is able to carry a minimum of ten decoys and warheads. This ICBM is a liquid-fuelled missile.
- It has the capability of firing over either pole of the earth and has a range of 11,000 to 18,000 km.
- This missile will also be posing a challenge to the western powers' ground-and-satellite-based radar tracking systems.
- The Sarmat will be Russia's first ICBM that can carry smaller hypersonic boost-glide vehicles. These are hard to intercept as they are manoeuvrable.
- This ICBM is much more lethal than the R-36M Voyevoda ICBMs (NATO name Satan) as it has upgraded guidance systems, electronic countermeasures, and alternative warhead carrying capacity.

HELINA Anti-Tank Guided Missile



Helina, the Anti-Tank Guided Missile (ATGM) which is the Nag missile's helicopter-launched version was tested. The testing was conducted in the country's northern high-altitude mountain regions after it was successfully tested in Pokhran's desert region.

Key Highlights

- The test was conducted as part of the ongoing user validation trials of this missile's third-generation 'fire-and-forget' class missile.
- This missile has been developed by the Defence Research and Development Organisation (DRDO).
- This missile has been developed to be integrated with choppers in both the Air Force and the Army.
- Dhruvastra is the name that is sometimes used to refer to the Air Force version of this missile.
- This missile system can be fired during all-weather day and night and can destroy tanks with conventional as well as explosive reactive armour.
- The maximum range of this missile is 7 km and it has been developed and designed to be integrated into the ALH's (Advance Light Helicopter) weaponized version.

Prithvi-II Missile

India successfully test-fired the short-range nuclear-capable ballistic missile Prithvi-II from an Integrated Test Center in Odisha.



Key Highlights

- India successfully test-fired its indigenously developed, nuclear-capable Prithvi-II missile during night time as part of a user training trial from a test range off the Odisha coast.
- The trajectory of the missile was tracked by radar, electro-optical tracking system and telemetry stations off the Odisha coast of DRDO.
- The Prithvi Missile is an indigenously developed missile by DRDO (Defense Research & Development Organization) under the flagship of the Integrated Guided Missile Development Program (IGMDP).
- India has three Prithvi missiles with Prithvi-I having a range of 150 km, Prithvi-II with 250 km range and Prithvi-III with 350 km range.
- Prithvi-II is a single-stage missile that falls under the liquid fuelling category.
- It is known to have a maximum warhead mounting capability of 500 kg and a range of 250 km (160 mi).
- Prithvi-II missile is also capable of carrying nuclear weapons.
- This missile has been tested for surface-to-surface strike.
- The Prithvi-II missile can carry a weapon ranging from 500 to 1000 kg and is powered by a two-engine liquid propellant.

MH-60R Multi-Role Helicopters



As per defence authorities, first batch of three MH-60R Multi-Role Helicopters arrived in India. Indian Navy had ordered the MH-60R Multi-Role Helicopters from the United States.

Key Highlights

- According to Indian Navy, helicopters would be outfitted with several India-specific equipment and armaments. It is Indian Navy's first significant induction of helicopters for deployment on ships in decades.
- These helicopters will operate from frontline ships and aircraft carriers. Thus, providing them the crucial traits of flexibility, assault capacity and enhanced surveillance.
- MH-60R helicopters will replace Sea King 42/42A helicopters, which were decommissioned in 1990s.
- India signed a deal of worth USD 2.2 billion to purchase Lockheed Martin's MH-60R helicopters, during the visit of then-US President Donald Trump's to India in February 2020. All deliveries should be completed by 2025.

HANSA-NG Aircraft



HANSA-NG has successfully completed sea-level trials at Puducherry. These sea-level trials were conducted to evaluate HANSA-NG's handling qualities, climb performance, balked landing, and other systems performance at sea level.

About HANSA-NG

- HANSA-NG is the two-seater aircraft and a revamped version of the HANSA aircraft. It has been indigenously designed and developed by Council of Scientific and Industrial Research -National Aerospace Laboratories (CSIR-NAL).
- HANSA-NG is an advanced flying trainer. It is powered by Rotax Digital Control Engine. It has other special features like composite lightweight airframe, glass cockpit, bubble canopy with wide panoramic view, electrically operated flaps, etc.
- Its advantages include low cost and low consumption of fuel. Thus, it is most suitable for Commercial Pilot Licensing (CPL) purposes and meets the needs of Indian flying clubs.

About National Aerospace Laboratories (NAL)

- NAL was established in 1959 by the Council of Scientific and Industrial Research (CSIR) in New Delhi. It is India's maiden aerospace research firm.
- NAL's main responsibility is to develop civilian aircrafts in India. It closely works with Hindustan Aeronautics Limited (HAL), Defence Research and Development Organization (DRDO) and Indian Space Research Organization (ISRO). It also has technology to investigate into the accidents in aerospace.

Note

Aircrafts like HANSA-NAL will boost India's indigenous capacity and will help India realize the goals of 'Atmanirbhar Bharat'.

S-400 Defence Missile System



The first unit of S-400 Triumf has been deployed in Punjab for protection against any strike from Pakistan and China. The system has been deployed at one of the five IAF bases in the state, which borders Pakistan.

Key Highlights

- The S-400 system is an upgrade of the S-300 surface-to-air missile system. It was bought from Russia.
- The S-400 is known as Russia's most advanced long-range surface-to-air missile defence system.
- It is capable of simultaneously tracking numerous incoming objects including aircraft, missiles and UAVs in a radius of a few hundred kilometres and launching appropriate missiles to neutralise them.
- It is also capable of protecting its air defence bubble against rockets, missiles, cruise missiles and even aircraft.

Neptune Cruise Missile



The Russian cruiser Moskva was hit by two Neptune missiles during the Russian invasion of Ukraine.

Key facts

- Neptune is a Ukrainian anti-ship cruise missile that was developed by the Luch Design Bureau. The design of this missile is based on the Soviet Kh-35 anti-ship missile. Compared to the Kh-35 it has improved electronics and range.
- This missile system has been developed to destroy transport vessels and surface warships.
- This missile system consists of a USPU-360 truck-based mobile launcher, a TZM-360 transport vehicle, four missiles, RCP-360 control, and command vehicle, as well as a special cargo vehicle. The length of the missile including the rocket motor is 5.05 metres.
- The missiles have been designed so that they can be housed in transport and launch containers having a dimension of 5.30 by 0.60 by 0.60 metres.
- The maximum range of this missile system is around 300 kilometres. The weight of a single missile is 870 kilograms out of which the warhead weighs 150 kilograms.

Kinzhal Missile



During the Russian invasion of Ukraine, the Russian military said to have used Kinzhal missiles to destroy a Ukrainian armed forces underground weapons facility in Deliatyn.

Key facts:

- The Kh-47M2 Kinzhal is a Russian hypersonic aero-ballistic air-to-surface missile with nuclear capability.
- It has a range of more than 2,000 kilometres, a top speed of Mach 10, and the ability to undertake evasive manoeuvres at all stages of flight.
- It can be launched from Tu-22M3 bombers or MiG-31K interceptors and can carry both conventional and nuclear warheads.
- The missile is designed to hit NATO warships, posing a threat to Russia's strategic missile systems, as well as destroy NATO missile defence systems, ballistic missile defence ships, and land targets near the Russian borders.
- The missile accelerates to hypersonic speed within seconds of launch and performs movements during the flight to avoid enemy missile defences.

LCA-MK1A



Hindustan Aeronautics Limited (HAL) conducted Light Combat Aircraft LCA-MK1A test flight in June 2022.

About Light Combat Aircraft programme

- It was conceptualized in the 1980s and the first flight of the LCA technology demonstrator was held in January 2001.
- The indigenous single-engine 4.5 generation multi-role fighter jet christened as 'Tejas' has come a long way both in terms of the maturity of the platform as well as the overall aircraft development programme despite repeated delays and cost overruns.
- It was designed by the Aeronautical Development Agency under the Department of Defence Research and Development. It replaced the ageing Mig 21 fighter planes.
- It is the lightest, smallest and tailless multi-role supersonic fighter aircraft in its class.

7 MISCELLANEOUS

Awards and Honours

Nobel Prize for Physiology, 2022

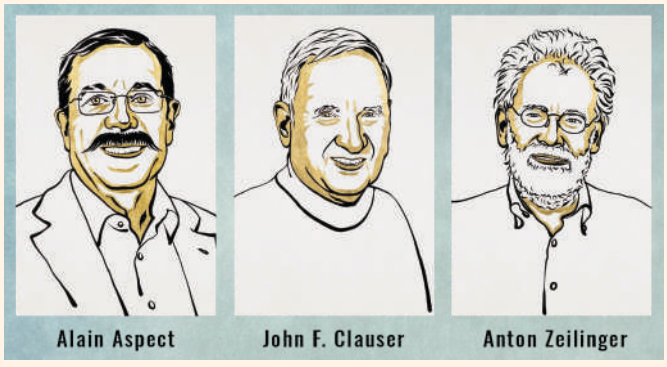


Swedish scientist Svante Pääbo has been awarded the Nobel Prize for Physiology for the year 2022 "for his discoveries concerning the genomes of extinct hominins and human evolution."

Key Highlights

- Through his pioneering research, Svante Pääbo – this year's Nobel Prize laureate in physiology or medicine.
- He accomplished sequencing the genome of the Neanderthal, an extinct relative of present-day humans.
- Techniques that Pääbo spearheaded allowed researchers to compare the genome of modern humans and that of other hominins - the Denisovans as well as Neanderthals.
- While Neanderthal bones were first discovered in the mid-19th century, only by understanding their DNA - often referred to as the code of life - have scientists been able to fully understand the links between species.
- This transfer of genes between hominin species affects how the immune system of modern humans reacts to infections, such as the coronavirus. People outside Africa have 1-2% of Neanderthal genes. Neanderthals were never in Africa, so there's no known direct contribution to people in sub-Saharan Africa.
- The prizes carry a cash award of 10 million Swedish kronor (nearly $900,000) and will be handed out on December 10. The money comes from a bequest left by the prize's creator, Swedish inventor Alfred Nobel, who died in 1895.

Nobel Prize for Physics, 2022

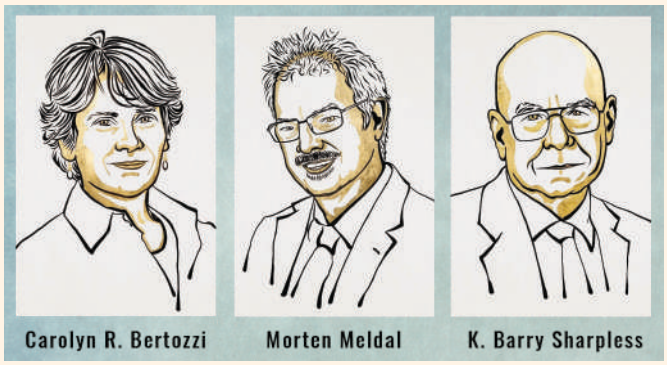


The Nobel Prize in Physics for 2022 was awarded to John F. Clauser, Alain Aspect and Anton Zeilinger for their work in quantum mechanics.

Key Highlights

- Alain Aspect from Université Paris-Saclay in France, John Clauser from J.F. Clauser & Associates in the US, and Anton Zeilinger from University of Vienna in Austria, will share the prize sum of 10 million Swedish kronor (US$915,000).
- The award was presented to trio scientists "for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science".
- The three conducted a series of experiments on something called entangled quantum states, where two separate particles behave like a single unit. Their pathbreaking results will have implications in the fields of quantum computers, quantum networks and secure quantum encrypted communication. Put simply, quantum computers use quantum mechanics to solve problems too complex for regular computers.
- Quantum entanglement is a phenomenon by which a pair of subatomic particles are allowed to exist in a shared state where they have complementary properties, such that by measuring the properties of one particle, one can automatically know the properties of the other particle.

Nobel Prize for Chemistry, 2022



Carolyn Bertozzi, Morten Meldal, and Barry Sharpless won the 2022 Nobel Prize in Chemistry for the development of click chemistry and bioorthogonal chemistry.

Key Highlights

- While Barry Sharpless and Morten Meldal laid the foundation for a functional form of click chemistry in which molecular building blocks snap together quickly and efficiently. Carolyn Bertozzi took it to a new dimension and started utilizing it in living organisms. Her bioorthogonal reactions are now contributing to more targeted cancer treatments, among many other applications.
- With the announcement, Barry Sharpless became the fifth individual to be awarded two Nobel Prizes.
- This year's Prize in Chemistry deals with not overcomplicating matters, instead working with what is easy and simple.
- Barry Sharpless started his work on click chemistry when in the year 2000, he coined the concept of click chemistry.
- Click chemistry refers to a form of simple and reliable chemistry where reactions occur quickly while unwanted by-products are avoided.
- The Chemistry Nobel is awarded by the Royal Swedish Academy of Sciences as per the will of Alfred Nobel. So far, the committee has chosen 113 laureates in the field, of which seven have been women. Meanwhile, 25 chemistry prizes have been shared by two laureates.

Nobel Prize for Literature, 2022

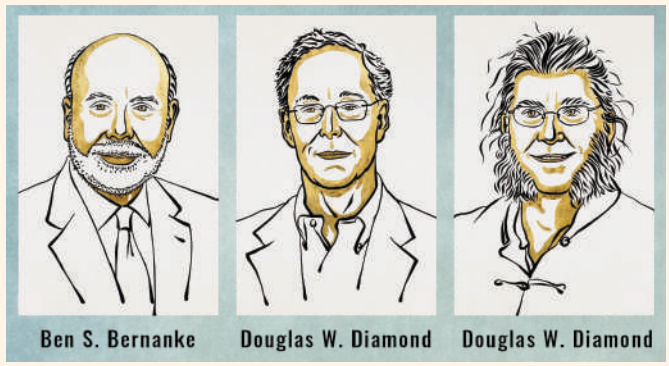
French author Annie Ernaux has won this year's Nobel Prize in Literature.



Key Highlights

- Annie Ernaux was recognized for "the courage and clinical acuity" of her writing.
- Annie was born in 1940 and brought up in the small town of Yvetot in Normandy (France).
- Ernaux has seen a sharp increase in popularity in the English-speaking world since 2019, after her seminal work 'The Years', translated by Alison L Strayer, was shortlisted for the Man Booker international prize.
- Her exemplary literary career started with the publication of her first book, Cleaned Out, in 1974.
- Her other major work includes "A Women's Story", "Happening", "A Girl's Story", "Getting Lost".
- Her books talk about the body and sexuality, intimate relationships, social inequality and the experience of changing class through education, time and memory, and the overarching question of how to write these life experiences.

Nobel Prize for Economic Sciences, 2022

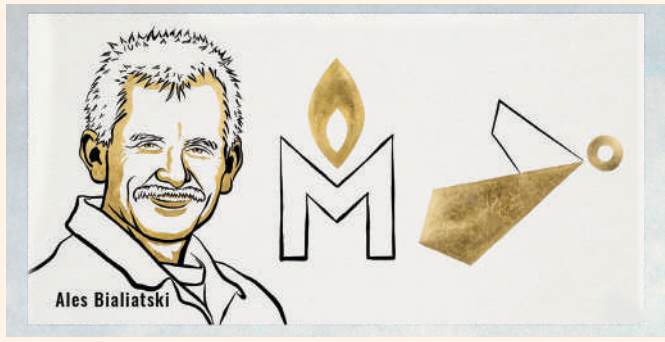


Nobel Prize 2022 in Economics, also known as the Sveriges Riksbank Prize in Economic Sciences, was awarded to Ben S. Bernanke, Douglas W. Diamond and Philip H. Dybvig at the Royal Swedish Academy of Sciences in Stockholm. The US based researchers were given the prestigious award for their work on banks and financial crisis.

Key Highlights

- The committee said their work had shown in their research "why avoiding bank collapses is vital."
- Their discoveries improved how society deals with financial crises
- Their analyses have been of great practical importance in regulating financial markets and dealing with financial crises.

Nobel Peace Prize, 2022



The Nobel Peace Prize 2022 is awarded to human rights advocate Ales Bialiatski from Belarus, the Russian human rights organization Memorial and the Ukrainian human rights organization Center for Civil Liberties.

Key Highlights

- Memorial, Russia's most prominent and oldest human rights organisation, was one of the three recipients that received this year's Nobel Peace Prize.

Award & Honours

- The other winners are Belarusian human rights advocate Ales Bialiatski and Ukrainian human rights organisation Center for Civil Liberties.
- Russia's Supreme Court had ordered the closure of Memorial International in December 2021 and it was shut down earlier this year, but despite the orders they have refused to stop their work.
- Established in 1987, Memorial sought to ensure that the victims of state-led oppression during the rule of the USSR would never be forgotten. After the collapse of the Soviet Union, it became Russia's largest human rights organisation, compiling information not only about the victims of the past, but also becoming the foremost source of information of political prisoners in Russian detention centres, the Nobel Peace Prize press release notes.
- It has opposed combat militarism, promoted human rights and played a crucial role in collecting information about war crimes committed by Russian forces and their supporters during Chechen Wars from the 1990's to the 2000's.

International Booker Prize, 2022



- Indian author Geetanjali Shree has won the International Booker Prize.
- The novel titled "Tomb of sand" was first published in Hindi in 2018 titled "Ret Samadhi" which was then translated into English and released in 2022.
- This is the first book written in an Indian language to have won the award.
- Geetanjali Shree is the first Indian to win the International Booker prize.
- However, Indian authors and authors of Indian-origin like Salman Rushdie, Kiran Desai, Arundhati Roy and Arvind Adiga have won the Booker Prize.

About International Booker Prize

- The International Booker Prize was initially known as Man Booker International Prize and was formed in 2005. Between 2005 and 2015, the award was given every two years.
- Since 2016 it is given annually for a single book, translated into English.
- The winner gets 50,000 pounds and recognition which also translates into sales.

Difference from Booker Prize

- International Booker Prize is given to an author for their work written in an international language, then translated into English.
- Booker Prize which was started in 1969 is awarded to a book/novel written only in English.

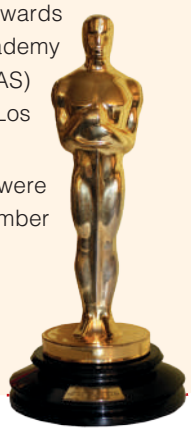
Abel Prize, 2022

- Dennis Parnell Sullivan, an American mathematician, has been awarded with the Abel Prize 2022. This award also includes prize money which amounts to 7 Million NOK (Norwegian Krone).
- He received this award for his contributions to topology, especially its geometric, algebraic, and dynamical aspects.
- Topology is a field of mathematics that considers two things of different forms to be equivalent only if they can be deformed into each other. Topology is important in maths and various other fields like data science, economics, and physics.

About Abel Prize

- The Abel Prize is given annually to an individual who has done a remarkable job in the mathematics field. This prize has been named after Niels Henrik Abel who was a famous Norwegian mathematician.
- This award took inspiration from the famous Nobel Prize. Nobel Prize doesn't have a section for mathematics, though some mathematicians have won this prestigious prize in other fields.
- The Abel Prize was first awarded in 2003 to Jean-Pierre Serre, a French mathematician, for his contribution to algebraic geometry, topology, and number theory.

Oscar Awards, 2022



- The Oscars 2022 or the 94th Academy Awards ceremony which is presented by the Academy of Motion Picture Arts and Sciences (AMPAS) was held recently at the Dolby Theatre in Los Angeles.
- This event honoured the best films that were released between 1st March to 31st December 2021.

Winners

- **Best Picture:** CODA

Award & Honours

- **Best Actress:** Jessica Chastain for the movie The Eyes Of Tammy Faye
- **Best Director** was won by Jane Campion for The Power Of The Dog.
- **Best Actor:** Will Smith for the movie King Richard
- **Best Supporting Actress** went to Ariana DeBose for the movie West Side Story.
- **Best Supporting Actor:** Troy Kotsur for the movie CODA
- **Best Original Screenplay:** Bellfast
- **Best Adapted Screenplay:** CODA
- **Best International Feature Film:** Drive My Car (Country-Japan)
- **Best Documentary Feature:** Summer Of Soul
- **Best Animated Feature Film:** Encanto
- **Best Animated Short:** The Windshield Wiper
- **Best Original Score:** Dune
- **Best Live Action Short:** The Long Goodbye
- **Best Cinematography:** Dune
- The **Queen of Basketball** received the award for Best Documentary (Short)
- **Best Original Song:** No Time To Die (Movie- No Time To Die)
- **Best Production Design:** Dune
- **Best Costume Design:** Cruella
- **Best Sound:** Dune
- **Best Makeup and Hair went to the movie** The Eyes of Tammy Faye
- **Best Visual Effects:** Dune
- **Best Film Editing:** Dune

Dadasaheb Phalke Award, 2020



- The Dadasaheb Phalke Award 2020 was conferred to veteran actor Asha Parekh, who has also been a director and producer.
- Asha Parekh's impressive filmography includes Dil Deke Dekho, Jab Pyar Kisi Se Hota Hai (1961), Phir Wohi Dil Laya Hoon (1963), Teesri Manzil (1966), Baharon Ke Sapne (1967), Pyar Ka Mausam, Do Badan (1966), Chirag (1969) and Main Tulsi Tere Aangan Ki, among many others.
- She also starred in regional films across languages, including Gujarati, Punjabi and Kannada films.
- In terms of work, Asha Parekh was last seen in 1999 film Sar Aankhon Par.

Ramon Magsaysay Awards, 2022



- The Ramon Magsaysay Awards Foundation (RMAF), which is widely regarded as the "Nobel Peace Prize of Asia," was announced.
- The award is named after Ramon Magsaysay, theseventh president of the Republic of the Philippines after World War II.
- It is presented to those who have demonstrated the greatness of spirit in service to Asian peoples, regardless of race, gender, or religion.
- The Ramon Magsaysay Award is chosen and presented every year.
- The award includes a plaque and a medallion with an embossed image of Ramon Magsaysay facing right in profile, as well as a cash prize.
- The Ramon Magsaysay Award Foundation (RMAF) is in charge of administering the Ramon Magsaysay Award (RMA).
- **2022 awardees are:**
  - SothearaChhim, Psychiatrist (Cambodia)
  - Tadashi Hattori, Opthalmologist (Japan)
  - Bernadette Madrid, Pediatrician (Philippines)
  - Gary Bencheghib, Activist & Filmmaker (Indonesia)

Pulitzer Prize, 2022



The winners of Pulitzer Prize 2022 in journalism, books, drama and music were announced.

Key Highlights

- India received four awards for documenting its battle with COVID-19.
- Danish Siddiqui, photojournalist was awarded posthumously, who was associated with the international news agency Reuters
- He was killed while covering the war between Afghan troops and the Taliban last year.
- Adnan Abidi, Sanna Irshad Mattoo, and Amit Dave were awarded for their images of COVID-19 toll on India.

About Pulitzer Awards

- The Pulitzer Prize is awarded for achievements in different fields- Newspaper, Magazine, Online Journalism, Literature and Music Composition.
- It was established in 1917 by provisions in the will of Joseph Pulitzer.

Award & Honours

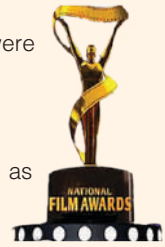
United Nations (UN) Award

India won a United Nations (UN) award for its 'India Hypertension Control Initiative (IHCI)'.

Key Highlights

- The '2022 UN Interagency Task Force, and WHO Special Programme on Primary Health Care Award' was announced at the UN General Assembly side event at New York, USA.
- The UN Task Force has identified organisation that has multisectoral approach in prevention and control of NCDs and multisectoral action with demonstrated results at primary care for prevention and control of NCDs and related Sustainable Development Goals (SDGs).
- IHCI is a collaborative initiative of the health ministry, Indian Council of Medical Research (ICMR), state governments and World Health Organization-India.
- The initiative was launched in 2017, and expanded in a phased manner to cover more than 130 districts across 23 states.
- Under the initiative, at least 3.4 million people with hypertension are taking treatment in government health facilities, including Ayushman Bharat Health Wellness Centres (HWCs), according to the government data.

68th National Film Awards



The winners of the 68th National Film Awards were announced in New Delhi.

Key Highlights

- Awards ceremony honoured films from 2020 as well due to COVID-19-related delays.
- The event was organised by the Directorate of Film Festivals, under the Ministry of Information and Broadcasting.
- Union Minister of Information and Broadcasting, Anurag Thakur announced the award winners.

68th National Film Awards 2022:

- **Best Feature Film:** Soorarai Pottru
- **Best Director:** Sachidanandan KR, Ayyappanum Koshiyum
- **Best Popular Film Providing Wholesome Entertainment:** Tanhaji
- **Best Actor:** Suriya for Soorarai Pottru and Ajay Devgn for Tanhaji
- **Best Actress:** Aparna Balamurali, Soorarai Pottru
- **Best Supporting Actor:** Biju Menon, Ayyappanum Koshiyam
- **Best Supporting Actress:** Lakshmi Priya Chandramouli, Sivaranjaniyum Innam Sila Pengallum
- **Best Male Playback Singer:** Rahul Deshpande for Mi Vasantrao and Anish Mangesh Gosavi for Taktak
- **Best Female Playback Singer:** Nanchamma, Ayyappanum Koshiyam
- **Best Music Direction:** Ala Vaikunthapurramuloo, S Thaman

Grammy Awards, 2022



At the 64th Annual Grammy Awards, two Indian musicians were among the winners.

Key facts about Indian-origin winners

- Falu, an Indian-American singer-songwriter won her maiden Grammy in the category of Best Children's Music Album.
- Composer Ricky Kej also won his second Grammy as he and Stewart Copeland won the award in the category of Best New Age Album.
- The 2022 Grammy Awards were held recently at the MGM Grand Garden Arena located in Las Vegas, Nevada.
- Jon Batiste won the Best Album of The Year award.
- The award for the Best New Artist as well as for Best Pop Vocal Album was won by Olivia Rodrigo and Doja Cat won the award for Best Pop Duo/ Group.

World Food Prize, 2022



- Cynthia Rosenzweig, a senior research scientist and head of the Climate Impacts Group at NASA in New York City, received the 2022 World Food Prize.
- Rosenzweig was selected for the award for her research to understand the relationship between climate and food systems and forecast how both will change in the future.
- Her research focuses on improving models and assessments of how climate change will affect agriculture and the food supply in the future.

About World Food Prize

- World Food Prize is a prestigious international award conceived as the "Nobel Prize for Food and Agriculture".
- Its mission is to elevate innovations and inspire action to sustainably increase the quality, quantity, and availability of food for all.
- The international award recognizes individuals who have increased the quality, quantity, or availability of food in the world.

Changemaker Award, 2022



- Srishti Bakshi documentary won the Changemaker award at the UN SDG (United Nations Sustainable Development Goals) Action Awards.
- The film narrates the plight, dreams, rights and fights against all forms of violence, that unify the women of today's India via Bakshi's epic foot journey of 3,800km over 240 days, from Kanyakumari (South India) to Kashmir (North India).
- The finalists for the UN SDG Action Awards were selected from over 3,000 applications from 150 countries and the winners were announced during a live event.
- The UN SDG Action Awards Ceremony celebrates people and initiatives that mobilise, inspire, and connect people, proving that each one of us has the power to drive transformative action.

Booker Prize, 2022



- Sri Lankan author, Shehan Karunatilaka has won Britain's Booker Prize 2022 for fiction for his work "The Seven Moons of Maali Almeida".
- Shehan Karunatilaka became only the second Sri Lankan writer to win the Booker Prize.
- The book is about a journalist murdered amid the country's sectarian strife and he tries to find who murdered him.
- Booker Prize was formerly (2002–19) called Man Booker Prize.
- It is a prestigious British award given annually to a full-length novel in English.
- It was established in 1968.
- Initially, only English-language writers from the United Kingdom, the Republic of Ireland, and the Commonwealth countries were eligible. In 2013, however, it was announced that the prize would be open to English-language writers worldwide from 2014.

Templeton Prize, 2022



- Dr. Frank Wilczek was named the winner of the 2022 Templeton Prize.
- Dr. Frank was awarded for his work as a Nobel Prize-winning theoretical physicist and author in studying and explaining how the fundamental laws of nature have transformed our understanding of the universe.

About Templeton Prize

- The $1.4 million Templeton Prize honors people who harness the power of the sciences to explore the deepest questions of the universe and human existence.
- It was established, funded and administered by Jane Templeton starting in 1972.
- The prize was originally awarded to people working in the field of religion, but in the 1980s the scope broadened to include people working at the intersection of science and religion
- The first recipient of the Templeton Prize, Mother Teresa was an Indian.

World Green City Awards, 2022



- The city of Hyderabad, Telangana, has been honored as the Grand winner of the AIPH (International Association of Horticultural Producers) World Green City Awards 2022.
- The city of Hyderabad beat Paris, Bogota, Mexico City, Montreal, and Fortaleza in Brazil to bag the award.
- Additionally, the city has also won 'Living Green for Economic Recovery and Inclusive Growth'.
- Hyderabad is the only Indian city that was selected for the 'World Green City 2022' award, the best across all six categories.

SASTRA Ramanujan Prize, 2022



- The SASTRA Ramanujan Prize for 2022 awarded to Yunqing Tang Assistant Professor at the University of California, Berkeley, USA.
- Tang's work displays a remarkable combination of sophisticated techniques, in which the geometry and arithmetic of modular curves and of Shimura varieties play a vital role.
- Yunqing's results and methods are liable to have an important impact on future research in this area.

Award & Honours

- The award, instituted by the Shanmugha Arts, Science, Technology & Research Academy (SASTRA) in 2005 with a cash prize of $10,000.
- It is presented annually to individuals aged 32 and below, who made outstanding contributions in the field of mathematics, influenced by Srinivasa Ramanjuan in a broad sense.

Chevalier de l'Ordre des Arts et des award



- Carnatic vocalist, composer, collaborator, humanitarian and speaker, Aruna Sairam has been honored with the French government's highest honor, Chevalier de l'Ordre des Arts et des award.
- Aruna Sairam has been selected for this award not just for her singing prowess, but also for her contribution towards development of the Indo-France relationship.
- Aruna Sairam is recipient of several awards including the Padma Shri by the Central Government and the Sangita Kalanidhi by the Music Academy.
- She was also elected as the Vice-Chairperson of the Sangeet Natak Akademi.
- Apart from this she is also the recipient of Tamil Nadu government's Kalaimamani Award and Kalidas Samman Award of Madhya Pradesh.

Digital India Awards, 2022



- Ministry of Housing & Urban Affairs has won the Platinum Icon in the Digital India Awards 2022 for their initiative "Data Smart Cities: Empowering Cities through Data.
- The Data Smart Cities Initiative is a key step in creating a robust data ecosystem that enables evidence-based decision-making in cities.
- The Digital India Awards (DIA) is a prestigious National competition that seeks to encourage and honour innovative digital solutions by government entities in realising the Digital India vision.
- The category 'Data Sharing and Use for Socio Economic Development' emphasizes on sharing of Government Data by Ministries/Departments/Organizations, States, Cities and ULBs to create a vibrant data ecosystem in the country for analysis, decision-making, innovation, services, economic development and public good.

Sahitya Akademi Award for literature, 2022



- The Union Government has announced Sahitya Akademi Awards, 2022.
- The Awards, recommended by distinguished Jury members in 23 Indian languages, were approved by the Executive Board of the Sahitya Akademi, under the Chairmanship of Dr. Chandrashekhar Kambar, President, Sahitya Akademi.
- Tumadi Ke Shabd by Badri Narayan won the award in Hindi language,
- The Award in the form of a casket containing an engraved copper-plaque, a shawl and an amount of Rs. 1,00,000/- towards cash content each are presented to the awardees at the award.

National Sports Awards, 2022

- President Droupadi Murmu felicitated over 25 Indian athletes at the National Sports Awards 2022 ceremony being held at the Rashtrapati Bhavan.
- Athletes were presented with the Arjuna award, Dronacharya Award, Major Dhyan Chand Khel Ratna award, Lifetime category, Rashtriya Khel Protsahan Puruskar and Maulana Abul Kalam Azad (MAKA) Trophy.
- Table tennis player Achanta Sharath Kamal was presented with the Major Dhyan Chand Khel Ratna award, which is the highest honor in India for a sportsperson.
- 25 athletes were presented with the Arjuna award.

Champions of the Earth 2022



CHAMPIONS OF THE EARTH

- India's Purnima Devi Barman, an Assam-based wildlife biologist, is one of the five 'Champions of the Earth' for this year, the United Nations Environment Programme (UNEP).
- She has been honored in the Entrepreneurial Vision category.
- 'Champions of the Earth' presented annually, are the highest environmental honor.
- UNEP confers on individuals and organizations whose actions have a "transformative impact" on the environment.

Award & Honours

Banker's Bank of the Year Award, 2022



- Canara Bank won the 'Banker's Bank of the Year Award 2022' for the Indian segment of the Global Banking Summit.
- The event took place in London and L V Prabhakar, the bank's MD and CEO, accepted the award.
- Bankers' Bank of the Year Award is considered to be like Oscar award for the banking sector.
- The winners are judged on their ability to deliver returns, strategy, innovation, technology and product and services in their respective geographies in the last 12 months.
- Canara Bank is an Indian public sector bank under the control and ownership of the Ministry of Finance, Government of India.
- It was established in 1906 at Mangalore by Ammembal Subba Rao Pai.
- The bank also has offices in London, Dubai and New York.

GRIHA Exemplary Performance Award, 2022

- The Unique Identification Authority of India (UIDAI) has won the prestigious GRIHA Exemplary Performance Award 2022, a top national level Green Building Award.
- UIDAI have been constantly working to stay environmentally-conscious, and contributing to the net zero target of the country.
- The eco friendliness of the UIDAI building offers a congenial working environment to the staff. On an average, 25% to 30% of its daily water consumption is coming from recycled water. Similarly, the UIDAI HQ building is also recharging ground water 3590 KL per year, on an average.
- GRIHA is an indigenous rating system developed by Tata Energy Research Institute which has been adopted as the national rating system of India by MNRE.
- GRIHA is a tool to evaluate reductions in emission intensity through habitats and has been announced as a part of mitigation strategy for combating climate change in India's Nationally Determined Contributions submitted to UNFCCC by the Ministry of Environment, Forest and Climate Change.

Sports in News

FIFA World Cup, 2022



- Argentina won the FIFA World Cup 2022 beating France in the final.
- It was the 22nd edition of the FIFA World Cup, which is an international football tournament contested by the men's national teams of FIFA's member associations.
- **Host Country:** Qatar (awarded in 2010)
- It was the first World Cup held in the Arab and Muslim world.
- At an estimated cost of over $220 billion, it is the most expensive World Cup ever held to date.
- This tournament was the last with 32 participating teams, with the field set to increase to 48 teams for the 2026 edition.
- France were the defending champions, having defeated Croatia 4–2 in the 2018 final.
- Next World Cup 2026 will be held in Canada, Mexico and the United States.

Golden Boot

French player **Kylian Mbappé** won the Golden Boot as he scored the most goals (eight) during the tournament.



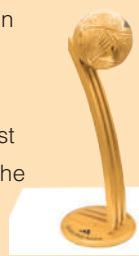
Golden Glove

Emiliano Martínez from Argentina, won the Golden Glove, awarded to the tournament's best goalkeeper.



Golden Ball

Argentine captain **Lionel Messi** was voted the tournament's best player, winning the Golden Ball.



Sports in News

Commonwealth Games 2022

Commonwealth Games 2022 were held in Birmingham (U.K.). India finished its medal rush with 22 Gold medal, 16 silver, and 23 bronze. The closing ceremony was held at Alexander Stadium in Birmingham.

Key Highlights :

- India finished its medal rush with 22 Gold Medals, 16 silver, and 23 bronze.
- India created history by bagging its first-ever medal, in Lawn Bowls Women's fours team.
- Weightlifter Mirabai Chanu won India's first gold medal, while Jeremy Lalrinnunga won second gold. Achinta Sheuli won the third gold for India.
- Next Commonwealth Games will be held in 2026 in Melbourne and the Victoria region of Australia.

List of Indian Gold Medallists at CWG 2022

Athlete/Team	Sport
Mirabai Chanu	Weightlifting
Jeremy Lalrinnunga	Weightlifting
Achinta Sheuli	Weightlifting
Eldhose Paul	Athletics
PV Sindhu	Badminton
Lakshya Sen	Badminton
Satwiksairaj Rankireddy / Chirag Shetty	Badminton
Nitu Ghangas	Boxing
Amit Panghal	Boxing
Nikhat Zareen	Boxing
Indian Women's Team	Lawn bowls
Sudhir	Para Powerlifting
Bhavina Patel	Para Table Tennis
Indian men's team	Table Tennis
Sharath Kamal / Sreeja Akula	Table Tennis
Sharath Kamal	Table Tennis
Bajrang Punia	Wrestling
Sakshi Malik	Wrestling
Deepak Punia	Wrestling
Ravi Kumar Dahiya	Wrestling
Vinesh Phogat	Wrestling
Naveen	Wrestling

List of Indian Silver Medallists at CWG 2022

Athlete/Team	Sport
Murali Sreeshankar	Athletics
Priyanka Goswami	Athletics
Avinash Sable	Athletics
Abdulla Aboobacker	Athletics
Indian mixed team	Badminton
Sagar Ahlawat	Boxing
Women's cricket team	Cricket
Men's hockey team	Hockey
Sushila Devi Likmabam	Judo
Tulika Maan	Judo
Indian men's team	Lawn Bowls
Sharath Kamal / G Sathiyan	Table Tennis
Sanket Sargar	Weightlifting
Bindyarani Devi	Weightlifting
Vikas Thakur	Weightlifting
Anshu Malik	Wrestling

List of Indian Bronze Medallists at CWG 2022

Athlete/Team	Sport
Tejaswin Shankar	Athletics
Sandeep Kumar	Athletics
Annu Rani	Athletics
Kidambi Srikanth	Badminton
Treesa Jolly / Gayatri Gopichand	Badminton
Jaismine Lamboria	Boxing
Mohammad Hussamuddin	Boxing
Rohit Tokas	Boxing
Women's hockey team	Hockey
Vijay Kumar Yadav	Judo
Sonalben Patel	Para Table Tennis
Saurav Ghosal	Squash
Dipika Pallikal / Saurav Ghosal	Squash
Sathiyan Gnanasekaran	Table Tennis
Gururaja Poojary	Weightlifting
Harjinder Kaur	Weightlifting
Lovepreet Singh	Weightlifting
Gurdeep Singh	Weightlifting
Divya Kakran	Wrestling
Mohit Grewal	Wrestling
Pooja Gehlot	Wrestling
Pooja Sihag	Wrestling
Deepak Nehra	Wrestling

India won Thomas Cup, 2022



- India won the Thomas Cup, the top team event in men's badminton.

Key Highlights

- India lifted the Thomas Cup for the first time, which is considered to be the most prestigious cup in men's badminton.
- The cup is similar to the World Cup in football and the Davis Cup in tennis.
- With the win India breaks into the elite club of winners- China, Malaysia, Indonesia, Japan and Denmark.
- The Cup has been won by these five countries over the years.
- India has reached semifinals for three times.
- Since the event began in 1948, India has qualified for only 13 of its 32 editions.

Thomas Cup:

- The Thomas Cup is also sometimes called the Men's Team Championship. It is an international badminton championship in which teams from different countries participate.
- The championship is conducted every two years.
- An English player from the 1900s, George Alan Thomas was the mastermind behind the Thomas Cup.
- He proposed the idea of a championship tournament for badminton.
- The idea was borrowed from the World Cup in football and the Davis Cup in tennis.
- It was started in 1948 and was conducted every 3 years.
- After 1982, it was conducted every 2 year.

Sports in News

Australia won ICC Women's Cricket World Cup 2022



- Australia beat England by 71 runs in the finals to claim their seventh Women's World Cup recently, at Hagley Oval in Christchurch, New Zealand. Australia posted a record of 356 on the board. In reply, Nat Sciver waged a lone battle and remained unbeaten on 148 but it was not enough as England was bowled out for 285 in 43.4 overs.
- Alyssa Healy of Australia scored 170 runs in the match, the highest individual score made by any cricketer, male or female, in the World Cup Final. She was also the leading run-scorer in the tournament with 509 runs.
- **Key points of Women's World Cup:**
  - **Most Successful team:** Australian (7th)
  - **Player of the Match (Finals) 2022:** Alyssa Healy
  - **Player of the tournament 2022:** Alyssa Healy
  - **Most runs (All time):** Debbie Hockley (1,505), New Zealand
  - **Leading wicket-taker in the tournament:** Sophie Ecclestone (England, 21 dismissals)
  - **Most wickets (All time):** Jhulan Goswami (45), India

Uttar Pradesh to host 2023 Khelo India University Games

- Uttar Pradesh government to host Khelo India National University Games in 2023-2024 in four cities. Khelo India National University Games will be conducted in four cities of Uttar Pradesh including Lucknow, Gorakhpur, Varanasi, and Noida.
- In the Khelo India National University Games, 4,500 athletes will participate representing 150 universities across the country.
- There will be 20 disciplines including basketball, judo, kabaddi, wrestling, swimming, boxing, rowing, etc.
- Uttar Pradesh has got the opportunity to host the National University Games for the first time after Odisha and Karnataka

India's Virat Kohli becomes first batter to score 4000 runs in T20Is



- Indian star cricketer, Virat Kohli has scripted history as he became the first batter in history to reach 4000 runs in T20 Internationals. Kohli reached the landmark in the second semi-final of the T20 World Cup 2022 against England in Adelaide.
- Earlier, Kohli became the all-time leading run-scorer in the men's T20 World Cups against Bangladesh in Adelaide, overtaking Mahela Jayawardene's record of 1016 runs, which was set in 2014. Kohli, remarkably, raced to the magnificent milestone while batting at an average of 53.34. He is the only batter in the shortest format to average over 50 and reached the milestone in 115 matches.

FIFA lifted ban from AIFA

- All India Football Federation (AIFF) was suspended by the Federation Internationale de Football Association (FIFA) as a result of inappropriate external influence.
- AIFF's ban was lifted by the FIFA Council Bureau with immediate effect in order to allow India to host the FIFA U-17 Women's World Cup in 2022.
- The dispute set off when Praful Patel, a former president of the All India Football Federation (AIFF), decided not to hold elections even after his term as president had ended.
- The Supreme Court of India then stepped in and appointed a committee to draft a new constitution for AIFA.
- The decision was made in response to a new petition submitted by the Sports Ministry, which asked the court to modify its rulings after consulting FIFA.

FIFA selected Morocco to host Club World Cup in February 2023

- Morocco was rewarded by FIFA with hosting rights for the next Club World Cup in February, with an expanded 32-team edition set to launch in 2025.

Sports in News

- The most recent edition of the tournament was held in the UAE in February 2022 and was won by the English football club, Chelsea.
- European champion Real Madrid, South American champion Flamengo and Seattle Sounders, the first CONCACAF Champions League winner from the United States, will play in the traditional seven-team tournament from Feb. 1-11.

US Open, 2022 : Results



- In the men's category, Spanish player C. Alcaraz Garcia lifted his first Grand Slam trophy after defeating C. Ruud.
- He has become the youngest player to reach world No. 1 at just 19 years of age. In the women's category, Poland tennis player I. witek defeated O. Jabeur to win the 2022 US Open women's singles final title.
- Rajeev Ram and Joe Salisbury defeated No. 2 seeds Wesley Koolhof and Neil Skupski to capture the men's doubles championship and successfully defend their title at the 2022 US Open.
- The Czech pair of Barbora Krejcikova and Katerina Siniakova defeated Americans Katie McNeely and Taylor Townsend to win the women's doubles title.
- In mixed doubles, the Australian pair of Storm Sanders and John Pearce defeated Kirsten Flipkens and Edouard Roger-Vasselin to win the title.
- The US Open, organized by the United States Tennis Association (USTA), is a hard-court tennis grand slam tournament that is held once every year.
- Founded in 1881, the US Open started off as competition on grass and later on clay surfaces for two years in 1975 and 1977, and finally moved to hard courts since 1978.

French Open, 2022 : Results



- Rafael Nadal beat Casper Ruud in the French Open final for his 14th championship at Roland Garros and Nadal won the last 11 games after trailing 3-1 in the second set.
- This was Nadal's 22nd Grand Slam title overall.
- He stands two Slams ahead of old rivals Novak Djokovic and Roger Federer.
- French Open is also known as Roland-Garros. It is a major tennis tournament, which is held for two weeks at Stade Roland Garros in Paris, France.

Books & Authors

Name of the Book	Name of the Author
Tomb of Sand	Geetanjali Shree
The Indian Story	Bimal Jalan
Listen to your heart: The London Adventure	Ruskin Bond
The struggle for police reforms in India	Prakash Singh
Leaders, Politicians, Citizens	Rasheed Kidwai
Chinese Spies: From Chairman Mao to Xi Jinping	Roger Faligot

Name of the Book	Name of the Author
Decoding Indian Babudom	Ashwini Shrivastava
Not Just A Night Watchman	Vinod Rai
Ungalil Oruvan (One Among You)	MK Stalin
"Soli Sorabjee: Life and Times"	Abhinav Chandrachud
"Atal Bihari Vajpayee"	Sagarika Ghose
'How to Prevent the Next Pandemic'	Bill Gates
Fearless Governance	Kiran Bedi
'Gandhi's Assassin: The Making of Nathuram Godse and His Idea of India.	Dhirendra K. Jha
'Indomitable: A Working Woman's Notes on Life, Work, and Leadership'	Arundhati Bhattacharya
'India's Women Unsung Heroes'	Meenakshi Lekhi
'The $10 Trillion Dream'	Subhash Chandra Garg
The Philosophy of Modern Song	Bob Dylan
Pandemic Disruptions and Odisha's Lessons in Governance	Dr Amar Patnaik
From dependence to Self Reliance	Bimal Jalan
The Corbett Papers	Akshay Shah and Stephen Alter
Delhi University: Celebrating 100 Glorious Years	Hardeep Singh Puri
Winning the Inner Battle Bringing	Shane Watson
Brave Hearts of Bharat, Vignettes from Indian History	Vikram Sampath
The Chipko Movement: A People's History	Shekhar Pathak
Nalanada: Until we meet again	Gautaam Borah
Light We Carry: Overcoming in Uncertain Times	Michelle Obama

Persons in News

Draupadi Murmu



Draupadi Murmu became India's 15th President by defeating opposition candidate Yashwant Sinha by a wide margin.

Key Highlights

- Draupadi Murmu won by a wide margin, garnering over 64 per cent valid votes. She has succeeded Ram Nath Kovind to become the India's 15th President.
- She is the first person from a tribal background to take the office.
- With each MP having a vote value of 700 in this presidential election, Draupadi Murmu had a total vote value of 5,23,600 which is 72.19 per cent of the total valid vote count of MPs polled.
- MLA vote value is calculated by dividing the population of a state or UT by the number of assembly seats multiplies by 1000. While for MP, the formula is total value votes of MLAs of a state/UT divided by total number of MPs in both houses of parliament.

Key facts about her

- Draupadi Murmu belongs to Odisha. She was born in a Santal Tribal family on June 20, 1958, in village Uparbeda of district Mayurbhanj.
- She got Bachelor of Arts degree from Ramadevi Women's College in Bhubaneswar and then worked as a Junior Assistant in Irrigation and Power Department from 1979 to 1983 in the Odisha government.
- She was elected as a councilor in 1997 and became the vice-chairperson of the Rairangpur NAC. She also became the MLA from the same constituency.
- In the year 2000, she became Minister of State (Independent Charge) at the Transport and Commerce Department in the Odisha government. During the same period, she also handled the Department of Animal Husbandry and Fisheries as Minister of State.
- From the year 2015 to 2021, she served as Honorable Governor of Jharkhand.
- She was the first woman Governor for the state and the first female tribal leader to serve as a Governor in any Indian state.
- In 2007, Murmu was awarded the 'Neelkanth Award' for Best MLA by Odisha Legislative Assembly.

Jagdeep Dhankhar



- Jagdeep Dhankhar has become the 14th Vice President of India, after defeating Margaret Alva, the candidate for opposition parties.
- He is the second leader from Rajasthan to become Vice President, first being Bhairon Singh Shekhawat. He was elected to the Lok Sabha from Jhunjhunu (Rajasthan). In 1990 he became a union minister.
- In 2019, he became the Governor of Bengal. He resigned from Governor's office on July 17, 2022 and named as Vice Presidential Candidate.

Justice DY Chandrachud



- Senior-most Supreme Court judge Dhananjaya Y Chandrachud become the 50th Chief Justice of India (CJI).
- President Draupadi Murmu administerd the oath of office to him at Rashtrapati Bhawan.
- Justice Chandrachud, born on November 11, 1959, was elevated to the top court on May 13, 2016.
- He is the son of 16th CJI Y.V. Chandrachud who was the head of Indian Judiciary from 1978 to 1985. He was the longest serving CJI till date.
- He has been part of several Constitution benches and landmark verdicts of the top court including on matters relating to the Ayodhya land dispute, the right to privacy and adultery. Justice Chandrachud was also part of the benches which delivered path-breaking judgements on decriminalising same-sex relations after it partially struck down Section 377 of the IPC, the validity of the Aadhaar scheme and the Sabarimala issue.

Pelé



- Brazilian football legend Edson Arantes do Nascimento, famously called Pelé, has passed away aged 82. He is considered by many as one of the greatest footballers of all time.
- He was instrumental in Brazil's three World Cup victories in 1958, 1962,

Persons in News

and 1970. He is still the top scorer for Brazil national team with 77 goals in 92 games. During his career, he became known as **"The Black Pearl"**.

- In 1999, he was named Athlete of the Century by the International Olympic Committee and was included in the Time list of the 100 most important people of the 20th century.
- In 2000, Pelé was voted World Player of the Century by the International Federation of Football History & Statistics (IFFHS) and was one of the two joint winners of the FIFA Player of the Century.
- Pele was named "Athlete of the Century" by the International Olympic Committee, co-"Football Player of the Century" by world soccer body FIFA, and a "national treasure" by Brazil's government.

Queen Elizabeth II



- Britain's longest-reigning monarch Queen Elizabeth II died at Balmoral Castle in Scotland on September 8, after ruling for 70 years.
- She acceded to the throne on 6 February 1952 at the age of 25.
- She was crowned as queen of Britain and other realms, including Canada and Australia on 2 June, 1953.
- She is also Head of the Commonwealth and Supreme Governor of the Church of England. In 1945, she had actively joined World War II as a driver in the Women's Auxiliary Territorial Service (WATS).
- After being in good standing for most of her elderly life, the Queen's health started to deteriorate after the death of her husband, Prince Philip, in April 2021.
- She saw 14 Prime Ministers of UK during her reign, from Winston Churchill to Liz Truss. In a first, she appointed Liz Truss in Balmoral in Scotland as she was too ill to return to London.

Rishi Sunak



Rishi Sunak became Britain's third prime minister this year and the first person of colour to lead the former imperial power.

Key Highlights

- Rishi Sunak is the first person of Indian origin to become the British Prime Minister.
- Rishi Sunak addressed the nation outside 10 Downing Street after his appointment by King Charles III.
- Rishi Sunak had lost the Conservative Party leadership contest to Liz Truss, who went on to formally take charge as the UK prime minister. However, Truss could not get a quick handle on the crisis plaguing the nation and was forced to resign after being in power for just 45 days.
- Following the resignation of Liz Truss as UK PM, the Conservative party rushed for a fast track election, which saw a race between Rishi Sunak and Penny Mordaunt for the top post.
- Rishi Sunak became the ruling Conservatives' new leader after triumphing over rival contender Penny Mordaunt, who failed to secure enough nominations from Tory MPs.
- Sunak, a Hindu, is the first British-Indian prime minister and, at 42, the youngest leader in more than two centuries.

Arun Goel



- President Droupadi Murmu has appointed retired IAS Arun Goel as the Election Commissioner in the Election Commission
- A Punjab cadre officer of the 1985 batch, Goel will join Chief Election Commissioner Rajiv Kumar and Election Commissioner Anup Chandra Pandey in the poll panel.
- Before, Mr. Goel was the heavy industries secretary and has also served in the Union Culture ministry.

Lata Mangeshkar



- Lata Mangeshkar, a recipient of the Bharat Ratna, Padma Vibhushan, Padma Bhushan and Dadasaheb Phalke Awards, was an icon of Indian cinema, having sung playback for an extensive list of Hindi films, died in Mumbai's Breach Candy Hospital.
- She was 92. She was cremated with full state honours at Mumbai's iconic Shivaji Park.
- She was an icon of Indian cinema, having sung playback for an extensive list of Hindi films; she also sang in several regional languages including Marathi and Bengali.
- Lata Mangeshkar, who belonged to a prominent musical family, also composed music as well as produced a handful of films. She was popularly known as the 'Nightingale of India.'

Persons in News

Pandit Birju Maharaj



- India's leading Kathak exponent and Padma Vibhushan awardee, Pandit Birju Maharaj passed away.
- He was born on February 4, 1938, into the family of Kathak revivalist Ishwari Prasadji.
- Initially his name was 'Dukh Haran', which was later changed to 'Brijmohan', a synonym of Krishna. Brijmohan Nath Misra was then shortened to 'Birju'.
- He was the torchbearer of the Kalka-Bindadin gharana of the Lucknow style of Kathak.
- He was conferred the Sangeet Natak Akademi Award at the young age of 28. He has variously received the Kalidas Samman, Nritya Choodamani, Andhra Ratna, Nritya Vilas, Adharshila Shikhar Samman, Soviet Land Nehru Award, Shiromani Samman, and Rajiv Gandhi Peace Award apart from an honorary doctorate from Banaras Hindu University.

Madhabi Puri Buch



- The Union government appointed Madhabi Puri Buch as the new chairperson of SEBI.
- Madhabi Puri Buch is the first woman chairperson of the Securities and Exchange Board of India (SEBI).
- In between 2017 to 2021, she also served in SEBI, as a Whole Time Member. She replaced Ajay Tyagi as the chairperson of SEBI whose term ended on February 28, 2022.
- As per the procedure for appointment of regulators, candidates are shortlisted by Financial Sector Regulatory Appointments Search Committee (FSRASC), which is headed by Cabinet Secretary. Shortlisted candidates are interviewed by panel, consisting of Economic Affairs Secretary and three external members with domain knowledge. On the basis of interactions, FSRASC recommends the name to Appointments Committee of Cabinet headed by Prime Minister.

R. Venkataramani



- Senior advocate R. Venkataramani has been appointed as the new Attorney General (AG) of India by President Droupadi Murmu for a period of three years.
- Mr. Venkataramani will succeed K. K. Venugopal, whose term came to end on September 30, 2022.
- With over four decades of practice at the Supreme Court, Mr. Venkataramani has specialised in Constitutional law, law of indirect taxes, human rights law, civil and criminal law.
- Venkataramani has a rich experience of over 40 years as lawyer and he was also a former member of the Law Commission of India.
- He was enrolled in July 1977 in the Bar Council of Tamil Nadu and joined the chambers of late senior advocate in SC P.P. Rao in 1979.
- He was designated as senior advocate by the Supreme Court in 1997. He has also been associated with National Law School of India University, Bengaluru.
- His appointment came after senior advocate Mukul Rophatgi declined the government's offer to become the next AG.
- Mr Rohtagi had earlier served the post for three years and stepped down in June 2017.
- Mr Venugopal succeeded him and was appointed for a three-year term.Since 2020, Mr. Venugopal had been given two one-year extensions at his request. However, in June, 2022 Mr. Venugopal requested the Law Ministry not to extend his tenure beyond three months because of his advanced age.

Mikhail Gorbachev



- Mikhail Gorbachev, who set out to revitalise the Soviet Union but ended up unleashing forces that led to the collapse of communism, the break-up of the state and the end of the Cold War, passed away.
- Gorbachev took power in 1985 and introduced reforms, as well as opening up the Soviet Union to the world.
- Though in power for less than seven years, Gorbachev unleashed a breathtaking series of changes. But they quickly overtook him and resulted in the collapse of the authoritarian Soviet state, the freeing of Eastern European nations from Russian domination and the end of decades of East-West nuclear confrontation.
- When pro-democracy protests swept across the Soviet Union of communist Eastern Europe in 1989, Gorbachev refrained from using force.
- He recognized the policy of Glasnost or freedom of speech which was severely curtailed during earlier regime.
- Gorbachev also began a program of economic reform called Perestroika or Restructuring which was necessary as the Soviet economy was suffering from both hidden inflation and supply shortages.
- Cultural freedoms were granted to the press and the artistic community during his time.

Persons in News

- He launched radical reforms meant to reduce party control of the government apparatus. Notably, thousands of political prisoners and their dissidents were released during his rule.
- He is accredited with the success of the nuclear disarmament agreement with the United States of America.
- He won the 1990 Nobel Peace Prize for his role in ending the Cold War.

Ashish Kumar Chauhan



- Ashish Kumar Chauhan became Managing Director and Chief Executive Officer (CEO) of the National Stock Exchange (NSE).

Key Highlights

- Ashish Kumar Chauhan replaced outgoing Managing Director and CEO Vikram Limaye. Although Limaye was eligible for a reappointment, he did not seek extension at the NSE.
- Before, Chauhan is MD and CEO of Bombay Stock Exchange (BSE).
- He did his B. Tech in Mechanical Engineering from IIT Bombay. He then completed his PGDM from IIM Calcutta.
- He started his career at IDBI Bank, before moving to the NSE. Between 1993 and 2000, Chauhan worked extensively in developing the derivatives segment at the NSE, which currently is the exchange's main volume driver.
- He has served as a distinguished visiting professor at Ryerson University, Toronto, Canada.
- He also has experience outside the financial sphere. He had worked as CEO of Mukesh Ambani-led IPL cricket team Mumbai Indians in its formative years and also worked as president and CIO of Reliance group between 2000 and 2009.

Shinzo Abe



- The Government of Japan decided to honour former Prime Minister Shinzo Abe with Supreme Order of the Chrysanthemum, posthumously. Shinzo Abe was assassinated on July 8, 2022, while he was campaigning for election in the city of Nara.

Key Highlights

- Shinzo Abe was the longest-serving PM of Japan.
- He is the fourth former Prime Minister to get the Japan's highest order, under post-war Constitution.
- The Government of Japan decided to honour former Prime Minister Shinzo Abe with Supreme Order of the Chrysanthemum, posthumously.
- Shinzo Abe was the longest-serving PM of Japan.
- He is the fourth former Prime Minister to get the Japan's highest order, under post-war Constitution.
- Emperor Meiji of Japan had established the Grand Cordon of the Order in 1876.
- Till date, only 7 Japanese citizens have been given this order, apart from Imperial Family.
- Last order was given to former Prime Minister Saionji Kinmochi in 1928.

Amitabh Kant



Former NITI Aayog CEO Amitabh Kant has been appointed as India's new Sherpa for the G-20 Summit.

Key Highlights

- Amitabh Kant has replaced Piyush Goyal, Minister for Commerce & Industry and Consumer Affairs, who was appointed as the G-20 Sherpa in September last year.
- India will hold the presidency of G-20 summit from December 1, 2022 to November 30, 2023, and the need for a full-time Sherpa for this duration is being cited as one of the reasons for the change.
- India is also a part of the G20 Troika – which is formed by the preceding, current, and incoming G20 Presidencies – ending November 30, 2024.
- Amitabh Kant has completed his extended term at the NITI Aayog after heading the government think tank for about six years.
- He is a retired 1980-batch IAS officer (Kerala cadre).
- He took over as the NITI Aayog CEO in 2016 and last got an extension, by a year, in June 2021.
- Kant was also the chairman of Empowered Group-3, one of the 11 groups set up by the Center to tackle the spread of the COVID-19 pandemic.

G-20 Tracks

- The G-20 process is basically divided into the Sherpa track and the Finance track.

- Sherpa Track- Under the Sherpa track, about 100 official meetings are expected to be organized in the areas of employment, health, digital economy, trade, investment and industry, environment and climate, energy, anti-corruption, agriculture, tourism, culture, socio-economic development, education, and women empowerment.
- Finance Track- Under the Finance track, about 40 meetings are expected to be organized including in the areas of international financial architecture, financial inclusion and sustainable finance, financing for infrastructure, climate finance and tax matters.

Shivkumar Sharma



- Santoor virtuoso Shivkumar Sharma, died following a heart attack at the age of 84.
- Shivkumar Sharma was a Santoor player from Jammu and Kashmir.
- He popularized the folk music instrument of J&K 'Santoor' all over the world.
- He was awarded the Sangeet Natak Akadeemi Award in 1986, the Padma Shri, India's fourth highest civilian award in 1991, and the Padma Bhushan, India's third highest civilian award in 2001.
- He also collaborated with flutist Haripashad Chaurasia to compose music for many Hindi films.

Shehbaz Sharif



- On 11th April 2022, Shehbaz Sharif took oath as Pakistan's 23rd prime minister. Senate chairperson Sadiq Sanjarani administered the oath to Sharif.
- After securing 174 votes (the requirement for a majority is 172), Sharif was declared the prime minister of the country.
- Shehbaz Sharif is ex-prime minister Nawaz Sharif's younger brother. He has also served as the Punjab province's chief minister for three terms.
- The united opposition that deposed Imran Khan from the post of prime minister chose Sharif as their leader.
- The then PM Imran Khan was removed from the post on 9th April 2022 following a no-confidence motion. After his removal, Imran Khan has alleged a conspiracy by the US to topple his government.

Ajay Kumar Sood



- Ajay Kumar Sood, an eminent physicist has been appointed as the Principal Scientific Advisor (PSA) to Government of India.
- He has been appointed to the post for a three-year period.
- The appointment has been approved by the Appointments Committee of the Cabinet (ACC).
- He is a member of the Science, Technology, and Innovation Advisory Council to the Prime Minister.
- He is known for his work on graphene. Also, he is a physics professor at the Indian Institute of Science, Bengaluru.

Tedros Adhanom Ghebreyesus



- Tedros Adhanom Ghebreyesus has been re-elected as Director general of World Health organization (WHO).
- Tedros Adhanom Ghebreyesus has been re-elected as Director general of World Health organization (WHO) for the second term.
- Dr Tedros was first elected in 2017.
- His re-election was confirmed during the 75th World Health Assembly in Geneva.
- Before first being appointed WHO Director-General, Dr Tedros served as Minister of Foreign Affairs, Ethiopia from 2012–2016 and as Minister of Health, Ethiopia from 2005–2012.
- He had also served as chair of the Board of the Global Fund to Fight AIDS, Tuberculosis and Malaria and as chair of Roll Back Malaria (RBM) Partnership Board.
- During his first term, Dr Tedros instituted a wide-ranging Transformation of the WHO.
- Director-General can be re-appointed once, in accordance with World Health Assembly rules and procedures.

Ranil Wickremesinghe



- Ranil Wickremesinghe has been appointed as the next President of Sri Lanka.
- Wickremesinghe's name was recommended for the next President of Sri Lanka after former President Gotabaya resigned due to the economic crisis in the country.

Persons in News

- He has been the leader of the United National Party since 1994.
- He has served as Prime Minister of Sri Lanka four times: from 1993 to 1994, 2001 to 2004, 2015 to 2018 and 2018 to 2019.
- Wickremesinghe is widely regarded as a leader capable of managing the economy through far-sighted strategies and also as a politician capable of commanding international collaboration.

Samia Suluhu Hassan



- The first women president of Tanzania, Samia Suluhu Hassan made it to the TIME 110 most influential people list.
- President Samia Suluhu Hassan became the sixth President of the United Republic of Tanzania in March 2021, following the death of President John Magufuli.
- She served as Vice President of Tanzania from 2015.
- Previous roles in Government include serving as Minister of State in the Vice-President's Office, responsible for Union Affairs (2010-2015) and Minister in the semi-autonomous government of her home region of Zanzibar (2000-2010).

Shane Warne



- Legendary Australian Spinner Shane Warne recently found dead in Thailand.
- He was a right-arm leg spinner who is widely regarded as one of the finest bowlers in cricket history, and he was named as one of the five Wisden Cricketers of the Century by a panel of cricket experts in 2000, the only specialist bowler in the quintet and the only one still playing at that time.
- Warne's international career began in Australia, where he made his debut against India in the third Test in a five-match series between the two nations. Warne, a 22-year-old at the time, would only take one wicket in the match, that of Ravi Shastri, who made a double century.

Warne's Cricket Career

- Warne took 34 wickets at an average of 25.79 in six tests in the 1993 Ashes series against England. During the 1993 series, he was best remembered for one ball or that ball or Gatting Ball which is termed as the ball of the century, which he bowled to Mike Gatting of England at Old Trafford, Manchester.
- In February 2003, he was excluded from the World Cup in South Africa due to the use of a banned diuretic, which was discovered during a drug test. He was then given a 12-month suspension.
- He took his 500th wicket in his first Test match after his return in March 2004, making him only the second bowler in history to do so.
- By the end of the season (2003-2004), Warne and Sri Lankan off-spinner Muttiah Muralitharan had surpassed Courtney Walsh's (West Indies) record of 519 Test wickets set in 2001. In his career, he took 708 wickets, and later this record was broken by Muralitharan.
- In 2008, he was appointed as the captain of Rajasthan Royals in the Indian Premier League, after retiring from international cricket. He led the Rajasthan Royals to victory in the inaugural season of the competition.

Hemant Gupta



- Former Supreme Court judge, Hemant Gupta has been appointed as the chairperson of New Delhi International Arbitration Centre (NDIAC). The NDIAC was established for the purpose of creating an independent and autonomous regime for institutionalised arbitration.
- The Appointments Committee of the Cabinet has approved the appointment of Justice Hemant Gupta (retired) as NDIAC chairperson and that of Ganesh Chandru and Anant Vijay Palli as its part-time members.

Justice Ritu Raj Awasthi



- Retired Karnataka High Court Chief Justice Rituraj Awasthi appointed as the chairperson of the Law commission constituted after 4 years.
- The Law Commission is constituted for three years and the 22nd Law Commission was notified on February 24, 2020. The law panel has been lying vacant since the retirement of former Supreme Court judge Justice BS Chauhan in 2018.



ISHAN GAUTAM
Civil Engineering

AIR-1 : CE

Father's Name	Rajendra Gautam
Department Preferred	Central Engg. Services
College (B. Tech) with address	NIT Srinagar

Subject	Marks Obtained
Prelims: Paper-I	91.34
Prelims: Paper-II	202.66
Mains: Paper-I	186
Mains: Paper-II	255
Interview	136
Final Total Marks	871

Que.: When did you decide that you want to prepare for ESE?

Ishan : In January 2019, when I gave my first attempt, I scored 80 out of 500 that time. After that I decided to prepare for this exam and started proper preparation from July, 2019. I joined Made Easy coaching at Jaipur Center. I could not clear ESE 2020 prelims. After that I took mains coaching from Made Easy. In 2021, I cleared mains but could not clear interviews. Finally, I appeared for ESE 2022 and cleared all the stages.

Que.: How to prepare for GATE and ESE preparation together?

Ishan : One can definitely do preparation for both the exam together if one knows how questions are asked in both the exam. The content and syllabus are same, only the way questions are asked in both the exams are different. Since the content is the same, if you prepare with ESE perspective GATE is automatically covered. Only thing is you have to practice questions for GATE along with ESE preparation.

Que.: What is your perspective on the difficulty level of ESE preparation and what do you think are advantages?

Ishan : Definitely the difficulty level is there but if you are preparing with dedication and you have the right strategy, then it is not impossible. Also, there is the advantage that if you are preparing for ESE, you don't need to prepare for other exams separately. You can give SSE JE exam, PSU exams, and the GATE exam.

Que.: How did you prepare for the prelims paper?

Ishan : First thing, you need to cover the whole syllabus. You cannot skip any subject. In my fist attempt, I compromised with many subjects since I had a time constraint. I would in fact suggest covering the complete syllabus.

Que.: What was your strategy for GS paper for prelims?

Ishan : For the GS paper, I chose ten subjects to target for a 100+ score. Aptitude and math can be cleared because of the Engineering background. I gave priority to subjects like Project Management, Quality and Standards, Material Science, Energy and Environment. I referred to Made Easy study materials for this.

Que.: How did you prepare for the Mains exam?

Ishan : Since the Mains exam is very subjective, you have to practice writing. Sometimes you may know the answer to all the questions but you may fall short of time. So, time management is an important aspect of the Mains exam. You have to study the theoretical portion properly. My strategy for mains was practicing previous years question papers. Other than that I joined Made Easy Mains course. I gave the Made Easy test series. I used to analyze the test series and learn from them.

Que.: How did you prepare for interview?

Ishan : I saw many interviews online and read the transcripts to get the idea of how interview panel frame the questions and how questions are asked related to your background. I studied about my home state and area where my college was located. Also you can't compromise the technical part for which you have to study. Other than that you have to work on your personality and keep a clear speech. For that I gave many mock interviews at Made Easy which really helped me.

Que.: You attended Mr. Bassi's session. How did the session help you?

Ishan : It really helped me. He guided me how to talk and present the answers in interview by framing it properly.

Que.: What would you suggest students to prepare when there is less time remaining for prelims exam?

Ishan : I would say, if you are preparing from long time and you have covered the syllabus properly then practice questions both for GATE and ESE. Syllabus is same for both the exam. If you are new into preparation and think you can't prepare for both the exams simultaneously, then prioritize the exam as per your choice and prepare your strategy accordingly.

Que.: Do you have further plans for Civil Services preparation?

Ishan : Yes. I want to give Civil Services Exam.



ABHISHEK K. TIWARI

Mechanical Engineering

AIR-1 : ME

Father's Name	Pankaj Tiwari
Department Preferred	IDSE
College (B. Tech) with address	MNNIT Allahabad

Subject	Marks Obtained
Prelims: Paper-I	90
Prelims: Paper-II	190.66
Mains: Paper-I	197
Mains: Paper-II	218
Interview	160
Final Total Marks	856

Que.: How did you prepare for the technical syllabus?

Abhishek : I prepared through self-study. I was a focused student in my college years too. After college, I gave first attempt of ESE in 2018 and cleared prelims. I followed standard books till 2018. Then I opt for condensed study material from Made Easy. It really helped me with revision. I was already placed in a company and Made Easy study material really helped me to prepare along with my job.

Que.: How many times have you cleared prelims?

Abhishek : I cleared prelims 5 times. But due to my job I wasn't able to give enough time to my Mains preparation. I cleared mains twice, this year and also last year.

Que.: Did you also prepare for GATE exam?

Abhishek : I gave GATE in 2017, 2018 and 2019. I got rank around 1300 in 2017. It bettered in 2018 when I got rank around 700. But in 2019 I got rank around 2500. After that I stopped attempting for GATE and got focused on ESE.

Que.: Do you have further plans for Civil Services preparation?

Abhishek : No. I have no such plan. My goal was always to clear the ESE exam and get a good rank.

Que.: How did you prepare for GS1 paper for prelims?

Abhishek : I referred to Made Easy GS and Aptitude study material. It really helped me as these books have all the subjects discussed with focus and catered separately. For example subjects like Project management, Quality, Environment, Engineering mathematics, Engineering Drawing are very well focused and discussed in a concise way.

Que.: What is the importance of previous years' ESE papers and how many years' papers one should follow?

Abhishek : I gave mains in 2021 also but due to time constraints because of my job I could only practice some previous year papers and in the exam, I could not attempt many questions. So I did not get a good score. After that, I resigned from my job and started dedicated preparation for ESE. This year right after prelims I started practicing previous years' mains papers. After that I practiced the last 5 years' Test Series of Made Easy. I used to give 4 test series in a day. I also practiced questions from standards books. This year I attempted complete paper except 1 or 2 question.

Que.: What will you suggest to student preparing for 2023?

Abhishek : I would suggest not to neglect non-technical part. Also try to focus on marks instead of rank. This year I decided to target the marks instead of targeting the rank. I targeted for 800+ marks this year with 300 for prelims, 400 for mains and 120 for interview. If you want to get 300+ in Prelims you have to get 200+ in technical part and 100+ in non-technical part. You need to really focus on the non-technical part because it is difficult to get 100+ marks in this part. Focus on applied subjects like Fluid mechanics, Engineering Mathematics, Quality, Environment & Ecology etc. and cover as much syllabus you can.

Que.: Can you recall some questions asked in the UPSC ESE interview, and how was the scenario there?

Abhishek : My interview was with the panel of Lt. Gen. Raj Shukla. My interview was completely focused on current news. It included topics like EV and Quantum Computing. Many questions were asked from defense. I have been religiously following newspapers since June, 2022 and used to read complete newspapers for 2-3 hours. It really helped me in the interview.

Que.: Which subjects would you suggest students to focus on and which mistakes they should avoid?

Abhishek : Firstly, I would suggest that they cover as much of the syllabus as they can. In prelims, try to attempt as many questions as you can. To increase attempts you need to improve accuracy and speed which can be developed through practicing test series. Also I would suggest focusing on applied subjects.



AKHIL KUMAWAT
Electrical Engineering

AIR-1 : EE

Father's Name	Shankar Kumawat
Department Preferred	CEMES
College (B. Tech) with address	MNIT Jaipur

Subject	Marks Obtained
Prelims: Paper-I	90.66
Prelims: Paper-II	196
Mains: Paper-I	225
Mains: Paper-II	224
Interview	098
Final Total Marks	834

Que.: To whom would you give the credit of your success?

Akhil : I would like to first mention my parents for always supporting me during this 2-3 years of preparation. Secondly, I would like to thank MADE EASY teachers for delivering quality teaching which helped me clear the basic and definitely the Mains Online Test Series had quality questions which I practiced and it helped me to get a very good score of 449/600. I am also thankful to my friends who were always there when I needed small breaks during preparation. All combined helped me actually enjoy this preparation period. I never took studies as a burden.

Que.: Were you expecting AIR-1 in ESE?

Akhil : I never expected AIR-1. Getting AIR-1 in ESE-2022 is still like a dream for me although I never dreamt of getting AIR-1 but I was always optimistic during my preparations and I knew I am on right track. So, all the practice and hard work which I did in those 2-3 years actually paid off very nicely and I ended up getting AIR-1.

Que.: When did you started your preparation for UPSC ESE exam?

Akhil : I started my preparation in 5th semester in 2019 along with the college. I also joined 2-year Made Easy classroom program because my target was both GATE and ESE.

Que.: How did you integrated GATE and ESE preparation?

Akhil : I did gave priority to GATE first as ESE is a long process. After GATE, I shifted towards ESE. I would like to add here that one should study for both, as ESE mains helped me in GATE and also helps in covering syllabus properly.

Que.: What was your strategy for general studies paper?

Akhil : I focused on lectures of Made Easy and revised them properly. I also referred to Made Easy material for general studies.

Que.: What is the role of test series in ESE preparation?

Akhil : I would like to say that test series are very important for the preparation. One should focus on test series more. Made Easy test series are very good. I only followed Made Easy test series. It helped me in covering syllabus very well.

Que.: What suggestions would like to give ESE students and what are the scoring subjects of technical engineering according to you?

Akhil : My suggestion would be practice as much as possible and give importance to test series and scoring areas like network theory, control system, machine, power electronics should be well prepared.

Que.: What is the importance of previous year ESE Prelims and Mains papers, and how many years' paper one should follow?

Akhil : Previous Year ESE Prelims and Mains questions are extremely important. One should practice them atleast twice because many times the questions are repeated (with variation in data) and it will save the time in the actual paper which can be utilized for solving difficult or new questions. I practiced Previous Years Questions of last 15-20 years for both ESE Prelims and Mains. And even if a candidate has done this, he/she can go IAS Mains Electrical Paper questions because I saw 4-5 questions were repeated from IAS Mains Electrical Paper 2021 in ESE Mains Electrical Paper 2022.

Que.: In your opinion, are physical classes better or online classes?

Akhil : It totally depends on a individual whether he/she will do better by taking physical classes or online classes. I joined MADE EASY in 2019 offline and after COVID-19 everything shifted to online. So, I have experience of both. Initially I feed that offline/physical classes are better because we need to clear our basic and we can ask even silly doubts directly to the teacher. Since a platform was already made, so I utilized online classes better because, I like to study alone or in a quite small place where distractions are also very less.

Que.: What kind of questions were asked in UPSE ESE interviews?

Akhil : My interview was very cordial. Mostly technical questions asked and current related technical questions were more.

Que.: Did you find similarities between UPSC ESE interview and Made Easy ESE interview guidance programme?

Akhil : MADE EASY ESE Interview Guidance Programme tells about the activities which will be taking place on the day of the interview and what kind of questions one can expect in the interview. I attended the guidance programme and I found many similarities between the programme and UPSC ESE Interview. I think every candidates must attend the MOCK Interviews as well because one will get used to with the tense environment and handle things in a better way in actual interview.

Que.: Do you have plans for civil services also?

Akhil : No, for now I am not thinking about it.



RAJEEV DAIPURIYA
Electronic & Telecommunication Engineering

AIR-1 : E&T

Father's Name	Raghuraj Sharma
Department Preferred	ITS
College (B. Tech) with address	IIT Guwahati

Subject	Marks Obtained
Prelims: Paper-I	96
Prelims: Paper-II	170.66
Mains: Paper-I	177
Mains: Paper-II	180
Interview	130
Final Total Marks	754

Que.: It is possible to prepare exam while working?

Rajeev: Yes, it is possible. One should have positive mindset and then approach towards exam. Time management is also important, one should know how to mange it well.

Que.: What are the challenges of electronics in engineering services? What should be the approach regarding prelims and mains?

Rajeev: In prelims you have to touch all the topics, you have to cover syllabus properly and through test series check your progress and for mains, select the scoring areas and practice as much as possible through test series and revise it.

Que.: What is the role of test series in ESE preparation?

Rajeev: Test series should not be avoided at any cost. It helps you to cover syllabus in holistic manner. I was not able to solve previous year questions much only solved few but did give all test and it helped me very much.

Que.: How did you prepare for general studies subjects?

Rajeev: For ethics, environment and project management, I only referred Made Easy materials. It was sufficient and for current affairs, I only referred Made Easy weekly current affairs and revised them thoroughly.

Que.: How was the experience of MADE EASY test series?

Rajeev: I had attended Made Easy test series. I would say that it should be given priority. It is very important. Made Easy test series are holistic, it covers all the subject very well and I would like to add that test series should be given in time bound manner, exam like condition, it will really help. One more thing I did is that I compared my copies with the toppers copy of Made Easy which gave me an edge and also helped me to know what was my mistakes.

Que.: What was your rank in GATE? How does it helped you in ESE preparation?

Rajeev: I got rank 77 in GATE and then got selected in NTPC. GATE preparation helped me a lot in mains as I have written GATE first it was reverse for me as for same students ESE preparation helps them in GATE exam I would say both exam preparation help one another.

Que.: How ESE preparation can help student in other exams?

Rajeev: When you are preparing for ESE the technical part becomes strong and it can help in state level examination very well.

Que.: How was your experience in UPSC ESE interview?

Rajeev: My interview was the combination of all type of question related to technical, non-technical DAF, and current affairs. Gave mock interview and Made Easy interview guidance was same as the UPSC and it helped me a lot.

Que.: As we know that last year also you have given interview of ESE but couldn't clear and this year in 2022 got 1st Rank. What different thing you have done this time?

Rajeev: If I compare what I did this time and last time. I would say I did lot many efforts in my 2021 attempt then this year. My last year preparation helped me to clear this exam. In last month before the exam of 2022 I joined test series of Made Easy as I did not have much time due to my job but I have give it all tests and revised them thoroughly which helped me in the exam.

Que.: What is the importance of previous year ESE Prelims and Mains papers?

Rajeev : Previous Year ESE Prelims and Mains questions are extremely important. One should practice them atleast twice because many times the questions are repeated (with variation in data) and it will save the time in the actual paper which can be utilized for solving difficult or new questions.

Que.: What are the important qualities ESE aspirants should possess?

Rajeev : Dedication, discipline, never losing hope and being ready for new challenges at all times.

Que.: What are you suggestions for the students?

Rajeev: I did my preparation with the job but my efforts were very high and was focused and did lot of practice. So I would say practice as much as you can.

Que.: Do you have plans for civil services also?

Rajeev: Yes, I will think about it.

Recent Current Affairs Questions

1. ISRO has signed a MOU with which of the following to develop SpaceTech Innovation Network (SpIN)?
(a) Social Alpha
(b) Skyroot
(c) OpenAI
(d) InSpace

2. Journalism Competition and Preservation Act (JCPA) of 2022, is proposed by which of the following countries?
(a) India (b) Australia
(c) France (d) USA

3. According to the World Bank's latest 'Remittances Brave Global Headwinds', which country's remittances are going to touch a record $100 billion in 2022?
(a) China (b) Indonesia
(c) India (d) UAE

4. Which of the following is not a member of the "Paris Club" which proposed a 10-year moratorium on Sri Lankan debt?
(a) India
(b) Australia
(c) Japan
(d) USA

5. Which of the following countries have signed a deal with Chinese tech giant Huawei?
(a) UAE
(b) Saudi Arabia
(c) Bahrain
(d) Israel

6. Bharti Airtel has partnered with Meta to jointly invest in '2Africa Pearls'. What is '2 Africa Pearl' related to?
(a) Subsea cable systems
(b) Metaverse platform
(c) AI networking tool
(d) None of the above

7. 'ChatGPT' was in the news, is launched by which of the following companies?
(a) Meta (b) Twitter
(c) OpenAI (d) Google

8. Which of the following are the outcomes of 27th Conference of Parties (COP 27)?
(a) Loss and damage Fund
(b) FAST Initiative
(c) Executive Action Plan for the Early Warnings for All
(d) All of the above

9. India conducted night trials of nuclear-capable ballistic missile Agni V. What is the range of the Agni V missile?
(a) 100-1000 km
(b) 1000-2000 km
(c) 5000 km and above
(d) 8000 km and above

10. Tawang region seen in news is located in which State/UT?
(a) Arunachal Pradesh
(b) Himachal Pradesh
(c) Uttarakhand
(d) Jammu & Kashmir

11. Doklam is a trijunction at Line of Actual Control (LAC) between India, China and which of the following countries?
(a) Nepal (b) Bhutan
(c) Myanmar (d) Pakistan

12. NASA launched a satellite called SWOT to observe nearly all the water on Earth's surface. What does SWOT stand for?
(a) Surface Water and Ocean Topography
(b) Sensing Water and Ocean Testing
(c) Surface Water and Ocean Testing
(d) None of the above

13. Raktsey Karpo Apricot became the first GI tag of which of the following states/UTs?
(a) Jammu and Kashmir
(b) Goa
(c) Telangana
(d) Ladakh

14. "Anti-doxxing policy" was in the news related to which of the following social media companies?
(a) Google
(b) Meta
(c) Twitter
(d) None of the above

ANSWERS

1. (a) 2. (d) 3. (c) 4. (a) 5. (b) 6. (a) 7. (c) 8. (d) 9. (c)
10. (a) 11. (b) 12. (a) 13. (d) 14. (c)

15. 'Aeronomy' a term seen in news is related to
(a) Study of Noble gasses on Mars
(b) Study of Earth's electric field
(c) Creating zero pressure conditions
(d) Study of the upper atmospheric regions of the Earth

16. Which of the following organizations launched 'Toolkit on Enabling Gender Responsive Urban Mobility and Public Spaces in India'?
(a) World Bank
(b) UN Women
(c) United Nations Development Fund
(d) None of the above

17. G20 summit 2022 will be held in which of the following countries?
(a) Germany (b) Japan
(c) Australia (d) India

18. Exercise Surya Kiran XVI is conducted between India and which of the following countries?
(a) Bangladesh
(b) Myanmar
(c) Bhutan
(d) Nepal

19. Kunming-Montreal Global Biodiversity Framework (GBF) adopted at COP-15 to the UN Convention on Biological Diversity has how many targets?
(a) 20 (b) 21
(c) 22 (d) 23

20. Which of the following country announced plans to send a missile defense system called 'Patriot system' to Ukraine?
(a) France
(b) Germany
(c) USA
(d) UK

21. Which of the union ministries released the 'right to repair' portal?
(a) Ministry of Consumer Affairs, Food & Public Distribution
(b) Ministry of Finance
(c) Ministry of Electronics and Information Technology
(d) Ministry of Education

22. The 'Kavach' system often in news is related to which of the following?
(a) Train collision avoidance system
(b) Air traffic management system
(c) Satellite management system
(d) None of the above

23. Competition commission of India slapped Rs.1338 crore fine for anti-competitive behavior on which of the following companies?
(a) Meta
(b) Google
(c) Apple
(d) None of the above

24. 'Real-time Source Apportionment Project' for real time identification of air pollution sources was launched in which of the following states/UTS?
(a) Delhi
(b) Haryana
(c) Punjab
(d) Karnataka

25. "KALYANI FeRRESTA" was in the news is related to which of the following?
(a) India's first green hydrogen plant
(b) India's first green steel brand
(c) India's first Blockchain retail ledger
(d) India's first transformable EV

26. The Central Government approved iNCOVACC as an intranasal booster dose for COVID-19, manufactured by which institution?
(a) Biological Ltd
(b) Serum Institute of India
(c) Bharat Biotech
(d) Biocon

27. Sela Pass tunnel, was in news is located in which state?
(a) Arunachal Pradesh
(b) Himachal Pradesh
(c) Uttarakhand
(d) Assam

28. European Union (EU) agreed on a preliminary deal for a EU Carbon Border Adjustment Mechanism (CBAM) on imported goods. Which of the following goods are included?
(a) Cement
(b) Steel
(c) Aluminum
(d) All of the above

29. Which of the following has adopted a global minimum 15% tax on big business?
(a) USA
(b) UK
(c) China
(d) European Union

30. Which of the following countries announced a $320 billion plan for a military build-up?
(a) Japan
(b) China
(c) USA
(d) South Korea

ANSWERS

15. (d)	**16. (a)**	**17. (d)**	**18. (d)**	**19. (d)**	**20. (c)**	**21. (a)**	**22. (a)**	**23. (b)**
24. (a)	**25. (b)**	**26. (c)**	**27. (a)**	**28. (d)**	**29. (d)**	**30. (a)**		

31. Scientists from which country have tried a new method for freezing and storing coral larvae?
(a) Australia
(b) Japan
(c) South Korea
(d) New Zealand

32. 'Dark patterns' a term that was in news is related to which of the following?
(a) Ransomware
(b) Malware
(c) User interface to trick to manipulate users
(d) Cryptocurrency marketplace

33. Which of the following is not a feature of the 'Pralay' missile that was in the news?
(a) Solid propellant rocket motor
(b) Quasi-ballistic
(c) Surface-to-air
(d) None of the above

34. What is the ranking of India in Global Aviation Safety Ranking?
(a) 10th (b) 25th
(c) 48th (d) 50th

35. " SilverLine" rail project seen in the news is being implemented in which of the following states?
(a) Karnataka
(b) Andhra Pradesh
(c) Tamil Nadu
(d) Kerala

36. Trincomalee oil tank farms seen in the news are located in which of the following countries?
(a) Sri Lanka
(b) Myanmar
(c) Bangladesh
(d) Bhutan

37. Nusantara has become the new capital of which of the following countries?
(a) Indonesia
(b) Singapore
(c) Myanmar
(d) Thailand

38. According to the India State of Forest Report, 2022 what is India's total forest and tree cover of the geographical area of the country?
(a) 24.71% (b) 27.62%
(c) 28.42% (d) 31%

39. ASEAN has agreed to admit which of the following country to admit as the group's 11th member?
(a) East Timor
(b) Papua New Guinea
(c) Seychelles
(d) None of the above

40. 'Black sea grain' deal often in news is concerned with which of the following countries?
(a) Japan (b) China
(c) France (d) Russia

41. Which of the following countries has been suspended from the UN Human Rights Council (UNHRC)?
(a) North America
(b) Turkey
(c) Russia
(d) China

42. Nordic steam often in news is a gas pipeline from Russia to which of the following European countries?
(a) France
(b) Germany
(c) UK
(d) Sweden

43. Myanmar/Malaysia-India Transit (MIST) seen in news is related to which of the following?
(a) Railway corridor
(b) Airline corridor
(c) Submarine cable system
(d) Land Highway network

44. SCO Summit, 2022 was held in which of the following countries?
(a) China
(b) Uzbekistan
(c) Russia
(d) Kazakhstan

45. 'First Movers Coalition' seen in news is related to which of the following?
(a) Decarbonize carbon-intensive industries
(b) Electronic Vehicle financing
(c) Supply Chain resilience
(d) Fair and resilient trade

46. 'Global Security Initiative' was put forward by which of the following countries?
(a) China
(b) Japan
(c) US
(d) Russia

47. Which of the following is the first country to adopt India's UPI system?
(a) Bhutan
(b) Nepal
(c) Fiji
(d) Indonesia

48. Zaporizhia Nuclear Power Plant is located in which of the following countries?
(a) Russia
(b) UK
(c) Germany
(d) Ukraine

ANSWERS

31. (a)	**32. (c)**	**33. (c)**	**34. (c)**	**35. (d)**	**36. (a)**	**37. (a)**	**38. (a)**	**39. (a)**
40. (d)	**41. (c)**	**42. (b)**	**43. (c)**	**44. (b)**	**45. (a)**	**46. (a)**	**47. (b)**	**48. (d)**

49. According to Henley passport index, 2022, which of the following countries has the strongest passport?
(a) US (b) Germany
(c) Japan (d) China

50. India's first Dark Sky Reserve is to be setup in which of the following states/UT?
(a) Jammu & Kashmir
(b) Ladakh
(c) Uttarakhand
(d) Himachal Pradesh

51. India's first underwater train is to be operational in which of the following states?
(a) West Bengal
(b) Gujarat
(c) Maharashtra
(d) Telangana

52. 'POEM' launched by ISRO is related to which of the following?
(a) India's first private space mission
(b) Inflatable Aerodynamic Accelerator
(c) Satellite management system
(d) In-orbit experimental module

53. Exercise Pitch black is held by which of the following countries?
(a) Australia (b) Japan
(c) India (d) China

54. 'Abhyas which was in news is related to which of the following?
(a) Aircraft carrier
(b) Expendable Aerial target
(c) Anti-Tank Missile system
(d) None of the above

55. 'Kamikaze' often seen in news is:
(a) Anti-Tank Missile System
(b) Defense Drone system
(c) Ballistic Missile
(d) Submarine

56. AGM-88 HARM, anti-radiation missile often in news is developed by which of the following countries?
(a) China (b) Russia
(c) Ukraine (d) USA

57. GEAC has approved the environmental release of the DMH-11 which is genetically modified variety of:
(a) Mustard (b) Rice
(c) Wheat (d) Cotton

58. Which of the following countries have Submarine-launched ballistic missile capability?
(a) China
(b) India
(c) France
(d) All of the above

59. District Good Governance Index (DGGI) was launched in which of the following states/UTs?
(a) Ladakh
(b) Jammu & Kashmir
(c) Punjab
(d) Uttarakhand

60. Which of the following element/s is/ are cause of e-waste?
(a) Lead
(b) Cadmium
(c) Beryllium, or Brominates flame retardants
(d) All of the above

61. RBI allowed offline digital payments, consider the following statements in this regard:
1. An offline digital payment means a transaction that does not require internet or telecom connectivity.
2. These transactions require an additional factor of authentication (AFA).
3. There is a lower limit of Rs 2,000 for all transactions.

Which of the above statements is/ are correct?
(a) 1 only (b) 2 only
(c) 1 and 3 only (d) 1, 2 and 3

62. With reference to Pradhan Mantri Jan Arogya Yojna (PM-JAY), consider the following statements:
1. It provides a cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization in public hospitals only.
2. Under it, there is no restriction on the family size, age or gender.
3. The households included in the yojna are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively.

Which of the statements given above are correct?
(a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

63. With reference to 103rd Amendment Act, consider the following statements:
1. It provides for a 10% reservation in education and government jobs in India for a section of the General category candidates.
2. The amendment introduced economic reservation by amending Article 21.

Which of the above statements is/ are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

ANSWERS

49. (c) 50. (b) 51. (a) 52. (d) 53. (a) 54. (b) 55. (b) 56. (d) 57. (a)
58. (d) 59. (b) 60. (d) 61. (a) 62. (b) 63. (a)

64. Which of the following countries shares borders with Ukraine?
1. Belarus
2. Romania
3. Hungary
4. Georgia

Select the correct answer using the code given below:
(a) 1, 2 and 3 only
(b) 1, 2 and 4 only
(c) 1, 3 and 4 only
(d) 2, 3 and 4 only

65. Which of the following statements is/are correct regarding PM-Poshan?
1. It is a Central Sector Scheme under the Ministry of Education.
2. A social Audit of the scheme has been made mandatory.
3. Remuneration paid to Cook-Cum-Helpers is uniform across the country.

Select the correct answer using the codes given below:
(a) 1 and 2 only
(b) 2 only
(c) 3 only
(d) 1, 2 and 3

66. With reference to PM MITRA Park Scheme, consider the following statements:
1. The seven Mega Integrated Textile Region and Apparel (PM MITRA) parks will be set up at Greenfield or Brownfield sites located in different states.
2. The Scheme shall be implemented on a pan-India basis and is intended for the holistic development of the Textile sector.

Which of the statements given above are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

67. With reference to Ayushman Bharat Pradhan Mantri–Jan Arogya Yojana (AB PM-JAY), consider the following statements:
1. It provides health assurance of up to 10 Lakhs per family per year, for secondary and tertiary care-related hospitalizations.
2. There is no cap on family size or age or gender under it.
3. No enrolment or registration of beneficiary is required to avail benefits under the scheme.

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

68. Consider the following statements regarding e-Rupi Platform
1. It is a person and purpose-specific digital payment solution.
2. It is developed by the RBI.

Which of the above statements is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

69. Consider the following pairs:
Operations - Associated countries
1. Operation Maitri – Nepal
2. Operation Devi Shakti - Yemen
3. Operation Raahat – Pakistan
4. Operation Ganga – Ukraine

Which of the pairs given above is/are correctly matched?
(a) 1 and 2 only
(b) 3 only
(c) 3 and 4 only
(d) 1 and 4 only

70. With reference to Participatory notes (P-notes), consider the following statements:
1. They are financial instruments required to invest in Indian securities without having to register with the Securities and Exchange Board of India (SEBI).
2. They are issued by registered Foreign Portfolio Investors (FPIs) to overseas investors .
3. They are among the group of investments considered to be Offshore Derivative Investments (ODIs).

Which of the statements given above are correct?
(a) 1 only
(b) 2 and 3 only
(c) 2 only
(d) 1, 2 and 3

71. With reference to Cheetah Action Plan, consider the following statements:
1. Cheetahs are reintroduced into Kuno Palpur National Park.
2. Kuno Palpur National Park is situated in Karnataka.

Which of the statements given above is/are not correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

ANSWERS

64. (a) **65.** (b) **66.** (c) **67.** (b) **68.** (a) **69.** (d) **70.** (d) **71.** (b)

72. Consider the following statements regarding 5G technology:
1. It is the latest upgrade in the Long-Term Evolution (LTE) mobile broadband networks.
2. It works in two bands of spectrum with no Mid-Band Spectrum.
3. One of the issues with 5G technologies is High latency rate.

Which of the following statements is/are correct?
(a) 1 only
(b) 2 only
(c) 3 only
(d) 1, 2 and 3

73. Which of the following are the eligibility criteria for the Pradhan Mantri Shram Yogi Maan-Dhan Scheme (PM-SYM)?
1. They should be an unorganised worker (UW).
2. Their age should be between 18 and 40 years.
3. Monthly Income Rs 15000 or below.
4. They should be covered under New Pension Scheme (NPS).

Select the correct answer using the code given below:
(a) 1, 2 and 3 only
(b) 1, 2 and 4 only
(c) 1, 3 and 4 only
(d) 2, 3 and 4 only

74. India conducts a joint military exercise named "Mitra Shakti" with which country?
(a) Thailand
(b) Nepal
(c) Bangladesh
(d) Sri Lanka

75. With reference to National Mission on Edible Oils – Oil Palm (NMEO-OP), consider the following statements
1. It is a Central Sector Scheme.
2. Special focus will be on the Northeast region and the Lakshadweep Islands.
3. The proposed scheme will subsume the current National Food Security Mission-Oil Palm programme.

Which of the above statements is/are correct?
(a) 1 and 2 only
(b) 2 only
(c) 3 only
(d) 1, 2 and 3

76. RBI has introduced the Standing Deposit Facility (SDF), consider the following statements regarding it
1. It is a new tool for absorbing liquidity without any collateral.
2. The SDF will replace the fixed rate reverse repo as the floor of the Liquidity adjustment facility corridor.

Which of the given above statements is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

77. Arrange the following countries surrounding Black Sea in clockwise order.
1. Ukraine
2. Georgia
3. Romania
4. Bulgaria
5. Turkey
6. Russia

Select the correct answer using the codes given below.
(a) 2-6-1-4-5-3
(b) 2-3-5-4-1-6
(c) 1-6-2-5-4-3
(d) 1-2-3-4-5-6

78. With reference to the National Digital Health Mission (NDHM), consider the following statements:
1. Under this, every Indian citizen will have unique health IDs, digitised health records with identifiers for doctors and health facilities.
2. The initiative is implemented by respective states under the National Health Mission.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

79. With reference to e-Shram portal, consider the following statements:
1. It was launched by the Ministry of Heavy Industries & Public Enterprises.
2. It would allow the workers to get the direct benefit transfer (DBT) through the e-Shram unique ID number.
3. All eligible registered workers on eSHRAM portal get an Accidental Insurance cover of 2 Lacs under Pradhan Mantri Suraksha Bima Yojana(PMSBY) from the date of issue of policy.

Which of the statements given above are correct?
(a) 1 only
(b) 2 and 3 only
(c) 2 only
(d) 1, 2 and 3

ANSWERS

72. (a) 73. (a) 74. (d) 75. (c) 76. (c) 77. (c) 78. (a) 79. (b)

80. The State of the World's Forests (SOFO) 2022 report is released by which organisation?
(a) Wildlife Conservation Society
(b) Botanical Survey of India
(c) United Nations Environment Programme
(d) Food and Agriculture Organisation

81. SPARSH portal seen in the news ,it is related to which of the following?
(a) Women Empowerment
(b) Skill Development
(c) Space Research
(d) Pension sanctioning

82. With reference to Shanghai Cooperation Organization, consider the following statements:
1. India became a member of SCO in 2017.
2. Turkmenistan has been a founding member.
3. The SCO's official languages are French and Chinese.

Which of the statements given above is/are correct?
(a) 1 only (b) 1 and 2 only
(c) 3 only (d) 1 and 3 only

83. With reference to InSight, consider the following statements:
1. It is NASA's mission to the Moon.
2. It is part of the Discovery Program.

Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

84. Provisional Estimates of National Income 2021-22 released by which of the following?
(a) Reserve Bank of India (RBI)
(b) Ministry of Finance
(c) Ministry of Statistics and Programme Implementation
(d) Securities and Exchange Board of India (SEBI)

85. What are the factors that contribute to "Stagflation"?
1. High Prices
2. High spending
3. High inflation
4. Low Economic growth
5. Low unemployment

Select the correct answer using the codes given below:
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 4 and 5
(d) All of the above

86. With reference to the Indian economy, 'Open Market Operations' are:
(a) Borrowing by scheduled banks from the RBI
(b) Lending by commercial banks to industry and trade
(c) Purchase and sale of government securities by the RBI
(d) None of the above

87. With reference to Agnipath Recruitment Scheme, consider the following statements:
1. Under the scheme, soldiers (Agniveers) will be recruited annually at both the level of commissioned and non-commissioned levels.
2. Recruitment will be carried out on an 'All India All Class' basis with the eligibility age ranging from 17.5 to 25 years.
3. Agniveer can not apply for regular employment in the armed forces after completing their four year service.
4. There shall be entitlement to gratuity and pensionary benefits for Agniveer.

Which of the statements given above is/are not correct?
(a) 1 only
(b) 1, 2 and 3 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

88. With reference to Surety Bonds and Insurance, consider the following statements:
1. Surety is a three party arrangement and insurance is a two party arrangement.
2. A surety bond is required by, and protects the interest of, the insured.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

89. Consider the following statements regarding Occupational Safety, Health and Working Conditions Code, 2020:
1. It will apply to factories where manufacturing activity is carried out and employs more than 20 workers.
2. Recognition is also given to transgender rights through this code.
3. It allows women to work in all establishments except at hazardous factories.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 only
(d) 1, 2 and 3

ANSWERS

80. (d) 81. (d) 82. (a) 83. (b) 84. (c) 85. (b) 86. (c) 87. (d) 88. (a) 89. (a)

90. Consider the following statements regarding Global Gender Gap Index, 2022:
1. It is published by UN's Inter-Agency Network on Women and Gender Equality (IANWGE).
2. India's score is above the global average in Political Empowerment dimension.
3. India is ranked the last among all the countries in Health and Survival dimension.

Select the correct answer using the code given below:
(a) 1 only (b) 2 only
(c) 2 and 3 only (d) 1, 2 and 3

91. Which of the following countries are members of I2U2 grouping seen in the news?
1. India 2. Israel
3. Australia 4. Japan

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 1, 2 and 4 only
(c) 1, 3 and 4 only
(d) 2, 3 and 4 only

92. Consider the following statements regarding National Space Promotion and Authorisation Centre (IN-SPACe):
1. It is a nodal agency for the promotion and regulation of space activities of both government and private entities.
2. It facilitates the usage of ISRO facilities by private entities.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

93. Mithila Makhana has been awarded the Geographical Indication (GI) Tag by the Union Government from which state?
(a) Maharashtra
(b) Bihar
(c) Uttar Pradesh
(d) Himachal Pradesh

94. Consider the following statements:
1. Central Bank Digital Currency (CBDC) can be defined as the legal tender issued by the Reserve Bank of India.
2. Wholesale Digital Currency (CBDC-W) is designed for restricted access to select financial institutions.

Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

95. The Prarambh Mission was seen in the news, it is related to:
(a) Skill development among the youth
(b) Indigenisation of defence equipments
(c) Private sector participation in Space
(d) Curbing human trafficking

96. The Lisbon Declaration was in the news it is related to which of the following?
(a) Ocean conservation
(b) Preserving the Wetlands
(c) Persistent Organic Pollutants
(d) Trade in Endangered Species

97. Consider the following statements about India State of forest report 2021
1. It is published every two years by Forest survey of India under the Ministry of Environment, Forests and climate change.
2. The first survey was published in 1987 and ISFR 2021 is the 17th.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

98. Consider the following statement about Mission LiFE.
1. It was introduced by the prime Minister at COP26 at Glasgow .
2. Its objective is to protect and preserve the environment in the period 2022 to 2027.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

99. Which state declared first carbon neutral farm in the country?
(a) Uttar Pradesh (b) Gujarat
(c) Tamil Nadu (d) Kerala

100. Consider the following statements about Energy Conservation (Amendment) Bill, 2022?
1. Mandating the use of non-fossil sources.
2. Establishment of Carbon Markets
3. Bringing large residential buildings within the fold of the Energy Conservation regime
4. Increasing the members of the governing council of the Bureau of Energy Efficiency (BEE)

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 3 and 4 only
(c) 1, 2 and 3 only
(d) 1, 2, 3 and 4

ANSWERS

90. (c) 91. (a) 92. (c) 93. (b) 94. (c) 95. (c) 96. (a) 97. (c) 98. (c) 99. (d) 100. (d)

101. With reference to Monkeypox consider the following statements:
1. It is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa .
2. Human-to-human transmission does not occur.
3. The first case of monkeypox was reported in 1958 in humans .

Which of the statements given above is/are correct?
(a) 1 Only
(b) 2 Only
(c) 1 and 3 Only
(d) 1, 2 and 3

102. Consider the following statements regarding the reforms in civil services:
1. Mission Karmayogi focuses on promoting ease of living and ease of doing business, by enhancing the citizen-government interface.
2. The lateral entrants into the civil service will be offered a three-year contract, which the government can extend to five years.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

103. Which of the following statements is /are correct regarding the Sovereign Gold Bond (SGB) scheme?
1. Gold Bonds are issued by the Scheduled Commercial Banks on behalf of the Union Government.
2. Interest on Gold Bonds is tax exempted under the Income Tax Act, 1961.

Select the correct answer using the codes given below:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

104. Which of the following was initiated/ adopted during Glasgow Climate Meet (COP26)?
1. International Solar Alliance (ISA)
2. One Sun Declaration
3. Panchamrit strategy
4. Dharamshala Declaration

Select the correct answer using the code given below:
(a) 1 and 4 only
(b) 2 and 3 only
(c) 1, 2 and 4 only
(d) 1, 2, 3 and 4

105. Consider the following statements:
1. Mahatma Gandhi National Rural Employment Guarantee Act ensures that at least half of beneficiaries have to be women.
2. It is a Centrally Sponsored Scheme.

Which of the above given statements is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

106. Which government ministry has launched "SMILE-75" initiative?
(a) Ministry of labour and employment
(b) Ministry of social justice
(c) Ministry of Agriculture
(d) Ministry of Civil Aviation

107. 'Cheerag Scheme' is related to which of the following?
(a) Electricity
(b) Environment
(c) Tourism
(d) Education

108. 'Paalan 1000 National Campaign' was in news it is related to which of the following?
(a) Education app
(b) NASA mission
(c) Early childhood development conclave
(d) Women development program

109. With reference to the 'Prohibition of Benami Property Transactions Act, 1988 (PBPT Act)', consider the following statements:
1. A property transaction is not treated as a benami transaction if the owner of the property is not aware of the transaction.
2. Properties held benami are liable for confiscation by the Government.
3. The Act provides for three authorities for investigations but does not provide for any appellate mechanism.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) 1 and 3 only
(d) 2 and 3 only

110. Which city is the first cultural and tourism capital of Shanghai Cooperation (SCO)?
(a) Lucknow
(b) Beijing
(c) Varanasi
(d) Kazakhstan

ANSWERS

101. (a) 102. (c) 103. (d) 104. (b) 105. (b) 106. (b) 107. (d) 108. (c) 109. (b) 110. (c)

Advt.

NEXT IAS

BIG LEARNINGS MADE EASY

GS : FOUNDATION

• Offline • Online

GS : FIRST STEP

NCERT Based Live Online Course
for CSE after Class 10+2

OPTIONALS

Foundation & Advance Courses
• Offline • Online

TEST SERIES

PRELIMS & MAINS
• Offline • Online

POSTAL COURSE

GS & OPTIONALS

Delhi Centre : 27-B, Pusa Road, Metro Pillar No. 118, Near Karol Bagh Metro, New Delhi-110060 8081300200

Bhopal Centre : Plot No. 46 , ZONE - 2, M.P. Nagar, Bhopal - 462011 8827664612

www.nextias.com

Advt.

MADE EASY

Admission Open for

FOUNDATION COURSE

ESE 2024 + GATE 2024 | **GATE 2024**

CLASSROOM COURSES

- Classes by experienced & renowned faculties.
- Face to face interaction for doubts.
- Systematic subject sequence & timely completion.
- Concept practice through workbook solving.
- Comprehensive & updated books.
- Exam oriented learning ecosystem.
- Efficient teaching with comprehensive coverage.
- Proper notes making & study concentration in class.
- Regular performance assessment through class tests.

For more details, visit our website : www.madeeasy.in

OFFLINE BATCHES at Delhi

from

6th Jan, 2023

15th Feb, 2023

LIVE ONLINE CLASSES

- Teaching pedagogy similar to offline classes.
- Interaction and doubt chat with subject experts.
- Concept of problem solving through workbooks.
- Convenience and flexibility of 24*7 learning.
- Comprehensive & updated theory & practice books.
- Systematic subject sequence.
- Time bound syllabus completion.
- User-friendly and intuitive learner interface.
- Regular assessment through tests & quizzes.

For more details, visit our website : www.madeeasyprime.com

LIVE-ONLINE BATCHES

from

5th Jan, 2023

15th Feb, 2023

Corporate office: 44-A/1, Kalu Sarai, Near Hauz Khas Metro Station, New Delhi - 110016

9021300500 | **www.madeeasy.in**

MADE EASY Centres : Delhi | Hyderabad | Jaipur | Lucknow | Bhopal | Bhubaneswar | Pune | Kolkata

ISBN : 978-93-93165-74-9

₹ 200/-