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THE HINDU Page 1

HOOCH TRAGEDY

(Syllabus: GS Paper 3 - Disaster Management)

Hooch toll rises to 30; Nitish insists kin of victims won't receive govt. aid

Amarnath Tewary
PATNA



Spirited show: BJP legislators staging a protest against the Bihar government over the hooch tragedy in Patna on Friday. PTI

Asserting that prohibition will continue in Bihar, Chief Minister Nitish Kumar on Friday said "no compensation will be given to people who die after drinking spurious liquor".

With the official death toll in the Saran hooch tragedy rising to 30, and villagers claiming that 56 people have died, the National Human Rights Commission has now taken *suo motu* cognisance of the incident and issued notices to higher officials.

Four persons who died in the neighbouring Siwan district are also suspected to be victims of hooch. However, the family members of three of the dead had already cremated them without any post-mortem examination.

Mr. Kumar, however, doubled down in his defence of the State's liquor ban. "Prohibition will continue in Bihar and I've no sympathy with those who drink liquor. No compensation will be given to people who die after drinking," he said.

"We've been making such an appeal for a long time that if you consume liquor, you'll die. And once again I'm going appeal to people that if someone drinks illicit liquor, he will die. I'll also tell them that those who talk in favour of drinking liquor, will not bring any good to you," he said amidst a pandemonium created by Opposition BJP legislators demanding Mr. Kumar's resignation as well as a compensation of ₹10 lakh to the family members of the victims.

Senior State BJP leader and Rajya Sabha member Sushil Kumar Modi alleged that the "death toll has gone over 100 and the State government is hiding the actual figure".

Context: With the official death toll in the Saran hooch tragedy rising to 30, and villagers saying that 56 people have died, the National Human Rights Commission has now taken suo motu cognisance of the incident and issued notices to higher officials.

Hooch tragedy

- **About**: Hooch is a term used for **spurious alcohol preparations.**
  - The origin of this word lies in Hoochinoo Indians of **Alaska**.
  - Deaths due to consumption of such illicit liquor are known as **Hooch tragedies.**
- **Poisonous:** Under this **methyl alcohol (in place of ethyl alcohol)** or denatured spirit is added by illegal brewers to save input cost and in mistaken belief that it will increase its efficacy.
  - On consumption methanol is **changed into formic acid inside the body.**
  - As methyl alcohol is **highly toxic and delay in providing antidote** can cause death within 15-30 hours.
- **Prevalence**: Due to alcohol prohibition in the states of **Bihar, Gujarat, Mizoram, Nagaland,** these states provide favourable conditions for illegal brewers.
  - According to Lok Sabha data released on July 19, 2022, these five states reported the maximum deaths due to consumption of illegal and spurious liquor between 2016 and 2020:
    - **Bihar**: The state reported a total of 21 deaths due to the consumption of illegal liquor.
    - **Chhattisgarh**: Chhattisgarh logged a total of 505 deaths in 5 years.
    - **Madhya Pradesh**: Madhya Pradesh recorded over 1,200 deaths with the maximum number of deaths reported in 2018.
    - **Karnataka**: Karnataka logged a total of 909 deaths.
    - **Punjab**: Punjab reported 725 deaths.
- **Complete ban on liquor in India**: **5 States**: Mizoram, Gujarat, Bihar, Nagaland and Lakshadweep.

BUSINESS STANDARD

Page 1

Sebi issues benchmarking norms for PMS industry

KHUSHBOO TIWARI
Mumbai, 16 December

The Securities and Exchange Board of India (Sebi) has introduced performance benchmarking and categorisation for the portfolio management services (PMS) industry, akin to the current norms in mutual funds. The move will help investors assess and compare the performance of service providers.

In a circular issued on Friday, the capital market regulator directed portfolio managers to adopt an additional layer of broadly defined investment strategies categorised as equity, debt, hybrid, and multi-asset. The move will come into effect from April 1, 2023.

Portfolio managers will be able to tag each investment approach to only one of the strategies while more than one can be tagged to a specific strategy.

Sebi has asked the Association of Portfolio Managers in India (APMI) to prescribe a maximum of three benchmarks for each strategy. The portfolio managers will be able to change the tagging only after offering an option to subscribers to leave without any exit load.

These strategies will be on the present investment approach, which documents the investment philosophy, noted Sebi.

"This helps in reflecting the true performance of the strategy," said Siddharth Vora, head of investment strategy and fund manager, PMS, Prabhudas Lilladher. Turn to Page 6



INVESTOR FIRST

- Portfolio managers to adopt an additional layer of broadly defined investment strategies while managing clients' funds
- These broad strategies would be equity, debt, hybrid and multi-asset
- This is in addition to the investment approach (IA) – the documented investment philosophy – adopted by portfolio managers
- The new framework will come into effect from April 1, 2023

PORTFOLIO MANAGEMENT SERVICES

(Syllabus: GS Paper 3 - Economy)

Context: The Securities and Exchange Board of India (Sebi) has introduced performance benchmarking and categorisation for the **portfolio management services (PMS) industry**, akin to the current norms in mutual funds.

Portfolio management services (PMS)

- **About:** PMS is a **professional financial service** where skilled portfolio managers and stock market professionals manage your equity portfolio with the assistance of a research team.
  - Many investors have equity portfolios in their **Demat Account** but managing them can be a challenge.
  - PMS is a **systematic approach** to maximise returns while minimising the risk factor on investments.
- **Significance**: It enables to **make sound decisions** that are supported by extensive research and factual data without lifting a finger. Additionally, it better prepares you to deal with market adversity.
- **Mechanism:** It is **offered by brokerages and mutual funds registered with SEBI**. There are two types of PMS: Discretionary and Non Discretionary.
  - In discretionary , the **fund manager takes investment decisions** on behalf of the investor.
  - In non-discretionary , the **fund manager suggests investment ideas,** while the decision is taken by the client.
- **PMS and Mutual Funds:** The biggest similarity between PMS (discretionary) and mutual funds is that **the manager handles the money on the behalf of the clients.**
  - The key difference is that investors in MF get units that represent stocks. In a PMS, the **investor holds the stock in a demat account** owned by him, but the fund manager has the power of attorney to operate it.
- **Minimum investment amount**: Investors need to bring in **at least Rs 25 lakh to invest in a PMS**. Alternatively , they can give shares worth Rs 25 lakhs to the fund manager.
- **Structure of a PMS scheme**: When we opt for a PMS scheme, a **bank account and demat account** are separately opened in the our name and all investments are made in our name only.
  - Accordingly , **any income or dividend** coming out of the investment made will also be credited in our bank account and the shares will be held in the demat account in our name.
  - As per the PMS agreement, the **Power of Attorney** for operating the bank and demat account will be with the **portfolio manager.**
  - Most portfolio managers give a username and password which can be used to login into their website and see the **portfolio statements.**
  - As per market regulator SEBI's instructions, a portfolio manager is **required to furnish performance report** to their clients every 6 months.

INDIAN EXPRESS

Page 6

ANGANWADI

(Syllabus: GS Paper 2 - Polity & Governance)

Irani: Govt increased honorarium of Anganwadi workers to Rs 4,500

EXPRESS NEWS SERVICE
NEW DELHI, DECEMBER 16

WOMEN AND Child Development Minister Smriti Irani on Friday said the Narendra Modi government is "empathetic" to the needs of the Anganwadi system, and that 1,905 claims have been settled under the Pradhan Mantri Garib Kalyan Insurance Package for those Anganwadi workers who were designated by district and state authorities to work during Covid times.

"We paid special homage, and gratitude was expressed to Anganwadi workers who were at the front line of helping the nation during Covid-19. The Prime Minister pronounced in association with the Ministry of Health that the Pradhan Mantri Garib Kalyan Insurance Package for those Anganwadi workers who are designated by district and state authorities to work in Covid times will also cover such workers up to Rs 50 lakh," she said, replying to the discussion on a private member's resolution in Lok Sabha.

"To this day, I can confirm that for Anganwadi workers under this package, 1,905 claims have been settled by the government in collaboration with the state governments," Irani said. The resolution on "Welfare Measures for Anganwadi Workers and Anganwadi Helpers" was moved by BSP member Ritesh Pandey on March 20, 2020. Since then, it came up for discussion several times but the discussion could not be completed.

The resolution was rejected by a voice vote. At the time of consideration of the resolution, Pandey was not present in the House. About 20 members participated in the discussion, which took place during five different sessions. She said the government has increased the honorarium of Anganwadi workers to Rs 4,500 per month from Rs 1,400 in 2008. The honorarium of mini Anganwadi has increased from Rs 750 per month to Rs 3,500 per month, she said.

Context: Women and Child Development Minister said the **honorarium of mini Anganwadi has increased** from Rs 750 per month to Rs 3,500 per month.

Anganwadi

- **About**: Anganwadi is a **centrally sponsored scheme** implemented by the States / UTs which serves as a rural child and maternal care centre in India.
- **Origin**: It was started by the Government of India In 1975 as part of the **Integrated Child Development Services program** to combat child hunger and malnutrition.
- **Nodal Ministry:** Ministry of **Women and Child Development.**
- **Anganwadi centres provide a package of six services**: supplementary nutrition, pre-school non-formal education, immunisation, health check-up, nutrition and health education, and referral services.
    - The beneficiaries under the Anganwadi Services Scheme are **identified on the basis of Aadhaar.**

Integrated Child Development Services program

- **About**: A **Centrally-Sponsored scheme** that provides food, preschool education, and primary healthcare to children under 6 years of age and their mothers.
    - The scheme primarily **runs through the Anganwadi centre.**
- **Origin**: The scheme was started in **1975** and aims at the holistic development of children and empowerment of mother.
- **Nodal Ministry**: Ministry of Women and Child Development.
- **Provisions and Services:** ICDS provide the following **six services to the beneficiaries:**
    - Supplementary Nutrition (SNP)
    - Health & Nutrition Check-Up
    - Immunization
    - Non-Formal Education for Children in Pre-School
    - Health and Nutrition Education
    - Referral services
        - The last three services are related to health and are provided by Ministry/Department of Health and Family Welfare through **National Rural Health Mission (NRHM) & Health system.**

LIVEMINT Page 9

AYUSHMAN BHARAT DIGITAL HEALTH MISSION (ABDM)

(Syllabus: GS Paper 2 - Health)

CoWIN may help docs track appointments, patient data

Priyanka Sharma
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NEW DELHI



R.S. Sharma, chief executive of National Health Authority. MINT

Doctors and medical professionals may soon be able to manage appointments and maintain patient records over the vaccine platform CoWIN, with the National Health Authority (NHA) integrating it with the Ayushman Bharat Digital Health Mission (ABDM)—the backbone of India's digital healthcare system.

"NHA is developing a lightweight health management information system (HMIS) solution that will allow small clinics and providers to manage appointments, patient information and prescriptions. The HMIS will be integrated with all ABDM modules and allow the doctor and clinic to create a health professional ID and a health facility ID," R.S. Sharma, chief executive of NHA, said in an interview.

"The HMIS is being built keeping in mind the challenges faced by doctors in using digital devices during a consultation. The doctor-friendly interface will allow them to create prescriptions seamlessly, take video consultations and manage vaccination appointments," Sharma said.

CoWIN was the backbone of the covid vaccination programme beginning 16 January 2021. Currently, it has options such as registration, beneficiary tracking, appointment scheduling, vaccine stock management, real-time data monitoring, identity verification, vaccination, and issuing an instant digital certificate to each vaccinated individual. Several countries have shown interest in learning the CoWIN technology.

CoWIN has so far recorded more than 2.2 billion administered vaccine doses through 5,773 vaccination sites. Around 1.03 billion first doses, 950.9 million second doses and 22.1 million precaution doses have been administered over CoWIN.

However, the pace of covid vaccination has declined; on Friday, till 3pm, the vaccination numbers were low—Delhi (259), Andhra Pradesh (152), Goa (5), Haryana (373), Kerala (162) and Odisha (23).

Last month, *Mint* reported that the health ministry is working on upgrading CoWIN for the effective implementation of India's universal immunization programme. This will allow healthcare professionals to digitally track the immuniza-

TURN TO PAGE 13

Context: Doctors and medical professionals may soon be able to manage appointments and maintain patient records over the vaccine platform **CoWIN**, with the National Health Authority (NHA) integrating it with the **Ayushman Bharat Digital Health Mission (ABDM).**

- **CoWIN (Covid Vaccine Intelligence Network)** is an Indian government web portal for COVID-19 vaccination registration, owned and operated by India's Ministry of Health and Family Welfare.

Ayushman Bharat Digital Health Mission (ABDM)

- **About**: Ayushman Bharat Digital Mission aims to **provide digital health IDs for all Indian citizens** to help hospitals, insurance firms, and citizens access health records electronically when required.
- **Origin**: It was launched in **September 2021 by the Prime Minister.**
  - The pilot project of the Mission had been announced by the Prime Minister from the ramparts of the Red Fort on 15th August 2020.
- **Implementing Agency**: **National Health Authority (NHA)** under the Ministry of Health and Family Welfare.
- **Key Features:**
  - **Health ID:** It is **issued for every citizen** that will also work as their health account which contain details of every test, every disease, the doctors visited, the medicines taken and the diagnosis.
    - **Health ID is free of cost, voluntary.** It will help in doing analysis of health data and lead to better planning, budgeting and implementation for health programs.
  - **Healthcare Facilities & Professionals' Registry:** A **comprehensive repository of all healthcare professionals** involved in delivering healthcare services across both modern and traditional systems of medicine.
  - **Ayushman Bharat Digital Mission Sandbox:** A framework that allows technologies or products to be tested in the contained environment in **compliance with ABDM standards.**

ECONOMIC TIMES

Page 3

INTERNATIONAL NORTH-SOUTH TRANSPORT CORRIDOR

(Syllabus: GS Paper 3 - International Relations)

India Taps Oil, Natural Gas, Coking Coal in Russian Arctic Region

Moscow engages New Delhi, not just China for Arctic outreach; India is exploring to link the Northern Sea Route in Arctic to the International North-South Transport Corridor

DipanjanRoy.Chaudhury
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New Delhi: Russia is not only eyeing China as part of its outreach for the resource-rich Arctic region but is also engaging India on the Arctic route to increase bilateral trade and investments in oil, natural gas and coking coal sectors, ET has learnt.

Delhi and Moscow plan to focus on harnessing huge natural resources in the Arctic region including in the field of oil, natural gas and coking coal, ET gathers.

The recent revival of the Vladivostok-Chennai shipping route has enhanced bilateral trade of items sourced from the Arctic.

Simultaneously, India is exploring to link the Northern Sea Route in the Arctic to the International North-South Transport Corridor.

Indian energy giants are interested in getting additional stakes in Russian energy assets in the Arctic and Russian Far East including additional shares in the Sakhalin 1 oil venture, where Indian oil and gas producer ONGC already holds a 20% stake, according to people familiar with the subject. Liquefied Natural Gas from the Arctic was supplied to India last year.

Prime Minister Narendra Modi has been enthusiastic about building a partnership with Russia on the Arctic front including in the energy sector.



REPRESENTATIVE PHOTO

"The relationship can be upgraded in trade and economic cooperation in the Arctic and in the Russian Far East. This can help to optimize this partnership and take it in the direction of a larger benefit for a larger number of people," Uttam Sinha, senior fellow at IDSA, and India's foremost expert on the Arctic, told ET. "In the last summit meeting in December 2021, Modi emphasized co-production and co-development. This statement carries a transformational nature to the partnership. There is now a developmental perspective in the relationship." Sinha said the operative word was "prosperity".

"The prospect of cooperation in the Arctic and Russian far East, which India defines as Act Far East, offers great opportunities through trade, investments, connectivity, and energy projects," Sinha said.

The Russian Arctic accounts for 15% of Russian GDP, 20% of its exports including 80% of its gas and 17% of its oil.

The Russian Arctic has the potential to address India's energy security needs. US-led sanctions give India's oil industry an opportunity to increase its stake in the oil and gas fields which has been significantly restricted in its ability to access capital and technology for development.

SPARKING INTEREST

The recent revival of the Vladivostok-Chennai shipping route has enhanced bilateral trade of items sourced from Arctic

Context: India is exploring to link the **Northern Sea Route** in Arctic to the **International North-South Transport Corridor.**



International North-South Transport Corridor

- **About**: A corridor to increase trade between I**ndia and Russia.**
- **Regions involved**: A 7,200-km-long multi-mode network of ship, rail, and road route for moving freight between **India, Iran, Azerbaijan, Russia, Central Asia and Europe.**
  - The route primarily involves moving freight from I**ndia, Iran, Azerbaijan and Russia via ship, rail and road.**
- **Origin**: The agreement was signed in **2002**.
  - **Russia, India, and Iran** are the founding member states of INSTC.
- **Objective**: To increase trade connectivity between major cities such as **Mumbai, Moscow, Tehran, Baku, Bandar Abbas, Astrakhan, Bandar Anzali, etc.**
- **Significance**: The corridor is aimed at r**educing the carriage cost** between India and Russia by about 30% and bringing down the transit time from 40 days by more than half.
- **Members**: **13 members** include India, Iran, Russia, Turkey, Azerbaijan, Kazakhstan, Armenia, Belarus, Tajikistan, Kyrgyzstan, Oman, Ukraine, Syria.
  - Bulgaria acts as an Observer Member.

TIMES OF INDIA

Page 14

ICMR study: 1 in 9 in India at risk of developing cancer

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New Delhi: One in every nine persons in India is at risk of developing cancer in his or her lifetime, reveals a study carried out by the ICMR-National Centre for Disease Informatics and Research (NCDIR). It is based on a statistical analysis of the number of new cases of the disease being reported in the country vis-à-vis the number of individuals in the population at risk.

According to the study, which has been published in the Indian Journal of Medical Research (IJMR), one in every 67 men ia at risk of developing lung cancer and one in 29 women is at risk of developing breast cancer in their lifetime (0-74 years).

It is estimated that 14.6 lakh people were affected by cancer in India in 2022. Lung and breast cancers were the leading sites of cancer in men and women, respectively. Among childhood (0-14 year) cancers, lymphoid leukaemia (boys: 29.2% and girls: 24.2%) was the leading site, the study suggests. "The incidence of cancer cases is estimated to increase by 12.8% in 2025 as compared to 2020," it adds.

Researchers say the increase in cancer cases was attributable to the changes in population dynamics and its growth. India, they add, is expected to see an increase in the older age (60+) population, and especially their proportion is expected to increase from 8.6% in 2011 to 9.7% in 2022.

"There would be changes in estimated cancer incidence, which depends upon the risk factors, improvement in case findings, introduction of screening programmes and cancer detection and diagnosis techniques," researchers said.

Estimated cancer cases and mortality due to it have increased in the country between 2020 and 2022, health minister Mansukh Mandaviya told Rajya Sabha on Tuesday.

The department of health and family welfare provides technical and financial support to states and Union Territories under the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) as part of the National Health Mission (NHM), based on the proposals received from the states and subject to the resource envelope, Mandaviya said in reply to a question.

Cancer is an integral part of NPCDCS, the minister said, adding that the programme focusses on strengthening infrastructure, human resource development, health promotion and awareness generation for cancer prevention, early diagnosis, management and referral to an appropriate level of healthcare facility for treatment.

Under NPCDCS, 707 district NCD clinics, 268 district daycare centres, and 5,541 community health centre NCD clinics have been set up. Setting up of National Cancer Institute at Jhajjar (Haryana) and second campus of Chittaranjan National Cancer Institute, Kolkata are also steps in this direction, the minister said.

RISING CONCERN

Estimated trends in number of cancer cases for the leading sites in India

MEN	2015 All sites	2020	2025
	6,01,737	6,79,421	7,63,575
Lung	63,087	71,788	81,219
Mouth	50,779	57,380	64,519
Prostate	36,419	41,532	47,068
Tongue	35,336	39,902	44,861
Stomach	28,815	32,713	36,938
Others	3,87,301	4,36,106	4,88,970

WOMEN	2015 All sites	2020	2025
	6,27,202	7,12,758	8,06,218
Breast	1,80,252	2,05,424	2,32,832
Cervix	65,798	75,209	85,241
Ovary	38,607	43,886	49,644
Corpus uteri	23,175	26,514	30,121
Lung	23,163	26,490	30,109
Others	2,96,027	3,35,235	3,78,271

Context: One in every nine persons in India is at risk of developing cancer in his or her lifetime, reveals a study carried out by the ICMR-National Centre for Disease Informatics and Research (NCDIR).

CANCER

(Syllabus: GS Paper 3 - Sci & Tech)

Cancer

- **About:** A **serious disease** in which the cells start dividing abnormally in an uncontrolled manner.
  - A **neoplasm and malignant tumor** are other common names for cancer.
  - Most **cancer cells are found in the shape of tumours**, with a few notable exceptions such as leukaemia.
  - **All tumours are not cancerous.** Some tumours, such as moles, stop growing and are not malignant.
- **Types of Cancer:** There are **more than a hundred different types** of cancer that are characterized by abnormal cell growth.
  - Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women.
- **Symptoms of Cancer:** Few general symptoms are: **Irregular loss of weight, Recurrent fever, Continuous pain in a certain area,** Fatigue and Irregular changes in the skin (pigmentation, unusual hair growth, red or yellow skin, blotches etc.)
- **Causes of Cancer**: Like symptoms, there is no conclusive evidence for its causes.
- **Treatment**: Options include surgery, cancer medicines and/or radiotherapy, administered alone or in combination.
  - **Palliative care,** which focuses on improving the quality of life of patients and their families, is an essential component of cancer care.
  - Between 30% and 50% of cancer deaths could be **prevented by modifying or avoiding the key risk factors.**
    - Key risk factors include tobacco use, alcohol use, diet, exposure to ultraviolet radiation, pollution, chronic infections, etc.
- **Indian Initiatives:**
  - **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)**: implemented under National Health Mission (NHM) for up-to the district level activities.
  - **National Cancer Grid (NCG)**: Created to form a union of cancer centres in the country which could provide uniform and high standards of cancer care.
  - **Trade Margin Rationalisation:** National Pharmaceutical Pricing Authority (NPPA) had launched a Pilot on Trade Margin Rationalisation for 42 anti cancer drugs in february 2020 as a step towards making healthcare more affordable for the suffering patients.
  - **National Cancer Awareness Day:** Observed on 7th November each year in the country to spread awareness about the need of early cancer detection to fight the deadly disease timely.
- **Global Initiative:**
  - The **International Agency for Research on Cancer (IARC)** was created in 1965 by a resolution of the World Health Assembly, as the specialized cancer agency of the World Health Organization.
  - **World Cancer Day** is observed on 4th February every year.

PIB

Dec 17

PMNRF

(Syllabus: GS Paper 3 - Disaster Management)

PM announces ex-gratia from PMNRF after tragic cylinder mishap in Jodhpur, Rajasthan

Context: The Prime Minister has announced ex-gratia of Rs. 2 lakh from **Prime Minister's National Relief Fund (PMNRF)** to be given to the next of kin of each deceased and Rs. 50,000 for those injured in the tragic cylinder mishap in Jodhpur, Rajasthan.

Prime Minister's National Relief Fund (PMNRF)

- **About**: The fund raised to **provide support for people** affected by natural and man made disasters.
- **Origin**: It was created by first Prime Minister of India, **Jawaharlal Nehru in 1948** to support the displaced people from Pakistan during Partition.
  - PMNRF has **not been constituted by the Parliament.**
  - The fund is **recognized as a Trust under the Income Tax Act** and the same is managed by Prime Minister or multiple delegates for national causes.
- **Members**: **Chairman** of the Prime Minister National Relief Fund (PMNRF) is the **Prime Minister of India**.
  - Other members are from **Tata Trusts, representatives of FICCI, Congress President**.
- **Donation**: The minimum amount one can donate in the Prime Minister National Relief Fund (PMNRF) is **Rs 100.**
  - It accepts **only voluntary donations** by institutions and individuals.
  - Contributions flowing out of the balance sheets of the Public Sector Undertakings (PSU's) or from the budgetary sources of Government are not accepted.
  - These contributions also **qualify as CSR (corporate social responsibility)** spend for companies, making it more attractive in terms of tax exemptions.
  - All contributions towards PMNRF are exempt from Income Tax under **section 80(G)**
  - Disbursements are made with the **approval of the Prime Minister.**
- **Coverage**: PMNRF has been **attached with all Centre and State-run hospitals** and many private hospitals as well.
  - PMNRF focuses **on all kinds of natural disasters and calamities** like Cyclones, Earthquakes, Floods, Tsunamis etc.
  - The PMNRF funds are also utilised for acid attack victims, cancer treatments, kidney transplants etc.

PIB

Dec 17

PPV&FR ACT, 2001

(Syllabus: GS Paper 3 - Economy & Agriculture)

Protection to Farmers Against PPV&FR ACT

Context: A revocation application under **Section 34 of Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001** has been filed to revoke the registration granted to PepsiCo India Holdings Pvt. Ltd., in respect of FL-2027 Potato Variety.

Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001

- **Origin**: Enacted by India in 2001 a**dopting sui generis system.**
  - It is in conformity with **International Union for the Protection of New Varieties of Plants (UPOV),** 1978.
    - The International Union for the Protection of New Varieties of Plants (UPOV) **administers an international system of intellectual property (IP) rights** that protect plant breeders' rights and encourage innovation in agriculture through the development of new varieties of plants.
  - The **legislation recognizes the contributions of both commercial plant breeders and farmers** in plant breeding activity and also provides to implement TRIPs in a way that supports the specific socio-economic interests of all the stakeholders including private, public sectors and research institutions, as well as resource-constrained farmers.
- **Objectives**: The aim of the act is the **establishment of an effective system** for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plant.
- **PPV&FR Authority:** The act also **establishes Protection of Plant Varieties and Farmers' Rights Authority** under the Ministry of **Agriculture and Farmers Welfare.** The major function of Authority includes
  - Registration of new plant varieties;
  - Documentation of varieties registered;
  - Preservation of plant genetic resource;
  - Maintenance of the National Register of Plant Varieties and
  - Maintenance of National Gene Bank (for conserving seeds of registered varieties).
- **Rights under the Act:**
  - **Breeders' Rights:** Breeders (Seed Producers) will have exclusive rights to produce, sell, market, distribute, import or export the protected variety.
    - A breeder can exercise for civil remedy in case of infringement of rights
  - **Researchers' Rights**: Researcher can **use any of the registered variety** under the Act for conducting an experiment or research.
    - Researchers can use the initial source of variety for the purpose of developing another variety but repeated use needs the prior permission of the registered breeder.
  - **Farmers' Rights:** A farmer who has **evolved or developed a new variety** is entitled to registration and protection in like manner as a breeder of a variety.
    - A farmer can save, use, sow, re-sow, exchange, share or sell his farm produce including seed of a variety protected under the PPV&FR Act, 2001
    - However, the farmer shall not be entitled to sell branded seed of a variety protected under the PPV&FR Act, 2001.
    - There is **also a provision for compensation** to the farmers for non-performance of variety.
    - The farmer s**hall not be liable to pay any fee** in any proceeding before the Authority or Registrar or the Tribunal or the High Court under the Act.
    - **Farmers are eligible for recognition and rewards** for the conservation of Plant Genetic Resources of land races and wild relatives of economic plants.

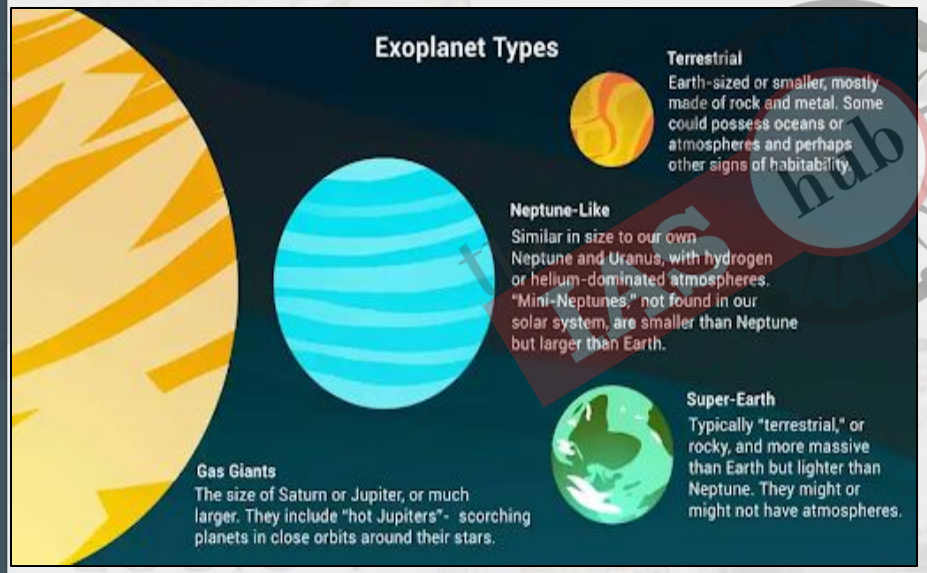
DTE

Dec 17

ALIEN PLANETS

(Syllabus: GS Paper 1 - Geography)





Context: Two **alien planets about 218 light years away from Earth** have found a twin in the ocean worlds of **Europa and Enceladus -** moons orbiting Jupiter and Saturn, according to a new study.

Key points

- The exoplanets, **Kepler-138 c and Kepler-138 d**, are likely water worlds - a feature that scientists have theorised for a long time, the study published in the journal Nature Astronomy noted.
- They are also **larger-scale versions of Enceladus** (Saturn's moon) and Europa (Jupiter's moon), the findings predicted.
- These twin planets of the s**ame size and mass** are more massive than Earth but lighter than ice giants Uranus and Neptune.
- They are **different from the planets in our solar system**, which is chiefly composed of rocky planets like Earth and gas giants like Jupiter.
- These exoplanets, along with Kepler-138 b, orbit Kepler-138, a **red dwarf star**. The star is smaller and cooler than the Sun, a yellow dwarf star.
- The volume of the two alien worlds was **three times that of Earth and mass twice as big**.
- The Kepler- 138 c and d are **made up of ingredients lighter than rock (**rocky planets like Earth) but heavier than hydrogen or helium (gas-giant planets like Jupiter).
- This s**ignals the presence of water:** Up to half of the mass of the twin worlds should be water.
- The **new planet takes 38 days to complete an orbit**. It is in the habitable zone, meaning it is located in an orbit that receives just the right amount of heat from its star to allow water to exist in a liquid form.

Exoplanets

- **About**: Planets that **orbit around other stars located outside our solar system**. Exoplanets are also called **extrasolar planets.** All the stars have at least 1 planet revolving around them. Most of the exoplanets discovered so far are located in the Milky way galaxy.
  - The first possible evidence of an exoplanet was noted in 1917, but was not recognized as such. The first confirmation of detection occurred in 1992.
  - There are 4,768 confirmed exoplanets in 3,527 planetary systems, with 783 systems having more than one planet.
- **Closest Exoplanet:** The closest exoplanet is named Proxima Centauri b. It is a planet orbiting the closest star to the Sun, named Proxima Centauri.
- **Least Massive Exoplanet:** The least massive known exoplanet is named as **Draugr**. To get an understanding of its size, this exoplanet is twice the mass of the moon.
- **Most Distant Discovered Exoplanet:** It is named as SWEEPS-11/SWEEPS – 04. It is located 27,710 light-years away.
- **Hottest Exoplanet Discovered:** The hottest exoplanet discovered is Kepler – 70b
- **Biggest Exoplanet Discovered:** The biggest exoplanet discovered is Kepler – 39b.

DTE

Dec 17

INDIA'S COAL PRODUCTION

(Syllabus: GS Paper 3 - Economy)

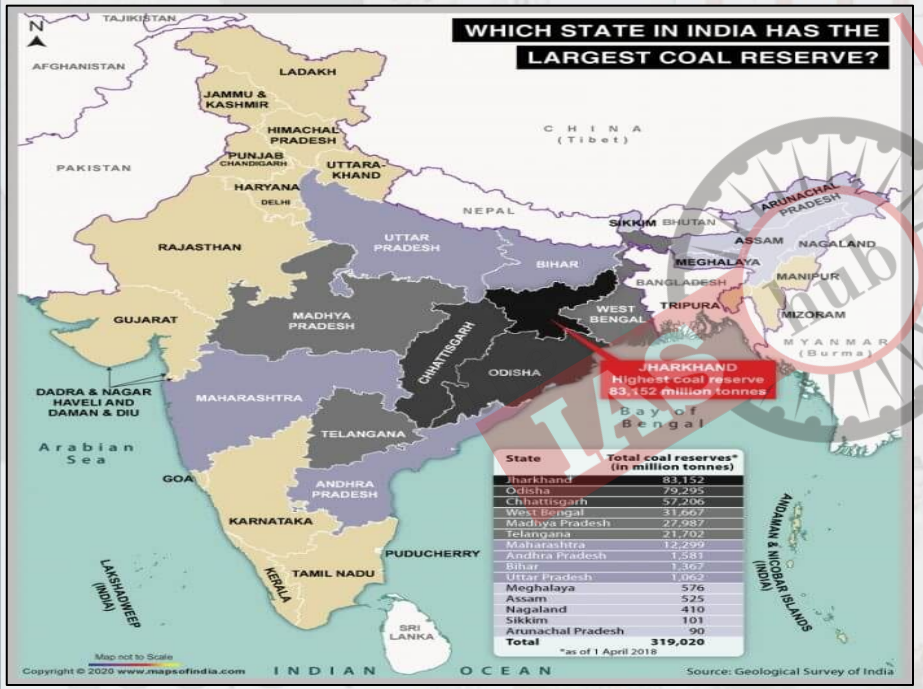


India's coal production to surpass a billion tonnes by 2025: IEA annual report

Russian invasion of Ukraine sharply altered the dynamics of coal trade, prices, supply and demand patterns

NEXT NEWS >

By DTE Staff
Published: Saturday 17 December 2022



Context: India, along with China, is the **world's largest coal producer, consumer and importer**. Its own coal production will surpass a billion tonnes by 2025, the annual report of the International Energy Agency (IEA), predicted December 16, 2022.

Key Points

- **India's coal consumption has doubled since 2007** at an annual growth rate of 6 per cent. It is set to continue to be the growth engine of global coal demand.
- India and China, are also the **only two countries globally where there has been an uptick in investment** in coal mine assets. This is because domestic production has been ramped up in both countries to reduce external reliance.
- In India and China, where **coal is the backbone of electricity systems and gas accounts** for just a fraction of power generation, the impact of steeper gas prices on coal demand has been limited**.**
- **Nevertheless,** increased coal use in these countries had replaced some gas, which has been purchased by other regions willing to pay more for it.

India's coal production

- India is **rich in ancient coal fields like Gondwana coalfields** (250 million years old) and tertiary coalfields (15-60 million years old).
- Coal in India was **first mined in 1774 by East India Company** in Raniganj Coalfield along the Western bank of Damodar River.
- India has the **fifth largest coal reserves in the world.**
- **Top 3 states in India** with the largest coal reserves are J**harkhand, Odisha and Chhattisgarh** respectively.
- Since the launch of the auction of coal mines for commercial mining in June 2020, a total of **4 rounds of auctions have been conducted** in which a total of 292 coal mines were offered.
- **Coal demand in the country is yet to peak** as the Economic Survey 2021-22 projects coal demand in the range of 1.3-1.5 billion tonnes by 2030, an increase of 63 percent from the current demand.
- **India does not have enough reserves of good quality coal** especially coking coal that is used as a raw material in steel making and allied industries.
- Most of it is **imported from Indonesia, South Africa, Russia and Australia.**
- **100% FDI under the automatic approval route** allowed for the sale of coal and coal mining activities.

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