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MK Yadav Sir

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DST

April 29

NATIONAL MANUFACTURING INNOVATION SURVEY

(Syllabus: GS Paper 3 - Economy)

National Manufacturing Innovation Survey (NMIS) 2021-22 findings released, can help enhance competitiveness of Indian manufacturing

Context: Secretary, Department of Science and Technology, released the "**National Manufacturing Innovation Survey (NMIS)** 2021-22: Summary for Policymakers" on April 27, 2023.

National Manufacturing Innovation Survey (NMIS)

- **About**: The NMIS 2021-22 is a joint study by the **Department of Science and Technology (DST) and the United Nations Industrial Development Organization (UNIDO)** to evaluate the innovation performance of manufacturing firms in the India.
  - This study is a follow-up of DST's first **National Innovation Survey** held in 2011.
- **Objectives**: The NMIS 2021-22 study was conducted as a 2-pronged survey that **examined the innovation processes, outcomes, and barriers in manufacturing firms** and also studied the innovation ecosystem that affects innovation outcomes in these firms.
  - The collaborative study by DST-UNIDO allowed **a 360-degree approach to measuring manufacturing innovation outcomes**, processes, and barriers at the firm level, mapping the contributing processes and interactions and thereby assessing the performance of states, sectors, and firm sizes.
- **Components**: The NMIS 2021-22 survey had two specific components: **the firm-level survey and the sectoral systems of innovation (SSI) survey.**
  - The **Firm-level survey** captured data related to **types of innovations and innovative measures taken by firms,** including the process of innovation, access to finance, resources, and information for innovation, besides also recording the factors impacting the innovation activities in a firm.
    - One in four firms was found to have successfully implemented an innovation in the observation period, and over 80% of these firms benefited significantly in expanding markets and production and reducing costs.
  - The **Sectoral System of Innovation survey** mapped the manufacturing innovation system and its enabling role in achieving innovations in firms.
    - The SSI study measured the **interactions between stakeholders of the innovation ecosystem,** relative barriers to innovation, as well as the convergence or divergence of current policy instruments in select five key manufacturing sectors important to the Indian economy - textiles; food & beverage; automotive; pharma; and ICT.

PIB April 29

UNIFIED LOGISTICS INTERFACE PLATFORM

(Syllabus: GS Paper 3 - Infrastructure)

ULIP Integration with Digital Systems of Coal Ministry kicks off

Context: Secretary, Ministry of Coal chaired a meeting on the integration of **Unified Logistics Interface Platform (ULIP)** with the digital systems of the Ministry of Coal.

- ULIP has emerged as **a digital gateway for the logistics ecosystem to access data available** with various Govt. systems for track/trace, authentication, document digitization, process automation as well as discovery services.
- At present 33 systems from seven ministries are integrated through 106 APIs covering more than 1600 data fields for usage by the stakeholders.

Unified Logistics Interface Platform (ULIP)

- **About**: Unified Logistics Interface Platform (ULIP) has been launched as **part of the 'National Logistics Policy (NLP)'** in September 2022.
- **Key Features**: ULIP is designed for **enhancing efficiency and reducing the cost of logistics in India** by creating a transparent, single window platform to provide real-time information to all stakeholders.
  - It was emphasized that the solution should have **visibility of multi-modal transport and all the existing systems** should be integrated with the ULIP system to create a National Single Window Logistics Portal.
  - ULIP will provide real-time monitoring of cargo movement and ensure confidentiality of data with end-to-end encryption.
  - It will also provide for **comprehensive reduction** in logistic cost.
- **Components**: There are **three key components** of ULIP platform:
  - Integration with existing data sources of ministries
  - Data exchange with private players
  - Unified document reference in the supply chain

PIB April 29

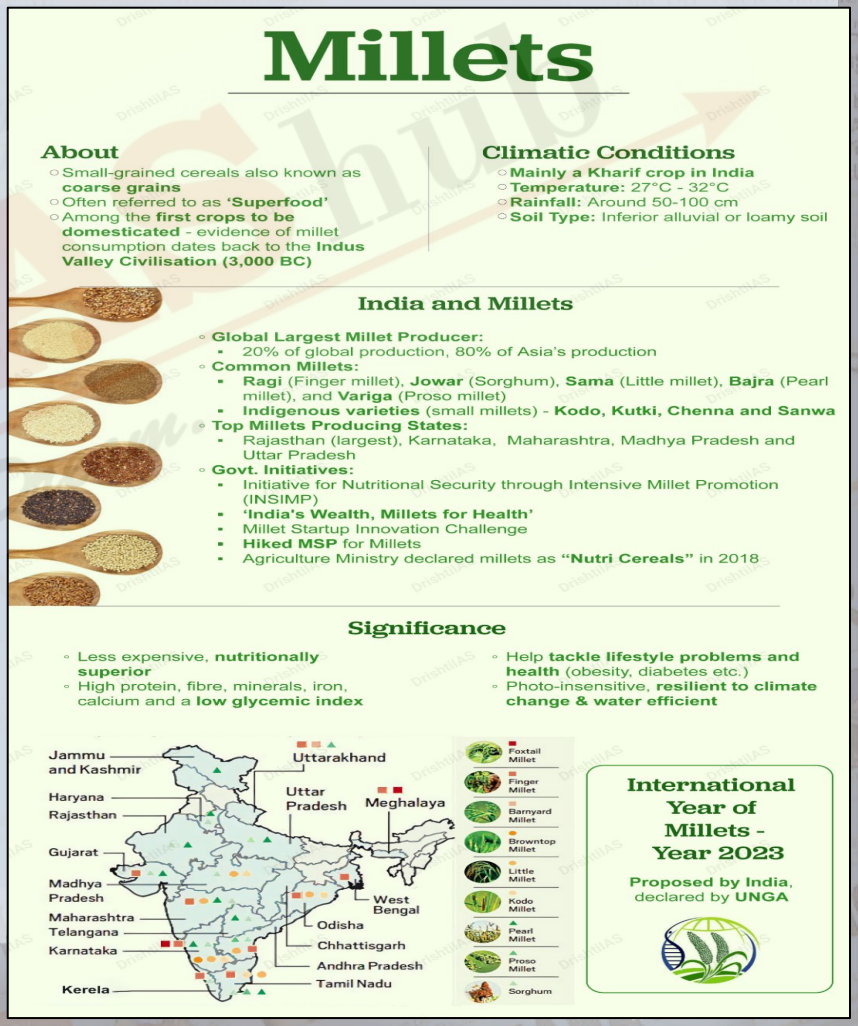
MILLETS EXPERIENCE CENTRE
(Syllabus: GS Paper 3 - Agriculture)

MoA&FW and NAFED launch Millets Experience Centre (MEC)

Context: Union Minister of Agriculture & Farmers Welfare along with Managing Director, NAFED, commemorated the launch of the first of its kind **'Millets Experience Centre (MEC)'** at Dilli Haat, INA.

Key Points

- NAFED in collaboration with the Ministry of Agriculture and Farmers Welfare (MoA&FW) established the Millets Experience Centre with an aim to **raise awareness on Millets and encourage its adoption** among general public.
- Acting upon India's proposal supported by 72 countries, the United Nations General Assembly declared the **year 2023 as the International Year of Millets (IYM 2023).**
- The ministry-led initiative of establishing a consumer-oriented 'Millets Experience Centre' would not only promote the dietary benefits of the ancient grain, but **also popularize millets or Shree Anna as a nutritional powerhouse** fit for cooking a variety of dishes like Millets dosa, Millets pasta etc.
- In addition to a unique dining experience, **customers can also purchase a variety of ready-to-eat and ready-to-cook** products from local millet start-ups at the MEC.



INDIAN EXPRESS

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GUM ARABIC

(Syllabus: GS Paper 3 - Agriculture)

GUM ARABIC: WHY SUDAN WAR COULD HIT YOUR FIZZY DRINKS AND CANDY

SUDAN'S ERUPTION into conflict has left international consumer goods makers racing to shore up supplies of gum arabic, one of the country's most sought-after products and a key ingredient in everything from fizzy drinks to candy and cosmetics.

About 70% of the world's supply of gum arabic, for which there are few substitutes, comes from the acacia trees in the Sahel region that runs through Africa's third-largest country, which is being torn apart by fighting between the army and a paramilitary force.

Wary of Sudan's persistent insecurity, companies dependent on the product, such as Coca Cola and Pepsico, have long stockpiled supplies, some keeping between three-to-six-months worth to avoid being caught short, exporters and industry sources said.

However, prior conflicts have tended to be focused in far-flung regions such as Darfur. This time, the capital Khartoum has been brought to a standstill in the fighting that broke out on April 15, paralysing the economy and disrupting basic communications.

"Depending on how long the conflict continues there may well be ramifications for finished goods on the shelf - branded goods made by household names," said Richard Finnegan, a procurement manager at Kerry Group, a supplier of gum arabic to most major food and beverage firms.

Finnegan estimated that current stockpiles will run out in five-to-six months, a view echoed by Martijn Bergkamp, a partner at Dutch supplier FOGA Gum who estimated three-to-six months.



Gum arabic seen on an Acacia tree in western Sudan. *Reuters*

Twelve exporters, suppliers and distributors contacted by Reuters said trade in the gum, which helps bind together food and drink ingredients, has ground to a halt.

Kerry Group and other suppliers, including Sweden's Gum Sudan, said communicating with contacts on the ground has been difficult and Port Sudan — from where product is shipped — has been prioritising civilian evacuations.

"For companies like Pepsi and Coke, they can't exist without having gum arabic in their formulations," Dani Haddad, marketing and development director of Agrigum, a global top-ten supplier, said.

In their manufacturing process, food and drink companies use a spray-dried version of the gum that is powder-like, industry sources said. While cosmetics and printing manufacturers may be able to use substitutes, there is no alternative to gum arabic in fizzy drinks, where it prevents ingredients from separating.

REUTERS

Context: Sudan's eruption into conflict has left international consumer goods makers racing to shore up supplies of **gum arabic**, one of the country's most sought-after products and a key ingredient in everything from fizzy drinks to candy and cosmetics.

Gum arabic

- **About**: Gum arabic is a **natural gum** originally consisting of the hardened sap of two species of the **Acacia tree, Senegalia senega and Vachellia seyal.**
  - The gum is **harvested commercially** from wild trees, mostly in Sudan (80%) and throughout the Sahel, from Senegal to Somalia.
  - Gum arabic is a complex mixture of **glycoproteins and polysaccharides**, predominantly polymers of arabinose and galactose.
- **Usage**: It is **soluble in water, edible, and used primarily in the food industry** and soft-drink industry as a stabilizer, with E number E414 (I414 in the US).
  - Gum arabic is a **key ingredient in traditional lithography** and is used in printing, paints, glues, cosmetics, and various industrial applications, including viscosity control in inks and in textile industries, though less expensive materials compete with it for many of these roles.
- **Health benefits:**
  - Improved absorption of calcium from the **gastrointestinal tract.**
  - **Anti-diabetic.**
  - **Anti-obesity** (gum arabic lowers the body mass index and body fat percentage).
  - Lipid lowering potential (gum arabic decreases total cholesterol, LDL, and triglyceride).
  - **Antioxidant** activities.
  - **Kidney and liver** support.
  - **Immune function via modulating the release of some** inflammatory mediators.
  - Prebiotic improving the **intestinal barrier function,** preventing colon cancer, and alleviating symptoms of irritable bowel diseases.
  - In rats, a **protective effect** on the intestine against the adverse actions of the NSAID drug meloxicam.

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UNPFII 22ND SESSION

(Syllabus: GS Paper 2 - Social Justice)



'Wordplay': Activists criticise Centre for refuting 'Indigenous Peoples' concept at UNPFII

Concept of indigenous peoples not applicable in Indian context, the country's representative had said; there were tribal, not indigenous people in India

NEXT NEWS >

By Zumbish

Published: Friday 28 April 2023

Context: Adivasi rights activists have criticised India's representative at the **United Nations Permanent Forum on Indigenous Issues (UNPFII)** for stating that the concept of 'indigenous people' was not applicable in the Indian context.

- The **UNPFII meet (22nd session)**, the largest international annual gathering of indigenous people, was held in New York City from April 17-28.
- **Indigenous Peoples, human health, planetary and territorial health and climate change: a rights-based approach** was the priority theme of the event this year.

India's Position

- India's representative had stated during the General Discussion at the 22nd session of the UNPFII that the **issue of indigenous right**s pertained to people in countries who are regarded as indigenous "on account of their descent from the populations which inhabited the country or a geographical region to which the country belongs at the time of conquest or colonisation or the establishment of present state boundaries".
- These people, **irrespective of their legal status,** retain some or all of their own social, economic, cultural and political institutions.
- He noted that this was precisely the definition used in the **International Labour Organization Convention 169 of 1989.**
- Consistent with this definition, the government regard the entire population of India at the time of our independence and their successors to be indigenous. Therefore, the **concept of indigenous people is not applicable in India's context.**

Issues and Concerns

- The Centre's position that there are tribal and not indigenous people in India has often been **challenged and criticised strongly.**
- The UN's understanding of the concept of indigenous peoples is **not based on the ILO 169 definition.**
- It is **based upon the fact that different geographies** have had different processes and histories across time. Every country, in some form or the other, has been colonised. In the Indian context, if the cut off period is pre-Aryan invasion, then the people who were there before Aryans could be understood to be indigenous.
- If the government's position is that "all Indians are indigenous people", then it should not have any objection to the **Scheduled Tribes (STs) being called indigenous people.**
- Elements related to indigenous people in international law are found in Indian laws specific to STs.
- **International bank projects** like World Bank and the Asian Development Bank say that for India's STs, indigenous people operative applies and in that case, to receive international funds, the government does sign the documents stating so.
- The term **'Adivasi'** translated to 'First or Indigenous People'.

UNPFII

- **About**: The United Nations Permanent Forum on Indigenous Issues (UNPFII) is a **high- level advisory body to the Economic and Social Council.**
  - The Permanent Forum is one of three UN bodies that is mandated to deal specifically with **indigenous peoples' issues.**
  - The others are the Expert Mechanism on the **Rights of Indigenous Peoples and the Special Rapporteur on the rights of indigenous peoples**.
- **Origin**: The forum was **created in 2000** as an outcome of the **UN's International Year for the World's Indigenous People in 1993**, within the first International Decade of the World's Indigenous People (1995–2004).
- **Mandate**: To **deal with indigenous issues** related to economic and social development, culture, the environment, education, health and human rights.
- **Functions**: To promote the **integration and coordination of activities relating to Indigenous Peoples' issues** within the UN system; and promote respect for and full application of the provisions of the UN Declaration on the Rights of Indigenous Peoples and follow up on its effectiveness.
- **Headquarter**: New York.

BUSINESS STANDARD Page 4

POLLUTION CONTROL BOARDS

(Syllabus: GS Paper 3 - Env & Eco)

Most pollution boards choke on fund utilisation

11% of their total expenditure was on infrastructure and 2% was on research, development, and studies

NITIN KUMAR
New Delhi, 28 April

Most state pollution control boards in the Indo-Gangetic Plain are "severely understaffed" and ill-equipped to perform critical functions despite having surplus funds every year, a new study has said. The study by the independent Centre for Policy Research (CPR) found that a majority of the state pollution control boards (SPCBs) or pollution control committees (PCCs) turned a surplus for each of the last three years. Many struggled to spend the entire amount they collected through fees and other sources. Median fund utilisation rate (expenditure/revenue) was 48 per cent across all three years.

A substantial surplus generated each year by SPCBs is directed toward short-term fixed deposits rather than augmenting manpower, infrastructure, and equipment. An estimated Rs 2,893 crore was invested in fixed deposits by 10 SPCBs/PCCs as of 31 March 2021.

"The interest generated from these investments is essential to maintain a positive balance sheet for many SPCBs. This reliance on interest income constrains the ability of the Boards to allocate funds towards anything besides routine expenditure," said CPR in a statement.

CPR analysed pollution boards' revenue, expenditure, investments, and financial autonomy over three financial years (FY19-FY21) in 10 states: Bihar, Chhattisgarh, Delhi, Haryana, Jharkhand, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, and West Bengal.

According to the study, pay and allowances for staff comprise over half of SPCB/PCC expenditure, with some skewing upwards of 80 per cent. Spending on new infrastructure, including laboratory facilities, is low. Just 11 per cent of total expenditure was on infrastructure with some exceptions and only 2 per cent was on research, development, and studies.

A majority of SPCBs get their revenue from consent fees and interest from fixed deposits, which constitute roughly 76 per cent of their revenue. SPCBs do not receive financial support from the government for infrastructure expansion, said CPR.

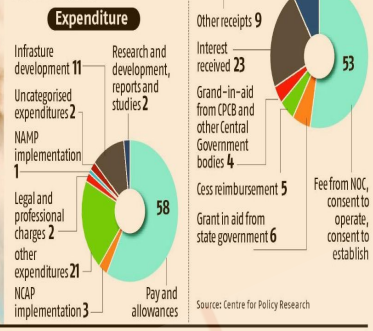
"In all but two cases, financial support was not provided by state governments to their respective SPCBs/PCCs. Central Government funding is sparse and is linked to existing centrally sponsored schemes," it said. It also highlights that the board member engagement in finances is insufficient. However, CPR finds that there is minimal focus on substantive issues such as finance in Board meetings.

"Achieving sustained improvement in air quality is contingent on our SPCBs functioning at their best, but this is unlikely unless they are fiscally healthy. Our research shows that in the absence of regular, untied financial support from State governments, SPCBs are highly reliant on fees and interest income. This creates a skewed incentive structure that deprives them of the financial and functional autonomy necessary to drive the improvements in air quality India needs," said Bhargav Krishna, fellow at CPR.



IN PERSPECTIVE

Contribution of sources aggregated across 9 SPCBs and DPCC from FY19 to FY21 (in %)



Source: Centre for Policy Research

Context: Most **state pollution control boards** in the Indo Gangetic Plain are "severely understaffed" and ill equipped to perform critical functions despite having surplus funds every year, a new study by the independent **Centre for Policy Research (CPR).**

- A majority of the state pollution control boards (SPCBs) or pollution control committees (PCCs) turned a surplus for each of the last three years.

State Pollution Control Boards

- **About**: They are constitutes in pursuance of the **Water (Prevention & Control of Pollution) Act, 1974.**
  - After the enactment of the **Air (Prevention & Control of Pollution) Act, 1981,** the enforcing responsibility was entrusted to these Boards.
  - They **supplement the Central Pollution Control Board (CPCB)** as they are a **statutory organization** entrusted to implement Environmental Laws and rules within the jurisdiction of a state.
- **Composition**: The members of State Pollution Control Boards are **nominated by respective State Governments.**
- **Functions**: Apart from the above said Acts, the Board is also enforcing the following **Rule and Notifications framed under Environment (Protection) Act, 1986:**
  - Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
  - Environmental Impact Assessment Notification, 2006.
  - Bio-Medical Waste Management Rules, 2016.
  - Plastic Waste Management Rules, 2016.
  - The Noise Pollution (Regulation & Control) Rules, 2000.
  - Construction & Demolition Waste Management Rules, 2016
  - The Public Liability Insurance Act, 1991.
  - Fly Ash Notification, 1999 and 2008.
- **Pollution control committees (PCC):** They **perform similar functions to SPCB.**
  - The difference between the two is that **PCC belongs to Union territories.**

Central Pollution Control Board (CPCB)

- **About**: CPCB is a **statutory organisation** which was constituted in September, 1974 under the **Water (Prevention and Control of Pollution) Act, 1974.**
  - It was also entrusted with the powers and functions under the A**ir (Prevention and Control of Pollution) Act, 1981.**
- **Functions**: It serves as a field formation and also provides technical services to the **Ministry of Environment, Forest and Climate Change** of the provisions of the Environment (Protection) Act, 1986.

ECONOMIC TIMES

Page 3

NEW RULES FOR STUBBLE BURNING

(Syllabus: GS Paper 3 - Env & Eco)

Up to ₹15,000 Fine for Stubble Burning

Compensation structure aligned to NGT fine regime on farm fires; stays clear of controversial criminal provisions of 2020

Anubhuti.Vishnoi
@timesgroup.com

New Delhi: The Centre has notified financial penalties ranging from Rs ₹2,500 to ₹15,000 for each instance of stubble burning by farmers, three years after it first said it would penalise farmers for this environmental hazard.

Officials said the milder 'environmental compensation' structure than the one proposed in 2020, which came into effect on Friday, is in keeping with the directions given by the National Green Tribunal (NGT) in several stubble burning cases and takes into account the high sensitivity among farmers on the issue.

The move comes months before the stubble fire season that annually plagues the Delhi-National Capital Region (NCR) air.

The new Commission for Air Quality Management (CAQM) in NCR and adjoining areas Rules 2023 stipulate that a farmer having an area of land less than two acres will have to pay an environmental compensation of ₹2,500 while the amount will go up to ₹5,000 for farmers with land holdings between two acres and five acres. Environmental compensation of ₹15,000 will be imposed for holdings above five acres, according to the rules.

Guidelines

Fine to be paid by farmers within 30 days of challan

Such a case to be marked with red entry on land revenue record

In case of non-payment, amount to be recovered by authorised state officials as an arrear of the land revenue

Environmental compensation collected under this rule shall be deposited in the account of respective State Pollution Control Board or Pollution Control Committee



The governments of Uttar Pradesh, Punjab, Haryana, Rajasthan and Delhi are now legally bound to follow this compensation structure.

The rules, however, steered clear of any criminal action for stubble burning or the hefty fines of up to ₹1 crore proposed in 2020.

"We have only notified what is already being implemented by the NGT. This is nothing new. This fine range prescribed by NGT is already being collected for stubble burning cases," and official told ET on condition of anonymity. "The bigger issue was criminal action and that was dropped in the CAQM Act of 2021 itself. However, the Act provided for imposition of environmental compensation as prescribed by the government. The same has been done – in keeping with the NGT regime." The NGT has been prescribing fines of ₹2500 to ₹5,000, ₹7,500 and ₹15,000 for holdings above 10 acres.

Context: The Centre has **notified financial penalties** ranging from Rs ₹2,500 to ₹15,000 for each instance of stubble burning by farmers, three years after it first said it would penalise farmers for this environmental hazard.

- **Commission for Air Quality Management (CAQM)** was established as a statutory body by the government in August 2021 as an overarching body to carry out air quality management in Delhi NCR.

New Rules

- The new **CAQM in NCR and adjoining areas Rules 2023** stipulate that a farmer having an area of land less than two acres will have to pay an environmental compensation of ₹2,500 while the amount will go up to ₹5,000 for farmers with land holdings between two acres and five acres.
  - **Environmental compensation** of ₹15,000 will be imposed for holdings above five acres
- The governments of **Uttar Pradesh, Punjab, Haryana, Rajasthan and Delhi are now legally bound** to follow this compensation structure.
- The rules steered **clear of any criminal action** for stubble burning or the hefty fines of up to ₹1 crore proposed in 2020.
- The **criminal action was dropped** in the CAQM Act of 2021..

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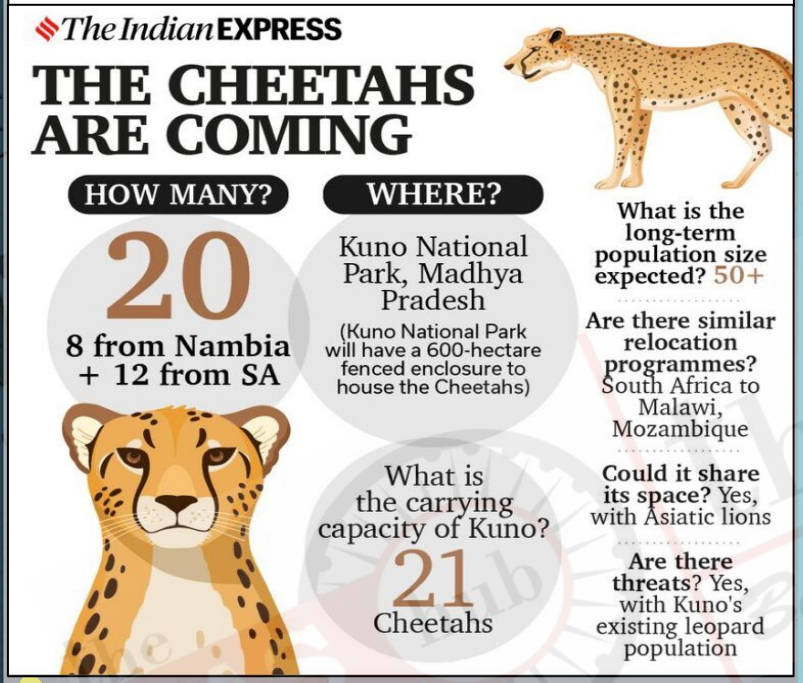
WILDLIFE TRANSLOCATION

(Syllabus: GS Paper 3 - Env & Eco)

WILDLIFE & BIODIVERSITY

Wildlife translocation programmes benefit if they incorporate human dimensions: Study

However, despite the recognised importance of human dimensions, these factors are still largely missing from many conservation initiatives



International Conservation Translocation Conference (ICTC)

- **About**: ICTC is a **premier conservation translocation science event,** linked to the International Union for Conservation of Nature (IUCN) Conservation Translocation Specialist Group (previously the Reintroduction Specialist Group), part of the IUCN Species Survival Commission.
- **Third ICTC 2023**: It will be **held from November 13-15,** 2023 in Fremantle, Western Australia.

Context: Efforts to **translocate wildlife** benefit if human-related factors, biological and environmental considerations are incorporated, according to a new study by the University of California-Berkeley (UCB).

- **Wildlife translocation** is the intentional movement of animals for conservation purposes.
- It has been used as a **technique to mitigate the loss and depletion** of endangered species.

Highlights of the Study

- The **success or failure of translocating wildlife** depends on which species is being shifted; whether it can survive in its new habitat and breed successfully as well as the amount of time and resources being allocated to the process.
    - Another important factor on which the success of **wildlife translocations hinges is coexistence with people.**
    - Despite the recognised importance of human dimensions, these factors are still largely missing from many conservation initiatives.
- The **failure of a translocation programme** can lead to distrust between stakeholders; the loss of resources and even the extinction or extirpation of entire populations or species. For Examples:
    - Four cheetahs were translocated from South Africa to **Liwonde National Park in Malawi** in 2017, thus ending the species' 20-year absence in the country.
    - Malawi's cheetah population has been steadily growing since then which is a major conservation success for a species that is considered as vulnerable on the **International Union for Conservation of Nature (IUCN) Red List.**
    - At least three incidents of lion translocation have been taken up across the world including two in India and all three have failed.
    - The ongoing **Project Cheetah by the Government of India** has also suffered setbacks recently.

TIMES OF INDIA

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HEAT INDEX

(Syllabus: GS Paper 1 - Geography)

IMD launches 'heat index' to give 'real feel' information

May Help Prevent Navi Mumbai-Like Heatstroke Tragedies

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New Delhi: There was no heatwave warning for the Navi Mumbai area of Maharashtra on April 16. The temperature wasn't expected to cross heatwave thresholds, and it didn't. The maximum recorded at the nearest station, Thane, was 38 degrees Celsius. Yet, 14 people died of heatstroke at an open-air state government event in the city that day and scores of others were taken ill.

Clearly, temperatures alone do not give the entire picture of how heat impacts people. (Although in the above case, the risks were compounded by prolonged exposure, age and health parameters of the victims). A matrix of conditions needs to be factored in, and set to a scale that's easily understood, for a more accurate risk assessment.

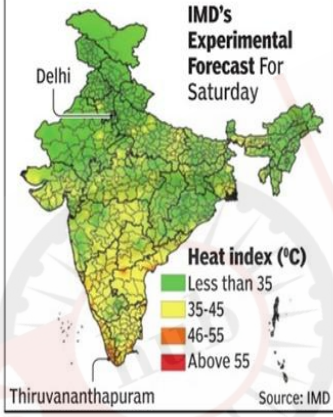
That's what the India Meteorological Department's heat index, launched on an experimental basis on Friday, aims to do. "Along with temperatures, the index takes into account humidity levels of a given place to give an equivalent 'feels like' temperature range," said Mrutyunjay Mohapatra, head of IMD.

In its current form, IMD's heat index will be available as a spatial map of the country giving the "feels like" temperature probabilities in the form of colour codes (see graphic), with green areas representing heat index temperatures below 35 degrees C at one end and the red areas showing extreme HI temperatures exceeding 55 degrees C. "The map is plotted by taking into account the forecast temperatures and humidity values of different places at 2.30pm, when the heat is usually at its peak," Mohapatra said.

However, the index currently is a work in progress. The heat risk factors that the colour codes represent are based on indices developed for the US. "The values for India will be different as Indians generally have a higher tolerance to heat. We are working out these values in consultation with the National Disaster Management Agencies by looking at heat mortality figures and other health parameters of different cities. Currently, this work has been completed for Bhubaneswar and Ahmedabad," he said.

IMD is also looking at factoring in more parameters such as night temperatures and the number of successive high heat days prior to the date of forecast, as these also impact the health of people. "With these also taken into account, IMD aims to develop our own unique heat index that would better represent the factors that led to death from heat in India," he added.

HOW THE INDEX LOOKS TODAY



Same Temperature, Very Different 'Feel'

- Heat index is a composite of **temp & humidity** to arrive at 'real feel' value
- **Eg:** Max temp forecast for **Delhi & Thiruvananthapuram** is the **same at 35°C**
- But **Delhi's** 'real feel' **below 35°C** while **Thiruvananthapuram's over 45°C** due to much higher humidity there

Context: IMD launched **'heat index'** to give 'real feel' information.

- In its current form, IMD's heat index will be a**vailable as a spatial map** of the country giving the "feels like" temperature probabilities in the form of colour codes:
  - **Green areas** representing heat index temperatures below 35 degrees C at one end.
  - **Red areas** showing extreme HI temperatures exceeding 55 degrees C.

India Meteorological Department

- **About**: It is the principal agency responsible for **meteorological observations, weather forecasting and seismology.**
  - IMD was established in **1875**.
- **Nodal Ministry**: It is an agency of the **Ministry of Earth Sciences** of the Government of India.

THE HINDU

Page 4

PANCHKANYA PAINTING

(Syllabus: GS Paper 1 - Art & Culture)

Last unfinished work of Raja Ravi Varma to be up for public display

Dhinesh Kallungal
THIRUVANANTHAPURAM

An unfinished painting by Raja Ravi Varma, who redefined Indian art traditions during the colonial times, will soon be in the public domain. The painting 'Parsi Lady', now owned by the Kilimanoor Palace Trust, was the last painting (unfinished) by the legendary artist. He died on October 2, 1906, inside 'Chithrashala,' the artist's studio at Kilimanoor Palace, leaving the painting unfinished.

Now, the Palace Trust has decided to unveil the painting along with another painting – the portrait of Thriketta Thirunal Uma Amma Thampuratti – which has also not been displayed yet, on the occasion of the 175th birth anniversary of Ravi Varma, who was born into the aristocracy at Kilimanoor in the erstwhile Travancore on April 29, 1848.



The 'Parsi Lady' being restored at Kilimanoor Palace.

Rama Varma Thampuran, general secretary, Kilimanoor Palace Trust, told *The Hindu* that 'Parsi Lady' had a lot of specialities as it provided a glimpse into the Mumbai life of Ravi Varma and his association with people like filmmaker Dada Saheb Phalke.

Visual adaptation

"We assume that the painting was a visual adaptation of a Parsi woman he came to know in Mumbai," said Mr. Thampuran.

Ravi Varma wound up his press and returned to Kerala in 1904 after his younger brother fell ill.

After reaching here, he continued to paint at Chithrashala. He completed many of the paintings he had brought from Mumbai and gifted them, but 'Parsi Lady' remained unfinished. The palace has now restored the work with the help of S. Madhan, an art restorer based in Tamil Nadu and a disciple of the late V.N. Selvarehai, senior conservator, National Research Laboratory for Conservation of Cultural Property.

Context: Sita, one of the **Panchkanya (five women) painted by Raja Ravi Varma**, will come alive at the Orientation Hall of Bihar Museum, on April 29, to commemorate the **175th birth anniversary of Raja Ravi Varma.**

- The premiere of Sita takes place in Bihar, because Mithila, as the region was called in ancient texts, is believed to be the birth place of Sita.
- Mandodari was the first one to be performed in 2019. Then came Draupadi and Ahalya.
- After Sita, the series will conclude with Tara in 2024.

Raja Ravi Varma

- **About**: Raja Ravi Varma (1848–1906) , also known as '**The Father of Modern Indian Art**' was an Indian painter of the 18th century who attained fame and recognition for portraying scenes from the epics of the Mahabharata and Ramayana.
  - He was one of the **first Indian painters to successfully adopt Western painting** techniques and adapt academic realism to the visual interpretation of Indian mythology.
  - As a prolific artist, Raja Ravi Varma is believed to have made around 7,000 paintings before his death at the age of 58.
- **Background**: He was born into aristocracy at Kilimanoor in the erstwhile **Travancore** state of present-day Kerala.
  - At the age of 14, **Varma was patronised by Ayilyam Thirunal,** the then ruler of Travancore.
  - Later, Varma studied **oil painting** from British painter Theodore Jensen.
  - Varma worked on **both portrait and landscape paintings** and is considered among the first Indian artists to use oil paints.
- **His works:**
  - He painted the **picture of God and Goddess** that helped Dalits, who were prohibited from entering temples to know about the Gods.
  - He used **oil paint colours** rather than watercolours.
  - In his painting, he has shown the **position of Indian men and women** like how they were treated at that time.
  - His works are the best examples for the **fusion of European techniques** with Indian sensibility.
  - His most famous works include **Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair, and Shantanu and Matsyagandha**.

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