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MK Yadav Sir

Table of Contents

1. RuPay Debit Cards
2. PM MITRA Park
3. AMD-CF Scheme
4. Semiconductor Manufacturing
5. Apple Cultivation
6. Pandemic Fund
7. iCET Initiative
8. PM 2.5 Pollution
9. Methane Mitigation Policies
10. Lumpy Skin Disease

RUPAY DEBIT CARDS

(Syllabus: GS Paper 3 - Economy)

NPCI Leans on Bank Partnerships to Push RuPay Credit Cards

Sets internal target of cornering around 10% of the overall monthly credit card spends in next one year

Pratik Bhakta & Tarush Bhalla

Bengaluru: The National Payments Corporation of India is looking to aggressively push up the usage of RuPay credit cards in the market and is seeking bank tie ups to help this.

According to two senior bankers in the know, NPCI is working closely with a clutch of major banks to find out ways to push usage of these credit cards and has set an internal target of cornering around 10% of the overall monthly credit card spends in the next one year. "RuPay has hardly moved the needle in its credit card business, but the recent regulatory nod for RuPay credit cards on UPI transactions is opening up fresh use cases," said one of the bankers quoted above. "Currently, it will have around 1% of the overall spends, the target for NPCI is to push it up 10 times."

In April 2023, Indians spent ₹1.3 lakh crore through their credit cards across point of sales terminals and ecommerce transactions, RBI data shows. As per industry estimates, around ₹1,300 to ₹1,500 crore could be processed by RuPay currently. The target would be to take it up to ₹15,000 crore per month.

"The credit card market in India has opened up, so overall new card issuance and card swipes is going up, RuPay wants to ride this growth by leveraging UPI," the other banker quoted earlier said.

Among the large banks, ET understands that Axis Bank, HDFC Bank and SBI Card are front runners in building these partnerships with RuPay. SBI Card has already announced its co-branded pro- position with Paytm on Ru- Pay card rails.

"The UPI-credit card linkage programme is an extremely powerful and unique way to bring structured credit to the millions of DTA (direct to account) transactions which happen every month... thus offering a large opportunity to source new credit cards as well as enhance consumption," said Parag Rao, group head-payments, consumer finance, technology and digital banking at HDFC Bank.

He further added that the bank already has a multi-channel strategy to offer cards to millions of customers on the UPI credit card programme and will join its fintech partners where appropriate.

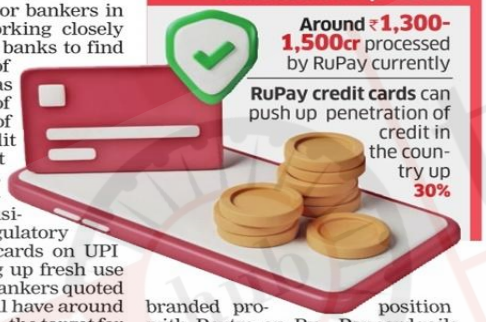
NPCI did not comment on ET queries. Emailed queries sent to Axis Bank did not elicit a response till press time Sunday.

On the Money

₹1.3 lakh crore Money spent by Indians via credit cards across PoS terminals, ecomm transactions in April 2023

Around ₹1,300-1,500cr processed by RuPay currently

RuPay credit cards can push up penetration of credit in the country up **30%**



Context: The **National Payments Corporation of India** is looking to aggressively push up the usage of **RuPay credit cards** in the market and is seeking bank tie ups to help this.

- NPCI is working closely with **a clutch of major banks to find out ways to push usage of these credit cards** and has set an internal target of cornering around 10% of the overall monthly credit card spends in the next one year.

RuPay Debit Cards

- It is the first of its kind **global card payment network** of India.
- It was conceived and launched by the **National Payments Corporation of India (NPCI) in 2012.**
- The name, derived from **'Rupee and Payment',** emphasises India's very own initiative for Card payments.
- It has wide acceptance at ATMs, POS devices and e-commerce websites across India.
- It is a highly **secure network** that protects against anti-phishing.
- It fulfils RBI's vision of initiating a **'cashless economy'** by establishing a domestic, open and multilateral system of payments.
- It **facilitates electronic payment** at all Indian banks and financial institutions.
- **NPCI maintains ties with Discover Financial,** JCB to enable RuPay card scheme to gain international acceptance.
- RuPay cards are **issued by more than 1100 banks** including public sector banks, private, regional banks and cooperatives.
- It's 10 core promoter banks include **SBI, PNB, Canara bank, BOB, Union Bank of India, Bank of India, ICICI Bank, HDFC bank, Citibank and HSBC.**

PIB MAY 22

PM MITRA SCHEME

(Syllabus: GS Paper 3 - Economy)

MoU signing for PM MITRA Park, Dhar on 21st May 2023

Context: The proposal to set up **PM MITRA Park** in village Bhensola, Badnawar Tehsil, Dhar district of Madhya Pradesh received formal approval from the Government of India in March, 2023.

- The program for MoU signing between Government of India (Ministry of Textiles) and Government of Madhya Pradesh took place in Dhar district of MP on 21.05.2023.

PM MITRA scheme

- **About**: P**M MITRA (Mega Integrated Textile Region and Apparel) scheme** was first announced in **Union Budget for 2021-22.**
  - Under the scheme, **a park will be developed by a Special Purpose Vehicle** which will be owned by the Central and State Government and in a Public Private Partnership (PPP) Mode.
- **5F vision**: The PM MITRA scheme is inspired by the 5F vision - **Farm to Fibre to Factory to Fashion to Foreign**.
  - It aspires to fulfill the vision of building an **Atma Nirbhar Bharat** and to position India strongly on the Global textiles map.
- **Nodal Ministry: Ministry of Textiles.**
- **Components of the project:** The parks will have **50% area for manufacturing activity, 20% for utilities, and 10% area for commercial development.**
  - The textile parks will include an incubation centre and plug-and-play facility, developed factory sites, roads, power, water, and waste-water system, common processing house and CETP, and other related facilities like design centre, testing centre, among others.
  - The parks will also have workers' hostels and housing, logistics park, warehousing, medical, training and skill development facilities.
- **Funding and Capital**:
  - **Greenfield PM MITRA park**: The Government of India development capital support will be **30 percent of the project cost,** with a cap of Rs 500 crore.
  - **Brownfield PM MITRA park:** After assessment, development capital support at **30 percent of project cost of balance infrastructure and other support facilities** to be developed and restricted to a limit of Rs 200 crore.
  - **Competitiveness incentive support (CIS):** The Centre will also provide a **fund of ₹300 crores for each PM MITRA Park** to incentivize the establishment of manufacturing units.
    - It will be **paid up to 3 percent of the turnover** of a newly established unit in the parks.
    - State government support will include the **availability of "contiguous and encumbrance-free land parcel** of over 1,000+ acres" along with other textiles-related facilities and ecosystems.

LIVE MINT

Page 8

AMD-CF SCHEME

(Syllabus: GS Paper 3 - Infrastructure)

Guidelines to bolster medical device sector with infra push

Priyanka Sharma
priyanka.sharma@livemint.com
NEW DELHI

The Centre has announced a new initiative, dubbed the "Assistance to Medical Device Clusters for Common Facilities" scheme, aimed at fortifying the medical device sector.

The scheme plans the establishment of additional quality testing labs, the development of shared infrastructure facilities, and the provision of financial aid to manufacturers, underpinning the Centre's commitment to bolstering this critical industry.

Guidelines for the scheme were issued by the Department of Pharmaceutical against the backdrop of the recently launched National Medical Devices Policy.

The department has outlined a need for improved regulatory compliance and a boost in the availability of skilled personnel. The plan is set to roll out in the next fiscal year, running from 2023-24 through to 2026-27, further underlining the Centre's commitment to this critical industry.

The scheme plans the establishment of additional quality testing labs and also providing financial aid

It is important to note that the Indian medical device industry is currently the 4th largest Asian medical devices market after Japan, China and South Korea. It is estimated at $11 billion and has the potential to reach $50 billion by 2030.

The union health minister Mansukh Mandaviya will launch the new scheme during the eighth edition of international conference on 'India Pharma & India Medical Device 2023' to held from 26-27 May.

Context: The Centre has announced a new initiative, dubbed the "**Assistance to Medical Device Clusters for Common Facilities" scheme,** aimed at fortifying the medical device sector.

- The scheme plans the **establishment of additional quality testing labs,** the development of shared infrastructure facilities, and the provision of financial aid to manufacturers, underpinning the Centre's commitment to bolstering this critical industry.

Assistance to Medical Device Clusters for Common Facilities scheme

- **Nodal Ministry**: Department of Pharmaceuticals (DoP), under **Ministry of Chemicals & Fertilizers**, Government of India.
- **Objectives**: This scheme **aims to strengthen Medical Device clusters** by providing financial assistance and to strengthen and / or establish more testing laboratories for Medical Devices to improve quality and sustainable growth.
    - While **Medical Devices Parks** as planned clusters with shared common manufacturing & testing or warehousing & clearing facilities were being encouraged to help reduce the CAPEX (capital expenditure) of manufacturers, it is also important to strengthen the existing manufacturing natural clusters that existed in different parts of the country.
- **Funding:** For Common Infrastructure Facilities (CIF) for the Medical Device (MD) clusters, the limit of support will be **70% of the approved project cost or Rs 20 crore**, whichever is less, as per the approval of Scheme Steering Committee (SSC).
    - In the case of **Himalayan States and States in the Northeast Region,** the grant-in-aid would be Rs 20 crore per cluster or 90% of the project cost of the CIF, whichever is less.

SEMICONDUCTOR MANUFACTURING

(Syllabus: GS Paper 3 - Infrastructure)

India can become biggest chip producer in next 5 yrs: Vaishnaw

ENS ECONOMIC BUREAU
NEW DELHI, MAY 21

INDIA WILL become the biggest semiconductor manufacturing destination in the world in the next five years with the Centre ensuring that the right ecosystem is built, with production in India being the cheapest globally, Minister of Electronics and IT Ashwini Vaishnaw said during the Express Adda Saturday.

In December 2021, the Centre had announced a $10 billion semiconductor manufacturing plan with a fabrication plant expected to get approval soon.

"We know for sure that in the coming 4-5 years, India will become the biggest semiconductor manufacturing destination in the world if you have the ecosystem in place. Our focus is making sure that the right ecosystem is built," Vaishnaw said.



Railways, Electronics and IT Minister Ashwini Vaishnaw at the Express Adda in Delhi on Saturday. *Tashi Tobgyal*

He was in conversation with Anant Goenka, Executive Director, Indian Express Group, and Anil Sasi, National Business Editor, *The Indian Express*.

Vaishnaw described semiconductor manufacturing and its

CONTINUED ON PAGE 4

Context: India will become the biggest s**emiconductor manufacturing destination** in the world in the next five years with the Centre ensuring that the right ecosystem is built, with production in India being the cheapest globally, Minister of Electronics and IT said.

- In December 2021, the Centre had announced a **$10 billion semiconductor manufacturing plan** with a fabrication plant expected to get approval soon.

Semiconductor Market

- India currently **imports all chips and the market** is estimated to touch $100 billion by 2025 from $24 billion now.
- For the domestic manufacturing of semiconductor chips, India has recently **launched several initiatives:**
  - The Union Cabinet has allocated an amount of ₹76,000 crore for supporting the development of a **'semiconductors and display manufacturing ecosystem'.**
  - Consequently, a significant amount of incentives would be provided to design companies to design chips.
  - India has also launched the **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** for manufacturing of electronics components and semiconductors.
  - In 2021, the MeitY also launched the **Design Linked Incentive (DLI) Scheme** to nurture at least 20 domestic companies involved in semiconductor design and facilitate them to achieve a turnover of more than Rs.1500 Crore in the next 5 years.
- India's own consumption of semiconductors is expected to cross USD 80 billion by 2026 and to USD 110 billion by 2030.
- The **chip-making industry is a highly-concentrated one**, with the big players being Taiwan, South Korea and the U.S. among others.
  - **90% of 5 nm (nanometre) chips are mass-produced in Taiwan,** by the Taiwan Semiconductor Manufacturing Company (TSMC).
- **U.S.-China tensions over Taiwan**, and the supply chain blockages owing to the Russia-Ukraine conflict have led major economies to enter the chip-making sector with a renewed push.

Initiatives related to Semiconductors

- **Semi-conductor Laboratory (SCL):** It is responsible for design and development of **very-large-scale integration (VLSI) devices** and development of systems for the telecommunication and space sectors.
- **Production Linked Incentives:** A scheme that aims to give companies **incentives on incremental sales** from products manufactured in domestic units.
- **Compound Semiconductors:** Government will support fiscal support of **30% of capital expenditure** to approved Compound Semiconductors units.

DTE

MAY 22

APPLE CULTIVATION

(Syllabus: GS Paper 3 - Agriculture)



World Bee Day: Climate change may be causing an apple crisis in Himachal and Kashmir this year; here's how

A decline in native and foreign bees due to change in weather and the use of pesticides means that apple production in both areas may take a hit

NEXT NEWS >

By Raju Sajwan
Published: Saturday 20 May 2023

Apple cultivation

- **Region**: In India apple is primarily cultivated in **Jammu & Kashmir; Himachal Pradesh; the hills of Uttar Pradesh and Uttaranchal.**
  - **Jammu and Kashmir** is the state to contribute around 77.71% of the total apple production of India.
  - It is also cultivated to a small extent in **Arunachal Pradesh; Nagaland; Punjab and Sikkim.**
- **Climatic conditions required:** The apple is a **temperate fruit crop.**
  - It can be grown at an **altitude of 1500- 2700 m** above sea level.
  - However, in India, the **apple-growing areas do not fall in the temperate zone** but the prevailing temperate climate of the region is due to the Himalayan ranges and high altitudes.
- **Temperature**: The average summer temperature should be around **21-24 degrees C** during the active growth period.
- **Rainfall**: **Well-distributed rainfall of 1000-1250 mm** throughout the growing season is most favourable for the optimum growth and fruitfulness of apple trees.
- **Soil**: Apples grow best on **well-drained, loamy soils.**

Context: Climate change is causing bees, among nature's primary pollinators, to die in **Himachal Pradesh and the Kashmir Valley.**

- This has led to major **losses for apple growers** in the two areas and could impact their respective economies.

Key Points

- While **apple production is estimated to decrease by about 30 per cent** this time in Himachal Pradesh, 20 percent loss is estimated in Kashmir.
- Almost every apple grower in Himachal Pradesh is distressed about the **lack of pollination** of apple flowers due to the change in weather this time.
- **'Setting'** is a temporary phase between the pollination of flowers and the development of fruits.
- Due to lack of pollination, there may be a **loss of 20 to 30 per cent in the production of apples.**
- Almost 100 per cent of apple growers in Kashmir **use bees for pollination**. But this time, due to rain and low temperature, the bees could not come out.
- Consequently, **cross-pollination** will not be possible.
- **Two species** are used for large and commercial pollination in India.
  - These are the **Apis mellifera** or the Italian bee and the **Apis cerana** indica or the Indian bee. Of these, Apis mellifera is mostly used as it is much larger than Apis cerana.
  - **Mellifera** bees were first brought to India in 1962 and reared in Nagrota, Himachal Pradesh. Since then, they have been used to promote horticulture in the state.

Reasons for the decrease in the number of naturally occurring insects

- **Clearing of forests for farming and horticulture**: Due to this, there has been a decrease in the habitat and plants which supply food to these insects.
- **Indiscriminate use of pesticides:** It has also led to a drastic reduction in the number of natural pollinating insects.
- **Change in weather**: When the temperature started rising in the medium altitude areas of Himachal Pradesh, the native bees could not withstand it. But Italian bees could.
  - However, these bees are not able to withstand the low temperature (like this year), due to which they die.

BUSINESS STANDARD

Page 1

PANDEMIC FUND

(Syllabus: GS Paper 2 - Polity & Governance)

India asks for $55-mn funding in first call with Pandemic Fund

SANJEEB MUKHERJEE
New Delhi, 21 May

In a significant development, India is believed to have placed a funding request of around $55 million in its first call with the Pandemic Fund of the World Bank, sources said.

The fund has been set up to finance critical investments in a bid to strengthen pandemic prevention, preparedness, and response capacities at national, regional, and global levels, with a focus on low- and middle-income countries. It was created in the aftermath of the Covid-19 global pandemic.

The sources said the funding request from India is for fighting pandemics among both humans and animals. Surveillance and prevention of diseases in animals are equally important as many diseases are zoonotic. Also, a few studies have suggested that the SARS-CoV-2 virus, which causes Covid-19, originated in animals and spread to humans in late 2019 at the Huanan Seafood Market in Wuhan.

India's request, the sources said, is a reflection of the country's commitment to being fully prepared to fight any future global pandemic or health emergencies, such as Covid-19 or SARS.

According to the fund's website, the Pandemic Fund Governing Board has approved an envelope of $300 million for its first round of funding to help developing countries better prepare for and respond to future pandemics.

In total, partners have pledged contributions of over $1.6 billion to the Pandemic Fund, with the US and the European Union leading the list of donors.

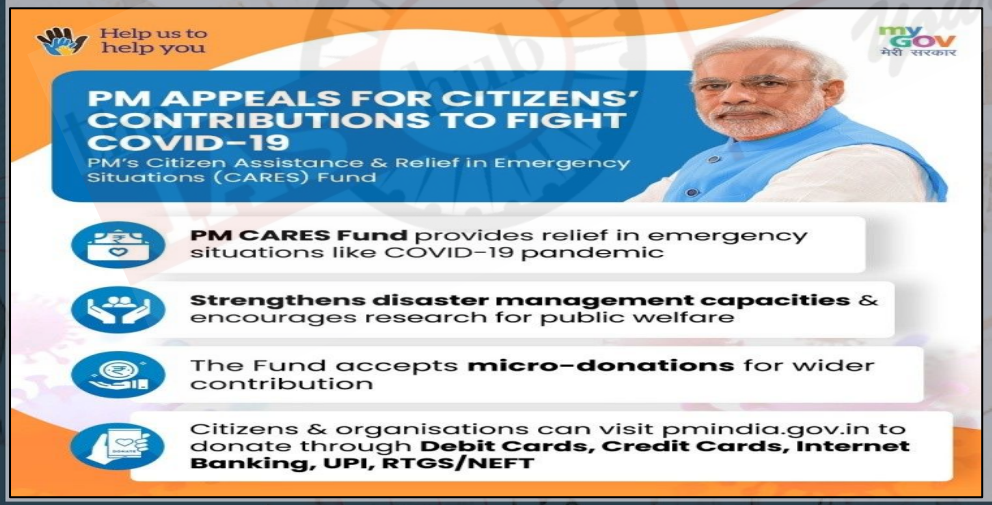
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ILLUSTRATION: AJAY MOHANTY



WHAT'S PANDEMIC FUND

- It is to finance investments to strengthen pandemic prevention, preparedness, and response capacities
- Created in the aftermath of the Covid-19 pandemic; the World Bank is its trustee
- $300 million has been approved for the first round of funding
- $1.66-billion contributions have been pledged to the fund



Context: In a significant development, India is believed to have placed a funding request of around $55 million in its first call with the **Pandemic Fund of the World Bank.**

- The funding request from India is for fighting pandemics among **both humans and animals.**

Pandemic Fund

- **About**: It is a **multi-stakeholder global partnership**, with its Secretariat hosted by the World Bank.
  - It is **governed by a Board** comprising representatives from sovereign contributors, non-sovereign contributors, sovereign co-investors and civil society organizations.
- **Objectives**: To **provide additional, long-term financing** to strengthen pandemic prevention, preparedness and response(PPR) capabilities in low- and middle-income countries and address critical gaps at the national, regional and global levels.
- **Trustee and Host: World Bank** will serve as a trustee and host the secretariat of the fund with technical support from the **World Health Organization(WHO).**
- **Funding**: The fund was developed with **broad support from members of the G20** and beyond.
  - For instance, **over $1.4 billion in financial commitments** have already been announced by countries like Australia, Canada, China, the European Commission, the United States, India among others.
- **Areas**: Finances from the fund will go towards strengthening and sustaining PPR capacity in areas such as **zoonotic disease surveillance, laboratories, emergency communication, coordination and management, critical health workforce capacities and community engagement.**

THE HINDU Page 10

iCET INITIATIVE

(Syllabus: GS Paper 2 - International Relations)

India, U.S. to hike technology cooperation; co-production of jet engines on the table

Dinakar Peri
NEW DELHI

India and the U.S. are discussing possibilities of co-producing jet engines, long-range artillery and infantry vehicles under the Initiative on Critical and Emerging Technologies (iCET) announced earlier this year, and officials said some high-technology initiatives are expected to be announced during Prime Minister Narendra Modi's upcoming visit to the U.S. next month.

Ahead of the visit, the launch of INDUS-X under the iCET to promote partnerships between the two countries' defence innovation ecosystems is scheduled in Washington.

In the run-up to the visit, these issues were discussed at the 17th meeting of India-U.S. Defence Policy Group (DPG), chaired by Defence Secretary Giridhar Aramane from India and Under Secretary of Defence for Policy Colin Kahl last week.

"The two sides reviewed the progress made in furthering defence industrial cooperation and operationalising the India-U.S. Major Defence Partnership. Important aspects such as military-to-military cooperation, and cooperative activities in the Indian Ocean Region were discussed," the Defence Ministry said in a statement.

If the U.S. agrees to transfer jet engine [technology] to India, it sends a very strong message to China

Enhancing cooperation

The Ministry further said that considerable focus was given on the ways and means to enhance defence industrial cooperation, including technology partnership, long-term research and development, and improving supply chain security.

Officials from both sides confirmed that the jet engine collaboration was discussed during DPG along with other collaboration mechanisms within co-production and co-development.

Among proposals being discussed is to jointly produce a jet engine for India's future indigenous jets for which General Electric is competing with Safran of France and Rolls-Royce of U.K.

Commenting on this, Mukesh Aghi, president and CEO of the U.S.-India Strategic Partnership Forum (USISPF), said only four countries make jet engines for planes, and India will be the fifth one if the deal is announced.

"So the jet engine deal will take India's capability in the aircraft industry to a new level. The deal also sends a message to the Chinese that the relationship between India and the U.S. is not just a surface relationship and is getting deeper," he told *The Hindu*.

If the U.S. agrees to transfer jet engine [technology] to India, which China doesn't at present have the capability for, it sends a very strong message, Mr. Aghi further said.

Earlier efforts at co-developing a jet engine has failed to take off owing to U.S. domestic legislation.

(With inputs from Suhasini Haidar)

Context: India and the U.S. are discussing possibilities of co-producing jet engines, long-range artillery and infantry vehicles under the **Initiative on Critical and Emerging Technologies (iCET)** announced earlier this year and some high-technology initiatives are expected to be announced during Prime Minister's upcoming visit to the U.S. next month.

- Ahead of the visit, launch of **INDUS-X under the iCET** to promote partnerships between the two countries' defence innovation ecosystems is scheduled in Washington.

U.S.-India initiative on Critical and Emerging Technology (iCET):

- **About**: It was **launched by the US President and Indian Prime Minister** on the sidelines of the Quad summit on May 2022.
- **Objective**: To **elevate and expand Indo-U.S. strategic technology partnership** and defense industrial cooperation between the governments, businesses, and academic institutions of the two countries.
    - The initiative would help forge links between the government, academia, and industry in areas such as AI, quantum computing, 5G/6G, biotech, space, and semiconductors.
- **Nodal Agency**: The initiative will be spearheaded by the **National Security Council Secretariat** in India and the US National Security Council.
- **Focus areas**: Under iCET, the two sides have **identified six focus areas of co-development and co-production:**
    - Strengthening innovation ecosystems.
    - Defense innovation and technology cooperation.
    - Resilient semiconductor supply chains.
    - Space.
    - STEM (science, technology, engineering, and math) talent.
    - Next-generation telecom.

TIMES OF INDIA

Page 2

PM 2.5 POLLUTION

(Syllabus: GS Paper 3 - Env & Eco)

How winds decide flow of PM2.5 from and to city

Priyangi.Agarwal
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New Delhi: An analysis by IIT Kanpur and IIT Delhi has estimated that NCR districts contributed PM2.5 of 150 micrograms per cubic metre to Delhi's air in January.

Similarly, Delhi contributed PM2.5 concentration of 60-80 micrograms per cubic metre to NCR districts in January.

The analysis emphasises the need of airshed management to control pollution in NCR.

Though Delhi is part of the national capital region (NCR), the results were calculated based on the model estimation in the context of Delhi.

The analysis estimated that around 230 micrograms per cubic metre was the total emission in January. The findings of this analysis were shared with the Delhi Pollution Control Committee (DPCC) and also with other departments and institutions during a conference.

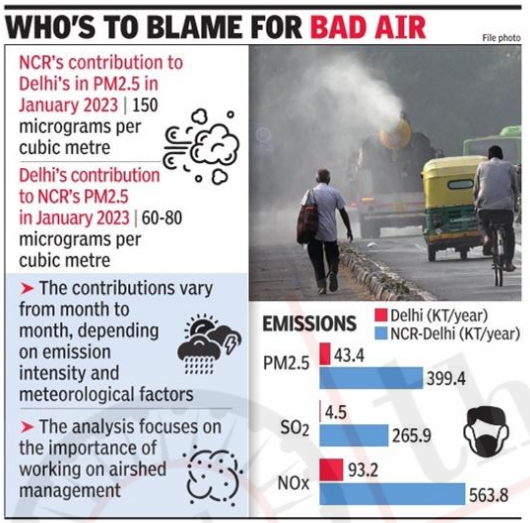
Officials said the PM2.5 concentration from NCR coming into Delhi or vice-versa vary from day to day as it depends on emissions and meteorological factors, such as wind speed and direction. If the wind is unfavourable for the transport of emissions from other NCR districts to Delhi, there will be no impact on the national capital's air quality.

The analysis is part of the ongoing real-time source apportionment study, started by DPCC in collaboration with the two IITs and TERI in November last year.

A senior official, who did not want to be named, said: "The environment department is preparing an action plan on the basis of results of the real-time source apportionment study. However, the analysis points out that a combined action plan is needed to cut down the emissions at the regional level."

Delhi environment minister Gopal Rai, who recently chaired a round-table conference with various departments and organisations, said that the goal was to devise policies at the local and regional level to enhance the air quality in Delhi by seeking suggestions from different experts on the findings of the real-time source apportionment study.

Anumita Roychowdhury, executive director, research and advocacy, Centre for Science and Environment (CSE), said, "It is necessary to take an air shed approach to quality management to meet targets. While strengthening local action to cut emissions from all key sources in the city, it is equally important to scale up strong action across the region. This will require a coordination and monitoring framework for state governments."



Context: An analysis by IIT Kanpur and IIT Delhi has estimated that **NCR districts contributed PM2. 5 of 150 micrograms** per cubic metre to Delhi's air in January.

- Similarly, Delhi contributed PM2.5 concentration of 60-80 micrograms per cubic metre to NCR districts in January.

Particulate Matter 2.5 (PM2.5)

- **About**: The term fine particles, or particulate matter 2.5 (PM5), refers to t**iny particles or droplets** in the air that are two and half microns or less in width.
  - According to the **WHO Air Quality Guidelines** the 24-hour mean of PM2.5 should not exceed 15 µg/m3 and annual mean of PM2.5 should not exceed 5 µg/m3.
- **Sources**: Outside, fine particles primarily come from c**ar, truck, bus and off-road vehicle (e.g., construction equipment, snowmobile, locomotive) exhausts, other operations** that involve the burning of fuels such as wood, heating oil or coal and natural sources such as forest and grass fires.
  - Fine particles also form from the **reaction of gases or droplets** in the atmosphere from sources such as power plants.
  - PM 2.5 is also **produced by common indoor activities** like tobacco smoke, cooking (e.g., frying, sautéing, and broiling), burning candles or oil lamps, and operating fireplaces and fuel-burning space heaters (e.g., kerosene heaters).
- **Effect on health:** Particles in the PM 2.5 size range are **able to travel deeply into the respiratory tract, reaching the lungs.**
  - Exposure to fine particles can **cause short-term health effects** such as eye, nose, throat and lung irritation, coughing, sneezing, runny nose and shortness of breath.
  - Long term exposure to fine particulate matter may be associated with increased r**ates of chronic bronchitis, reduced lung function and increased mortality from lung cancer and heart disease.**

DTE

MAY 22

METHANE MITIGATION POLICIES

(Syllabus: GS Paper 3 - Env & Eco)



Methane mitigation policies cover 13% emissions, most not stringent enough: Study

In India, there are no effective policies targeting methane emissions from rice cultivation and biomass burning

NEXT NEWS >

By Rohini Krishnamurthy

Published: Saturday 20 May 2023

Context: Only 13 percent of **methane emissions** are covered by global methane mitigation policies, according to a new review study.

- The current **policies to mitigate methane emissions** are not stringent enough.

Methane

- Methane is **80 times more potent** than carbon dioxide over 20 years.
- It is responsible for around **30 per cent of the rise in global temperatures** since the Industrial Revolution.
- **Agriculture, fossil fuels** as well as solid waste and wastewater are the three major sources of methane.

India's policies

- In India, there are **no effective policies targeting methane emissions** from rice cultivation and biomass burning (burning of crop waste residues such as rice paddy straw, the paper stated.
- While policies targeting biomass burning have quite broad coverage, their implementation remains challenging.
- While, the **centre and state rules** - advisories, bans and incentive systems - have been adopted since 2014, they have been only partially enforced.
- Also, the **1997 Coalbed methane policy** was ineffective in incentivising coalbed methane production.
    - Coalbed methane is the methane produced during the coal formation process, which gets trapped on the surface of the coal in tiny pores and fractures.
- In 1997, the Government of India designed a policy to extract **Coalbed Methane from coal-bearing areas** prior to the mining of coal.
- At present, **coalbed methane is not produced** from any working or operational coal mines in the country.
- While reducing livestock or rice-production-related emissions is challenging, **India can contribute by reducing emissions** associated with coal production.

Initiatives taken to curb methane emissions

- **COP 26 Pledges:** At COP26 in Glasgow, over 100 countries signed an agreement to **cut methane emissions by 30% by 2030.**
- **MethaneSAT**: It is a planned American-New Zealand space mission scheduled for launch later in 2022.
    - It **will be an Earth observation satellite** that will monitor and study global methane emissions in order to combat climate change.
- **UN Initiatives**: The **UN Food Systems Summit** in September 2021 was also aimed at helping make farming and food production more environmentally friendly.
- **India's Initiative**: **Central Salt & Marine Chemical Research Institute (CSMCRI)** in collaboration with the country's leading institutes developed a seaweed-based animal feed additive formulation that aims to reduce methane emissions from cattle and also boost immunity of cattle and poultry.

PIB MAY 22

LUMPY SKIN DISEASE
(Syllabus: GS Paper 3 - Sci & Tech)

Union Minister Shri Parshottam Rupala directs prompt action on reports of rising cases of lumpy skin disease (LSD) in livestock of Darjeeling and Kalimpong districts

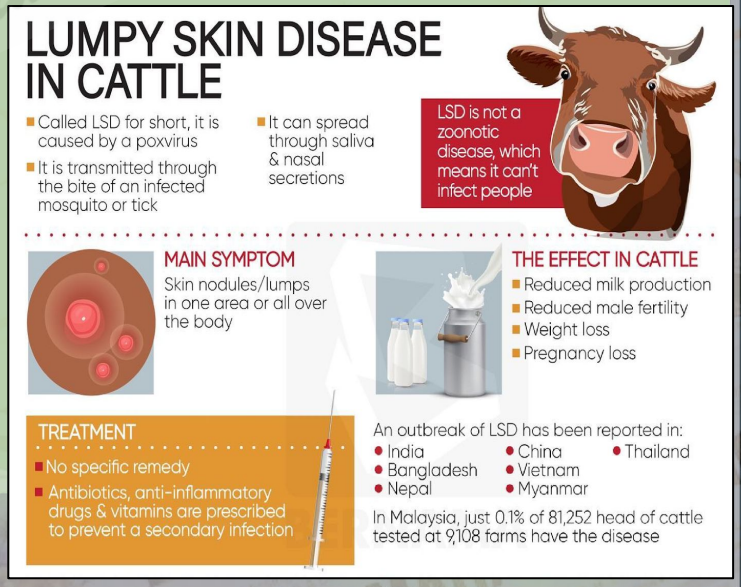
Context: Department of Animal Husbandry and Dairying under the Ministry of Fisheries, AH and Dairying acts promptly to address concerns of livestock farmers of Darjeeling and Kalimpong districts of West Bengal, as suspected cases of **LSD (Lumpy Skin Disease)**, a devastating disease of Cattle and Buffaloes are reported.

The Department has been implementing various measures for control of the disease which are as under:

- **Surveillance**: The Department has already **formulated the surveillance strategy** through Exit Plan and circulated to all the states.
  - Diagnostic facilities are readily available in the region and **Regional Disease Diagnostic Laboratory (RDDL),** Kolkata has been authorized and financially supported for surveillance of cattle through PCR testing of LSD and the same was communicated to the state.
- **Vaccination programme:** States have been advised regularly to undertake vaccination as per the controlled and preventive strategy.
  - Uniform rates for purchase of the vaccines have been communicated to the state.
  - Financial assistance under **Assistance to States for control of animal diseases (ASCAD)** with 60: 40 share is provided to the states including West Bengal.
- **Visit of RDDL officers to Kalimpong and Darjeeling:** The central team has been constituted to visit the affected area to assess the ground situation and to support the state AHD for control and containment of LSD in definite timeline.

Lumpy Skin Disease

- **About**: A poxvirus that belongs to the same genus as **sheep pox and goat pox viruses.**
- **Origin**: Lumpy skin disease was first seen as an epidemic in **Zambia** in 1929.
- **Transmission**: It spreads through blood-sucking insects like mosquitoes, flies and ticks as well as through saliva and contaminated water and food.
- **Mortality rate:** According to the Food and Agriculture Organization (FAO), the mortality rate is less than 10%.
- **Symptoms:** It primarily **consists of fever, fluid excretion from eyes and nose,** dribbling of saliva from the mouth and blisters on the body.
  - The animal **stops eating and faces problems** while chewing or eating, resulting in reduced milk production.
- **Prevention and Treatment:** Though there is **no cure, the disease has preventive vaccines**, which the state governments are trying to administer to cattle populations.
  - Currently, India uses the **goat pox vaccine** to protect against lumpy skin disease.
  - In August, Indian Council of Agricultural Research (ICAR) announced an indigenous vaccine for the disease, which has been approved for use. But its **commercial production is yet to begin.**



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