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MINISTRY OF SCIENCE AND TECHNOLOGY



MK Yadav Sir

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THE HINDU

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ABPM-JAY

(Syllabus: GS Paper 2 – Health/Gov. policies for vulnerable sections)

Union Cabinet approves health cover for all aged 70 and above

Bindu Shajan Perappadan
NEW DELHI

The Union Cabinet, chaired by Prime Minister Narendra Modi, on Wednesday approved health coverage to all senior citizens aged 70 and above irrespective of income under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).

This will benefit nearly 4.5 crore families with six crore senior citizens by providing ₹5 lakh free health insurance cover on a family basis.

New card

This scheme was one of the promises made in the BJP manifesto.

With this approval, persons aged 70 and above, irrespective of their socio-economic status, will be eligible to get the benefits under the AB PM-JAY.

The eligible senior citizens will be issued a new distinct card under the scheme.



Eligible senior citizens will get a new distinct card under the Ayushman Bharat scheme.

Senior citizens belonging to families already covered under the AB PM-JAY will get an additional top-up cover up to ₹5 lakh per year for themselves (which they do not have to share with other members of the family who are below the age of 70).

All other senior citizens aged 70 and above will get a cover up to ₹5 lakh per year on a family basis. Senior citizens who are already getting benefits of other public health insurance schemes such as the Central Government Health Scheme (CGHS), Ex-Servicemen Contributory Health Scheme (ECHS), and Ayushman Central Armed Police Force (CAPF) may either choose their existing scheme or opt for AB PM-JAY.

It has been clarified that senior citizens aged 70 and above who are under private health insurance policies or Employees' State Insurance scheme will be eligible to get benefits under the AB PM-JAY.

"The AB PM-JAY is the world's largest publicly funded health assurance scheme, which provides health cover of ₹5 lakh per family per year for secondary and tertiary care hospitalisation to 55 crore individuals corresponding to 12.34 crore families," the Union government said in a release.

The expansion of cover to persons aged 70 and above was announced by Mr. Modi in April.

Eligibility of Government's Free Health Insurance

- Senior citizens aged 70 and above will receive a distinct card under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) for healthcare coverage.
- Those already covered under AB PM-JAY will get an additional top-up of ₹5 lakh per annum specifically for senior citizens in their families.
- Senior citizens who are already getting benefits of other public health insurance schemes such as the Central Government Health Scheme (CGHS), Ex-Servicemen Contributory Health Scheme (ECHS), and Ayushman Central Armed Police Force (CAPF) may either choose their existing scheme or opt for AB PM-JAY.

Context: The Union Cabinet has approved health coverage of ₹5 lakh for all senior citizens aged 70 and above, regardless of their income, under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).

Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY)

- **About**: It is also known as Jan Arogya Abhiyaan, or the National Health Protection Mission (AB-NHPM) or Modicare.
  - This initiatives has been created with the goal of aligning with SDG principles, which is "leave no one behind".
- **Ministry**: Ministry of Health and Family Welfare (MoHFW).
- **Implementing Agency**: National Health Authority (NHA)
- **Aim**: To make significant changes in healthcare by addressing all aspects of health (like prevention, promotion, and outpatient care) across primary, secondary, and tertiary levels.
- **Launched under**: National Health Policy 2017
- **Funding**: Centrally Sponsored Scheme (expenditure incurred in premium payment will be shared between Central and State governments).
- **Ayushman Bharat Digital Mission (ABDM)**: It was introduced in 2021 with the aim of issuing Unique Digital Health IDs (UHID) to every Indian citizen.
  - This initiative **facilitates electronic access to health records for hospitals**, insurance companies, and citizens as needed.
- **Ayushman Bharat Health Account (ABHA) IDs.:** Ayushman Bharat Health Account (ABHA) is an account/ number used to link all the health records of a person.

BUSINESS STANDARD
Sep 11

SILICON CARBIDE
(Syllabus GS Paper 3 – Sci and Tech)

India's 1st Silicon Carbide manufacturing facility to be set up in Odisha

Context: Odisha Chief Minister attended the groundbreaking ceremony for India's first silicon carbide manufacturing facility in the state, which will be established with an investment of Rs 620 crore.

Silicon Carbide (SiC):

- **About**: It is a semiconductor base material that consists of pure silicon and pure carbon.
- **Widely Used**: Silicon carbide is the most widely utilized non-oxide ceramic material.
- **Properties**:
  - **Hardness:** Silicon carbide is an exceedingly hard crystalline compound of silicon and carbon.
  - **Thermal Properties:** Exhibits high thermal conductivity, high-temperature strength, low thermal expansion, and chemical resistance, making it ideal for high-temperature bricks and refractories.
  - **Semiconductor:** Silicon carbide is also a semiconductor, bridging the conductivity gap between metals and insulators, making it suitable for high-temperature semiconductor applications.
- **Applications:**
  - **Industrial Furnaces**: Used in refractory linings and heating elements for industrial furnaces.
  - **Wear-Resistant Parts**: Employed in components for pumps and rocket engines due to its durability.
  - **Semiconducting Substrates:** Utilized in semiconducting substrates for light-emitting diodes (LEDs).
  - **Abrasives:** Primarily used as an abrasive, with hardness only surpassed by diamond, cubic boron nitride, and boron carbide.
- **Advantages of SiC**
  - High thermal conductivity
  - Low coefficient of thermal expansion
  - High maximum current density.

SALT PAN LANDS

(Syllabus: GS Paper 3 – Env and Eco)



Controversy over Mumbai's salt pans: why do these lands matter?

SRISHTI KAPOOR
MUMBAI, SEPTEMBER 11

EARLIER THIS month, the Centre approved the transfer of 256 acres of salt pan land in Mumbai to the Dharavi Redevelopment Project Pvt Ltd (DRPPL), a joint venture between Adani Realty Group and the Maharashtra government, for building rental housing for slum dwellers.

EXPLAINED ENVIRONMENT

This invited criticism from opposition leaders and environmentalists, who said that the decision to "benefit Adani" would damage the fragile ecosystem. Shiv Sena leader Aaditya Thackeray accused the state government of "selling" Mumbai to the business tycoon.

What are salt pan lands?

They comprise parcels of low-lying lands where seawater flows in at certain times, and leaves behind salt and other minerals. Along with Mumbai's mangroves (also at risk due to development), this ecosystem is instrumental in protecting the city from flooding.

According to the Coastal Regulation Zone (CRZ) notification of 2011, the ecologically sensitive salt pans fall under CRZ-1B category, where no economic activity is allowed with the exception of salt extraction and natural gas exploration.

In all, 5,378 acres of land in Mumbai have been designated as salt pan lands, approximately nine times the size of the Dharavi slum. About 31% of this land is located in residential and commercial belts, and roughly 480 acres are encroached upon, a 2014 study by the state government found. The same study found that about 1,672 acres of Mumbai's more than 5,000 acres of salt pan lands are "developable".

Nationally, some 60,000 acres have been demarcated as salt pan lands, spread across Maharashtra, Andhra Pradesh, Tamil Nadu, Odisha, Gujarat, and Karnataka. Andhra Pradesh (20,716 acres) boasts the largest expanse of such land, followed by Tamil Nadu (17,095 acres) and Maharashtra (12,662 acres).

Workers at a salt pan in Wadala, Mumbai. *Nirmal Harindran.*

Why are Mumbai's salt pan lands at risk?

Land is at a premium in Mumbai. Salt pans are among the last "undeveloped" parcels of land, thus far protected by the Ministry of Environment and Forests under the stringent CRZ norms. But this has not stopped state governments from trying to acquire these lands from the Centre, for various development projects.

Chief among these has been the development of low-cost housing for Mumbai's slum-dwellers, a part of former Chief Minister Devendra Fadnavis's plan to create a "slum-free Mumbai".

In 2015, Fadnavis zeroed in on 400 acres of salt pan land along the Eastern Express highway in Mulund to relocate slums under the Slum Rehabilitation Authority (SRA) scheme. The state government also planned to use much of the remaining 5,000 acres of salt pan land for affordable housing.

However, Fadnavis's plans were put on hold after Uddhav Thackeray became chief minister in 2019. But the Thackeray government too set its eyes on a 102-acre salt pan land in Kanjurmarg in 2020 as an alternative location for the metro car shed originally set to be built in the green belt of Aarey. This development is currently paused — the matter is pending before the Bombay High Court.

Current Chief Minister Eknath Shinde's rebellion in 2022 caused a split in the Shiv Sena, threw Uddhav out of power, and brought Fadnavis back to the driving seat in Maharashtra. The Mahayuti government proposed building affordable housing for Dharavi slum dwellers under the DRPPL on the Wadala salt pan land.

Why do salt pans matter?

Environmentalist Stalin D, director of NGO Vanashakti, said that construction over salt pan lands will result in flooding in Mumbai's eastern suburbs.

"Salt pans are situated in low-lying areas, and water received during heavy rain gets accumulated here. Water from Thane creek also flows in during high tide and gets collected in the salt pans, preventing flooding in the eastern suburbs. If the salt pans are covered owing to construction, areas like Vikhroli, Kanjurmarg, and Bhandup will definitely go underwater during heavy rain," Stalin said.

Environmentalist and Conservation Action Trust chief Debi Goenka said it is the salt pans that made things relatively better for the eastern suburbs (as compared to the western ones) during the July 2005 deluge, when 944 mm of rainfall in a single day caused widespread loss of lives and damage to infrastructure.

Goenka said: "On the one hand, the government's Mumbai Climate Action Plan acknowledges the threats of climate change in Mumbai, but on the other hand, the Centre and state governments are aiming to make buildings in an area which prevents flooding in the city."

Salt pans, which, along with the mangroves, stop the city from flooding, also host various species of birds and insects. Goenka said Mumbai's Development Plan 2034 ignores sustainability, but also exhibits complete disregard for the flora and fauna that will be impacted.

Goenka also questioned the quality of life for the relocated slum-dwellers who will be moved to these low-lying lands. "What quality of life will they have in an area that will submerge every year? How is this affordable housing? The cost of filling land, building a foundation, corrosion and water proofing, among many other measures to make the land suitable for habitation, in fact, makes this project extremely expensive," he said.

Context: The controversy surrounding Mumbai's salt pans has intensified, raising questions about their significance for the city's ecology and development.

Salt Pan Lands

- **About**: It is a naturally forming expanse covered with salt and other minerals. It occurs due to the evaporation of water in a pond/lake/river.
- **Found:** In coastal areas, when a water body dries up, a vast expanse of land surfaces. This land is covered with a layer of sea salt, minerals and other remnants and thus, referred to as salt pan land.
    - In Mumbai, 5,378 acres of land have been designated as salt pan lands, an area approximately nine times the size of the Dharavi slum.
- **Salt Pan Lands Nationwide**: Nationally, approximately 60,000 acres of land have been designated as salt pan lands, spread across states like Maharashtra, Andhra Pradesh, Tamil Nadu, Odisha, Gujarat, and Karnataka.
- **Largest Salt Pan Areas by State**: Andhra Pradesh has the largest salt pan area, followed by Tamil Nadu, and Maharashtra.

Risk to Mumbai's Salt Pan Lands

- Salt pan lands in Mumbai are highly coveted due to their status as some of the last remaining "undeveloped" land parcels, protected by the Ministry of Environment and Forests under Coastal Regulation Zone (CRZ) norms.
- **Government Interest in Salt Pan Lands:** State governments, however, have sought to acquire these lands from the Centre for various development projects, such as low-cost housing for Mumbai's slum-dwellers.
- **Slum-Free Mumbai Initiative**: Former Chief Minister's plan aimed to create a "slum-free Mumbai," with salt pan lands being considered for affordable housing projects to aid slum rehabilitation.

Why do Salt Pan Matter?

- **Prevent flooding:** Salt pans are located in low-lying regions, which naturally accumulate rainwater and water from Thane creek, preventing flooding.
- **Water conservation**: Serve as natural reservoirs that collect excess water.

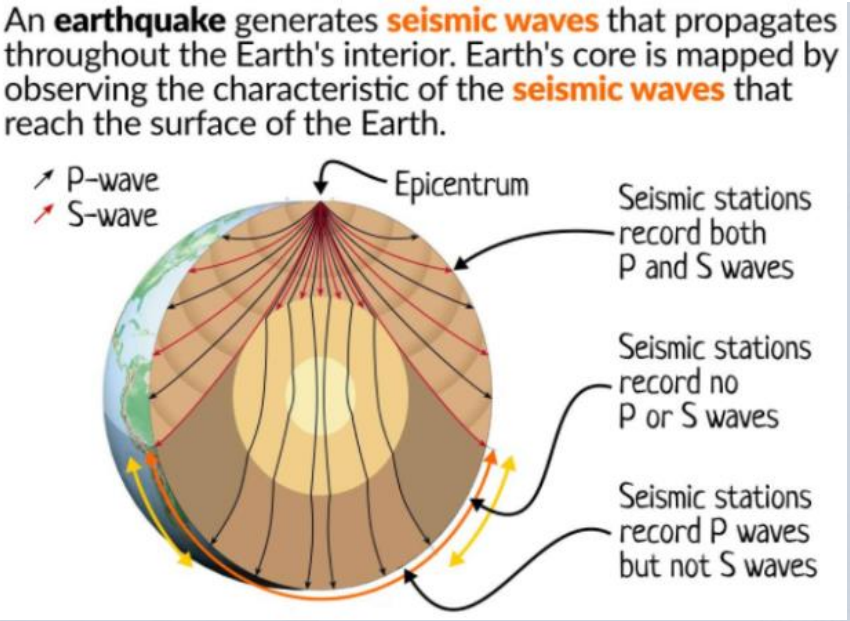
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Sep 11

EARTHQUAKE

(Syllabus: GS Paper 1 – Geography)

Tremors felt in Delhi as earthquake of 5.8 magnitude hits Pakistan



Context: Recent earthquake tremors were felt across northern India, Pakistan, and Afghanistan, impacting the region simultaneously.

Earthquake

- **About:** An earthquake is a violent and abrupt shaking of the ground, caused by movement between tectonic plates along a fault line in the earth's crust.
- **Also Known as**: Tremor, or temblor
- **Focus and Epicentre**: The initial point of energy release is the focus, and the surface point above it is the epicenter.
- **Foreshocks and Aftershocks**: Major earthquakes often involve minor aftershocks and sometimes have preceding foreshocks.
- **Swarms:** Clusters of small earthquakes are called swarms and often indicate impending volcanic activity.

Distribution of Earthquakes:

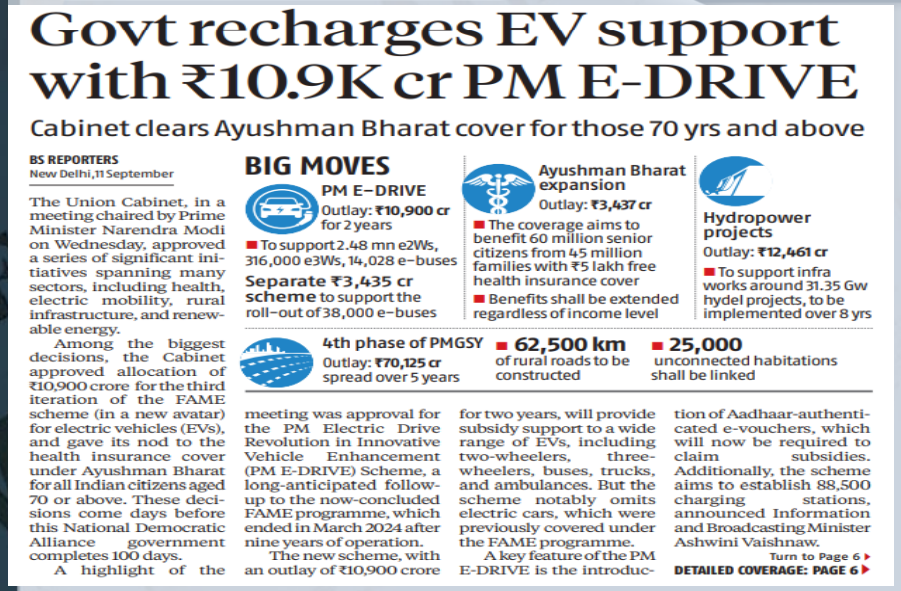
- **Circum-Pacific Belt**: This is the major earthquake belt, affecting coastal regions around the Pacific Ocean.
- **Alpine Belt:** A significant belt of seismic activity that includes the Himalayas and Alps.
- **Oceanic Ridges and Rift Valleys**: Seismic activity also occurs along oceanic ridges and rift valleys in the Arctic Ocean, Atlantic Ocean, western Indian Ocean, and East Africa.
- **Delhi is placed in a high seismic zone (zone four)**. These zones are ranked from two to five depending on the vulnerability of the area.

BUSINESS STANDARD

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PM E-DRIVE

(Syllabus: GS Paper 3 – Env and Eco)



Govt recharges EV support with ₹10.9K cr PM E-DRIVE

Cabinet clears Ayushman Bharat cover for those 70 yrs and above

BS REPORTERS
New Delhi, 11 September

The Union Cabinet, in a meeting chaired by Prime Minister Narendra Modi on Wednesday, approved a series of significant initiatives spanning many sectors, including health, electric mobility, rural infrastructure, and renewable energy.

Among the biggest decisions, the Cabinet approved allocation of ₹10,900 crore for the third iteration of the FAME scheme (in a new avatar) for electric vehicles (EVs), and gave its nod to the health insurance cover under Ayushman Bharat for all Indian citizens aged 70 or above. These decisions come days before this National Democratic Alliance government completes 100 days.

A highlight of the meeting was approval for the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme, a long-anticipated follow-up to the now-concluded FAME programme, which ended in March 2024 after nine years of operation.

The new scheme, with an outlay of ₹10,900 crore for two years, will provide subsidy support to a wide range of EVs, including two-wheelers, three-wheelers, buses, trucks, and ambulances. But the scheme notably omits electric cars, which were previously covered under the FAME programme.

A key feature of the PM E-DRIVE is the introduction of Aadhaar-authenticated e-vouchers, which will now be required to claim subsidies. Additionally, the scheme aims to establish 88,500 charging stations, announced Information and Broadcasting Minister Ashwini Vaishnaw.

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DETAILED COVERAGE: PAGE 6 ▸

BIG MOVES

PM E-DRIVE
Outlay: ₹10,900 cr for 2 years
■ To support 2.48 mn e2Ws, 316,000 e3Ws, 14,028 e-buses
Separate ₹3,435 cr scheme to support the roll-out of 38,000 e-buses

Ayushman Bharat expansion
Outlay: ₹3,437 cr
■ The coverage aims to benefit 60 million senior citizens from 45 million families with ₹5 lakh free health insurance cover
■ Benefits shall be extended regardless of income level

Hydropower projects
Outlay: ₹12,461 cr
■ To support infra works around 31.35 Gw hydel projects, to be implemented over 8 yrs

4th phase of PMGSY
Outlay: ₹70,125 cr spread over 5 years
■ 62,500 km of rural roads to be constructed
■ 25,000 unconnected habitations shall be linked

Context: The Union Cabinet approved a new scheme PM E-DRIVE to promote electric vehicles in India.

PM E-DRIVE:

- **Full form**: PM Electric Drive Revolution In Innovative Vehicle Enhancement.
- **Replace:** It will replace the existing FAME programme that ran for nine years till March.
- **Nodal Agency**: Ministry of Heavy Industries (MHI)
- **Features:**
  - It will subsidise electric two wheelers, three wheelers, and buses. Hybrid ambulances and electric trucks will also be aided under it.
  - The scheme does not cover incentives for e-cars. It has also excluded hybrid cars contrary to expectations.
  - The govt will offer e-vouchers for EV buyers to avail demand incentives under the scheme. At the time of purchase of the EV, the scheme portal will generate an Aadhaar-authenticated e-Voucher for the buyer.
- **Significance**: This entire programme will be a big help in having sustainable growth and making sure that our country progresses rapidly on the electric vehicles movement.
  - At present, the majority of buses operated by PTAs run on diesel/CNG, causing adverse environmental impact.

PM-eBus Sewa-Payment Security Mechanism (PSM) Scheme

- **About**: Its goal is to improve efficiency in urban transportation and advocate for environmentally friendly practices.
- **Coverage**: The scheme will cover cities of Three lakh and above population as per census 2011 including all the Capital cities of Union Territories, North Eastern Region and Hill States.
- **Two Segments**:
  - Segment A – Augmenting the City bus services: (169 cities)
  - Segment B– Green Urban Mobility Initiatives (GUMI): (181 cities).

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BIO-DECOMPOSER

(Syllabus: GS Paper 3 – Env & Ecology)

Bio-decomposer to be sprayed over farms to prevent bad air

Gopal Rai says IARI-prepared liquid will be sprayed over 5,000 acres of city farmland to decompose stubble, check farm fires; if bio-decomposer is so effective, why isn't it being used in Punjab, asks BJP

The Hindu Bureau
NEW DELHI

The Delhi government has started preparations to spray bio-decomposer, billed as an alternative to stubble burning, free of cost over 5,000 acres of farmland in the national capital, Environment Minister Gopal Rai said on Wednesday. He added that the process of spraying the environment-friendly solution over farms will begin in the last week of September.

Bio-decomposer is a microbial liquid spray which, when sprayed onto paddy stubble, breaks it down in a way that can be easily absorbed into the soil, whereby farmers then have no need to burn the stubble. It has been developed by the Indian Agricultural Research Institute (IARI).



Environment Minister Gopal Rai spraying bio-decomposer at a city farm last year. FILE PHOTO

The government has been spraying the bio-decomposer solution free of cost since 2020 over farmlands in outer Delhi, including villages of Holambi Khurd and Naya Bans, as well as parts of Najafgarh.

Taking on Mr. Rai, the BJP issued a statement claiming that "no spraying is done on the ground" and that the announcement was a "publicity gimmick". The party's North West Delhi MP Yogendra Chandolia asserted that the Capital's farmers did not burn stubble and asked, "If the bio-decomposer is really effective, then why doesn't Gopal Rai offer it to his counterpart in Aam Aadmi Party's Punjab government where thousands of stubble burnings take place every winter turning Delhi and north India into a gas chamber."

Every winter, air pollution spikes in the national capital, adjoining areas, and the larger Indo-Gangetic plains due to multiple reasons, including slow wind speed, bursting of firecrackers, and stubble burning.

The Minister said that 841 farmers had signed up for the initiative meant to curb air pollution and promote sustainable farming practices in Delhi.

He added that awareness campaigns regarding the bio-decomposer are being run among the city's farmers. Mr. Rai also said that the results from spraying bio-decomposer over the past four years have been "very positive" and that stubble decomposed and soil fertility increased in farms where the solution was sprayed.

"A problem faced by the farmers is that the time gap between harvesting of paddy crops and sowing of wheat is short. Therefore, the government has started preparations to spray the bio-decomposer in time so that the farmers can get better results," said the Environment Minister.

Context: The Delhi government has started preparations to spray bio-decomposer, billed as an alternative to stubble burning, free of cost over 5,000 acres of farmland in the national capital.

Bio-Decomposer

- **About:** It is a microbial liquid spray which, when sprayed onto paddy stubble, breaks it down in a way that can be easily absorbed into the soil, whereby farmers then have no need to burn the stubble.
- **Also known as**: Pusa-Biodecomposer
- **Developed by**: Indian Agricultural Research Institute (IARI).
- **Used by:** States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi.
- **Objective:** To address air pollution and to subsidize machinery required for management of crop residue (Cropping System Model-CSM).
    - It is a Central Sector Scheme on 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' is implemented from 2018-19.

Benefits:

- **Soil Fertility Improvement**: The decomposer enhances soil fertility by turning stubble into manure and compost, reducing future fertilizer requirements.
- **Stubble Burning Solution**: It provides a cost-effective, practical, and efficient solution to curb stubble burning.
- **Eco-Friendly Technology**: Pusa-Biodecomposer is an environmentally sustainable technology, contributing to the Swachh Bharat Mission.

PIB Sep 11

NATIONAL FLORENCE NIGHTINGALE AWARDS
(Syllabus: GS Paper 1 – Awards)

PRESIDENT OF INDIA PRESENTS NATIONAL FLORENCE NIGHTINGALE AWARDS 2024

Context: The President of India presented the National Florence Nightingale Awards for the year 2024 to the Nursing professionals at Rashtrapati Bhavan.

National Florence Nightingale Awards

- **About:** The award given to Devrani sisters from Kotdwar district of Uttarakhand is an appropriate honour for their remarkable contribution and service for nearly four decades.
- **Instituted by**: Ministry of Health and Family Welfare in the year 1973.
- **Purpose of the Award**: As a mark of recognition for the meritorious services rendered by the nurses and nursing professionals to the society.
- **Price:** The award consists of a Cash Award of Rs. 50,000/-, a certificate, and a medal.
- **Selection Process**: The selection process is rigorous, involving nominations from various healthcare institutions, which are then evaluated by esteemed healthcare professionals.
- **Significance:** It is known that the National Florence Nightingale Award, instituted by the Ministry of Health & Family Welfare in 1973, is given to nurses and nursing professionals in recognition of their meritorious services rendered to the society.

Florence Nightingale

- **About**: She was a British nurse, statistician, and social reformer who was the foundational philosopher of modern nursing.
- **Contribution**: Nightingale was put in charge of nursing British and allied soldiers in Turkey during the Crimean War.
- **Legacy of Nightingale**: She spent many hours in the wards, and her night rounds giving personal care to the wounded established her image as the “Lady with the Lamp.”
- **Nursing Education Reform**: Her efforts to formalize nursing education led her to establish the first scientifically based nursing school—the Nightingale School of Nursing, in London.

AMAZON RAINFOREST

(Syllabus: GS Paper 3 – Env and Eco)

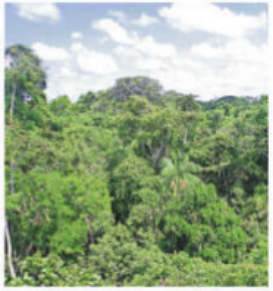
40% OF AMAZON RAINFOREST MOST VITAL TO CLIMATE IS UNPROTECTED

SCIENTISTS AGREE that preserving the Amazon rainforest is critical to combating global warming, but new data published on Wednesday indicate huge swathes of the jungles that are vital to the world's climate remain unprotected.

Nearly 40% of the areas of the Amazon rainforest most critical to curbing climate change have not been granted special government protection, as either nature or indigenous reserves, according to an analysis by nonprofit Amazon Conservation.

The areas lie in the far southwest of the Amazon in Peru and the far northeast in Brazil, French Guiana, and Suriname, the data show.

Those parts of the Amazon have the biggest, densest trees and the most continuous canopy cover, said Matt Finer, who leads Amazon Conservation's Monitoring of the Andean Amazon Project (MAAP). That means these areas hold the most carbon, which would be released into the atmosphere as climate-warming greenhouse gas if the jungle is destroyed by fire or logging.



The Amazon rainforest is critical for the planet. *Wikimedia Commons*

What satellite data show

Amazon Conservation analysed new data from the satellite imaging company Planet that used lasers to get a three dimensional picture of the forest and combined it with machine-learning models.

Only aboveground vegetation was considered, and not underground carbon in roots and soils.

MAAP's analysis shows that 61% of the peak carbon areas in the Amazon are protected as indigenous reserves or other protected lands, but the rest generally has no official designation.

In Brazil, Suriname and French Guiana, only 51% of peak carbon areas are labeled for preservation. Peru protects a higher proportion of its critical areas, but some of the areas that have been left unprotected have been earmarked for logging.

Why the Amazon matters

MAAP published an analysis last month showing that the Amazon contained 71.5 billion tonnes of carbon, roughly double the global carbon dioxide emissions for 2022. That analysis showed that the Amazon just barely absorbed more carbon than it released in the decade leading up to 2022, a positive signal for the world's climate.

PAPER CLIP NEW RESEARCH

But that remains an area of intense debate, with other studies showing the Amazon has flipped to become an emissions source.

As the effects of anthropogenic climate change become more stark with each passing day, the Amazon becomes one of the most valuable assets for the planet's health. Scientists say that if the Amazon becomes an emission source instead of a carbon sink — which absorbs carbon from the atmosphere — the impact on the planet may be cataclysmic.

That is why the data published by Amazon Conservation are important. "It really just gives this overall roadmap in terms of some of the highest carbon areas that are important to protect," Finer said. They really indicate the most pristine parts of the Amazon that still remain," he said.

REUTERS

Context: Scientists agree that preserving the Amazon rainforest is vital to combating global warming, but new data indicate huge swathes of the jungle that are most vital to the world's climate remain unprotected.

Amazon Rainforests

- **Largest Rainforest:** The Amazon is the world's largest rainforest, surpassing the combined size of the next two largest rainforests in the Congo Basin and Indonesia.
- **Distribution**: The majority of the forest, **60%, is in Brazil**, followed by **Peru with 13%,** Colombia with 10%, and with minor amounts in Bolivia, Ecuador, French Guiana, Guyana, Suriname, and Venezuela.
- **Bounded by:** The Guiana Highlands to the north, Andes Mountains to the west, Brazilian central plateau to the south, and Atlantic Ocean to the east.
- **Coverage**: Approximately 6.9 million square kilometers, the Amazon Basin is equivalent in size to the contiguous United States and spans about 40% of the South American continent.

Key Points of Study:

- **Unprotected Critical Areas of the Amazon**: Nearly 40% of the most critical regions of the Amazon rainforest, vital for curbing climate change, lack special government protection as either nature or indigenous reserves, according to an analysis by Amazon Conservation.
- **Location of Unprotected Areas**: These vulnerable areas are located in the far southwest of the Amazon in Peru, as well as in the far northeast, including Brazil, French Guiana, and Suriname.
- **High Carbon Content:** Matt Finer from Amazon Conservation's MAAP highlights that these regions contain the biggest and densest trees, along with the most continuous canopy cover, making them significant carbon reservoirs.
- **Climate Risk from Deforestation**: If these areas are destroyed by fire or logging, vast amounts of carbon stored in the trees would be released into the atmosphere, contributing to climate-warming greenhouse gas emissions.
- **Satellite Data**: The Amazon rainforest was found to contain 71.5 billion tonnes of carbon, which is roughly double the total global carbon dioxide emissions in 2022.
    - The analysis showed that 61% of the areas in the Amazon with peak carbon storage are protected as indigenous reserves or other designated lands.

PIB Sep 11

EXERCISE EASTERN BRIDGE
(Syllabus: GS Paper 2 – IR)

IAF AIRCRAFT SET COURSE FOR EXERCISE EASTERN BRIDGE VII AT OMAN

Context: An IAF contingent comprising MiG-29s, Jaguars and C-17s is ready to set course to participate in Exercise Eastern Bridge in Oman.

Exercise Eastern Bridge

- **About:** It is bilateral exercise endeavors to enhance interoperability between Royal Oman Air Force and the Indian Air Force.
  - It shall provide a platform for both teams to engage in a series of joint training missions designed to strengthen strategic cooperation and operational readiness.
- **Host**: Masirah, Oman
- **Objective**: To improve tactical and operational skills, foster mutual understanding and bolster the ability of both air forces to collaborate effectively in diverse scenarios.
  - The exercise will include complex aerial maneuvering, air to air and air to ground operations, and logistical coordination, reflecting the evolving defense needs and strategic interests of both nations.
- **Significance**: The participating teams are expected to benefit from the shared expertise and operational experience gained during this extensive training period.
- **Other Exercise:** Exercise AL NAJAH.

Oman

- **About**: Oman, country occupying the southeastern coast of the Arabian Peninsula at the confluence of the Persian Gulf and Arabian Sea.
- **Bounded by**:
  - Southwest - Yemen
  - South and East - Arabian Sea
  - North - Gulf of Oman
  - Northwest - United Arab Emirates
  - West - Saudi Arabia.
- **Capital**: Muscat
- **Mountain Ranges**: North (Al-Hajar) and southeast coast (Qara or Dhofar Mountains)
- **Gulf of Oman**: It also known as the Gulf of Makran or Sea of Makran, forms the only entrance to the Persian Gulf from the Indian Ocean.
- **Bordering Countries**: It is bordered by Pakistan and Iran in the north, by the United Arab Emirates in the west and by Oman in the south.

THE HINDU

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NCPCR

(Syllabus: GS Paper 2 – Polity)

Madrasas 'unfit' for proper education, NCPCR tells SC

Including a few NCERT books in the curriculum is a mere guise in the name of imparting education and does not ensure that children are receiving formal and quality education, it says

Krishnadas Rajagopal
NEW DELHI



The NCPCR highlighted issues of curriculum, eligibility of teachers, opaque funding, and others. SUSHIL KUMAR VERMA

The National Commission for Protection of Child Rights (NCPCR), the top child rights protection body in the country, has told the Supreme Court that madrasas are "unsuitable or unfit" places for children to receive "proper education".

The NCPCR, represented by senior advocate Swarupama Chaturvedi and advocate Abhaid Parikh, made the submission in response to petitions challenging an Allahabad High Court judgment which struck down the Uttar Pradesh Board of Madrasa Education Act, 2004.

The commission said the textbooks in madrasas "profess supremacy of Islam". "Merely teaching a few NCERT books in the curriculum is a mere guise in the name of imparting education and does not ensure that the children are receiving formal and quality education," it argued.

The NCPCR highlighted issues of curriculum, eligibility of teachers, opaque funding, violation of land laws, and failure to provide children a holistic environment as problems associated with madrasas.

"The teachers appointed in madrasas are largely dependent on the conventional methods used in learning Koran and other religious texts. The 'scanty and unregularised' working in madrasas creates a haywire system which just stands alone on the conventional ground of religion," it said.

"Majority of madrasas have no idea as to how to plan social events or extra-curricular activities, such as field trips, that could provide students with some level of experiential learning... Madrasa education is neither all-encompassing nor thorough. It is not helping children advance since it lacks so many crucial components of learning. Madrasas infringe on children's fundamental right to a good education by failing to provide these basic requirements. Children are denied not only a suitable education but also a healthy atmosphere and improved opportunities for growth," the commission said.

It said children from faiths other than Islam were also studying in madrasas in Bihar, Madhya Pradesh, West Bengal, Uttar Pradesh, and Uttarakhand. Providing Islamic religious education to non-Muslims was a violation of Article 28(3) of the Constitution, which upholds the right against forced participation in religious instruction or worship.

The High Court had ordered the transfer of madrasa students to regular schools. The top court stayed the implementation of the High Court decision in April. On Wednesday, a three-judge Bench headed by Chief Justice of India D.Y. Chandrachud said the petitions would be taken up for a detailed hearing soon.

Taking Uttar Pradesh's case, the NCPCR drew the court's attention to the Darul Uloom Deoband Madrasa founded in Deoband in Saharanpur district.

"According to the information available the Deoband Madrasa fanned out across South Asia and has also set up seminaries, or madrasas, teaching an austere version of Islam, particularly along the Pakistan-Afghanistan border... it has also been alleged by Taliban extremists groups to have been influenced by the religious and political ideologies of Darul Uloom Deoband Madrasa... the Deoband Madrasa issues fatwas online as well as offline and has a very strict and conservative interpretation of Sharia, as evidenced by its issuance of roughly 2,50,000 fatwas which restrict followers in terms of faith, life, and many other aspects," the NCPCR submitted.

"Though madrasas dot the country, only States such as Bihar, Chhattisgarh, Odisha, Uttar Pradesh, West Bengal, Madhya Pradesh, Rajasthan, Uttarakhand have Madrasa Boards. Large number of children attend madrasas that are either unrecognised or unmapped," the commission observed.

Problem with Madrasa Education (As per NCPCR)

- **Issues of curriculum:** Eligibility of teachers, opaque funding, violation of land laws and failure to provide children a holistic environment as problems associated with madrasas.
- **Violation of Article 28(3):** As children from faiths other than Islam were also studying in madrasas in Bihar, Madhya Pradesh, West Bengal, Uttar Pradesh and Uttarakhand.
  - Providing Islamic religious education to non-Muslims was a violation of Article 28(3) of the Constitution i.e., right against forced participation in religious instruction or worship.
- **Do not align with RTE Act:** Madrasas do not meet the definition of a school under the Right to Education Act (RTE), 2009.

Context: The National Commission for Protection of Child Rights (NCPCR) has told the Supreme Court that madrasas are "unsuitable or unfit" places for children to receive "proper education".

National Commission for Protection of Child Rights

- **About**: It is a statutory body established in 2007 under the Commission for Protection of Child Rights Act, 2005.
- **Mandate:** To ensure that all laws, policies, programs and administrative systems conform to the vision of the rights of the child as enunciated in the Constitution of India as well as the United Nations Convention on the Rights of the Child.
  - A child is defined as a person falling in the age group of 0 to 18 years.
- **Organization Structure:** A chairperson who, is a person of eminence and has done outstanding work for promoting the welfare of children.
  - **Six members, out of which at least two are woman:** Person of eminence in fields like – education, child health/welfare, laws related to children, elimination of child labour, etc.
- **Nodal Ministry:** Ministry of Women and Child Development (MoWCD).
- **Function:**
  - **Examine and review:** The safeguards provided for the protection of child rights and recommend measures for their effective implementation.
  - **Report:** An annual report to be presented to central government, or at such other intervals, as the commission may deem fit.
  - **Inquiry**: Inquire into violation of child rights and recommend initiation of proceedings in such cases.
  - **Children right:** Analyze factors that obstruct children's rights, including terrorism, violence, disasters, and exploitation.
  - **Research**: Undertake and promote research in the field of child rights;

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