

Ministry of Fisheries, Animal Husbandry & Dairying launched various initiatives at 4th Anniversary of PMMSY






On completion of 4 years of Pradhan Mantri Matsya Sampada Yojna (PMMSY), initiatives launched to transform fisheries sector includes

- **National Fisheries Development Program Portal** created under Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana, sub scheme under PMMSY.
 - ⌚ It will serve as **central hub for registry of fisheries' stakeholders**, information, services, and support related to fisheries.
- **Establishment of three specialized fisheries production and processing clusters** dedicated to **Pearl cultivation, Ornamental fisheries and Seaweed cultivation** to promote innovation within these niche sectors.
- **Pilot project on Use of Drone Technology for fish transportation** to be done by Central Inland Fisheries Research Institute to explore drones' potential in monitoring inland fisheries.
- **Establishing Mandapam Regional Centre** of Central Marine Fisheries Research Institute as a Centre of Excellence for **promoting seaweed farming and research**.
- **Setting up Nucleus Breeding Centres for both marine and inland species** for enhancing seed quality through genetic enhancement of economically important species.
- **Establishment of 3 Incubation Centres** in Hyderabad, Mumbai and Kochi for **promoting at least 100 fisheries start-ups, cooperatives, etc.**
- **Priority projects** included **Development of five Integrated Aqua parks** in Assam, Chhattisgarh, Madhya Pradesh, Tripura and Nagaland; **Establishment of two World-Class Fish Markets** in Arunachal Pradesh and Assam; etc.

About PMMSY

- **Aim:** Launched in 2020 to bring **Blue Revolution through sustainable and responsible development of fisheries sector** in India.
- **Tenure:** FY 2020-21 to FY 2024-25.
- **Targets:** **Increase fish production** to 22 million metric tons; **Reduce post-harvest losses** from 20-25% to about 10%; **Double export earnings** to about Rs. 1 lakh crore etc.
- **Type:** Both Central Sector Scheme and Centrally Sponsored scheme.

Objectives of PMMSY

-  **Harnessing of fisheries potential**
-  **Modernizing value chain, post-harvest management and quality improvement**
-  **Enhancing fish production and productivity**
-  **Build robust fisheries management and regulatory framework**
-  **Doubling fishers and fish farmers' incomes and generation of employment**

WHO releases its first-ever Guidance to tackle Antibiotic pollution from manufacturing processes

It addresses the **antibiotic discharge from manufacturing** which is recognised as a **significant driver of the growing Antimicrobial Resistance (AMR) crisis**.

AMR caused by pharmaceutical manufacturing

- **Wastewater** generated from **antibiotic manufacturing**, containing antibiotic residue, **pollutes the water bodies** like rivers and also **seeps** into the land.
- Currently, antibiotic pollution from manufacturing is **largely unregulated** and **quality assurance criteria** typically do **not address environmental emissions**.

About AMR

- AMR occurs when **bacteria, viruses, fungi and parasites** no longer **respond** to antimicrobial medicines. (As per WHO)
- It is a **natural process** that happens over time through **genetic changes** in pathogens.
- Its emergence and spread is **accelerated by human activity**, mainly the misuse and overuse of antimicrobials.
- The **creation of "superbugs"** affects healthcare everywhere, but has **especially poor outcomes in patients suffering from multiple diseases**.

Concerns related to AMR

- **Human and animal health:** WHO lists AMR among the top 10 threats for global health.
 - ⌚ In 2019, 1.27 million deaths were directly attributed to drug-resistant infections globally.
- **Environment:** AMR has a potential to negatively impact biodiversity through pollution and rise of zoonotic diseases.
- **Food and nutrition security:** AMR threatens agriculture and animal husbandry.
- **Economic development and social equity:** productivity losses, increased healthcare costs and rise in poverty.

Initiatives to tackle AMR

- **Adopting One Health Approach:** Integrated approach aiming at sustainably balancing and optimising health of people, animals and ecosystems.
- **WHO Good Manufacturing Practices (GMP), 2020:** Inclusion of environmental aspects of manufacturing linked to waste management etc.
- **National action plan on containment of Antimicrobial Resistance (NAP-AMR), 2017**
- **Ban on 40 fixed dose combinations (FDCs)** which were found inappropriate.
- **Ban on Colistin** as growth promoter in poultry.
- **Development of antimicrobial vaccine, AV0328:** Bharat Biotech in collaboration with a US firm.

Prime Minister envisions India as global Green Hydrogen hub at 2nd International Conference on Green Hydrogen

Reflecting on **National Green Hydrogen Mission** launched in **2023**, PM outlined India's goals to make it a global hub for production, utilization and export of Green Hydrogen (GH₂).

How India can become a global hub for GH₂?

- **Production:** To achieve target of 5 Million Metric Tons (MMT) of GH₂ production, India needs an investment of \$100 billion. Steps that can be taken:
 - ⊕ **Funding:** PPPs to mobilise private sector capital and expertise to finance GH₂ projects.
 - ⊕ **Partnerships:** Collaborating with global leaders for technical expertise and knowledge transfer.
 - ⊕ **Innovation:** Continued investment in R&D to enhance efficiency of electrolyser and fuel cell technologies.
- **Utilization:** GH₂ could replace **fossil fuel derived feedstocks in petroleum refining, fertilizer production, steel manufacturing etc.**
 - ⊕ Hydrogen fuelled long-haul automobiles and marine vessels can enable decarbonisation of mobility sector.
- **Export:** A global demand of over 100 MMT of GH₂ and its derivatives like Green Ammonia is expected to emerge by 2030.
 - ⊕ India can potentially export about 10 MMT GH₂/Green Ammonia per annum.

Challenges faced in GH₂ Production

- **Costly technology** poses a challenge to large-scale deployment.
- **Technical and logistical challenges** in transporting Hydrogen over long distances.
- **Absence of a regulatory framework** for GH₂ can impede growth and investment.

About Green Hydrogen

- It refers to **hydrogen produced through electrolysis**, which **splits water molecules (H₂O) into hydrogen and oxygen** using electricity generated from renewable sources like solar, wind, hydro etc.
 - ⊕ **GH₂ can also produce from biomass**, which involves gasification of biomass to produce hydrogen.
- **Applications of GH₂:** Fuel Cell Electric Vehicles, Aviation and Maritime, Industry (Fertilizer Refinery, Steel, Transport (Road, Rail), Shipping, Power Generation etc.

Cabinet approves implementation of Pradhan Mantri Gram Sadak Yojana - IV (PMGSY-IV)

It is launched by **Ministry of Rural Development (MoRD)** for FY **2024-25 to 2028-29** with an outlay of Rs. 70,125 crore.

Key highlights PMGSY-IV

- Provision of **62,500 kms of all-weather roads to 25,000 unconnected habitations.**
- **Population criteria for unconnected habitations (as per Census 2011):**
 - ⊕ More than **500 in plains.**
 - ⊕ More than **250 in NE & Hill States/UTs, special category areas** (Tribal Schedule V, Aspirational Districts/Blocks, Desert areas).
 - ⊕ More than 100 in **LWE affected districts.**
- Construction and upgradation of **bridges** along new connectivity roads.

Significance of PMGSY-IV

- **Quality Assurance:** PMGSY-IV to incorporate **international benchmarks and best practices** under road constructions like **Cold Mix Technology** and **Waste Plastic, use of construction waste like Fly Ash, Steel Slag, etc.**
- **Socio-economic development:** **Connectivity** by all-weather roads enables **access to education, health, markets and nearby growth centers.** This will aid in **transformation of remote rural areas.**
- **Systematic** road alignment planning through **PM Gati Shakti Portal.**

About PMGSY (100% Centrally Sponsored Scheme, MoRD)

- Launched in **2000 (PMGSY-I)** to provide **all-weather access to eligible unconnected habitations.**
 - ⊕ **PMGSY –II (2013):** Target to **upgrade 50,000 Km** in various States and Union Territories.
 - ⊕ **PMGSY –III (2019):** For consolidation of **1,25,000 Km** roads connecting habitations to **Gramin Agricultural Markets (GrAMs), Higher Secondary Schools and Hospitals.**

Issues associated with PMGSY

- **Delays** in project implementation due to **logistics or non-timely fund releases by states.**
- **Non-compliance with mandatory provision** of quality control labs.
- Issues with **tendering and contractors, post-construction maintenance.**

Union Cabinet approved PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme

Scheme (under Ministry of Heavy Industries) is approved with outlay of Rs 10,900 crore for 2 years for **promotion of electric mobility in India.**

- It is said to **replace the flagship Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) programme.**
- Additionally, Cabinet has also approved **PM-eBus Sewa-Payment Security Mechanism (PSM) scheme** for procurement and operation of e-buses.

Major Components of PM E-DRIVE Scheme

- **Subsidies/Demand incentives** to incentivize e-2Ws, e-3Ws, e-ambulances, e-trucks and other emerging EVs.
- **Installation of Electric vehicle public charging stations (EVPCS)** in selected cities and on selected highways.
- **Provision for procurement of e-buses** by public transport agencies through **Convergence Energy Services Limited (CESL).**
- **Test agencies** to be **modernized** to deal with the new and emerging technologies to promote **green mobility.**

Significance of the scheme

- Promote the **deployment of e-trucks** in the country.
- **Promotes mass mobility** by supporting means of public transportation
- **Reduce the environmental impact of transportation** and improve air quality
- **Incorporates phased manufacturing programme (PMP)** which encourages domestic manufacturing and supply chain.

Challenges in promoting EV

- **Much of India's electricity** is generated from burning coal.
- **Underdeveloped** Charging infrastructure.
- **Suboptimal** Battery Technology

Other Initiatives taken in EV Sector

- **National Electric Mobility Mission Plan (NEMMP)** to encourage the adoption of EVs in India.
- **Production-Linked Incentive (PLI) scheme** for the **Auto and Auto Component.**
- **PLI scheme** for manufacturing **advanced chemistry cell (ACC) batteries.**

Union Cabinet approved 'Mission Mausam' with an outlay of Rs.2,000 crore over two years

Mission Mausam is envisaged to be a multi-faceted initiative to tremendously boost India's weather and climate-related science, research, and services.

About 'Mission Mausam'

- **Focus Areas:** Provide precise weather and climate data, including monsoon forecasts, air quality alerts, extreme event warnings, and manage fog, hail, and rain, etc., while building capacity and awareness.
- **Key Components:**
 - ⊕ **Deploy next-generation radars and satellite systems** with advanced sensors.
 - ⊕ **Implement high-performance supercomputers** and improve Earth system models.
 - ⊕ **Create GIS-based automated Decision Support System** for real-time data dissemination.
- **Implementing Agency:** Three institutes of the **Ministry of Earth Sciences (MoES)**- the India Meteorological Department, the Indian Institute of Tropical Meteorology, and the National Centre for Medium-Range Weather Forecasting will primarily implement it.

Significance of 'Mission Mausam'

- **Benefit numerous sectors**, such as **agriculture, disaster management, defence, environment, aviation**, water resources, etc.
- **Empowers stakeholders** to tackle extreme weather and climate change impacts more effectively.
- **Establish a new benchmark** for predicting weather with high precision.
- **Improve data-driven decision making** in areas like urban planning, road and rail transport, etc.

Other Initiatives/steps taken to Improve Weather Forecasting

- **Monsoon Mission (2012):** Enhance dynamic modelling systems for improved short-range to seasonal monsoon forecasts.
- **Weather information network and data system (WINDS):** To generate long-term, hyper-local weather data.
- **Launch of Earth observation satellites:** INSAT-3D (2013), INSAT-3DR (2016) and INSAT-3DS (2024).
- **MoES operationalised Pratyush and Mihir** for weather forecasting in 2018.

Also in News

Inner Line Permit (ILP)

State government of Nagaland has approved the implementation of ILP in **Chumoukedima, Niuland, and Dimapur districts**.

About ILP

- It's an **official travel document** issued by government that **allows Indian citizens to travel into protected areas for a limited period**.
- ILP system aims to **regulate movement near India's international borders**.
- ILP is officially used to **protect tribal cultures in north-eastern India**.
- **Genesis:** Bengal Eastern Frontier Regulations of 1873.
- **There are different types of ILPs:** One for tourists and others for long-term stays (often for employment purposes).
- **States under ILP:** Arunachal Pradesh, Mizoram, Nagaland and Manipur.



Trade Connect e-Platform

It was launched by **Ministry of Commerce and Industry**.

- It will aid in achieving **\$1 trillion merchandise and \$1 trillion services export target by 2030**.

About Trade Connect e-Platform

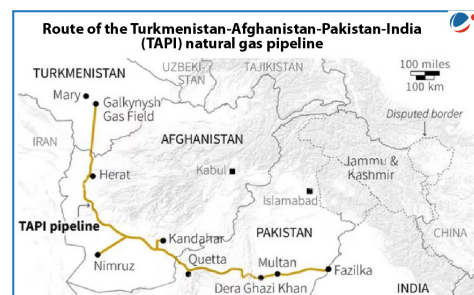
- It is a **single window initiative** aimed at facilitating **international trade by Indian exporters**, especially **MSMEs** by providing **real-time access to trade-related information**.
- Developed in **collaboration with Ministry of MSME, EXIM Bank, Department of Financial Service, and Ministry of External Affairs**.
- It **simplifies complexities of international trade**, including - Product and Country guides for comprehensive market insights, Trade Agreements and Tariff explorer to unlock benefits of Free Trade Agreements etc.

Turkmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline Project

Turkmenistan and Afghanistan resumed work on TAPI Gas-Pipeline Project.

About TAPI Gas Pipeline Project (Peace Pipeline)

- **Aim:** To export up to **33 billion cubic meters of natural gas annually** through a proposed **1,814-kilometer** pipeline from Turkmenistan to Afghanistan, Pakistan, and India.
- ⊕ Gas extracted from **Galkynysh gas field** in southeast Turkmenistan.
- **Financing:** **Asian Development Bank** which is also acting as transaction adviser for development.
- **Impact:** **Reduced greenhouse gas emissions** resulting from substitution of heavy fossil and solid fuels by cleaner natural gas.



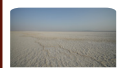
Saarthi app

Open Network for Digital Commerce (ONDC) in collaboration with **Bhashini** have launched **Saarthi reference app** to make e-commerce inclusive.

- **Bhashini (2022)** under **National Language Technology Mission**, aims to provide **technology translation services in 22 scheduled Indian languages**.

About Saarthi app:

- It aims to **assist businesses in building buyer apps** with multilingual features.
- It initially supports **Hindi, English, Marathi, Bangla and Tamil**, with plans to scale up to **all 22 languages**.
- **Features:** real-time translation, transliteration, and voice recognition



Salt Pan Lands

Centre approved transfer of **256 acres of salt pan land** in Mumbai to **Dharavi Redevelopment Project Pvt Ltd.**

About Salt Pan Lands

- They comprise parcels of **low-lying lands where seawater flows** in at certain times, and **leaves behind salt and other minerals.**
- This ecosystem is instrumental in **protecting the city from flooding.**
- They are spread across Maharashtra, Andhra Pradesh, Tamil Nadu, Odisha, Gujarat, and Karnataka.
- According to Wetland (Conservation and Management) Rules 2017, **salt-pan land is deleted from wetland definition.**
- They are **protected under Coastal Regulation Zone rules.**



Myristica Swamp Forest

Researchers have discovered a **sacred grove- a Myristica swamp forest in Kumbhalgarh (Maharashtra)**, which is protected by the local community.

- Dominated by **Myristica magnifica, an endangered species** native to Karnataka and Kerala.
- Sacred groves** are preserved natural areas with spiritual and ecological values due to local taboos and sanctions

About Myristica swamp forest

- Tree-covered wetlands found within the evergreen forests** in the Western Ghats, Andaman and Nicobar Islands, and Meghalaya.
- These forests of the Western Ghats are considered **one of the primaevael ecosystems.**

Significance: Provides ecosystem services like **groundwater recharge, carbon sequestration, natural barrier against flood**, etc.



Bhadra Tiger Reserve (BTR)

Mikania micrantha weed is rapidly spreading in BTR and threatening its biodiversity.

About Bhadra Tiger Reserve

- Location:** Western Ghats of Karnataka, spreading over Chikmagalur and Shimoga districts.
- Corridor:** Bhadra Tiger Reserve, Kudremukh National Park and Shettihalli Wildlife Sanctuary are part of same landscape.
- Drained by:** River Bhadra (**Tungabhadra River tributary**).
- In 1998,** Bhadra Wildlife Sanctuary was **included in Project Tiger Network.**
- Forest types:** Tropical Moist Mixed Deciduous; Tropical Dry Deciduous; Semi-Evergreen Forest.
- Fauna:** Tiger, Leopard, ungulates like Gaur, Sambar and Barking Deer, etc.

About Mikania micrantha

- Perennial climber, originally from **tropical America.**
- It is a **major invasive species in several parts of south-east Asia and Pacific islands.**



National Florence Nightingale Awards

The President of India presented the National Florence Nightingale Awards for the year 2024.

About National Florence Nightingale Award

- This award is given as a mark of recognition for the meritorious services rendered by the **nurses and nursing professionals to the society.**
- It was instituted by **the Ministry of Health and Family Welfare in 1973.**
- Each award consists of a Certificate of Merit, Cash Award of Rs.1,00,000/- and a medal.

Florence Nightingale was a British nurse, statistician, and social reformer who was the foundational philosopher of modern nursing.

Place in news



Zimbabwe (Capital: Harare)

India has extended **humanitarian assistance to Zimbabwe, Malawi and Zambia** to mitigate **food shortages caused by severe droughts** linked to the El Nino phenomenon.

Political Features:

- Landlocked country in Southern Africa.**
- Boundaries:** South Africa (South), Botswana (west and south-west), Zambia (North), Mozambique (east and north-east).

Geographical Features:

- Rivers:** Zambezi (forms border between Zambia and Zimbabwe), Limpopo etc.
- Victoria Falls** (one of the largest waterfalls) and **Lake Kariba** located on **Zambezi river** between **Zimbabwe and Zambia.**
- Veld grasslands (open woodland tropical savannah).**
- Natural resources:** coal, chromium ore, vanadium, lithium, tin, platinum etc.
- Highest peak:** Mount Inyangani (8504 feet)

