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Table of Content

Namo Drone Didi Scheme SC Directions on Permanent Remission to Convicts Paradox of Stagnant Rural Wages in India Dedicated Freight Corridors (DFCs) **NEWS IN SHORT** DANA Causes Flash Floods in Spain PM Vishwakarma Scheme Aditya-L1 Mission Connection Between Nickel Toxicity and Sterols International Solar Alliance (ISA) Toy Train on Green Hydrogen Exercise VINBAX-2024 India, Algeria sign MoU on Defence Cooperation

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NAMO DRONE DIDI SCHEME

In News

- The Government has released the Operational Guidelines of Namo Drone Didi Scheme.
 - According to the guidelines, the Scheme will be governed at the Central level by the Empowered Committee of the Secretaries from important departments.

About Namo Drone Didi scheme

- **Type:** Central Sector, scheme as part of the DAY-NRLM (Deendayal Antyodaya Yojana - National Rural Livelihood Mission) initiative.
- **Objective:** Empower **women through Self-Help Groups (SHGs)** by providing drones for rental services in agriculture. It aims to support 14,500 SHGs nationwide from 2024-2026.
- **Ministry:** Ministry of Agriculture & Farmers Welfare
- Key Features:
 - **Financial Assistance:** 80% subsidy up to Rs 8 lakh for SHGs to purchase drones.
 - Additional financing options through the Agriculture Infra Financing Facility (AIF), offering a 3% interest subvention on loans.
 - Drone Package: Each package includes essential accessories: spray assemblies, batteries, cameras, chargers, and measurement tools.
 - Additional batteries and propellers are provided, enabling coverage of up to 20 acres per day.
 - Training Program: Each SHG will designate a drone pilot who will undergo 15 days of training in drone operation, focusing on agricultural tasks such as nutrient and pesticide spraying.
 - Implementation and Oversight: Lead Fertilizer Companies (LFCs) will execute the scheme at the state level, coordinating with state departments, drone manufacturers, and SHG federations.
 - A central Empowered Committee will govern the scheme, comprising officials from various departments
 - IT-Based Drone Portal: The Drone Portal, an IT-based Management Information System (MIS), will provide end-to-end monitoring, fund disbursement, and real-time tracking of drone usage.

Significance

- Empowers Women: Supports Women Self-Help Groups (SHGs) by providing income-generating opportunities through agricultural drone services.
- **Modernizes Agriculture:** Introduces drones for efficient fertilizer and pesticide application, increasing crop yield and productivity.
- **Reduces Costs for Farmers:** Drones save time and labor, making advanced farming practices more affordable.
- **Promotes Rural Skill Development:** Trains SHG members in drone operation and maintenance, boosting digital literacy in rural areas.
- Supports Government Initiatives: Aligns with DAY-NRLM and Kisan Drones, advancing goals for rural empowerment and sustainable agriculture.
- Enhances Technological Access: Brings cutting-edge technology to rural areas, fostering inclusivity in India's agricultural sector.

Challenges & Concerns

- Financial Burden on SHGs: Although the scheme covers 80% of the cost, SHGs must secure the remaining 20% through loans, which could pose a risk for financially vulnerable groups if the economic benefits from drone usage in agriculture fall short of expectations
- Limited Training for Technical Complexity: The 15-day training may be insufficient for SHG members to handle complex tasks like pesticide spraying or troubleshoot unforeseen issues.
- **Bureaucratic Layers:** Reliance on Lead Fertilizer Companies for coordination could introduce **bureaucratic inefficiencies**, slowing down the scheme's implementation.
- Environmental and Health Risks: Concerns have been raised about the potential impact on biodiversity, especially in ecologically sensitive areas. For example, conservationists in the Nilgiris district, Tamil Nadu, expressed concerns that aerial spraying could harm pollinators and fragile ecosystems.

Way Ahead

- Enhanced Financial Support: Consider grants or subsidies instead of loans for the remaining 20% to prevent financial strain on SHGs.
- Extended Training Programs: Implement longer, comprehensive training programs, possibly including refresher courses, to ensure SHGs are better equipped to handle technical challenges.

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• Environmental Safeguards: Establish clear guidelines for safe aerial pesticide application, especially near ecologically sensitive areas, to mitigate risks to biodiversity and health.

Source: AIR

SC DIRECTIONS ON PERMANENT REMISSION TO CONVICTS

Context

 The Supreme Court has issued directions aimed at standardising and improving the transparency of policies governing permanent remission to convicts in the country.

Key Points of Ruling

- Policy Accessibility and Information: States must make remission policies accessible to all convicts, with copies available in prisons and uploaded on government websites.
 - Jail authorities must ensure that convicts eligible for remission are informed of these policies.
- Timely Communication of Decisions: States and Union Territories must notify convicts of any rejection of remission applications within one week.
- **Updated Policy Availability:** Any modifications to remission policies must be promptly made available in prisons and online.

Permanent Remission to convicts in India

- It means reducing or shortening the duration of the sentence or allowing for an early release from prison, either based on good conduct, special circumstances, or under certain legal provisions.
- The remission of sentences can be granted based on the **following legal grounds:**
 - Article 72 (President's Power): The President of India has the power to grant pardon, reprieve, respites, or remission of punishment to any convict, including those convicted under death sentences.
 - It can be exercised after consultation with the Union Cabinet.
 - Article 161 (Governor's Power): The Governor of a state has similar powers, for those sentenced by courts within that state.
 - The advice of the appropriate government binds the Head of the State.

- Section 432 of the Criminal Procedure Code (CrPC): It empowers the government (central or state) to grant remission or suspend a sentence of a convict.
 - It allows for the reduction of the sentence of a person sentenced to imprisonment, which could be either temporary or permanent, depending on the circumstances.

Types of Remission

- **Full Remission:** The complete removal or cancellation of the sentence, leading to the convict's immediate release from prison.
- **Partial Remission:** This reduces the duration of the sentence but does not eliminate it entirely.
- Special Remission: Sometimes, remission is granted as part of a special amnesty, typically on national holidays like Independence Day or Republic Day, or in cases where the government decides to offer relief to certain categories of prisoners, such as elderly, sick, or women prisoners.

Laxman Naskar versus Union of India (2000)

- Under it SC laid down the following guidelines for considering premature release:
 - Whether the offence is an individual act of crime without affecting society at large;
 - Whether there is any chance of future recurrence of committing a crime;
 - Whether the convict has lost his potential to commit a crime;
 - Whether there is any fruitful purpose of confining the convict any more;
 - Socio-economic condition of the convict's family.
- Many landmark cases (such as Maru Ram v. Union of India (1981) or Union of India v. V. Sriharan (2016) highlight key principles concerning remission of sentences, such as:
 - The discretionary powers of the President and Governor to grant remission or commutation.
 - The relationship between executive powers and the judiciary in reviewing remission decisions.
 - The importance of rehabilitation, good conduct, and judicial oversight in the remission process, particularly with respect to life convicts and death row prisoners.

Bail Provisions in India

- In India, the provisions for bail are primarily governed by the Code of Criminal Procedure, 1973 (CrPC).
- The new criminal laws introduced in India through the Bharatiya Nyaya Sanhita (BNS), 2023, have brought significant changes to the bail provisions. While the fundamental principles of bail remain the same.
- Some of the most common types of bail provisions:
 - Regular Bail: An accused is released on bail after furnishing a bail bond and complying with certain conditions set by the court. Regular bail can be granted at any stage of the trial.
 - Anticipatory Bail: It is granted to a person who apprehends arrest in a non-bailable offence. This type of bail is granted by a court when a person apprehends arrest by the police and applies for bail in advance.
 - Interim Bail: It is granted for a short period during the pendency of a regular bail application. It is usually granted to allow the accused to make arrangements for furnishing bail.
 - **Default Bail:** It is granted when the accused is not released on bail within a stipulated time period, usually 90 days in case of non-bailable offences.

Conclusion

- Permanent remission is a power available to the state and central governments in India, designed to offer a second chance to convicts who have demonstrated rehabilitation, good conduct, or have special circumstances.
- However, it is subject to strict legal frameworks, and the decision to grant such remission involves a thorough review of the convict's case and circumstances.

Source: BS

PARADOX OF STAGNANT RURAL WAGES IN INDIA

Context

• Despite India's impressive GDP growth in recent years, **rural wages have remained largely stagnant**, creating a paradox that raises concerns about inclusive economic development.

Rural Wages in India

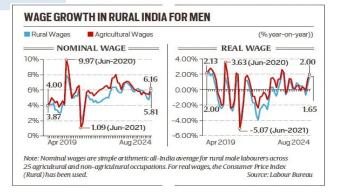
- Rural wages in India have been a critical indicator of the economic health and well-being of the rural population, which constitutes a significant portion of the country's workforce.
- According to the Labour Bureau, the average daily wage rates for agricultural and nonagricultural occupations have shown a mixed trend over the years. For instance, the Wage Rate Index indicates fluctuations in wage growth across different sectors.

Implications of Stagnant Rural Wages

- **Economic Implications:** Reduced Consumer Spending; Increased Poverty and Inequality; and Migration to Urban Areas etc.
- **Social Implications:** Impact on Education and Health; Gender Inequality; and Social Unrest like higher levels of crime, political instability, and social tensions.

Economic Growth vs. Wage Stagnation

- India's GDP has been growing at a robust pace, averaging 7.8% in recent years. However, this growth has not translated into significant wage increases for rural workers.
 - In fact, real wages, adjusted for inflation, have either stagnated or declined. This discrepancy highlights a critical issue: the nature of economic growth itself.



Factors Driving Wage Stagnation

- Labour-Intensive vs. Capital-Intensive Growth: Much of India's recent economic growth has been driven by capital-intensive sectors, which do not generate as many jobs as labour-intensive sectors. This shift has limited the demand for rural labour, keeping wages low.
- Inflation: While nominal wages have seen some increases, these have been outpaced by inflation, eroding the real purchasing power of rural workers.

- For instance, the Labour Bureau's data shows that while nominal rural wage growth was 5.2%, real wage growth was -0.4%.
- Labour Force Participation: The increased participation of rural women in the workforce, driven by government schemes like Ujjwala and Har Ghar Jal, has expanded the labour supply.
 - This has created downward pressure on wages, as more workers compete for the same jobs.
- Agricultural Dependence: A significant portion of rural employment is still in agriculture, a sector that has not seen proportional wage growth despite overall economic progress.
 - Agricultural growth rates of 4.2% and 3.6% in recent years have not been sufficient to drive substantial wage increases.

Measures to Enhance Rural Wage Growth

- Diversification of Rural Employment: Promoting non-agricultural employment opportunities in rural areas can help reduce dependence on agriculture and create new sources of income. It can be achieved through skill development programs and incentives for rural industries.
 - The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has been a significant policy tool aimed at providing employment and improving wage rates in rural areas. However, the effectiveness of MGNREGA has been a subject of debate.
- **Inflation Control:** Effective measures to control inflation can help ensure that nominal wage increases translate into real wage gains.
 - It includes monetary policies aimed at stabilising prices and reducing inflationary pressures.
- **Income Support Programs:** Expanding income support programs like direct cash transfers can provide immediate relief to rural workers and help mitigate the impact of wage stagnation.
 - Programs like Maharashtra's Ladki Bahin Yojana offer supplementary cash transfers that can partially offset stagnant wages.
- Labour Market Reforms: Implementing labour market reforms that enhance job security and improve working conditions can make rural employment more attractive and sustainable.
 - It includes enforcing minimum wage laws and providing social security benefits to rural workers.

Policy Implications

- **Need for Targeted Interventions:** Policymakers need to design targeted interventions to address wage stagnation.
 - It includes promoting rural industrialization, enhancing agricultural productivity, and implementing social protection schemes.
- Focus on Inclusive Growth: Ensuring that economic growth benefits all segments of society is crucial. Policies should aim to create more equitable opportunities for rural workers, including access to education, healthcare, and financial services.
- Strengthening Labour Rights: Enhancing labour rights and protections for rural workers can help improve their bargaining power and ensure fair wages.
 - It includes enforcing minimum wage laws and providing social security benefits.
- Role of Technologies: Enhancing Agricultural Productivity by Precision Farming; Mobile Apps and Platforms like eNAM; Creating New Job Opportunities and Digital Skills Training; Improving Market Access through E-commerce Platforms like Amazon Saheli and Flipkart Samarth; and Blockchain for Supply Chain Transparency etc.

Conclusion

- Addressing the paradox of stagnant rural wages requires a multifaceted approach that includes promoting diversified employment, controlling inflation, expanding income support, and implementing labour market reforms.
- By aligning rural wages with overall economic progress, India can ensure more inclusive and balanced development.

Source: IE

DEDICATED FREIGHT CORRIDORS (DFCS)

In News :

 A study by the University of New South Wales highlights that **Dedicated Freight Corridors** have **positively influenced India's GDP**.

About the Study

• The research utilized diverse data, including freight costs, industry inputs, and population statistics, and concluded that the DFCs

significantly **benefited western regions** and **lower per-capita GDP states through reduced freight costs.**

 DFCS has boosted Indian Railways' revenue by 2.94% between FY 2018–19 and FY 2022– 23. The improved efficiency in freight transport has led to reduced freight costs and shorter travel times, contributing to a 0.5% reduction in commodity prices.

What are Dedicated Freight Corridors (DFCs)?

- They are dedicated routes for freight transport that allow for faster and higher-capacity transport, improving supply chains and boosting exportimport activities.
- The DFC initiative was announced in the **Railway Budget for FY 2005-06**.
 - The Dedicated Freight Corridor Corporation of India Limited (DFCCIL) was established as a Special Purpose Vehicle in 2006 for the corridors' construction and operation.

Latest Developments

- Two DFCs were initiated by the Ministry of Railways in 2006:
 - Eastern Dedicated Freight Corridor (EDFC): 1,337 km from Sonnagar, Bihar to Sahnewal, Punjab (completed).
 - Western Dedicated Freight Corridor (WDFC): 1,506 km from Jawaharlal Nehru Port, Mumbai to Dadri, Uttar Pradesh (93% commissioned, expected completion by December 2025).
- In addition to the Eastern and Western Dedicated Freight Corridors (DFCs), India has proposed four more DFCs:
 - East-West DFC: Kolkata to Mumbai
 - North-South DFC: Delhi to Chennai
 - East Coast DFC: Kharagpur to Vijayawada
 - Southern DFC: Chennai to Goa

Need for Dedicated Freight Corridors (DFCs)

- Alleviate congestion: The Golden Quadrilateral of Indian Railways connects major metros— Delhi, Mumbai, Chennai, and Howrah—and is overburdened.
 - Dedicated Freight Corridors (DFCs) will reduce congestion, improve efficiency, and support India's growing transport demands.
- Boosting Freight Efficiency and Reducing Travel Time: DFCs provide dedicated tracks for freight, allowing faster and uninterrupted movement of goods.

- Economic Impact: Aim to reduce logistics costs, benefiting industries and increasing revenue for Indian Railways. FY 2018-19 and FY 2022-23, DFCs contributed to a 2.94% revenue growth for Indian Railways.
- **Reduced Freight Costs and Commodity Prices:** DFCs improve efficiency, lower transportation costs, and can reduce commodity prices.

Source: IE

NEWS IN SHORT

DANA CAUSES FLASH FLOODS IN SPAIN

In News

• Catastrophic flash floods in Spain caused havoc mainly attributed to the DANA Phenomenon.

About DANA

- Known in Spain as DANA (Depresión Aislada en Niveles Altos) or high-altitude isolated depression, this system can develop independently of typical jet streams, unlike regular storms.
- Formation Mechanism: Cold air moves over warm Mediterranean waters, causing warm air to rise quickly.
 - This forms dense, moisture-filled clouds that can stay in one area, increasing the likelihood of severe flooding.
- DANA mostly occurs in autumn, when summer's warm surface heat meets sudden cold air from polar regions, creating a low-pressure system that remains over a specific region.

Source: Reuters

PM VISHWAKARMA SCHEME

In News

• The PM Vishwakarma Scheme has received over 25 million applications.

PM Vishwakarma Scheme

- About: Named after Lord Vishwakarma (deity of artisans and craftspeople in Indian culture); it was launched in 2023.
- **Nodal Ministry:** Ministry of Micro, Small and Medium Enterprises
- **Type:** Central Sector Scheme (fully funded by the Government of India)

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- **Objectives:** Provides comprehensive support to artisans and craftspeople across 18 specified trades (e.g., carpenter, blacksmith, potter, tailor, etc.).
 - Enabling artisans to sell their products both domestically and internationally.
 - Strengthen the local economy by promoting traditional crafts and artisanal products.

Key Features:

- **Recognition to Artisans**: PM Vishwakarma certificate and ID card.
- Skill Upgradation: Basic Training: 5–7 days, stipend of Rs. 500/day.
 - Advanced Training: 15+ days, with stipend.
 - **Toolkit Incentive**: E-voucher of up to Rs. 15,000 for tools at start of Basic Training.
- Credit Support to Artisans: Collateral-free loans up to Rs. 3 lakh, split into Rs. 1 lakh and Rs. 2 lakh tranches.
 - 5% concessional interest, with an 8% government subvention.
- Marketing Support: Includes quality certification, branding, onboarding on e-commerce platforms (e.g., GeM), and advertising for improved market linkage

Source: AIR

ADITYA-L1 MISSION

In News

• The first scientific result from **Aditya-L1** has been released.

About

- Using data from the Visible Emission Line Coronagraph (VELC), scientists were able to observe the precise onset of a coronal mass ejection (CME) from the Sun.
- The Coronal Mass Ejection (CME) can damage the electronics in satellites in near-earth space and disrupt radio communication networks on the earth. Understanding and predicting CMEs is crucial for protecting technology and infrastructure.

About Aditya L1 mission

• The Aditya-L1 mission is **India's first dedicated scientific mission to study the Sun**. The mission aims to observe and analyze various aspects of the Sun from **Lagrangian Point 1 (L1)**. • Lagrangian Point 1 (L1) is a position in space where the gravitational forces of two celestial bodies, such as the Sun and Earth, are in equilibrium. At this point, Aditya-L1 can continuously observe the Sun without any interference.

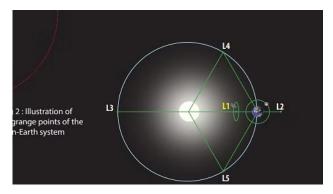


Image Courtesy: HT

CONNECTION BETWEEN NICKEL TOXICITY AND STEROLS

Context

- Researchers have discovered that exposing mammalian and fungal cells to the heavy metal
 nickel resulted in sterol deficiency.
 - Until this report, no one suspected nickel
 toxicity was related to sterol biosynthesis
 in fungi and animals.

About

- In fungi, including yeast, the major sterol is **ergosterol**. Blocking ergosterol biosynthesis can adversely affect fungal growth.
- Most important agents humans use to fight fungal infections are azoles (like fluconazole) **inhibit** ergosterol biosynthesis.

Sterols

- In Plants: Sterols are an important chemical component of the cell membranes of plants, animals, and fungi. The compound makes the membranes more rigid.
- In mammals including humans, the principal sterol is cholesterol.
 - If it is present in high concentrations in the body, it tends to be deposited in the inner lining of our blood vessels.
 - As the deposits accumulate, they block the flow of blood, eventually leading to chest pain, heart attack, and/or stroke.

- Doctors widely used drugs called statins to reduce the amount of cholesterol the body makes — i.e. cholesterol biosynthesis — to avoid these adverse outcomes.
- The study could help in discovering a **novel** antifungal agent.

Source: TH

INTERNATIONAL SOLAR ALLIANCE (ISA)

In News

 The seventh session of the International Solar Alliance (ISA) Assembly was held in New Delhi.
 India elected as president and France as copresident for a two-year term from 2024 to 2026.

International Solar Alliance (ISA)

• About: It is an intergovernmental organization launched in 2015 by India and France at the UN Climate Change Conference (COP21) in Paris.

• Objectives:

- Achieve 1000 GW of solar capacity worldwide by 2030.
- Mobilize over USD 1 trillion in solar investments for member countries.
- Develop financial mechanisms to reduce solar energy costs.
- Establish solar energy as a mainstream source globally.
- Evolution: Initially for tropical countries, ISA expanded its scope in 2020, allowing all UN member states to join. Currently, over 110 countries have signed the ISA Framework Agreement, with 90 full members.
 - It became the first international intergovernmental organization headquartered in India at National Institute of Solar Energy (NISE) in Gurugram.
- Governance Structure:
 - ISA Assembly: The main decision-making body comprising representatives from member countries.
 - **Steering Committee:** Provides strategic guidance and oversight.
 - **Secretariat:** Administrative body responsible for implementing decisions.
 - **Director General:** Leads the ISA Secretariat for a term of 4 years with the possibility of reelection.

Some Important Initiatives of ISA

- Solar Technology Application Resource Centre (STAR-C): Provides training and technical support for solar deployment.
- Scaling Solar Applications for Agriculture Use (SSAAU): Promotes solar use in agriculture (e.g., irrigation, cold storage).
- **ISA CARES:** Ensures solar-powered healthcare in remote areas.
- One Sun, One World, One Grid (OSOWOG): Aims to create a global solar grid for energy sharing.
- Solar Parks Program: Assists in developing large solar parks.
- **ISA Awards:** Recognizes achievements in solar innovation.
- **Rooftop Solar Program:** Supports rooftop solar adoption in urban areas.

Source: TH

TOY TRAIN ON GREEN HYDROGEN

Context

 Himachal Pradesh Chief Minister, urged the Central government to explore the possibility of running trains on the Kalka-Shimla narrowguage railway, a UNESCO world heritage site, on green hydrogen.

About

- The transition would help the state in achieving its goal of becoming a 'green energy state' by 2026.
- The State is on track to replace its current thermal power consumption of 1,500 Million Units (MUs) with renewable sources, including hydro, solar, and wind power.

What is Green Hydrogen?

- Green hydrogen refers to hydrogen that is produced using renewable energy sources, such as wind, solar, or hydropower, through a process called electrolysis.
 - Electrolysis involves splitting water (H2O) into hydrogen (H2) and oxygen (O2) using an electric current.
 - When this electricity comes from renewable sources, the hydrogen produced is considered "green" because the overall process has a **minimal environmental impact.**

- **Benefit:** It is a clean burning element that can decarbonise a range of sectors including iron and steel, chemicals, and transportation.
 - Hydrogen can be stored for long periods of time which can be used to produce electricity using fuel cells.

Source: TH

EXERCISE VINBAX-2024

Context

• The 5th Edition of Vietnam Indian Bilateral Army Exercise "VINBAX-2024" commenced at Ambala, India.

About

- Instituted in 2018, exercise VINBAX is an annual training event conducted alternatively in India and Vietnam.
- Aim of the exercise is to foster collaborative partnership, promote inter-operability and share best practices between the two sides under Chapter VII of United Nations Charter on Peace Keeping Operations.
- This edition marks a significant increase in the scope with **Bi Service** level participation for the first time by personnel of Army and Air Force from both the countries.

Source: PIB

INDIA, ALGERIA SIGN MOU ON DEFENCE COOPERATION

Context

 India and Algeria signed the Memorandum of Understanding(MoU) to elevate defence ties, foster mutual understanding, and strengthen strategic interests.

About Algeria (Capital: Algiers)

- **Situated: Maghreb region** of North Africa on the Mediterranean coast.
 - Algeria, Libya, Mauritania, Morocco and Tunisia are referred to as the Maghreb countries.
- **Bordered By:** Mediterranean Sea on the North, Morocco, Sahrawi Arab Republic and Mauritania on the West, Mali and Niger on the South, Libya and Tunisia on the East.
- Physiography: The major mountain ranges in Algeria are the Atlas Mountains, which run from the Moroccan border to the eastern border of Tunisia. The highest peak in Algeria is Mount Tahat, which is located in the Ahaggar Mountains.
 - **Chelif River** is the longest and most important river of Algeria.



Source: AIR

9