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Zographetus mathewi – Butterfly Species

***Prelims**: Current Events of National and International Importance*

Why in News?

Recently, a team from the Travancore Nature History Society, the Institute of Tropical Research, Ecology and Conservation, and the Zoological Survey of India has identified a new butterfly species.

- **Location** - A new butterfly species, *Zographetus mathewi*, has been discovered in the **Western Ghats**, a global biodiversity hotspot.

Western Ghats is one of the world's 8 "hottest hotspots" of biological diversity.

- **Discovered by** – A team of lepidopterists (a person who studies or collects butterflies and moths).
- **Nomenclature** - The butterfly is named in honour of George Mathew, a prominent Indian entomologist and former head of the Kerala Forest Research Institute's Entomology Division.
- **Family –** Hesperiidae.
- **Common name** - ***Sahyadri Spotted Flitter,*** referencing the local name for the Western Ghats.
- **Genus** - It is the 15th species in the genus *Zographetus* and the 5th recorded in India.
    - It belongs to the Zographetus satwa species group.
- **Appearance** - Yellow-ochre scaling on the underside of the hindwing, hairy forewings with a basal hair tuft, and swollen forewing veins in males, which serve as secondary sexual characteristics.



- **Distinct Features -** It is noted for its unique *wing venation* (the pattern of veins on an insect's wing) and secondary sexual traits such as swollen forewing veins in males.
- It also exhibits distinct genital structures in both males and females, key features that distinguish it from similar species such as Zographetus ogygia.
- **Diet -** The larvae feed on Aganope thyrsiflora, a native leguminous vine from the Fabaceae family.
- **Conservation Significance** - The discovery highlights the rich, unexplored biodiversity of the Western Ghats.
- It also emphasizes the need to conserve low-elevation forests that harbour such rare, endemic butterflies.

Reference

The Hindu| Zographetus Mathewi

Exemption of Installation of Flue Gas Desulphurization (FGD) systems

Prelims: *Current Events of National and International Importance*

Why in the news?

Recently, the Environment Ministry has exempted the majority of India's coal-fired plants from mandatorily installing Flue Gas Desulphurisation (FGD) systems, which are designed to cut sulphur dioxide (SO2) emissions.

- **Original Mandate, 2017 –** The Ministry of Environment, Forest and Climate Change (MoEF&CC) mandated that Required all coal-fired plants to install FGD systems by 2017 to reduce sulphur dioxide (SO_2) emissions.
- **Limited Compliance** - As of July 2025, only a small percentage of power plants

(approximately 8%) have installed FGD systems, with most installations by public sector companies like NTPC.

- **Reasons for Delays -** Challenges such as high capital costs, limited vendor availability, space constraints, and the COVID-19 pandemic have contributed to delays in implementation.
- **Recent Policy Changes -** The Environment Ministry has exempted *79% of India's coal-fired power plants* from the mandatory installation of Flue Gas Desulphurization (FGD) systems.
- A recent gazette notification restricted the mandatory installation of FGD systems to plants located within 10 kilometres of cities with a population exceeding one million.
- **Exemptions -** Plants located beyond this 10km radius are now largely exempt from the mandatory FGD installation.
- **Case-by-Case Evaluation -** Plants in critically polluted areas or "non-attainment cities" (cities exceeding air quality standards for five consecutive years) will be evaluated individually for FGD requirements.
- **Impact of Relaxation -** This policy shift is expected to reduce electricity costs.
- **Continuing Debate -** There is ongoing discussion regarding the necessity and effectiveness of FGD systems, with some studies suggesting Indian coal has a ***lower sulphur content*** and that SO_2 levels near plants are already within permissible limits.
- **Alternative Perspectives -** Some researchers argue for a more focused approach, recommending that FGD systems be mandatory only for plants using imported or high-sulphur coal.
- They emphasize prioritizing other measures like controlling particulate matter pollution.

Reference

The Hindu| Exemption of Installation of Flue Gas Desulphurization (FGD) systems

Employment Landscape in India

Prelims : *Current events of national and international importance | Environment*

Why in News?

Recently, according to various employment reports, there is a changing landscape of employment in India.

India Employment Report, 2024

- **Published by** -The International Labour Organization and the Institute for Human Development.
- **Findings of the report** - The youth account for 83% of India's unemployed population.
- The share of unemployed individuals with secondary or higher education has nearly

doubled over two decades.
- **Large portion in informal sector** – 90% of employment is informal, with the proportion of salaried, regular jobs declining since 2018.
- **Rise in contractual employment** – While contractual employment has grown, concerns about job security and social welfare remain unresolved.
- **Lack of technical skills** – Many young Indians struggle with technical skills.
- 75% of young people struggle with basic digital tasks such as sending an email with an attachment.
- Over 60% cannot perform simple file operations such as copy-pasting.
- 90% lack fundamental spreadsheet skills such as working with formulas.

Report of EPFO

- **Decline in net enrolments** – The decline in net new EPFO enrolments post-2019 reflected the pandemic effect on formal employment.
- **Increase in formal workforce** – The March 2025 data show a steady increase in formal workforce participation.
- **New enrolment**s – Young professionals, particularly fresh graduates, constitute a significant portion of new enrolments.

The 18-25 age group consistently represents a large share, with the 18-21 subgroup alone accounting for around 18%- 22% of the total new subscribers in the recent months.

- **Towards formalisation** – The trend signals a push towards formalisation.

Findings of Economic survey 2023-24

- **Crisis of employability** – The issue goes beyond unemployment; this is a crisis of unemployability.
- **Job ready graduates** – only about half of India's youth are deemed job-ready after graduation.
- **Lack of skills** – One in two lacks the digital and professional skills employers' demand, particularly in an economy undergoing rapid technological transformation.
- **Influence of AI** – The looming influence of AI threatens India's tech sector, putting several traditional job roles at the risk of displacement.

The Future of Jobs Report 2025

- **Published by** – the World Economic Forum forecasts major shifts in employment dynamics.
- **Creation of new jobs** – By 2030, an estimated 170 million new jobs will be created representing 14% of total employment.
- **Displacement of jobs** – 92 million existing jobs (8% of total employment) will be displaced.
- **New growth of jobs** – There will knew growth of 78 million jobs, or a 7% increase in total employment.

Measures to be taken

- Bridging the skill gap to ensure that India's workforce is adequately prepared for the evolving job landscape.
- **Increasing investments** – Investing in education, vocational training, and digital literacy is essential for aligning the workforce with future job demands.
- **Clear analysis** – A deeper analysis of job stability, wages, and long-term financial security.
- **Collaborations** – There should be stronger collaboration between industry and academia, if necessary, by law.
- Each higher education institution must ideally have at least one formal partnership with industry partners.
- **Accountability for jobs** – Educational institutions need to be held accountable for placements and not just educational degrees.
- **Accreditation system** – To create accreditation systems for educational institutions aligned with job placements for the outgoing students.
- **Idea Labs and Tinker Labs** – It should be made mandatory components of every high school and higher education institution.
- **Integration of subjects** – The integration of the humanities, foreign language learning, and soft skills should be made mandatory across all levels of education.
- **Indian Education service** – An Indian Education Services, similar in stature to the Indian Administrative Services, should be established.
- It would attract the best minds into the education sector.
- **Open to professionals** - The education system should open its doors to professionals from the industry.
- This would help bridge the gap between theory and application.
- **Redesigning of training programs** – Skilling and training programs should be designed to meet the needs of ageing societies in many Western nations, where the demand for young professionals is expected to increase.
- This approach aligns with the Indian government's strategy for enhancing the international mobility of skilled workers.
- **Link4Skills project** - The Project of the European Union, which utilises the migration corridor framework to evaluate the skill demands and labour shortages in various European countries and beyond.
- The International Institute of Migration and Development is currently working as the Indian partner in the

Employment Provident Fund Organisation (EPFO)

• **Statutory body –** Under, The Employees' Provident Funds and Miscellaneous Act, 1952.
• It is one of the world's largest social security organizations.
• **Administrated by** – Union Ministry of Labor and Employment.
• **Structure -**Representatives of the Government (both Central and State), employers, and employees.
• **Chaired by** – Minister of Labour and Employment.
• The Central Board of Trustees operates 3 schemes
  - The Employees' Provident Funds Scheme, 1952 (EPF)
  - The Employees' Pension Scheme, 1995 (EPS)
  - The Employees' Deposit Linked Insurance Scheme, 1976 (EDLI)
• **Coverage** – The schemes offered by EPFO cover Indian workers and international workers (from countries with which EPFO has signed bilateral agreements)
• **Enrolled Members** – EPFO data serves as a valuable indicator of formal employment trends.

Reference

The Hindu| Changing landscape of employment in India

ADEETIE Scheme

Prelims: *Current events of national and international importance | Government policies and interventions*

Why in News?

The Union Ministry of Power, through the Bureau of Energy Efficiency (BEE), is set to launch a first-of-its-kind scheme—ADEETIE (Assistance in Deploying Energy Efficient Technologies in Industries & Establishments.

- **Focus -** Accelerating the adoption of cutting-edge energy-efficient technologies across the Micro, Small, and Medium Enterprises (MSME) sector while also supporting India's climate objectives.
- **Eligibility -** The scheme targets ***Udyam-registered MSMEs*** in identified energy-intensive clusters across various sectors like Brass, Bricks, Ceramics, Food Processing, Leather, Pharma, and Textiles.
    - It should be operated in one of the 60 identified clusters, and implement technologies capable of achieving at least 10% energy savings.
- **Financial Support -** Provides interest subvention on loans for implementing energy-efficient technologies *(5% for Micro and Small, 3% for Medium Enterprises).*
- Loan amounts can range from ***Rs 10 lakh to Rs 15 crore.***
- **Technical Assistance -** Offers support for Investment Grade Energy Audits (IGEA), Detailed Project Reports (DPRs), and monitoring energy savings.
- **Capacity Building -** BEE facilitates financing through an online platform.
- It provides technical handholding, interest subvention on loans, and policy support, enabling industries to lower energy costs, enhance productivity, and strengthen role in India's clean energy transition.

- The scheme aligns with India’s broader climate goals, including ***reducing emissions intensity by 45% by 2030*** and ***achieving Net Zero by 2070.***

Reference

Deccan Chronicle | ADEETIE Scheme

