# UPSC Daily Current Affairs | Prelim Bits 12-12-2024

## Oilfields (Regulation and Development) Amendment Bill, 2024

*Recently, the Rajya Sabha passed the Oilfields (Regulation and Development) Amendment Bill, 2024.*

- **Oilfields Bill** - The Bill amends the Oilfields (Regulation and Development) Act, 1948.
- **Aim** - To encourage domestic production of petroleum and other mineral oils, along with private investment in these sectors to reduce import dependence.
- The Act defines mineral oils to ***include petroleum and natural gas.***
- The Bill expands the definition to include
    - Any naturally occurring hydrocarbon,
    - Coal bed methane, and
    - Shale gas/oil.
- It clarifies that mineral oils will not include coal, lignite, or helium.
- It draws a clear line between the law governing the mining of minerals defined under the Mines and Minerals (Development and Regulation) Act, 1957 and the Oilfields Act.
- **Ministry -** Ministry of Petroleum and Natural Gas.
- **Other proposed changes** - The regulation of coal and lignite is governed by the Mines and Minerals Act.
- **Petroleum Lease –** It replaced the references of mining leases.
- It is defined as a lease granted for prospecting, exploration, development, production, making merchantable, carrying away or disposing of mineral oils.
- Existing mining leases granted under the Act of 1948 continued to be valid.
- **Rule-making power of central government** – The Act empowers the central government to make Rules on several matters.
- These include
    - Regulating the grant of leases,
    - Terms and conditions of leases including the minimum and the maximum area and the period of lease,
    - Conservation and development of mineral oils,

    - Methods forproducing oil, and
    - Manner of collection of royalties, fees, and taxes.
- It also empowers some powers continued to retain, includes
    - Merger and combination of petroleum leases,
    - Sharing of production and processing facilities,
    - Obligations of lessees towards protecting environment and reducing emissions,
    - Alternative mechanisms for resolving disputes in relation to the grant of petroleum leases.
- **Punishment –** The Act provides that violation of rules will be punishable with imprisonment up to 6 months, a fine of Rs 1,000, or both.
- The bill provides that violation of rules will be punishable, with a ***penalty of Rs 25 lakh***.
- It adds the offenses such as,
    - Undertaking activities related to mineral oils such as exploring, prospecting, and production without a valid lease and
    - Non-payment of royalty.
- Continued violation of offences will attract a *penalty of up to Rs.10 lakh per day.*
- The central government will appoint an officer of the ***rank of Joint Secretary*** or above for adjudication of penalties.

**References**


1. The Indian Express| Oilfields Amendment  Bill, 2024
2. PRS| Oilfields Amendment Bill, 2024


## Indian Rock Python

*Recently, the Indian rock python species have declined across Tamilnadu, but they are being spotted with increasing frequency in Mudumalai Tiger Reserve and Sathyamangalam Tiger Reserve.*

- It is a large-sized and ***non-venomous python species***.
- It is also known as *Black-tailed python and Asian rock python*.
- It is a nocturnal, terrestrial creature, non-offensive, slow mover, good climber and swimmer.
- **Scientific Name** – Python molurus.
- It is one of the largest snake species found in peninsular India.
- **Appearance** – Large thick body with smooth scales, whitish or yellowish

with blotched patterns varying from tan to dark brown shades.
- Triangular head with heat-sensitive pits on snout & vertical pupils and two streaks passing from eyes, arrow-shaped pattern on posterior of head.




- **Size** – Average length is 210-360cm (7 ft-12).

  *There are no records of Indian Rock Python attacking people in India according to the Wildlife Institute of India.*

- **Habitat** – It is highly ***preferential to stay near water bodies***, including Grasslands, savannas, swamps, marshes, rocky foothills, woodlands, open forests, rainforests, and river valleys.
- **Distribution** – Found in India, southern Nepal, Pakistan, Sri Lanka, Bhutan, Bangladesh, and in the north of Myanmar.
- **Diet** – It is a *strict carnivore* and feeds on mammals, large rodents, lizards, birds, amphibians, and reptiles.
- **Breeding** – Breeding season begins with winter months to mid-summer.
- Female ***lays up to 107 eggs***.
- **Threats**
  - Habitat loss,
  - Collection for the pet trade,
  - Hunting for their skin which is highly valued in the leather trade,
  - Killed for food and of fear.
- **Conservation Status**
  - **IUCN** – Near Threatened (NT).

    - **Wildlife Protection Act (1972)** – Schedule 1.
- **Other similar species**
    - Common Sand Boa.
    - Russell's Viper.
    - Burmese Python.

**References**


1. The Hindu| Indian Rock Python
2. Animalia| Indian Rock Python
3. India Biodiversity| Indian Rock Python


## Prime Minister's Wi-Fi Access Network Interface (PM-WANI)

*PM-WANI framework is making significant strides in enhancing internet accessibility across India, with over 18.19 lakh unique users and 58.55 petabytes (PB) of data consumed.*

- **Aim -** To accelerate the proliferation of internet services by setting up public Wi-Fi Hotspots
- Under the PM-WANI framework, Public Data Offices (PDOs) establish, operate, and maintain WANI-compliant Wi-Fi Hotspots.
- It is based on their techno-commercial considerations and deliver internet services to subscribers.
- PDOs need to partner with a ***Public Data Office Aggregator (PDOA)*** to deliver internet services.
- **Launched by -** Department of Telecommunication in December 2020.
- The scheme encourages local shops and establishments to provide Wi-Fi for last-mile internet delivery which does not require a license or charge a registration fee.
- **Accessibility –** To access public hotspots under PM-WANI scheme one needs to download a relevant App that shows the available networks.
- The user can then choose from a list of available connections and make a payment to use the network.
- The user can access the network till his/her balance is exhausted.
- PM-WANI ecosystem consists of 4 parts
    - Public Data Office (PDO)
    - Public Data Office Aggregator (PDOA)
    - App Provider
    - Central Registry

- The central registry overseen by the Centre for Development of Telematics maintains details of App Providers, PDOs and PDOAs.
- **Benefits –** WANI Wi-Fi architecture can lead to enhanced internet penetration which could lead to an increase in gross domestic product.
- It can scale up internet access in rural areas, thereby narrowing the digital divide.
- Can generate jobs in small- and medium-scale sectors.
- Could provide affordable internet access to the mass underserved section of society and help boost digital India.

**Reference**

PIB | Prime Minister's Wi-Fi Access Network Interface (PM-WANI)

## India Skills Report 2025 (ISR 2025)

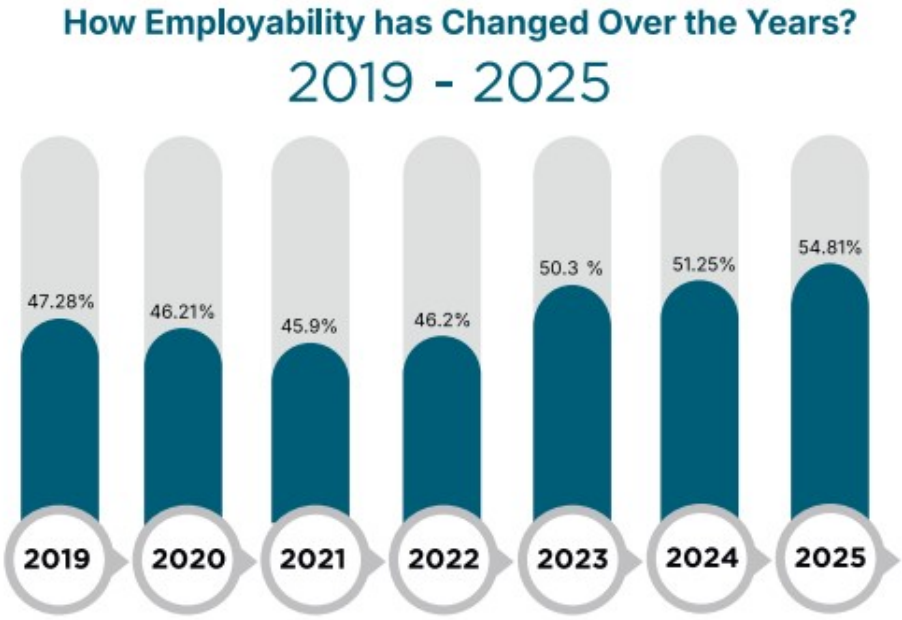
*Recently, the India Skills Report 2025 stated that Kerala ranked 5$^{th}$ among the top States, maintaining a strong employability rate of 71%.*

- It is based on data from over 6.5 lakh candidates who participated in the Global Employability Test (G.E.T.) across India and select regions globally.
- **Prepared by** - Confederation of Indian Industries (CII) in association with Wheebox, a Talent assessment agency, and All India Council for Technical Education (AICTE).

### Report Findings

- Employability among Indian graduates has seen a steady rise, reaching 54.81%.
- Over 50% of Indian graduates are now employable, an increase from 33% a decade ago.
- **Increasing Fields -** Management graduates (78%) have the highest global employability, followed by engineering students (71.5%), MCA students (71%), and science graduates (58%).
- **Top states**
  - Maharashtra, Karnataka and Delhi are emerging as major hubs for employable talent while
  - Cities such as Pune, Bengaluru and Mumbai are leading the way in providing a skilled workforce.
- Gender analysis shows that the employability rate for men is expected to rise to 53.5% in 2025 from 51.8% in 2024.

- Meanwhile, for women the employability rate is projected to decline to 47.5% from 50.9% during the same time period.
- It also found that nearly 93% of the students expressed strong interest in internships.




**References**


1. The Hindu| India Skills Report 2025
2. Wheebox| India Skills Report 2025


## Diamond Battery

*Scientists and engineers from UK Atomic Energy Authority (UKAEA) have created a Diamond Battery with the potential to power devices for thousands of years.*

- **Carbon-14**
  - It is a radioactive isotope of carbon, which has a half-life of 5,700 years meaning the battery will still retain half of its power even after thousands of years.
  - Carbon-14 emits a short-range radiation, which is quickly absorbed by any solid material.
- **Diamond Battery -** The diamond battery is the ***world's first carbon-14 diamond battery***.
- The prototype batteries are 10mm x 10mm with a thickness of up to 0.5mm.

- The battery is safely held within a diamond, the hardest substance known to humankind, no short-range radiation can escape.
- It functions similarly to solar panels but instead of using light particles, it captures fast-moving electrons from within the diamond structure.
- **Uses** - It is used in extreme environments, both in space and on earth where it isn't practical to replace conventional batteries.
- It can support a whole range of important applications from space technologies and security devices to medical devices like ocular implants, hearing aids, and pacemakers.
- It also used in the future, in everyday electronic devices or watches.
- The battery also provides a safe way of dealing with nuclear waste.

**Reference**

BBC| Diamond Battery

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