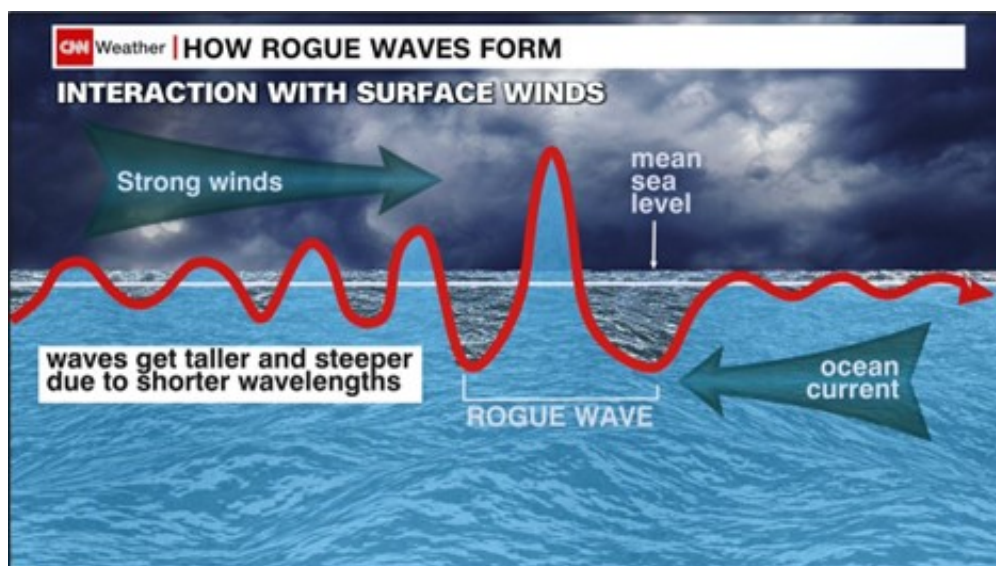


## UPSC Daily Current Affairs | Prelim Bits 24-07-2024

### Rogue waves

*Researchers have recently developed a new tool to predict rogue waves.*

- A rogue wave is a large, unexpected, and dangerous ocean wave that can be more than twice the size of the surrounding waves.
- These waves are also called as ***freak, extreme storm waves, or killer*** waves.



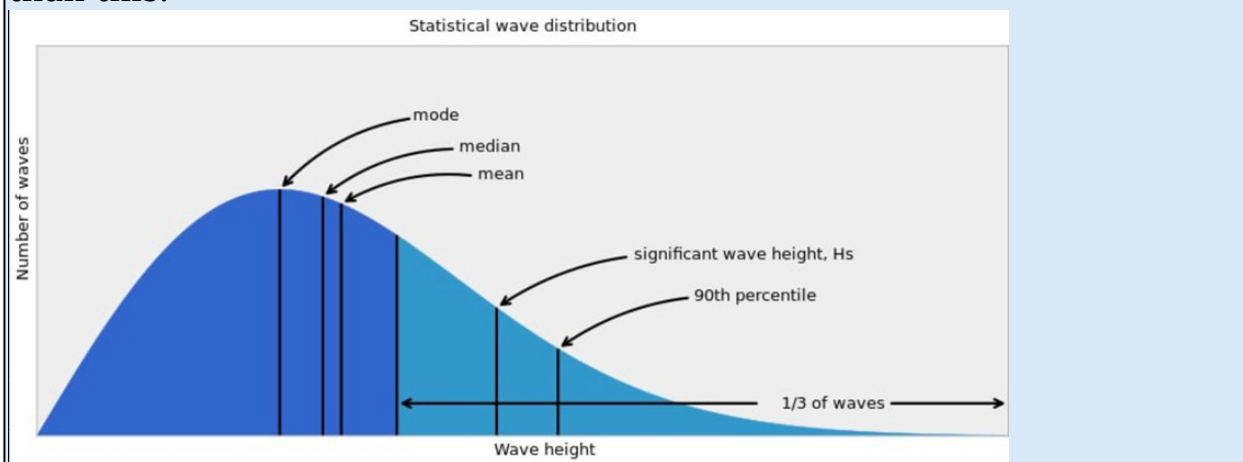
- **Causes** - Rogue waves can be caused by a ***combination of waves and currents***, or by multiple wind-driven wave crests stacking up at a single point.
- They can also be caused by constructive interference or gale-force winds.
- **Direction** - They may move in either the ***same direction, the opposite direction, or at oblique angles*** to the prevailing wind and wave motion.
- **Appearance** - Rogue waves are often steep-sided with deep troughs and can look like walls of water.
- **Size** - They can reach heights of up to ***30 meters*** and can come from unexpected directions, even opposite to the prevailing wind and waves.

*The Draupner wave is the highest confirmed rogue wave known. However, the most extreme rogue wave occurred in the Pacific Ocean in 2020 was more than 3 times higher than the surrounding waves.*

- **Threats** - Rogue waves can pose a threat to ships, coastal infrastructure, and human lives.
- **Promise of AI**- This program subsequently predicted about **75%** rogue waves 1 minute in advance.
- Roughly **73%** of rogue waves could be predicted 5 minutes in advance.

## Quick facts

- **Significant Wave Height**- It is the average of the highest one-third of waves that occur over a given period.
- It is defined traditionally as the mean wave height (trough to crest) of the highest third of the waves.
- It should be noted that some individual waves might be much larger than this.



## References

1. [The Indian Express | Rogue waves](#)
2. [NOAA | Rogue wave](#)
3. [National Geographic | Rogue waves](#)

## Genetic Engineering Appraisal Committee (GEAC)

*Recently, the Supreme Court has ruled against the commercial sale and release of genetically modified mustard in India for now.*

- GEAC is the ***statutory committee*** constituted under
  - The Rules for the Manufacture, Use/Import/Export, and Storage of Hazardous Micro Organisms/Genetically Engineered Organisms or Cells (Rules, 1989) framed under the ***Environment (Protection) Act, 1986***.
- **Nodal Ministry**- Ministry of Environment, Forest and Climate Change (MoEF&CC).

- **Mandate-** It is responsible for the appraisal of activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- **Objective-** The committee is also responsible for appraisal of proposals relating to release of ***genetically engineered (GE) organisms*** and products into the environment including experimental field trials.
- **Composition-** The GEAC is chaired by the Special Secretary/Additional Secretary of MoEF&CC and co-chaired by a representative from the Department of Biotechnology (DBT).
- Presently, it has ***24 members*** and meets ***every month*** to review the applications in the areas indicated above.
- **Functions-** The functions of GEAC as prescribed in the Rules 1989 are as follows
  - To appraise activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
  - To appraise proposals relating to the release of genetically engineered organisms and products into the environment including experimental field trials.
  - The committee or any persons authorized by it has powers to take punitive action under the Environment Protection Act.

## References

1. [Down to Earth | GM mustard](#)
2. [GEAC India | About GEAC](#)

## New Pension Scheme 'VATSALYA'

*The Union Budget 2024-25 has proposed a new pension scheme named 'Vatsalya' for minors.*

- The scheme enables parents and guardians to start a National Pension Scheme (NPS) for minors until the ***child turns 18.***
- **Objective-** The scheme offers families a systematic approach to ensure the ***future financial security*** of their children and contribute towards their retirement savings.
- **Eligibility-** All parents and guardians, whether Indian citizens, NRIs, or OCIs, are eligible to open an NPS Vatsalya account for their minor

children.

- **Benefits-** The NPS Vatsalya Scheme will promote savings habits in children.
- The NPS Vatsalya account, opened when a child is a minor, allows significant accumulation for retirement, with **60%** available for withdrawal at retirement.
- The Scheme instills financial responsibility, converting to a standard **NPS account at 18**, allowing independent contributions.
- It provides a structured way for families to secure their children's financial future and build a **retirement corpus**.
- **Conversion to normal NPS account-** On attaining the age of majority, the plan can be converted seamlessly into a normal NPS (National Pension Scheme) account.

## References

1. [PIB | Vatsalya](#)
2. [India Today | Vatsalya scheme](#)

## Panchamasali Lingayats

*Members in Panchamasali Lingayat community hold a rally demanding the inclusion of the community in the 2A reservation category, in Bengaluru.*

## Lingayats

- Lingayat term denotes a person who wears a personal linga, an iconic form of the god Shiva, on the body which is received during the initiation ceremony.
- Lingayats are the followers of 12<sup>th</sup>-century philosopher-***saint Basavanna***, who started an anti-caste movement that rejects the orthodox ritualistic Hindu practices.
- They are strict ***monotheists*** who follow only one god, Lord Shiva.
- Lingayats had been classified as a Hindu subcaste called “Veerashaiva Lingayats”.
- **Sub-sects** - Prominent sub-sects include the Panchamasalis, Ganiga, Jangama, Banajiga, Reddi Lingayat, Sadars, Nonaba and Goud-Lingayats.
- All these sub-sects practise the same rituals at the time of births, weddings and deaths.
- For instance, the dead are buried in sitting positions among Lingayats.

- Members of the community carry their Ishta Linga suspended in a silver box around their necks.

*Lingayats are believed to be the single largest caste group in Karnataka and account for nearly 17% of the state's population.*

- **Category** - Currently Lingayats will fall into **3 (B) category**.

### **Panchamasali Lingayats**

- It is a sub-section within the Lingayat community, and they are often involved in agriculture and community service.
- **Recent Demands** - They are demanding a 2A category reservation under the OBC list.
- In 2A category reservation these communities will get preferential reservations of 15% in government jobs and educational institutions.
- There is a demand that the community be identified only as "Lingayat", and not "Veerashaiva Lingayat" in caste certificates.
- In the Hindu Marriage Act, 1955 and Hindu Succession Act, 1956 Lingayats, Buddhists, Jains, and Sikhs are included among Hindus.
- State and Central governments identified Buddhists, Sikhs and Jains as minority religions in 1993, 1963, and 2014 respectively.
- But, Lingayats remain unrecognized under a separate religious status.

### **Reference**

[Indian Express | Demand for Quota for Panchamasali Lingayats](#)

### **DIGIPIN**

*The Department of Post has released a beta version of DIGIPIN (Digital Postal Index Number), intended as a permanent digital infrastructure for national addressing.*

- **DIGIPIN code**- It is designed as a ***permanent digital infrastructure*** that will not change with changes in the names of the state, city, or locality, or changes in the road network.
- **Developed by** - Postal department and IIT Hyderabad.
- DIGIPIN will use one of the **16 alphanumeric symbols** (2,3,4,5,6,7,8,9,G,J,K,L,M,P,W,X).

- The first character for the DIGIPIN will identify one of these ***16 regions***.
- The entire country will first be divided into 16 regions (4X4), including the maritime Exclusive Economic Zone (up to 200 nautical miles from the coastline).
- This code will then be used as the offline addressing reference for any specific location within the DIGIPIN system.
- It can be used to provide addresses for Indian assets in the sea such as oil rigs, future artificial islands, etc.
- It will act as a pillar of Geospatial Governance, leading to enhancements in public service delivery, faster emergency response, and logistics efficiency.
- It will serve as an addressing reference system, using a logical naming pattern to provide directional properties for accurately locating addresses.
- The DIGIPIN is proposed to be fully available in the public domain and can be easily accessed by everyone.
- DIGIPIN can also be used for emergency rescue operations and national disasters such as floods

## References

[Hindustan Times| Digital National Addressing Grid](#)

