



## **DAILY CURRENT AFFAIRS 04-04-2024**

### **GS-1**

- 1. 'Kallakkadal' strikes coastal Kerala: What is it and how is it different from tsunami?**

### **GS-2**

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## **'Kallakkadal' strikes coastal Kerala: What is it and how is it different from tsunami?**

**Syllabus: GS-1; Physical Geography- Oceanography**

### **Context**

*For the past four days (April 2024), high sea waves which are also known as swell waves, have flooded numerous houses in the Kerala's coastal areas.*



### **'Kallakkadal' meaning**

- *The term 'Kallakkadal' is a combination of two Malayalam words - 'Kallan' and 'Kadal' which means thief and sea.*
- *When combined together, the words mean the 'sea arrives as a thief'.*

### **What is Kallakkadal?**

- *Kallakkadal is a geographical phenomenon which causes flooding through high waves in the south-west coast of India, predominantly during the pre-monsoon season which is from April to May.*
- *According to the IE report, the term Kallakadal was officially approved by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)**.*
- *Kallakkadal is caused by swell waves which emerge due to ocean swell which is mostly caused by storms such as hurricanes or gale winds.*

- *During these fierce winds, a massive energy transfer takes place from the air into water.*
- *This then leads to formation of extremely high waves that can roll up to thousands of kilometres.*
- *On March 25 2024, a low atmospheric pressure system from the **South Atlantic Ocean**, about 10,000 km off the Indian coast moved over the southern region of India, causing the swell waves, which then have been hitting the Kerala coast and the Lakshadweep Island since March 31 2024.*
- *These waves have been reportedly reaching a height of at least 11 metres.*
- *The people living in the coastal areas face a lot of problems as Kallakkadal emerges without any prior warning.*
- *However, the **Indian National Centre for Ocean Information Services (INCOIS)** in 2020 launched an early warning system called the **Swell Surge Forecast System**.*
- *INCOIS usually gives a 7-day advanced warning.*

### **How is Kallakkadal different from tsunami?**

- *Kallakkadal is often mistaken with the **tsunami which emerges due to seismic activity** like earthquakes, underwater landslides or volcanic eruptions.*
- *On the other hand, Kallakkadal occurs due to **water storms, ocean swells or hurricanes**.*

### **What does the forecast say?**

- *Forecasts have said Kerala and the nearby western coastal regions are likely to remain hit by Kallakkadal for the next two days, until it weakens slowly.*
- *INCOIS has said that the high sea waves will move onto the coast of Tamil Nadu and locals have been warned to not venture too deep into vulnerable coastal areas.*

## **EVM & VVPAT**

### **Syllabus: GS-2; Elections**

#### **Context**

- *The Supreme Court on April 3 2024 has agreed to list a series of petitions seeking direction to the Election Commission of India to mandatorily cross-verify the count in Electronic Voting Machines (EVMs) with votes verifiably recorded as cast by counting all Voter Verifiable Paper Audit Trail (VVPAT) slips ahead of the Lok Sabha polls.*



## What is a EVM?

- *The EVM is a balloting system that allows citizens to vote electronically.*
- *It has two units: **a control unit and a balloting unit.***
- *The control unit contains a battery, so the EVM can be used in areas without electricity.*
- *The EVM was first used in India in 1982 in a by-election to the North Paravur Assembly Constituency in Kerala.*

## How does EVM work?

- *The voter has to cast his vote by once pressing the blue button on the balloting unit against the candidate and symbol of his choice.*
- *As soon as the last voter has voted, the **Polling Officer-in-charge** of the Control Unit will press the 'Close' Button.*
- *Thereafter, the EVM will not accept any votes.*
- *An EVM can record a **maximum of 3840 (now 2000) votes** and can cater to a **maximum of 64 candidates.***
- *There is provision for **16 candidates in a single balloting unit** and up to a **maximum of 4 balloting units** with 64 candidate names and the respective party symbols can be connected in parallel to the control unit.*
- *If there are more than 64 candidates, the conventional ballot paper/box method of polling is deployed by the Election Commission.*

- *After a 2013 upgrade, an Indian EVM can cater to a maximum of 384 candidates plus "None Of The Above" option (NOTA).*

### What is a VVPAT?

- *Initially introduced during the 2014 Lok Sabha elections in India, the **Voter Verifiable Paper Audit Trail (VVPAT)** is essentially a system for verifying votes without traditional paper ballots, directly linked with the Electronic Voting Machine (EVM).*
- *The VVPAT produces a **paper slip visible to the voter, enabling them to confirm if their vote was accurately recorded on the EVM.***
- *This slip includes the name and symbol of the party the voter selected.*
- *Moreover, the machine features a transparent window through which the voter can observe the printed slip.*
- *Ultimately, the slip is securely placed inside a sealed compartment of the machine, though it can be accessed in case of any disputes.*

## **What's behind the Katchatheevu island controversy?**

### Syllabus: GS-2; International Relations

#### Context

- *Prime Minister Narendra Modi's 'X' post has rekindled the issue of 'ceding' Katchatheevu Island to Sri Lanka in 1974, also an issue in which INDIA bloc allies Congress, DMK and MDMK are not on the same page.*

#### When did Katchatheevu become a part of Sri Lanka?

- *During **June 26-28, 1974**, the then Prime Ministers of India and Sri Lanka, Indira Gandhi and Sirima R.D. Bandaranaike, signed an agreement to demarcate the boundary between the two countries in the historic waters from **Palk Strait to Adam's Bridge.***
- *A joint statement issued on June 28, 1974, stated that a boundary had been defined "in conformity with the historical evidence, legal international principles and precedents." It also pointed out that "this boundary falls one mile off the west coast of the uninhabited" Katchatheevu.*
- *The pact brought to a close the talks held between the two sides since October 1921.*
- *Initially, the negotiations were held between the governments of the then Madras and Ceylon.*





### How important has been Katchatheevu to the fisherfolk?

- Fisherfolk of the two countries have been **traditionally using the islet for fishing**. Though this feature was acknowledged in the 1974 agreement, the supplemental pact in March 1976 made it clear that fishing vessels and fishermen of the two countries “**shall not engage**” in fishing in the historic waters, territorial sea and exclusive zone or exclusive economic zone of either of the countries “**without the express permission of Sri Lanka or India.**”
- St. Anthony’s Church there holds an annual festival, either in February or March, drawing devotees from both sides of the Palk Bay, a tradition which has been going on.

### What triggered the negotiations between India and Sri Lanka?

- Sri Lanka claimed sovereignty over Katchatheevu on the ground that the Portuguese who had occupied the island during 1505-1658 CE had exercised jurisdiction over the islet.
- India’s contention was that the erstwhile **Raja of Ramnad [Ramanathapuram]** had possession of it as part of his zamin.
- According to a news item published by The Hindu on March 6, 1968 which was based on the interview of the erstwhile Raja Ramanatha Sethupathi, Katchatheevu was under the jurisdiction of the zamin “from time immemorial” and it was the “last post” of the Ramnad Estate.
- He added that the zamin had been collecting taxes till 1947 when it was taken over by the State government following the **Zamindari Abolition Act**.

- However, replying to the debate on the matter in Lok Sabha in July 1974, the then External Affairs Minister Swaran Singh asserted that the decision had been taken after “exhaustive research of historical and other records” on the islet.

### What has been the stand of the Union government on the issue?

- In August 2013, the Union government told the Supreme Court that the question of retrieval of Kachchatheevu from Sri Lanka did not arise as no territory belonging to India was ceded to Sri Lanka.
- It contended that the islet was a matter of dispute between **British India and Ceylon** (now Sri Lanka) and there was no agreed boundary, a matter of which was settled through 1974 and 1976 agreements.
- In December 2022, the Union government, while referring to the two agreements, pointed out in its reply in the Rajya Sabha that Kachchatheevu “**lies on the Sri Lankan side of the India-Sri Lanka International Maritime Boundary Line.**”
- It added that the matter was sub-judice in the Supreme Court.

## Manufacturing PMI rises to 16-year high

### Syllabus: GS-3; Economy- Inflation

#### Context

- Buoyed by strong production and sales, India’s manufacturing sector recorded a robust performance in March 2024, a monthly survey said.
- The seasonally adjusted HSBC India Manufacturing Purchasing Managers’ Index (PMI) surged to a 16-year high of 59.1 in March from 56.9 in February 2024, marking the 33rd month of a rise in manufacturing output.

#### What is manufacturing PMI?

- Purchasing Managers’ Index or PMI is an economic indicator, which is derived after monthly surveys of different companies.
- The index shows trends in both the **manufacturing and services sector.**
- The index helps in determining whether the **market conditions**, as seen by purchasing managers, is expanding, contracting or staying the same.
- It is used to provide information regarding the **current and future business conditions.**

- *PMI is one of the closely watched indicators of business activity and helps in predicting the **economic health of a country**.*
- *There are two types of PMI — **Manufacturing PMI and Services PMI**.*
- *A combined index is also made using both manufacturing PMI and services PMI.*

### **How is the manufacturing PMI derived?**

- *The PMI is derived by sending fact-based questions to a large number of companies in the concerned sector.*
- *For manufacturing PMI, the questionnaire is sent to manufacturing companies.*
- *The questions are factual in nature and the survey is not meant for opinions, intentions, or expectations.*
- *The questions are related to 5 key variables.*
- *The variables with their weights in the index are — new orders (30%), output (25%), employment (20%), suppliers' delivery times (15%) and stock of items purchased (10%). The surveys are conducted on a monthly basis.*
- *A PMI number greater than 50 indicates expansion in business activity.*
- *A number less than 50 shows contraction. The rate of expansion is also judged by the difference from the mid-point (50) and also by previous month's data.*

### **Who does this?**

- *PMI was started for the first time by US-based **Institute for Supply Management (ISM)** in 1948.*
- *The **Singapore Institute of Purchasing and Materials Management (SIPMM)** produces the index for Singapore, while IHS Markit produces the index for 30 other countries.*
- ***IHS Markit** produces the PMI for India.*
- *The IHS Markit India Manufacturing Purchasing Managers' Index measures the performance of India's manufacturing sector.*
- *The index is derived after a survey of 500 manufacturing companies.*

### **Significance**

- *PMI is a good indicator of **the economic activity in any country**.*
- *Usually PMI is released before other indexes such as GDP, industrial output.*
- *PMI gives an idea about the direction the economy is taking and helps economists in predicting the manufacturing activity in the country.*
- *The manufacturers and suppliers use the index to decide on their production needs based on new orders in the coming months.*
- *The index also **helps investors** who are looking to invest in the stock markets as it helps in determining the economic health of the country.*

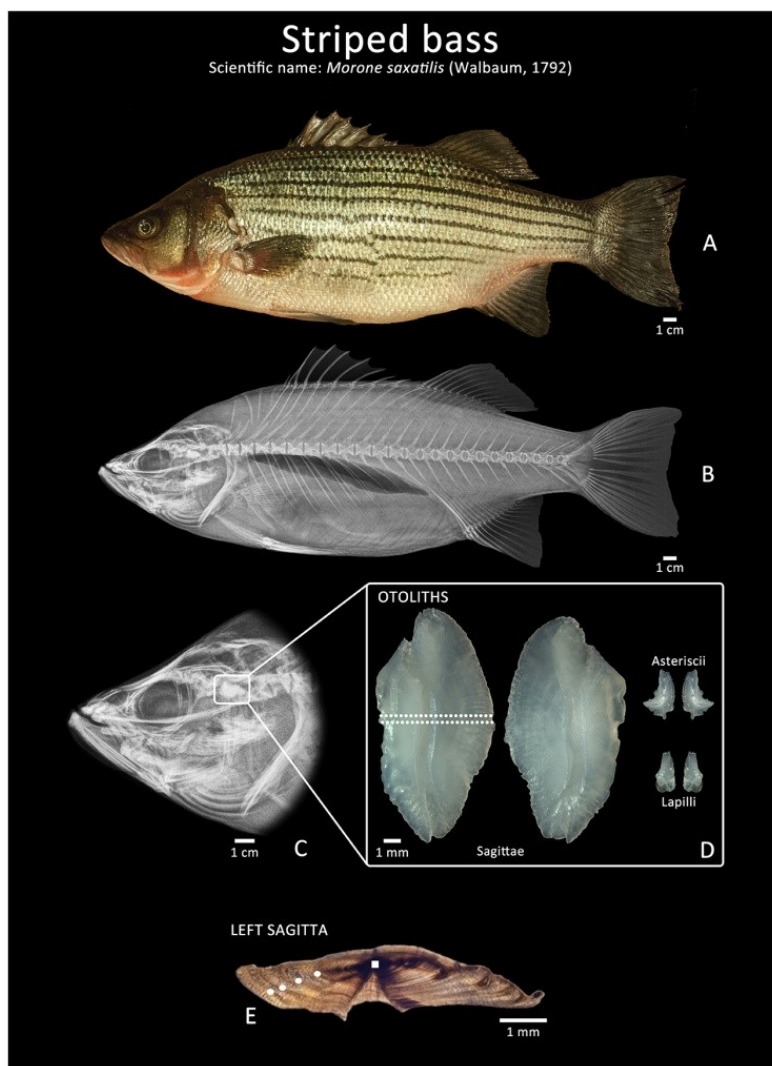


## **Fish otolith ornaments**

**Syllabus: GS-3; Environment and Ecology**

### **Context**

- *Ornaments from fish otoliths have made a market debut, which are crafted by a group of enthusiastic fisherwomen in **Vizhinjam**, trained by scientists from **Central Marine Fisheries Research Institute (CMFRI)**.*



### **About**

- *Otoliths are hard, **calcium carbonate structures** located behind the brain of bony fish.*

- *They are tiny, feather-like flakes that can be made into jewelry.*
- *Halibut otoliths are larger than other fish otoliths, so they are more commonly found.*
- *Otoliths are known as **lucky stones to the Romans and Egyptians**, and are still used in countries like Brazil.*
- *In the past, they have been worn as protective amulets and made into jewelry.*
- *Otoliths can be stored in test tubes or vials, dry or with a clarifying liquid.*
- *Another method is to stick them with transparent nail varnish to a slide or with two-sided sticky tape to a sheet of acetate.*