



## **DAILY CURRENT AFFAIRS 26-04-2024**

### **GS-1**

1. Ringwoodite

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2. Article 244(A) of the Constitution

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## Ringwoodite

Syllabus: GS-1; Geography- Structure of the Earth

### Context

- **Earth has a vast interior ocean, 400-miles under our feet, that creates 'ringwoodite' gems**



### More about the news

- *In a remarkable discovery that challenges our understanding of Earth's water distribution, aided by a **mineral called ringwoodite**, researchers found evidence suggesting the presence of several oceans worth of water trapped deep beneath the United States.*

### About

- **Ringwoodite is a water-rich mineral** that forms naturally in the Earth's mantle at high temperatures and pressures between 525 and 660 km deep.
- It's a high-pressure phase of  **$Mg_2SiO_4$**  that may also contain **iron and hydrogen**.
- Ringwoodite is a 4-2 spinel with the same composition as Mg-rich olivine, but the crystallographic structure of spinel.

- Ringwoodite undergoes several phase transitions at depth, including:
  - Olivine  $\rightleftharpoons$  wadsleyite and Ringwoodite  $\rightleftharpoons$  perovskite + magnesiowustite.

## Background

- Scientists first identified **ringwoodite in a meteorite in 1969**, but didn't see it from inside the Earth until 2014, when a tiny sample was extracted from a diamond mined in Brazil.
- The diamond contained 1.5 percent water, confirming that the Earth's mantle holds an ocean's worth of water.
- Ringwoodite plays a role in the deep water cycle, which circulates ocean water deep below the planet's surface and back up again.
- Water is carried below the Earth's surface at **subduction zones**.
- Finding confirmatory evidence of the presence of ringwoodite in Earth's mantle, and determining its water content, is an important step in understanding deep Earth processes.

## **Article 244(A) of the Constitution**

### Syllabus: GS-2; the constitution of India

#### Context

- In Assam's tribal-majority Diphu Lok Sabha constituency, which votes on April 26 2024, candidates of all parties have promised the implementation of Article 244(A) of the Constitution to create an autonomous 'state within a state'.

#### Where is Diphu, and what is the social profile of this Lok Sabha constituency?

- Diphu is the most sparsely populated of Assam's 14 Lok Sabha constituencies, with just 8.9 lakh voters.
- It is **reserved for Scheduled Tribes (STs)**, and covers six legislative Assembly segments in three tribal-majority hill districts of Assam: Karbi Anglong, West Karbi Anglong, and Dima Hasao.
- These three districts are administered under the provisions of the Sixth Schedule of the Constitution, which describes the "Provisions as to the Administration of Tribal Areas in the States of Assam, Meghalaya, Tripura and Mizoram".
- These areas come under two autonomous councils: the Karbi Anglong Autonomous Council (KAAC) and the North Cachar Hills Autonomous Council.

- *Voters at the seat belong to various communities: Karbi, the third largest tribe in the state, Dimasa, Hmar, Kuki, Rengma Naga, Zeme Naga, Bodo, Garo, Assamese, Bengali, Bihari, Gorkha, etc.*
- *However, the seat has been represented by members of the Karbi community since 1977.*

### **What is Article 244(A) of the Constitution?**

- *Article 244(A) was inserted by **The Constitution (Twenty-second Amendment) Act, 1969**, which enabled Parliament to pass an Act to “form within the State of Assam an autonomous State comprising (whether wholly or in part) all or any of... [certain specified] tribal areas”, including Karbi Anglong.*
- *This **autonomous state** would have **its own Legislature or Council of Ministers or both**.*
- *This provision goes a step further than the provisions under **the Sixth Schedule**, which are already in place in these areas.*
- ***The autonomous councils under the Sixth Schedule have elected representatives for more decentralised governance of these tribal areas, but they have limited legislative powers, do not have control over law and order, and have only limited financial powers.***

### **The Sixth Schedule**

- *The Sixth Schedule of the Constitution of India provides **self-governance and autonomy to the Scheduled Tribes** in the hill regions of Northeast India.*
- *The Schedule applies to the states of **Assam, Meghalaya, Tripura, and Mizoram**.*
- *The Sixth Schedule was passed by the Constituent Assembly in 1949 and is based on the reports of the **Bardoloi Committee**.*
- *It contains provisions for the creation of **Autonomous District Councils (ADCs) and Regional Councils (ARCs)**.*
- *These elected bodies have **legislative, executive, judicial, and financial powers**.*
- *They can make laws on subjects such as:*
  - *Forest management*
  - *Agriculture*
  - *Administration of villages and towns*
  - *Inheritance*
  - *Marriage*
  - *Divorce*
  - *Social customs*
  - *Allotment of land*
  - *Use of water course*

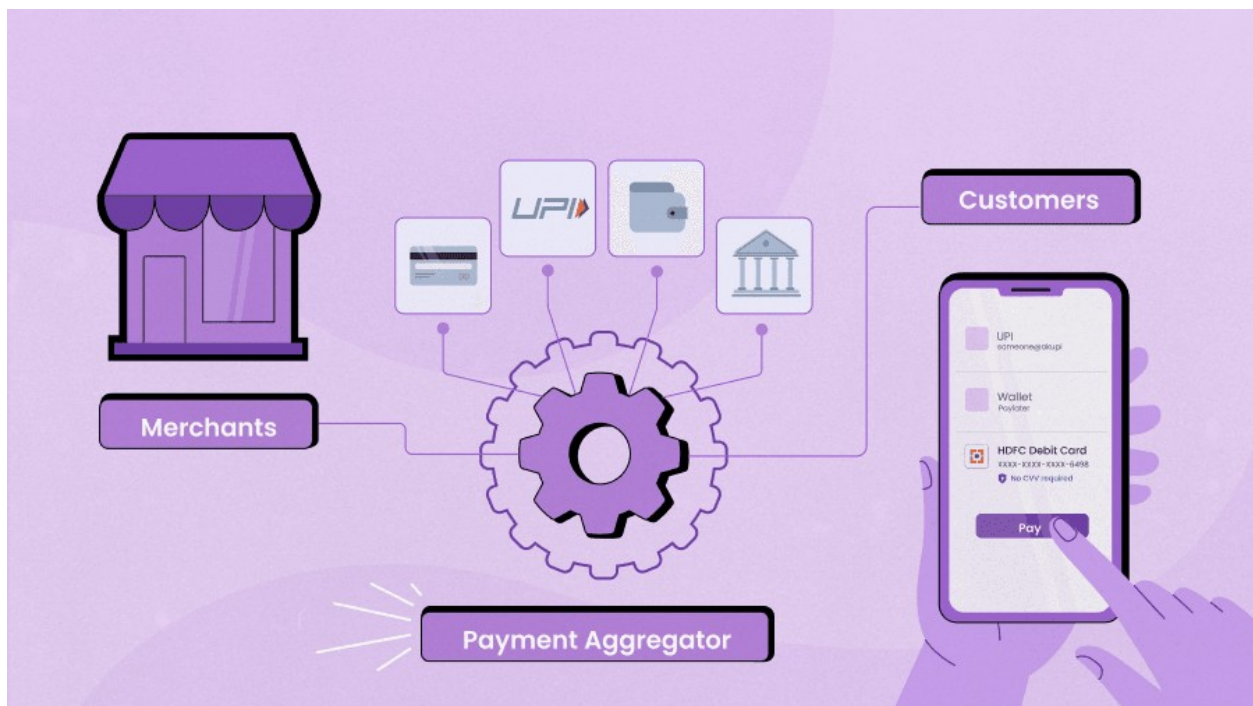
- *The elected members of the District Council serve **five-year terms**.*
- **The Governor** can extend the term for up to one year at a time if a Proclamation of Emergency is in effect or if circumstances make elections impractical.

## Payment aggregators

**Syllabus: GS-3; Economy- Banking**

### **Context**

- *The **Reserve Bank of India (RBI)** has floated two consultation papers seeking enhanced regulation of payment aggregators carrying out face-to-face transactions. It also seeks to strengthen the ecosystem's safety.*



### **About**

- *A payment aggregator, also known as a payment facilitator (payfac) or payment service provider (PSP), is a **third-party service that allows businesses to accept and customers to make online payments**.*
- *Payment aggregators enable businesses to accept a variety of payment methods, such as debit cards, credit cards, bank transfers, e-wallets, and UPI.*
- *They can also disburse payments to employees, suppliers, partners, and authorities.*



- *Payment aggregators simplify payment acceptance for merchants by offering a unified platform for processing multiple payment methods.*
- *They eliminate the need for merchants to have separate accounts with each payment method or bank. Instead, transactions are processed through the aggregator's **Merchant Identification Number (MID)**.*

### Benefits

- **Simplified onboarding**
  - *Businesses can easily sign up and start accepting payments without the lengthy and complex process associated with traditional merchant accounts.*
- **Operational burden relief**
  - *Payment aggregators take operational burdens off merchants while also saving them monthly processing and merchant account maintenance fees.*

### Examples

- *Some examples of payment aggregators include: **PayPal, Amazon Pay, Zomato, Google Pay, and Zoho.***

## Chipko Movement

### Syllabus: GS-3: Environmental Conservation.

#### Context:

- *Recently, Chipko Movement which began in Uttarakhand, in early 1973, marks its 50th anniversary.*

Aspect	Description
<i>Origin and Background</i>	<i>Emerged in the early 1970s in the Chamoli district of Uttarakhand, India, in response to deforestation and commercial logging.</i>
<i>Leadership and Participants</i>	<i>Led by environmental activist Sundarlal Bahuguna, with Gaura Devi, a village woman, becoming a symbol of the movement.</i>
<i>Methods of Protest</i>	<i>Non-violent methods included tree-hugging and forming human chains to prevent loggers from cutting down trees.</i>

Aspect	Description
<i>Impact and Legacy</i>	<i>Raised awareness about forest conservation, influenced environmental policies, and inspired similar movements globally.</i>
<i>Historical Context</i>	<i>Drew inspiration from earlier instances of community-led environmental activism, such as the Bishnoi community's protest in 1730.</i>
<i>Relevance Today</i>	<i>Principles remain relevant in addressing climate change and biodiversity conservation, emphasizing community involvement and sustainability.</i>

### Impact of the movement:

- **Inspiration for Movements:** *The Chipko Movement inspired similar movements worldwide, such as the Appiko Movement in Karnataka, India, and the Green Belt Movement in Kenya, emphasizing nonviolent action and community involvement.*
- **Local Empowerment:** *Chipko empowered local communities, particularly women, to protect natural resources, especially forests, from deforestation and exploitation.*
- **Global Environmental Movement:** *Chipko became a symbol of grassroots activism in the global environmental movement, showcasing the power of local communities to effect change.*
- **Recognition of Women's Role:** *Chipko acknowledged and emphasized the crucial role of women in conservation efforts, challenging traditional gender roles and highlighting their contributions.*
- **Policy Changes:** *Chipko contributed to the formulation of policies for forest conservation and sustainable resource management, influencing government policies in India.*
- **Eco-Feminism:** *Chipko highlighted the connection between environmental issues and women's roles, promoting sustainable practices and eco-feminist ideals.*
- **Education and Research:** *Chipko encouraged interest in environmental science and sustainable development research, fostering a deeper understanding of ecological issues.*
- **Environmental Awareness:** *Chipko raised awareness about deforestation and the need for forest conservation, both locally and globally.*
- **Economic and Cultural Impact:** *Chipko helped preserve traditional livelihoods and cultural practices linked to the environment, safeguarding indigenous knowledge and heritage.*

- **Forest Protection:** *Chipko successfully protected forests from destruction through its activism, aiding in their regeneration and providing ecological benefits such as soil conservation and watershed protection.*

### **New Chipko Movement:**

- *The call for a 'New Chipko Movement' in the face of environmental crisis is a poignant reminder of the urgent need to address pressing ecological challenges. Here's a breakdown of why such a movement is imperative:*
- **Unity Across Society:** *Just as the original Chipko Movement unified people from various walks of life, a new movement must bring together all sections of society to combat environmental degradation.*
- **Expanded Scope:** *While the Chipko Movement focused primarily on tree conservation, a modern movement must address broader environmental issues such as air and water pollution, reflecting the evolving challenges of our time.*
- **Government Action:** *There is a demand for proactive measures from the government, including the formulation of a dedicated environmental vision document, especially tailored for urban areas where environmental issues are often acute.*
- **Political Engagement:** *With environmental concerns gaining prominence, political parties need to prioritize environmental issues in their agendas, particularly in urban centers where pollution levels are alarming.*
- **Administrative Roadmap:** *Clear and actionable plans from the administration and executive branches are necessary to guide environmental policies and initiatives effectively.*
- **International Learning:** *Learning from successful environmental policies implemented in other countries, such as China's reduction of SO<sub>2</sub> pollution, can offer valuable insights for addressing similar challenges in India.*

## **National clean air program**

### **Syllabus: GS-3: Air pollution control**

#### **Context:**

- *National Clean Air Programme missed 2024 target to push back pollution, study shows.*



### **NCAP Goals and Progress:**

- *Launched in 2019 to reduce particulate pollution by 20-30% by 2024, later increased to 40% by 2026.*
- *Most major cities are falling short of the 2024 benchmark according to a study.*

### **Financial Investments:**

- *About Rs 9,650 crore invested in controlling air pollution across 131 cities, with Rs 5,835 crore utilized.*

### **Non-Attainment Cities:**

- *Cities failing to meet National Ambient Air Quality Standards (NAAQS) designated as non-attainment.*
- *Criteria based on consistent failure over five years.*

### **Study Details:**

- *Conducted by Climate Trends and Respirer Living Sciences based on Central Pollution Control Board data.*
- *PM10 levels worsened in 22 out of 46 cities tracked; only 8 met initial reduction targets.*

### **Air Quality Findings:**

- *Pollution levels exceed NAAQS and WHO guidelines in most cities.*

### **City Performances:**

- *Durgapur in West Bengal worst performer for PM10; Varanasi most improved.*
- *Navi Mumbai most deteriorated for PM2.5; Varanasi most improved.*

### **About NCAP:**

- *The National Clean Air Programme (NCAP) is an initiative launched by the Ministry of Environment, Forests and Climate Change (MoEFCC) in January 2019.*
- **Objective:** *NCAP aims to establish a national framework for managing air quality with a specific target for reducing particulate matter (PM) concentrations.*
- **Reduction Targets:** *Initially aimed at reducing PM concentrations by 20-40% by 2024, the target was later extended to 40% by 2026.*
- **Coverage:** *The program covers 131 cities designated as non-attainment cities by the Central Pollution Control Board (CPCB). These cities consistently fail to meet the National Ambient Air Quality Standards (NAAQS) for over five years.*

- **NAAQS:** *These are standards set for ambient air quality, covering various pollutants like PM10, PM2.5, SO2, NO2, CO, NH3, Ozone, Lead, Benzene, Benzo-Pyrene, Arsenic, and Nickel.*
- **PRANA Portal:** *PRANA serves as a monitoring platform for implementing NCAP, providing oversight and tracking progress in non-attainment cities.*