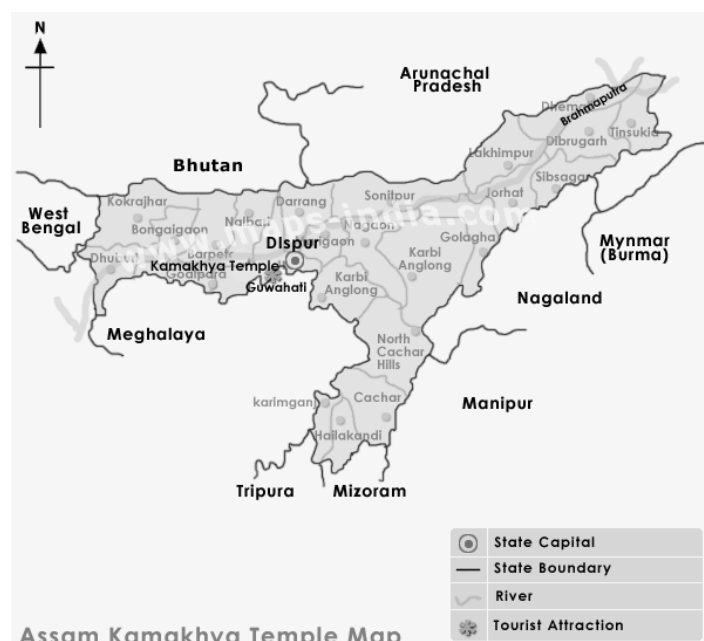


## Prelim Bits 20-04-2023 | UPSC Daily Current Affairs

### Maa Kamakhya Corridor

*PM Modi lauds Assam's Kamakhya corridor initiative.*

- The Kamakhya temple is located at the top of the Nilachal hills in Guwahati, adjoining the southern bank of the Brahmaputra River.
- The Kamakhya temple is one of the oldest and most revered centres of Tantric practices.
- It is believed that the ancient demon king, Narakasura had the temple built in honour of Goddess Kamakhya.
- The temple was rebuilt under the patronage of Naranarayan, the last ruler of the undivided Kamata kingdom that straddled present-day Assam, Bangladesh, and West Bengal.



### Other similar corridors

- **Kashi Vishwanath Corridor** - It is the massive makeover of the Kashi Vishwanath temple.
- It is the first after the 1780 AD when the Maratha queen Ahilyabai Holkar of Indore renovated the Kashi Vishwanath temple and the area surrounding it.
- **Shri Mahakal Lok Corridor** - Mahakal Maharaj Mandir Parisar Vistar Yojna is a plan for the expansion, beautification, and decongestion of the Mahakaleshwar temple in Ujjain district.

## References

1. [The Hindu | PM Modi lauds Assam's Kamakhya corridor initiative](#)
2. [PIB | Maa Kamakhya corridor will be a landmark initiative: PM](#)

## National Quantum Mission

*The Union Cabinet approved the National Quantum Mission (NQM).*

- NQM will work towards strengthening India's research and development in the quantum arena alongside indigenously building quantum-based computers.

*Quantum-based (physical qubit) computers are far more powerful to perform the most complex problems in highly secure manner.*

- The National Quantum Mission planned during 2023-2031 will help India take a quantum leap.
- It will have wide-scale applications ranging from healthcare and diagnostics, defence, energy and data security.
- Department of Science and Technology (DST) will lead this mission.
- **Targets** - The mission will focus on developing quantum computers with capacities ranging between 50-1000 qubits developed over the next eight years.

*Just like a binary bit is the basic unit of information in classical (or traditional) computing, a qubit (or quantum bit) is the basic unit of information in quantum computing.*

- Computers up to 50 physical qubits will be developed over three years, 50-100 physical qubits in five years and computers up to 1000 physical qubits in eight years.
- **Satellites** - NQM will entail development of satellite-based secure communications between a ground station and a receiver located with 3,000kms during the first 3 years.
- For satellite-based communication within Indian cities, NQM will lay communication lines using Quantum Key Distribution over 2,000kms.
- **Themes** - Under NQM, there will be four broad themes - Quantum Computing, Quantum Communication, Quantum Sensing and Metrology and Quantum Material and Devices.
- Thematic hub for each will be established at research institutes and R&D centres who are already working in this field of research.
- For long distances quantum communication, especially with other countries, tests will be conducted in the coming years.
- **Elite list** - India now joins among the top six leading nations involved in the research and development in quantum technologies.
- Presently, R&D works in quantum technologies are underway in the US, Canada, France, Finland, China and Austria.

## References

1. [The Indian Express | India joins 6 leading nations in quantum tech](#)
2. [Deccan Herald | India to become 7<sup>th</sup> nation to have National Quantum Mission](#)

## Web3

- It is known as the decentralised web, and it caters to the next generation of the Internet, leveraging blockchain technology to create a more open and transparent web.
- Web3 is built on top of existing Internet infrastructure and not in competition with previous versions of the web platform.
- It allows for the creation and exchange of digital assets, decentralised applications (dApps), and smart contracts in the blockchain system.

*Blockchain is a decentralised digital technology that is designed to securely store data in a way where hacking and compromising is not easy like on current mediums and variants of the Internet.*

## Features of Web3

- **Digital assets** - It provides users with greater control over their data and digital assets.
- Instead of relying on centralised intermediaries, it offers options and mediums for an individual to have more privacy and, more importantly, security of the content and transactions.
- **Secure** - Web3 allows for peer-to-peer transactions and interactions, which means that users are in control of their data and can choose whom they share it with.
- This also means that Web3 is more secure, as there is no single point of failure that can be exploited by hackers.
- **dApps** - Another key feature of Web3 is the ability to create and use decentralised applications (dApps) and smart contracts.
- These dApps can be used for a variety of purposes, such as social media, finance, gaming, and more.

## Difference between Web2

- **Web2** - It is also known as the centralised web, is the current version of the Internet.
- It is characterised by the dominance of large, centralised platforms such as Google, Facebook, and Amazon.

Characteristics	Web2	Web 3
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Centralisation vs. Decentralisation	Centralised, meaning data is stored on centralised servers owned and controlled by large corporations.	Decentralised, meaning data is stored on a decentralised network of computers that are owned and controlled by the users themselves.
Intermediaries vs peer-to-peer	Relies on intermediaries such as banks, social media platforms, and online marketplaces to facilitate transactions and interactions.	Enables peer-to-peer transactions and interactions, users can transact directly with one another without the need for intermediaries like banks.
Data ownership and control	<p>Large corporations like Facebook and Google have control over user data and can monetise it in ways that users may not be comfortable with.</p> <p>Users must trust intermediaries to keep their data and transactions secure.</p>	<p>Users can choose to share data only with those they trust.</p> <p>Users can trust the network itself to keep their data and transactions secure.</p>

## References

1. [The Indian Express | Internet for the next generation](#)
2. [Forbes | What Is Web3?](#)

## Gramdan Act

*A village in Maharashtra is fighting for the long forgotten Gramdan Act.*

- Vinoba Bhave was disturbed by the growing violence linked to the issue of unequal land ownership in the country, particularly in the Telangana region.

*Vinoba Bhave was the first Satyagrahi chosen by Mahatma Gandhi when he launched the Quit India Movement in 1942 against British rule.*

- Bhave expanded the concept of Bhoodan to the entire village putting its land under a common trust.
- **Bhoodan** - It meant redistribution of land from bigger landowners to the landless.
- Gramdan is an expansion of Bhoodan movement started in 1951 by Gandhian Vinoba Bhave.
- **Gramdan** - This made everyone to not just donate a small part of the land for the landless but also 1/40th of their income for the welfare of the poorest and village development.
- The land will not be sold outside the village or to one who has not joined Gramdan in

the village.

- However, the landowners can continue to cultivate it and reap the benefits.
- The Gramdan Act was born out of a movement by Vinoba Bhave in the 1960s.
- The act gives wide powers and responsibilities to the gram-mandal (Gram Sabha) for the administration, development and welfare of the village.
- **States** - Today, seven states in India have 3,660 Gramdan villages, the highest being in Odisha (1309).
- The states are Andhra Pradesh, Bihar, Maharashtra, Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh.

### Features of the Act

- At least 75% of the landowners in the village should surrender land ownership to the village community.
- Such land should at least be 60% of the village land.
- 5% of the surrendered land is distributed to the landless in the village for cultivation.
- Recipients of such land cannot transfer the same without the permission of the community.
- The rest remains with the donors; they and their descendants can work on it and reap the benefits.
- However, they cannot sell it outside the village or to one in the village who has not joined Gramdan.
- All the cultivators who have joined Gramdan should contribute 2.5% of their income to the community.

### References

1. [Down To Earth | Why this Maharashtra village is fighting for the long forgotten Gramdan Act?](#)
2. [Economic and Political Weekly | Problems of Gramdan](#)

### Coalition of Coastal Cities to Combat Marine Litter

*Delhi-based non-profit Centre for Science and Environment (CSE) has launched a coalition of coastal cities to fight marine litter pollution across India.*

- The Coalition of Coastal Cities to Combat Marine Litter was launched at a workshop organised and spearheaded by CSE.
- **Causes for marine litter** - About 80% of marine litter comes from land-based mismanagement of solid waste.
- The remaining 20% is contributed by coastal settlements, according to global research estimates.
- Plastic accounts for 90% of all the waste that ends up in the marine ecosystem.
- The other contributors are flood waters, municipal sewage, industrial waste, and waste from shipbreaking yards.
- **Challenges of marine ecosystem** - One of the key challenges faced by the global marine ecosystem is abandoned, lost or discarded fishing gear (ALDFG).
- A large part of ALDFG is lost in deep seas, making it difficult to recover.

- India loses 15,276 tonnes of gillnets annually, according to the Food and Agriculture Organization.
- **Tourism** - Waste from beaches comprises multi-layered, low-value plastics, polystyrene products like cutlery, bags and cigarettes.
- These waste products are either not collected or are mismanaged.
- **Status of India** - The estimated extent of marine litter is about 0.98 metric tonnes of trash per km stretch of the coastline.
- Tributaries of major Indian rivers carry around 15-20% of plastic waste into the marine environment.
- India's 7,517 km coastline across nine states and 66 coastal districts is home to about 250 million people.
- India is the world's second-largest fish-producing country.
- India's coastline also has a rich biodiversity, protected by about 4,120 km stretch of mangroves.

## References

1. [Down To Earth | CSE launches Coalition of Coastal Cities](#)
2. [CseIndia | CSE launches Coalition of Coastal Cities](#)

