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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

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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 7th 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
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	Large corporations like Facebook and Google have control over user data and can monetise it in ways that users may not be comfortable with. Users must trust intermediaries to keep their data and transactions secure.	Users can choose to share data only with those they trust. Users can trust the network itself to keep their data and transactions secure.

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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.

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