

PRADHAN MANTRI VAN DHAN VIKAS YOJNA

Recently, the Union Minister of Tribal said in the Lok Sabha that 15 lakh rupees per Van Dhan Vikas Kendra (VDVK) were given under the Pradhan Mantri Van Dhan Vikas Yojna (PMJVM) for the support of livelihood activities of tribal people in the country.



About Pradhan Mantri Van Dhan Vikas Yojna:

- The Van Dhan Scheme is an **initiative of the Ministry of Tribal Affairs and TRIFED**.
- It was launched on 14th April 2018 and seeks to improve tribal incomes through the value addition of tribal products.
- **Implementation:**
 - The scheme will be implemented through the Ministry of Tribal Affairs as Nodal Department at the Central Level and **TRIFED as Nodal Agency at the National Level**.
 - At the State level, the State Nodal Agency for MFPs and the District collectors are envisaged to play a pivot role in scheme implementation at the grassroots level.
 - Locally the Kendras are proposed to be managed by a Managing Committee (an SHG) consisting of representatives of Van Dhan SHGs in the cluster.
- A typical Van Dhan Vikas Kendra constitutes **10 tribal Van Dhan Vikas Self Help Groups (SHG)**, each comprising of upto 30 MFP gatherers or tribal handicraft artisans i.e. about 300 beneficiaries per Kendra.
- The initiative is expected to provide an enhanced livelihood to about 25 lakh tribal gatherers in the country.

DNA PROFILING OF ELEPHANTS

Announcing the 30-year celebration of 'Project Elephant' recently officials from the Ministry of Environment, Forest and Climate Change said that the DNA profiling of 270 of the 2,675 captive elephants in the country has been completed.



About DNA Profiling of Elephants:

- The DNA profiling was started in August 2022 for Gaj Soochna Mobile Application for forest officials.
- DNA profiling is the process where a **specific DNA pattern, called a profile**, is obtained from a sample of bodily tissue.

What is Project Elephant?

- It was launched in 1992 as a **Centrally-Sponsored Scheme** to protect elephants and improve **their habitat and corridors, reduce Human-elephant conflict and ensure their welfare.**
- Under this project, financial and technical support is given to wildlife management efforts by states for their **free-ranging populations of wild Asian Elephants.**
- Project elephant is mainly implemented **in 16 States.**
- **Conservation status of Asian Elephant**
 - **IUCN: Endangered**
 - **Wildlife (Protection) Act, 1972: Schedule I.**
 - **CITES: Appendix I**

WATER AND HERITAGE SHIELD AWARD

A site Sípàapu located in Arizona, United States and sacred to the Hopi Native American Nation has been awarded a 'Water and Heritage Shield' by the International Committee On Monuments and Sites International Science Committee



Why in news?

- The purpose of the Shield is to help the public become aware of the significance of **water and indigenous sacred sites** all over the world and the right to cultural and historical memory.
- The Sípàapu is a **rocky dome made of limestone** as well as a spring located on the **Little Colorado river**, a tributary of Colorado.

- Little Colorado joins the main stem of the river within the Grand Canyon, a **UNESCO World Heritage Site**.
- The ancestors of the Hopi dwelled throughout the Grand Canyon before the 1250 Common Era.
- Little Colorado, especially the confluence, is sacred not only to the Hopi but also to other Native American groups such as the Navajo and Zuni.
- The Hopi consider the Sípàapu to be the place from where their ancestors emerged from another world into this one.

About International Committee On Monuments and Sites:

- It is a global **non-governmental organization** associated with UNESCO
- Its mission is to promote the conservation, protection, use and enhancement of monuments, building complexes and sites.
- It is an **Advisory Body** of the **World Heritage Committee** for the implementation of the World Heritage Convention of UNESCO.
- As such, it **reviews the nominations** of cultural world heritage and ensures the conservation status of properties.
- It also contributed to a series of resource manuals jointly prepared by the Advisory Bodies (ICOMOS, IUCN and ICCROM) and the UNESCO World Heritage Centre.

Who are the Hopi Tribal people?

- The Hopi are known as one of the oldest living cultures in documented history, having migrated north to Arizona in the 12th century.

BARC B1201



Recently, the National Aluminium Company Limited (NALCO), the Navratna CPSE has successfully developed a Bauxite Certified Reference Material (CRM) naming as BARC B1201 in collaboration with Bhabha Atomic Research Centre (BARC).

About BARC B1201:

- It is the **first of its kind** Certified Reference Material (CRM) in India and **5th in the World**.

- This new product will act as an import substitution for use by Industries, Research Laboratories and Academic Institutions as a **calibration standard in evaluating analytical methods**, the performance of Instruments, and data quality control in routine analysis of bauxite.

What is Bauxite?

- Bauxite is an important ore that is used **for making aluminium**. It is not a specific mineral but a rock consisting mainly of hydrated aluminium oxides.
- The deposits of Bauxite are mainly associated with laterites and occur as capping on hills and plateaus, except in coastal areas of Gujarat and Goa.
- Bauxite is primarily used to produce alumina through **the Bayer process**.
- In India **Odisha** alone accounts for 53% of the country's resources of bauxite and it is also found in the states of Andhra Pradesh, Jharkhand, Madhya Pradesh and Maharashtra.

LAUNCH VEHICLE MARK- 3 (LVM-3)

Recently, Indian Space Research Organisation's (ISRO) LVM3 or GSLV-Mk3 successfully put into space 36 satellites of Bharti-backed OneWeb.



About Launch Vehicle Mark- 3(LVM-3):

- It was previously known as the **Geosynchronous Satellite Launch Vehicle (GSLV) Mark-III**.
- The recent launching of 36 satellites was the sixth launch of India's heaviest rocket LVM-3.
- It was the second dedicated commercial satellite mission undertaken by Space PSU **NewSpace India Limited (NSIL)** for Network Access Associates Ltd (OneWeb).

What is GSLV?

- It is a **3-stage space launch** vehicle operated by the ISRO to launch satellites and other space objects into Geosynchronous Transfer Orbits (GTO ~37,000 km).
- The third stage of this vehicle uses a **Cryogenic engine**, which uses liquefied oxygen and hydrogen as fuel.
- It has been designed for launching **communication satellites**.
- GSLV delivers satellites into a higher elliptical orbit - GTO.

What is NewSpace India Limited (NSIL)?

- It is a Central Public Sector Enterprise established in 2019.
 - It is the **second commercial entity of the Department of Space (DoS)** after Antrix Corporation Limited, which was set up in 1992 to market the products and services of the Indian Space Research Organisation (ISRO).
 - **Mandate**
 - Transfer technology to industry for producing commercially successful PSLV spacecraft launchers.
 - Outsource assembly of small satellites and the upcoming Small Satellite Launch Vehicle (SSLV).
 - To commercially exploit the R&D work done by ISRO centres and DoS constituents.
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BIOTRANSFORMATION TECHNOLOGY

Why in news?

- A UK-based startup, based at Imperial College in London, claims to have developed a technology that could alter the state of plastics and make them biodegradable.
- It claims the technology would digest the plastic packaging waste naturally with the help of microbes and biodegrade the waste without leaving behind any microplastics.
- The company calls the process “biotransformation”.

What is Biotransformation technology?

- It is a process by which organic compounds are transformed from one form to another to reduce the persistence and toxicity of the chemical compounds.
- Biotransformation technology is a novel approach to ensure plastics that escape **refuse streams** are processed efficiently and broken down.
 - The term **refuse stream** refers to the flow of solid waste materials that are generated from various sources.
 - The term is often used in the context of waste management and recycling.



CROSS & CLIMB ROHTAK



- Plastics made using this technology are given a pre-programmed time during which the manufactured material looks and feels like conventional plastics without compromising on quality.
- Once the product expires and is exposed to the external environment, it self-destructs and biotransforms into bioavailable wax.
- This wax is then consumed by microorganisms, converting waste into water, CO₂, and biomass.

Why do we need this?

- As per the government, India is generating 3.5 billion kgs of plastic waste annually.
- The per capita plastic waste generation in India has also doubled in the past five years. Of this, a third comes from packaging waste.
- Also, as per one estimate, E-commerce giant Amazon generated an estimated 321 million kilograms (709 million pounds) of plastic from packaging waste in 2021 alone.
- These plastic packaging often ends up in the world's freshwater and marine ecosystems as pollution.

Where can this technology be used?

- Food packaging and health care industries are the two prime sectors that could use this technology to reduce waste.
- The increase in cost is relatively small compared to conventional plastic that does not contain this technology.

What are the steps taken by the Indian government to address the issue of plastic waste?

- The Indian government has launched multiple initiatives to move the country towards sustainability.
- They introduced a plastic waste management gazette to help tackle the ever-growing plastic pollution caused by single-use plastics.
- It imposed a **ban on single-use plastics** in the country.

- The **National Dashboard on Elimination of Single Use Plastic and Plastic Waste Management** brings all stakeholders together to track the progress made in eliminating single-use plastic and effectively managing such waste.
- An **Extended Producer Responsibility (EPR) portal** helps in improving accountability traceability, and facilitating ease of compliance reporting in relation to EPR obligations of the producers, importers and brand-owners.
 - EPR policies typically require producers to take responsibility for the entire life cycle of their products, from design and production to end-of-life disposal or recycling.
- India has also developed a mobile app to report single use plastics grievances to check sale, usage or manufacturing of single use plastics in their area.

What are the alternatives to reducing plastic waste?

- A switch to jute or paper-based packaging could potentially cut down plastic waste.
 - This could also build sustainability within the paper industry, and save on the import bill on ethylene solutions.
- The wooden packaging is yet another alternative, but that will make the packaging bulkier and increase cost.
- The Government of Tamil Nadu, in Chennai, organised National Expo and Conference of Startups to raise awareness on alternatives to single-use plastics.
- The alternatives showcased were made using coir, bagasse, rice and wheat bran, plant and agricultural residue, banana and areca leaves, jute and cloth.

DEATH PENALTY IN INDIA

Why in News?

- A Supreme Court Bench, headed by Chief Justice of India (CJI), recently asked the Central government to defend the law that allows hanging by the neck as a mode of execution for death penalty.

- This has reopened a decades-old debate over whether there can be a more humane and dignified way of executing the death penalty.

Death Penalty in India:

- The purpose of the death penalty is to deter people from doing something by instilling fear in them about the consequences.
- This punishment applies to heinous and traumatising offences to society as a whole, such as murder, rape, rape with murder, etc.
- According to **Death Penalty in India (2022)** report, the **trial courts across the country imposed 165 death sentences in 2022**, which is the highest in a single year in the last two decades.
 - Death Penalty in India Report is published by Project 39A, a criminal law reforms advocacy group based in New Delhi.
 - It is inspired by **Article 39A** of the Indian Constitution which provides for **free legal aid to the poor and weaker sections of the society** and ensures justice for all.
- In India, death penalty is carried out by hanging as the primary method of execution as given under Section 354(5) of the Criminal Code of Procedure, 1973 is "**Hanging by the neck until dead**".

Legal Remedies Available to Death Sentenced Individuals:

- The award of the death sentence by a trial court must be reaffirmed by a High Court to make it final.
- **Article 137** of the Indian Constitution provides the power to the Supreme Court to review the orders and judgments passed by it.
 - The **Review Petition** can be filed under Section 114 and Order 47 of the Code of Criminal Procedure (CrPC).
- After the dismissal of the review petition, the person can file **Curative Petition**.
 - Petitioners can file curative petitions in case of gross violation of principles of natural justice.
 - The curative petition will be sent to the three senior most judges and the bench of judges who passed the judgment.

- If the majority of them find substance in the petition, then the matter would be sent to the same bench of judges.
- **Mercy Petition** can be filed by the convicts. It is to be filed within a period of seven days from the date when the Superintendent of jail informs the convicted person of the dismissal of the petition.
- **Article 72** and **Article 161** of the Constitution provides the power to pardon the petitioner to the President and the Governor, respectively.

Arguments in Favour/Against of Death Penalty:

- **Moral arguments –**
 - Supporters of the death penalty believe that those who commit murder, because they have taken the life of another, have forfeited their own right to life.
 - Furthermore, they believe, capital punishment is a just form of retribution, expressing and reinforcing the moral indignation not only of the victim's relatives but of law-abiding citizens in general.
- **Counter argument –**
 - Opponents of death penalty argue that, by legitimizing the very behaviour that the law seeks to repress—killing—capital punishment is counterproductive in the moral message it conveys.
 - They also claim that r
- **Utilitarian arguments –**
 - Supporters of capital punishment also claim that it has a uniquely potent deterrent effect on potentially violent offenders for whom the threat of imprisonment is not a sufficient restraint.
- **Counter argument –**
 - Opponents, however, point to research that generally has demonstrated that the death penalty is not a more effective deterrent than the alternative sanction of life or long-term imprisonment.
- **Practical arguments –**
 - There also are disputes about whether capital punishment can be administered in a manner consistent with justice.
 - Those who support capital punishment believe that it is possible to fashion laws and procedures that ensure that only those who are really deserving of death are executed.

○ Counter argument –

- By contrast, opponents maintain that the historical application of capital punishment shows that any attempt to single out certain kinds of crime as deserving of death will inevitably be arbitrary and discriminatory.

Important Judgements on Death Penalty:

• Ediga Anamma v/s State of Andhra Pradesh (1974) –

- The Supreme Court laid down the principle that life imprisonment for the offence of murder is the rule and capital sentence is the exception in certain cases.
- The Court also stated that a special reason should be given if the court decides to impose a death sentence.

• Bachan Singh v/s State of Punjab (1980) –

- The Supreme Court held that only in **rarest of rare cases** that are brutal, the death penalty should be imposed.

How are Executions Carried Out in Other Countries?

- According to Amnesty International, **55 countries** still have the death sentence in their statute books.
- **Death by hanging is the most prevalent mode of execution**, especially in the former British colonies.
- Execution by firing squad is employed in **China**.
- **Saudi Arabia** uses beheading, apart from other methods.
- In the **US**, an intravenous lethal injection is given in every state (27 states and American Samoa) that allows the death penalty.