

Electing India's President

❖ Context

- The tenure of the current President of India Ram Nath Kovind is set to end in July this year, which is also when the 16th Indian Presidential election will be held to elect his successor.

❖ Indian President Election

- The provisions of the election of the President are laid down in **Article 54** of the Constitution of India.
- **Method of Voting:**
 - The Indian President is **elected through an electoral college system.**
 - It follows the system of **proportional representation** utilizing a single transferable vote system and secret ballots.
- **Electoral College:**
 - It is made up of all the **elected members** of the:
 - **Upper and Lower Houses** of Parliament (Rajya Sabha and Lok Sabha MPs).
 - **Elected members of the Legislative Assemblies** of States and Union Territories (MLAs).
 - In the upcoming polls, the number of electors will be 4,896 — 543 Lok Sabha MPs, 233 MPs of the Rajya Sabha, and 4,120 MLAs of all States, including the National Capital Territory (NCT) of Delhi and Union Territory of Puducherry.
 - **Following group of people are not involved in electing the President of India:**
 - Nominated Members of Lok Sabha and Rajya Sabha.
 - Nominated Members of State Legislative Assemblies.
 - Members of Legislative Councils (Both elected and nominated) in bicameral legislatures.
 - Nominated Members of union territories of Delhi and Puducherry.

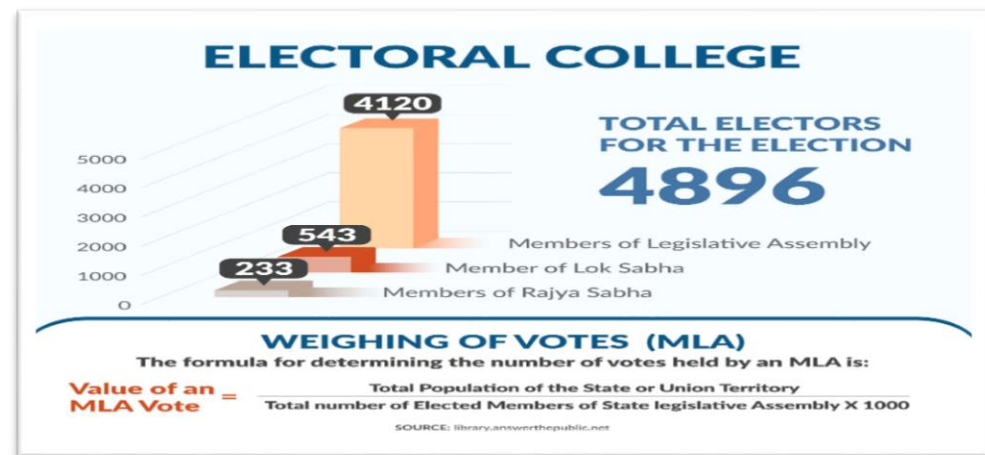
▪ Value of Votes:

$$1) \text{ Value of the vote of an MLA} = \frac{\text{Total population of State}}{\text{Total number of elected members of state legislative assembly}} \times \frac{1}{100}$$

$$2) \text{ Value of the vote of an MP} = \frac{\text{Total value of votes of all MLAs all states}}{\text{Total number of elected MPs}}$$

$$3) \text{ Electoral quota} = \frac{\text{Total number of valid votes polled}}{2+1} + 1$$

- Any **dispute** related to his election is **taken up by SC. SC's decision is final.**
- The elections are **conducted and overseen by the Election Commission (EC) of India.**
- **Oath:**
 - The President takes oath in the **presence of the Chief Justice of India** "to preserve, protect and defend the Constitution and law".
- **Term:**
 - The President shall hold office for a **term of 5 years** from the date on which he enters upon his office.
- He is also **eligible for re-election any number of times.**



India's Solar Capacity Target

❖ Context

- India is likely to miss its 2022 target of installing 100 gigawatts (GW) of solar power capacity.

❖ Key Highlights

- As of December 2021, India's cumulative **installed solar capacity was 55 GW.**
 - **Grid-connected utility-scale projects** making up 77% of the total.
 - The rest from **grid-connected rooftop solar (20%).**
 - Mini or micro **off-grid projects (3%).**
- With just eight months of 2022 remaining, only about 50% of the 100GW target has been met.
- Solar capacity is a **major part of India's commitment** to address global warming according to the terms of the **Paris Agreement**, as well as **achieving net zero, or no net carbon emissions, by 2070.**

❖ Factors Impeding Rooftop Solar Installation Include

- Induced **supply chain disruption** to policy restrictions, regulatory roadblocks.
- **Net metering limits.**
- The **twin burdens of basic customs duty (BCD)** on imported cells and modules and issues with the Approved List of Models and Manufacturers (ALMM).
- **Unsigned power supply agreements (PSAs)** and banking restrictions.
- **Financing issues** plus delays in or **rejection of open access approval grants.**
- The unpredictability of future open access charges.

Rashtriya Gram Swaraj Abhiyan (RGSA)

❖ Context

- The Cabinet Committee on Economic Affairs has approved continuation of revamped **Centrally Sponsored Scheme of Rashtriya Gram Swaraj Abhiyan (RGSA)** for implementation during the period from **01.04.2022 to 31.03.2026**.

❖ Key Highlights

- The scheme is run under the administrative control of **Ministry of Panchayati Raj**.
- The **first phase** was implemented from **2018-19 to 2020-21**.
- It will help more than **2.78 lakh Rural Local Bodies including Traditional Bodies** across the country to **develop governance capabilities to deliver on SDGs**.
- Central government under revamped RGSA will shift its **focus towards capacitating the elected representatives of PRIs** for Leadership Roles enable them to deliver on localization of SDGs principally for **nine themes**:

Poverty free and enhanced livelihood in villages	Healthy Village	Child Friendly Village
Water Sufficient Village	Clean and Green Village	Self-Sufficient Infrastructure in Village
Socially Secured Village	Village with Good Governance	Engendered Development in Village.

❖ Components of the Scheme

- **Central:** National Plan of Technical Assistance, Mission Mode project on e-Panchayat, Incentivization of Panchayats, Action Research & Media.
- **State:** Capacity Building & Training (CB&T), Distance learning Facility, Support for construction of Gram Panchayat (GP) Bhawan, co-location of Common Service Centres (CSCs) in GP Bhawans and computer for GPs.

❖ Implementation

- The scheme will be implemented in a **demand driven mode**.
- The **State Government** will formulate their **Annual Action Plans** for seeking assistance from the Central Government as per their priorities and requirements.

❖ Funding

- Centre-State share : **60: 40** except in cases of :
 - NE, Hilly States and Union Territory (UT) of J&K - **90: 10**.
 - UT - 100 (Centre).

News in Between the Lines

Patent Filing



❖ Context

- For the first time in 11 years, the **number of domestic patent filing surpasses** the number of international patent filing in India during Jan-Mar 2022.

❖ Key Highlights

- Of the total 19796 patent applications filed, **10706 were filed by Indian applicants against 9090 by non-Indian applicants**.
- The cornerstone laid down by **National IPR policy** and the efforts made by the Government has transpired into the following achievements for India:
 - **Filing of patents have increased** from 42763 in 2014-15 to 66440 in 2021-22, more that **50% increase in a span of 7 years**.
 - Nearly **five times increase in grant of patents** in 2021-22 (30,074) as compared to 2014-15 (5978).
 - **Reduction in Time of patent** examination from 72 months in Dec 2016 to 5-23 months at present, for different technological areas.
 - **India's ranking in Global Innovation Index** has increased to 46th in 2021 (+35 ranks) as compared to from 81st in 2015-16.
- **Significance:** This will take India a step closer to India's ambitious target of being in the top 25 nations of Global Innovation Index.

Retail Inflation

❖ Context

- Recently, **retail inflation accelerated sharply to 6.95%** in the month of March.

❖ Key Highlights

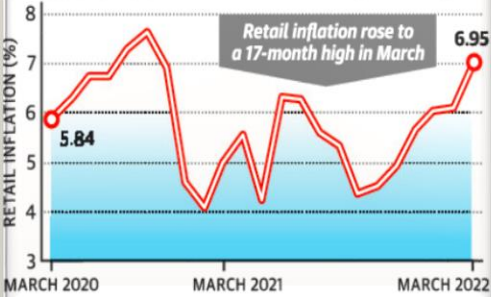
- It is the fastest pace of price gains in almost a year and a half.
- It marked the third straight month when inflation exceeded the Reserve Bank of India's tolerance threshold of 6%.

Face to Face Centres



Persistent inflation

India's retail inflation accelerated to 6.95% in March, breaching RBI's tolerance threshold of 6% for the third consecutive month



- The overall Consumer Price Index (CPI)-based inflation print to a **17-month high** due to following reasons:
 - A **surge in food price inflation**, which quickened to **7.68% from 5.85% in February**.
 - Rising fuel prices**.
 - Producers pass on higher commodity prices** and input costs to **consumers** across goods and services .
- Retail Inflation: Retail inflation is tracked by CPI.**
 - The **CPI tracks the change in retail prices of goods and services** which households purchase for their daily consumption.
 - It **measures the changes in prices from a retail buyer's perspective**.
 - CPI data is published by the **National Statistical Office (NSO)**, Ministry of Statistics and Programme Implementation (MoSPI).
 - Wholesale inflation**, which is tracked by the Wholesale Price Index (WPI), measures inflation at the level of producers.

Pradhanmantri Sangrahalaya



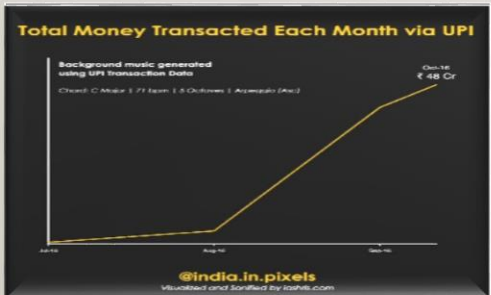
❖ Context

- Prime Minister Shri Narendra Modi will inaugurate the **Pradhanmantri Sangrahalaya** on 14th April, 2022.

❖ Key Highlights

- The Sangrahalaya **tells the story of India after Independence through the lives and contributions of its Prime Ministers**.
- It is an inclusive endeavor **aimed at sensitizing and inspiring the younger generation** about the leadership, vision and achievements of all our Prime Ministers. The **design of the museum building is inspired by the story of rising India**, shaped and molded by the hands of its leaders.
- The design incorporates **sustainable and energy conservation practices**.
- No tree has been felled or transplanted during the course of work on the project.
- The **logo of the Sangrahalaya** represents the **hands of the people of India holding the Dharma Chakra** symbolizing the nation and democracy.
- There are a **total of 43 galleries in Sangrahalaya**: Starting from displays on **freedom struggle** and the **framing of the Constitution**, the Sangrahalaya goes on to tell the story of how our Prime Ministers navigated the nation through various challenges and ensured the all-round progress of the country.

Data Sonification



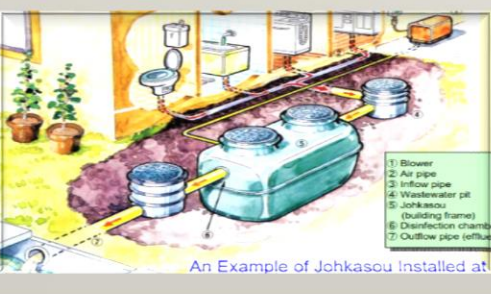
❖ Context

- Recently, India in Pixels tweeted a musical presentation in which sound was generated from data through data sonification.

What is it ?

- The data pertained to the growth of total value of **money transacted via UPI from October 2016 to March 2022**.
- Data sonification refers to the **use of sound values to represent real data**. Simply put, it is the auditory version of data visualisation.
- In September 2020, NASA' Chandra X Ray centre transformed astronomical images into audio using sonification. In that case, Pitch and volume were used to denote the brightness and position of a celestial object or phenomenon.

Johkasou Technology

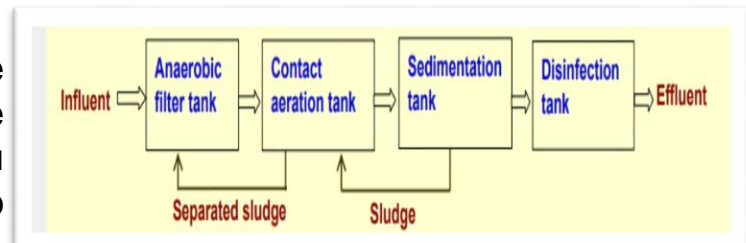


❖ Context

- A Memorandum of Cooperation (MoC) had been signed between the **Ministry of Jal Shakti** and the **Ministry of the Environment of Japan** in the areas of Decentralised Domestic Waste Water Management.

❖ Key highlights

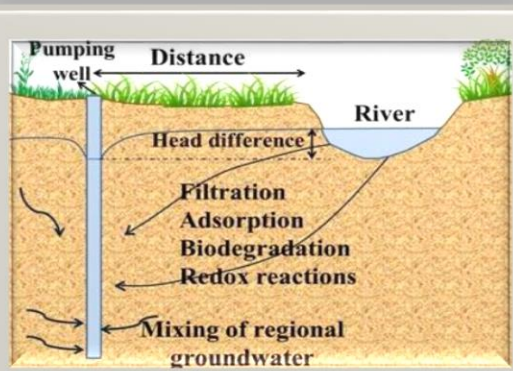
- Johkasou in Japanese language means purification Tank. The unique decentralised Johkasou technology of Japan will help to treat & reuse wastewater locally.
- More than 26% of Sewage in Japan is treated through Johkasou systems.



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The technology based Sewage treatments plants have capacity to handle 1 kilo litre a day to 50 kilo litre a day.
Maintenance cost of such plants is 80% lower as compared to other technologies. It will help government's efforts under Jal Jeevan Mission and Namami Gange Programme.

Riverbank Filtration Technology



❖ Context

- An irrigation system installed at Sal river at Cortalim (Goa) by The Energy and Resources Institute (TERI), in collaboration with the National Institute of Technology (NIT), Goa has prevented the wastage of water in the area.

❖ Key Highlights

- DST under its **Water Technology Initiative programme** also supported the project. It provides **clean water to farmers for irrigation**.
- The water is cleaned through River bank Filtration technology.
- The **sensors are used to control the irrigation via web/mobile app**.
- RBF operates by **extracting water from wells located near rivers or lakes**. Solar panels were installed to pump water from well.
- As the river water infiltrates into and passes through the riverbed sediments, **contaminants** like bacteria and toxic metals are **removed by overlapping biological, physical, and chemical processes**.
- Several studies carried out by researchers say that **bacterial removal efficiencies are almost up to 99.82%**. A TERI study revealed that **heavy metal concentrations were significantly reduced, such as zinc (82%), copper (51%), lead (75%), chromium (94%), and cadmium (75%)**.

Longevity Finance



❖ Context

- **International Finance Services Centres Authority (IFSCA)** had constituted Expert Committee on Longevity Finance which have submitted its report.

❖ Key Highlights

- The committee examined emerging trends in the Longevity Economy globally and observed that **people over 60 years old (silver generation)** are still very much a highly productive demographic group **in terms of purchasing power** and make up the **wealthiest part of the financial system with a global spending power of \$15 trillion**.
- The Committee has recommended the setting up of **first Global Longevity Hub (GLH) in GIFT-IFSC**.
- The hub would focus on developing the longevity economy by offering various **longevity finance solutions** in coordination with leading corporates and financial institutions such as Banks, Pension Funds, Asset Management Funds, Insurance Companies, etc. The Hub will also focus on skill development, entrepreneurial development and also address the demand of financial and insurance products.

Sorkin and Peres Test



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❖ Context

- For the first time, quantum computers were used to directly test the very foundations of the theory on which their working is based.

❖ Key Highlights

- The crucial quantum principles were Sorkin and Peres tests.
- **Sorkin test** is a test of the probabilistic aspect of quantum mechanics which helps calculate the chances of events happening.
- **Peres test** is a test of an aspect of the superposition principle, which expresses the fact that quantum objects may behave as waves - throwing two stones in a pond gives a wave pattern which is the sum of two waves.
- As **quantum computers are scalable quantum systems**, this could provide a **universal programmable setup for quantum experiments**. As a corollary, the scientists have also shown that **quantum mechanics is true** and the tests can be used as a benchmark to evaluate how well a quantum computer performs.

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