



Most Trusted Learning Platform



Questions for Practice

Consider the following statements with respect to the Financial Action Task Force:

1. The decision-making body of the FATF is known as its plenary) meets once in three years. ~~x~~
2. It is a specialized agency of United Nation ~~x~~

Which of the statement given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2 ✓

Questions for Practice

Consider the following statements regarding Mahila Samman Savings Certificate:

1. The Mahila Samman Savings Certificate can be done only in the name of a girl child or woman. ✓
2. A Girl child can deposit any sum of Money in the MSSC scheme.
3. It will offer a fixed interest rate of 7.5% Per Annum Compounded Quarterly

How many statements given above is/are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Questions for Practice

Consider the following statements with respect to Red Sanders:

1. It is endemic to a distinct tract of forests in Andhra Pradesh
2. It is used in cosmetics and medicinal products as well as for making furniture, woodcraft and musical instruments
3. It is listed as vulnerable in the IUCN red list **X**

How many statements given above is/are correct?

- a. Only one
- b. Only two ✓
- c. All three
- d. None

Questions for Practice

Consider the following pairs

1. Global Quality Infrastructure Index – World Bank ✗
2. Corporate Climate Responsibility Monitor – New Climate Institute and Carbon Market Watch. ✓
3. GLOBAL RISK REPORT – World Economic Forum ✓

How many pairs given above is/are correctly matched?

- a. Only one
- b. Only two ✓
- c. ~~Only~~ ^{all} three
- d. ~~All four~~ ^{None}

Questions for Practice

The River Cities Alliance (RCA) is a collaboration between the Ministry of Jal Shakti and

- a. Ministry of Environment Forest and Climate Change
- b. Ministry of Earth Sciences
- c. Ministry of Science and Technology
- d. None

✓ ✓
—
Ministry of housing and urban affairs.

Questions for Practice

How many of the following countries border Ukraine ?

1. Bulgaria X

2. Turkey X

3. Poland ✓

4. Belarus ✓

Code

a. Only one

b. Only two

c. Only three

d. All four

Poland Russia

Belarus

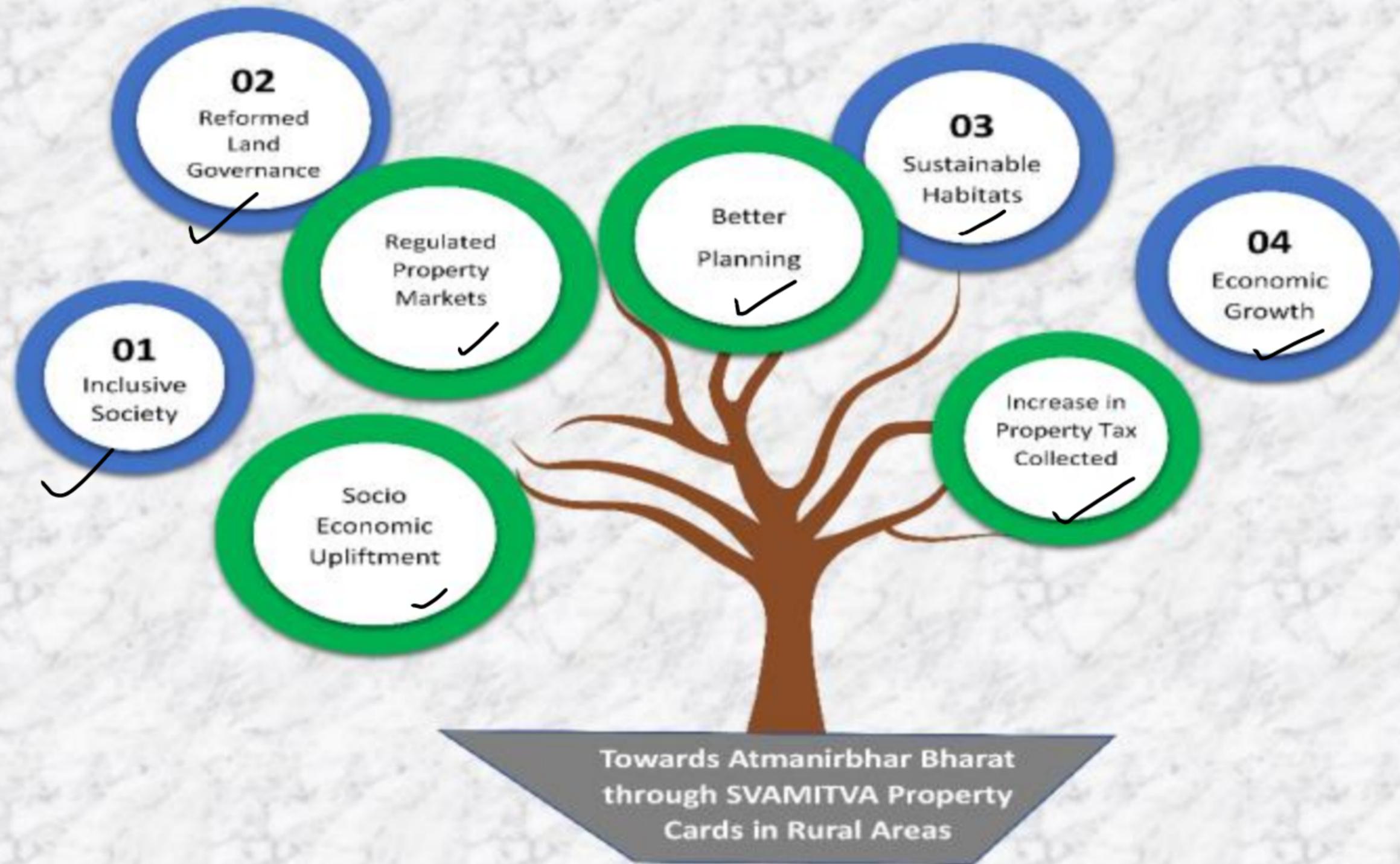
Romania Hungary

Slovakia Moldova

SVAMITVA Scheme

→ April 2023

- It is a Central Sector Scheme of Ministry of Panchayati Raj
- Objective: To provide clear ownership of property in rural inhabited ("Abadi") areas
- How? By mapping of land parcels using drone technology and providing 'Record of Rights' to village household owners.
- What else? Issuance of legal ownership cards (Property cards/Title deeds) to the property owners.
- How it will help? facilitating monetisation of properties and enabling bank loan; reducing property related disputes; comprehensive village level planning, Determination of property tax,
- SVAMITVA Scheme of Ministry of Panchayati Raj won the National Award for e-Governance 2023 (Gold) for Application of Emerging Technologies for Providing Citizen Centric Services.



Bhu-Aadhaar

→ ULPIN

- It is a **14-digit** alpha-numeric unique ID generated using the longitude and latitude coordinates of the land parcel.
- It is based on detailed surveys and geo-referenced cadastral maps.
- Cadastral maps, also known as Bhu Naksha, are digital land records that show the boundaries of land parcels.
- It will cover all land parcels — rural as well as urban.
- It is an initiative of the Department of Land Records and is being implemented as part of the Digital India Land Records Modernisation Programme (DILRMP),
- It is a 100 per cent centrally funded scheme.
- So far, Unique Land Parcel Identification Number (ULPIN) has already been rolled out in 26 states and Union territories



International Fund for Agricultural Development (IFAD)

- It is a **United Nations special agency** and **International financial Institution**
- It works to **eradicate poverty and hunger** in **developing countries.**
- IFAD focuses on **rural poverty reduction**, working with **poor rural populations** to:
 - **Eliminate poverty, hunger, and malnutrition**
 - **Raise their productivity and incomes**
 - **Improve the quality of their lives**
- It is a **result of resolution adopted at the 1974 World Food Conference.**

International Fund for Agricultural Development (IFAD)

- **IFAD is based in Rome, Italy, and is a member of the United Nations Development Group.**
- **It has 177 member states, including India, Pakistan, and Sri Lanka**
- **It has recently launched Enhanced Linkages between Private Sector and Small-Scale Producers (ELPS) Initiative.**
- **It will facilitate cooperation between small agricultural producers in developing nations and businesses in Japan and elsewhere**

UNITED NATIONS STATISTICAL COMMISSION

- **Context: India has been elected to United Nations Statistical Commission for a four-year term beginning January 1, 2024.**
- **It was established in 1946 under United Nations Department of Economic and Social Affairs**
- **It is a functional Commission of the UN Economic and Social Council.**
- **It is the highest body of the global statistical system bringing together the Chief Statisticians from member states from around the world.**
- **The Commission consists of 24 member countries of the United Nations elected by the United Nations Economic and Social Council on the basis of an equitable geographical distribution**



Dabba trading

- Dabba trading is also known as box trading or bucket trading.
- It refers to an illegal practice of trading that takes place outside the purview of stock exchanges.
- Some traders and brokers bet on stock price movements without incurring a real transaction to take physical ownership of a particular stock.
- Simply put, it is gambling centred around stock price movements.
- And, all these dabba transactions are settled in cash, leaving no trail.



Dabba trading

- The traders are not registered with the Securities and Exchange Board of India (SEBI) either.
- Dabba trading is recognised as an offence under Section 23(1) of the Securities Contracts (Regulation) Act (SCRA), 1956.
- Upon conviction, investors and traders can face imprisonment for a term extending up to 10 years or a fine up to Rs 25 crore or both.



GREEN DEPOSITS

- Green deposits are not very different from the regular deposits that banks accept from their customers.
- The only major difference is that banks promise to earmark the money that they receive as green deposits towards environment-friendly projects.
- For example, a bank may promise that **green deposits will be used towards financing renewable energy projects that fight climate change.**
- A bank may also avoid using green deposits to invest in fossil fuel projects that are considered harmful to the climate.
- A green deposit is just one product in a wide array of other financial products such as green bonds that help investors put money into environmentally sustainable projects.

GREEN DEPOSITS

- **RBI Framework for Green Deposits**
- It is not applicable to **Regional Rural Banks, Local Area Banks and Payments Banks**
- The banks will have to come up with a set of rules or policies approved by their respective **Boards** that need to be followed while investing green deposits from customers.
- These rules need to be **made public on the banks' websites**
- The banks will have to disclose regular information about the amount of green deposits received, how these deposits were allocated towards various **green projects**, and the impact of such investments on the environment.
- **A third-party will have to verify the claims** made by banks regarding the projects in which the banks invest their green deposits as well as the sustainability credentials of these business projects.

→ Scheduled
Commercial
banks

→ NBFC



Renewable
energy ✓



Pollution
prevention
and control ✓



Green
buildings ✓



Sustainable
management of
living natural
resources
and land use ✓



Terrestrial and
aquatic biodiversity
conservation ✓



Energy efficiency in
resource utilisation ✓



Clean
transportation ✓



Climate
change adaptation ✓



Sustainable
water and waste
management ✓

SATHI Portal

- It is a **Centralized Online System** for seed traceability, authentication and inventory designed to deal with the **challenges of seed production, quality seed identification and seed certification.**
- It has been developed by the **NIC** in collaboration with the Union Ministry of **Agriculture and Farmers Welfare** on the theme of 'Uttam Beej - Samriddh Kisan'.
- It is an initiative of the **Ministry of Agriculture and Farmers' Welfare**, Govt. of India.
- The portal aims to **curb the sale of spurious seeds and ensure quality seeds reach farmers.**

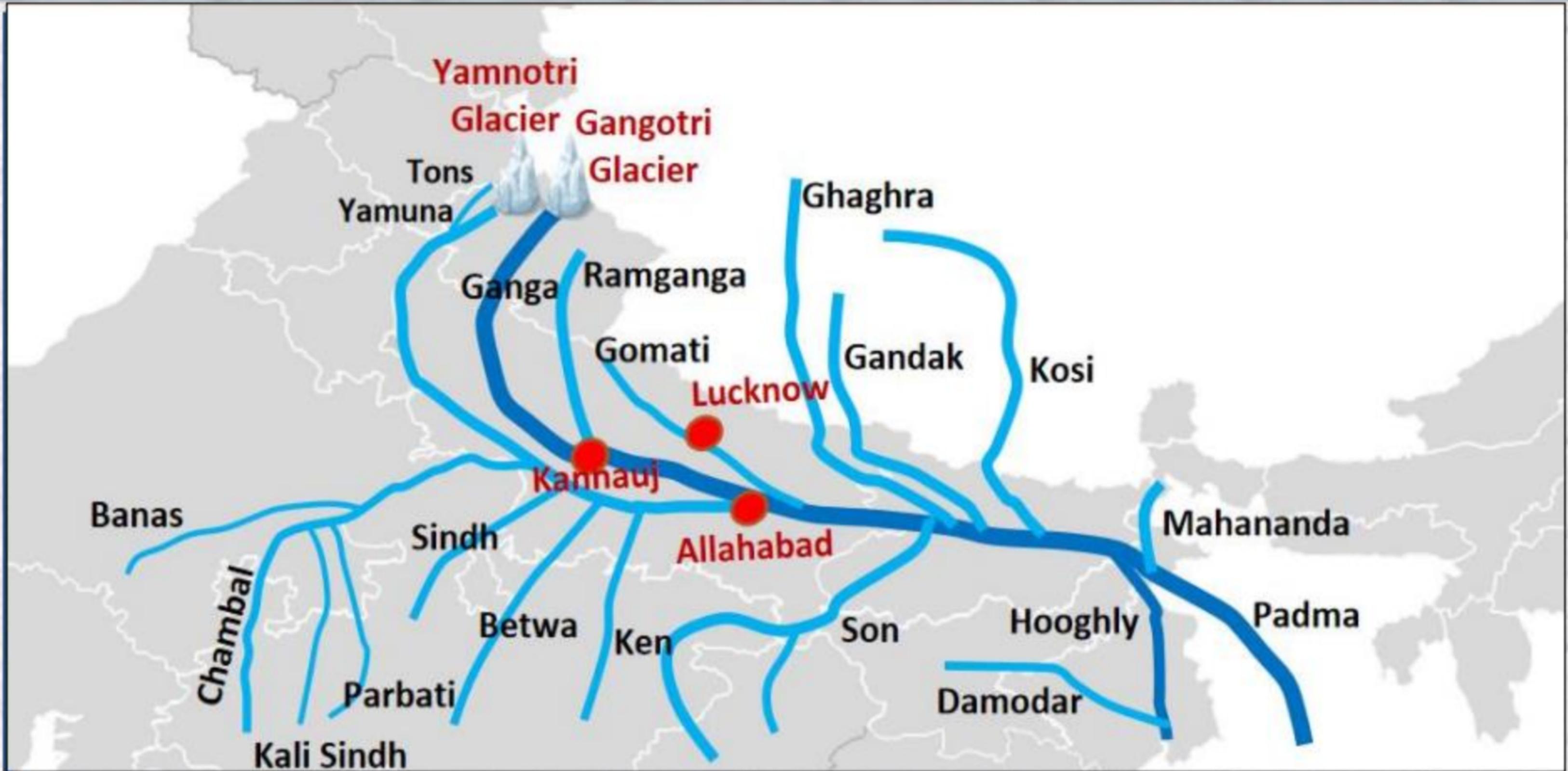
SATHI Portal

- **It will**
- **Enhance and ensure the quality and purity of seed through the complete digital platform to cover entire Seed Life Cycle over multiple generations**
- **Increase accountability with the help of seed traceability through multiple modules**
- **Improve the on-field efficiency of Seed Certification Inspector by reducing human error and Integrating technology into the system**

PRAYAG PLATFORM

- **Platform for Real-time Analysis of Yamuna, Ganga and their Tributaries**
- **It is an online dashboard that monitors the quality of river water, the performance of sewage treatment plants, and common effluent treatment plants.**
- **It also helps with planning and monitoring projects and river water quality through various online dashboards**

UPSC



Species in News: PROSOPIS CHILENSIS

- An alien invasive plant is threatening to pulverise native vegetation across 21 Islands In the Gulf of Mannar Biosphere Reserve (GoMBR).
- It is a drought-resistant plant native to the arid regions of four South American countries — Argentina, Bolivia, Chile, and Peru.
- The Prosopis chilensis is also known as Chilean mesquite.
- It is a small to medium-sized legume tree that grows up to 12 m in height and 1 m in diameter.
- Most of the islands have sand dunes along their coastlines with salt-dominant plant species.
- Some of the islands contain trees while the marshy sections of some of the islands are occupied by mangroves and allied species.



Mangrove

LIGO-India, gravitational-wave detector

- It will be the third of its kind, other than LIGO in Louisiana and Washington in the U.S. LIGO-India will work in tandem with them.
- Joint project of India-US to study gravitational waves
- Expected to enhance scientific knowledge and astrophysics research not just in the country, but the world,
- To be built in Maharashtra's Hingoli district, near the city of Aundha.
- Expected to be operational by 2030.
- Third LIGO site in the world
- Comprises two 4-km-long vacuum tubes that work like antennae which can detect gravitational waves caused by massive events in space, such as black holes colliding

LIGO-India, gravitational-wave detector

- How does LIGO work?
- LIGO is essentially a massive L-shaped instrument, with each arm being 4 km long. Each arm encases a steel vacuum tube called an interferometer.
- Laser pulses are shot through each arm and bounced back off a mirror at each end. A detector monitors the timing and movement of these pulses.
- When a gravitational wave passes through the detector, the pulses will not return on time. Scientists can use this and other such signals to study gravitational waves.
- LIGO is highly sensitive and can detect gravitational waves from distant galaxies, hundreds of millions of light years away.
- For instance, the first gravitational wave observed by LIGO in 2015, according to the estimates of scientists, was caused by the collision of two black holes about 1.3 billion years ago.

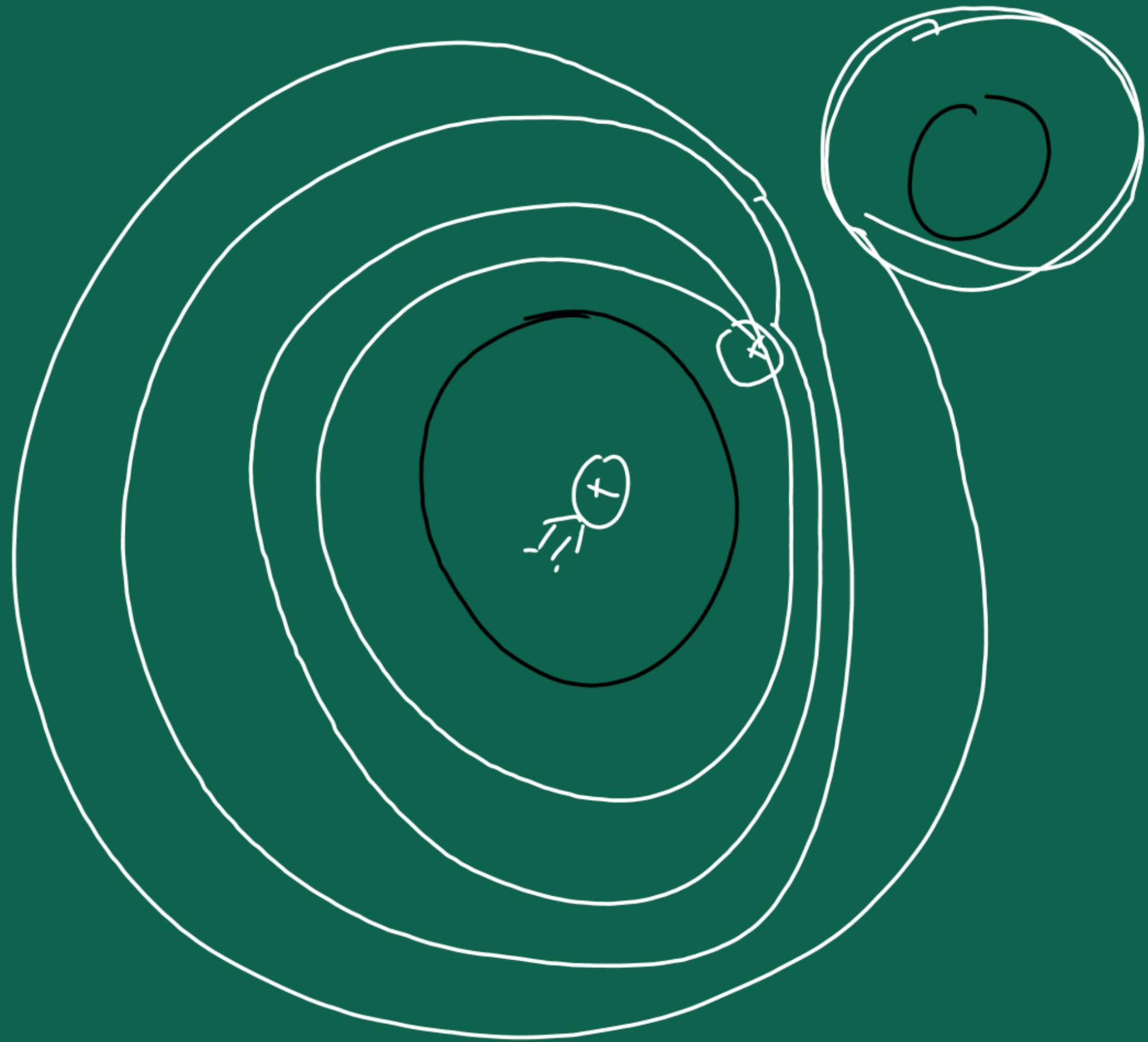
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LIGO-India, gravitational-wave detector

- **Gravitational Waves: Are made of energy and are released after major events involving the most massive bodies in the universe, such as the merging of black holes, massive stars exploding at the end of their lifetimes, and the collision of neutron stars.**
- **Gravitational waves carry information on the motions of objects in the universe.**
- **It allows us to observe further back into the history of the universe than ever before**
- **Original Form: Gravitational waves are not absorbed or reflected by the matter in the rest of the universe**
- **Ability to “see through” objects between Earth and the gravitational wave source. – Hence better than telescopes**

The Jupiter Icy Moons Explorer, or JUICE

- It is a European Space Agency (ESA) mission to explore Jupiter and three of its icy moons: Europa, Callisto and Ganymede.
- JUICE will orbit Ganymede, the solar system's largest moon, becoming the first probe to orbit a planetary moon other than Earth's.
- JUICE's journey to Jupiter will take seven and a half years and involve three returns to Earth, where the spacecraft will receive gravity assists from our planet to adjust JUICE's trajectory.
- The spacecraft will also perform one such maneuver at Venus.
- The spacecraft will arrive at Jupiter in December 2031 and will spend three years orbiting the planet and making close flybys of three of its main moons: Europa, Ganymede and Callisto



Preparedness and Resilience for Emerging Threats (PRET) Initiative

→ WHO

- It is aimed at providing “guidance on integrated planning for responding to any respiratory pathogen such as influenza or coronaviruses”
- The initiative was announced at the Global Meeting for Future Respiratory Pathogen Pandemics held on 24-26 April 2023 in Geneva, Switzerland.
- The current focus of PRET will be on respiratory viruses — in the backdrop of the SARS-CoV-2 outbreak
- It aims to assess what should be the next group of pathogens to be mitigated under this initiative.
- It lists a host of actions which countries will be expected to work on with progress being achieved by December 2025
- It represents an evolution of WHO's core activities to support all member states in strengthening health emergency preparedness, prevention, and response capacities and capabilities.

POEM - PSLV Orbital Experimental Module.

- **POEM is an experimental mission by ISRO that conducts scientific experiments in orbit.**
- **It uses the discarded PS4 stage of the PSLV-CA launch vehicle as an orbital platform.**
- **In June 2022, the PSLV-C53/DS-E0 campaign had its PS4-OP referred to as POEM.**
- **This was the first time that the PS4 stage would orbit the earth as a stabilized platform**
- **PSLV is a four-stage rocket, and while the first three stages are jettisoned into the ocean after they push the mission to desired orbit, the four-stage remains in orbit and becomes space junk.**
- **Poem, is powered by solar panels and is fitted with its own Navigation Guidance and Control (NGC) system, which helps in attitude stabilization.**

PUSHKARALU/PUSHKARAM FESTIVAL

- **Ganga Pushkaralu or Ganga Pushkaram is a festival that is celebrated once every 12 years in honour of Ganga, the Hindu deity**
- **The festival is celebrated to worship the river Ganga and is also known as Pushkaralu (In Telugu), Pushkara (In Kannada) or Pushkar.**
- **The festival is observed for a period of 12 days and it is a very auspicious time to take a bath in the river Ganga.**
- **The festival is celebrated when the Pushkaram star appears in the sky, as it is believed that the star brings good fortune.**
- **Ganga Pushkaralu is mainly celebrated in the southern states of Andhra Pradesh and Telangana**
- **Ganga, Narmada, Saraswati, Yamuna, Godavari, Krishna, Kaveri, Bhilma, Tapti, Tungabhadra, Sindhu and Pranhita.**

Project Sky Canvas

- **It is a Japanese company's plan to launch satellites in 2025 that will create artificial meteor showers.**
- **The project will involve sending small satellites into orbit around 400 kilometers above Earth.**
- **The satellites will release pea-sized particles that will burn up in the atmosphere and create light, similar to how natural meteors become shooting stars.**
- **The project will also collect atmospheric data in the mesosphere, which is the third layer of the atmosphere.**
- **The mesosphere is too low for satellites to observe and too high for weather balloons or aircraft.**

Layers of Earth's Atmosphere

1200°C



Spaceship

EXOSPHERE



800 to 3000 km

Satellite

-86,5 to 1200°C

Aurora



THERMOSPHERE

80-90 to 800 km

-2,5 to -86,5°C

Meteors



MESOSPHERE

40-50 to 80-90 km

Meteorological Rocket



-56,5 to -2,5°C

STRATOSPHERE

11 to 50 km

Radiosonde



15 to -56,5°C

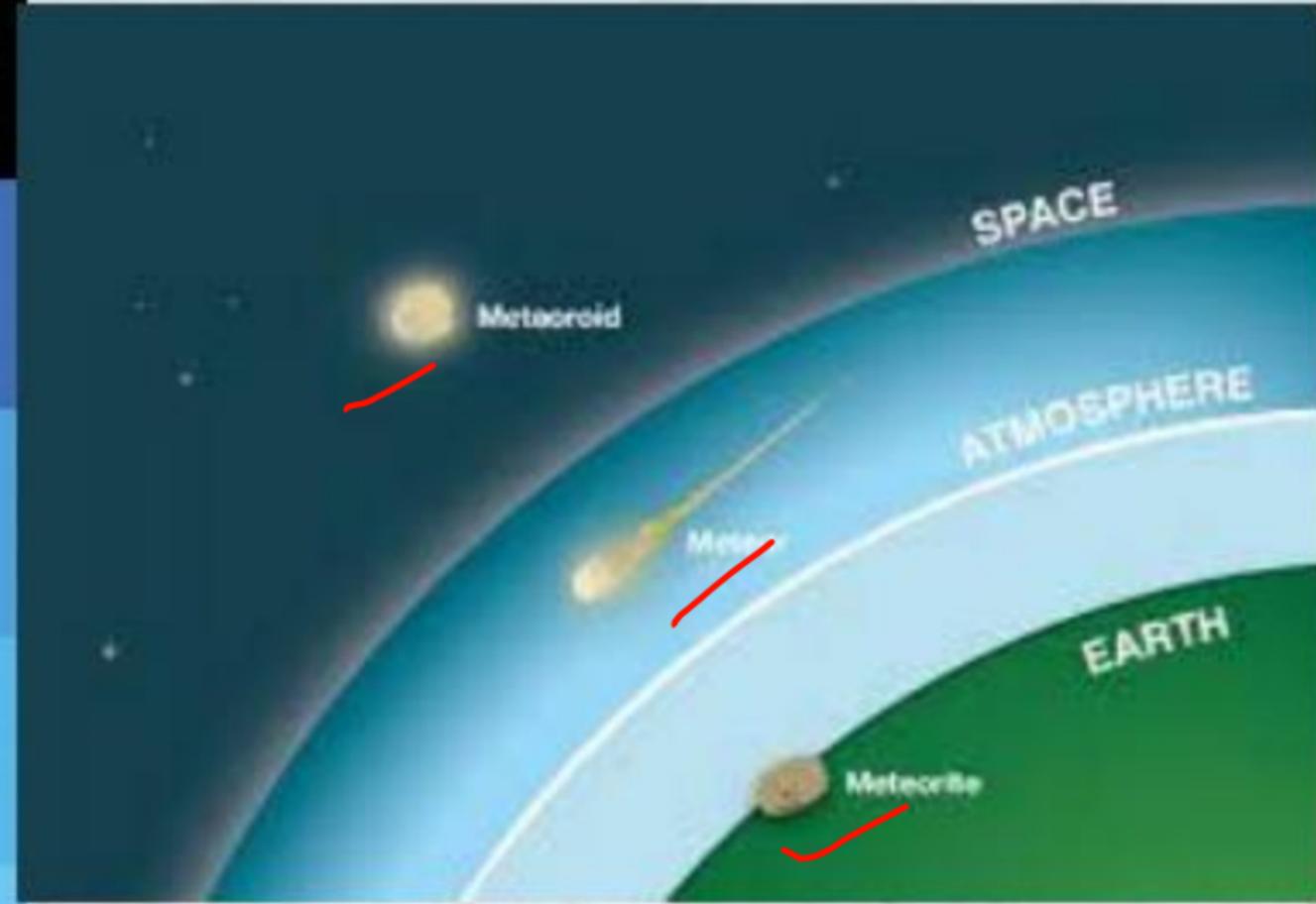
TROPOSPHERE

0 to 12-18 km

Passenger Plane



Hot Air Balloon



Meteoroids -
Meteor -
Meteorites -

Project Sky Canvas

- **The artificial meteor showers will travel more slowly and light up for longer than natural shooting stars, up to ten seconds each.**
- **They will be visible over a 125-mile (200 km) area.**
- **The ingredients in the pellets can be altered to change the color, which means that a multi-colored flotilla of shooting stars could be created.**

DAGGER Model

- **The most active phase of the Sun's cycle is called the solar maximum.**
- **During this time, our star sends out solar flares at its most frequent rate, and solar flares can cause trouble like Geomagnetic Storms**
- **When particles from the sun enter a region around Earth called the magnetosphere, they can cause what are known as geomagnetic storms**
- **The DAGGER model, or Deep Learning Geomagnetic Perturbation, is a computer model developed by NASA**
- **It can predict solar storms 30 minutes before they occur.**

DAGGER Model

- **The model's potential was assessed using data from geomagnetic storms in 2011 and 2015**
- **DAGGER's code is completely open source.**
- **This means that anyone who may need the warning can go in, grab the core programming instructions, and modify them to suit their own needs.**



KHAN GLOBAL STUDIES

Most Trusted Learning Platform

THANKS FOR WATCHING

