

NATIONAL MISSION FOR CULTURAL MAPPING

The detailed dossiers of the villages covered under the Mera Gaon Meri Dharohar programme of the National Mission for Cultural Mapping will be made available from May on a web portal



About National Mission for Cultural Mapping:

- It was launched in 2017 by the **Union Ministry of Culture**
 - **Aim:** To develop a comprehensive database of art forms, artists and other resources across the country.
 - The government has identified and documented distinctive features of more than one lakh villages across the country.
 - In this cultural asset mapping, villages have been **broadly divided into seven-eight categories** based on mythological ecological, developmental and scholastic importance.
 - The Culture Ministry had approved a budget of ₹469 crores for the mission in 2017 **for a period of three years.**
 - Detailed field surveys were carried out by joint teams of the Culture Ministry and the Common Services Centres (CSC), under the Ministry of Electronics and Information Technology.
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WHAT IS GENOME INDIA PROJECT?

Recently, the secretary of the Department of Biotechnology said that under the Genome India project, close to 7,000 genomes have been sequenced and 3,000 of these are already available for public access.



About the Genome India project:

- It is a Pan India initiative focused on the Whole Genome Sequencing of representative populations across India.
 - **Goal:** The goal is to start with and executes whole genome sequencing and subsequent data analysis of 10,000 individuals representing the country's diverse population.
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- This is a mission-mode, multi-institution consortium project, the first of its kind in India supported by the **Department of Biotechnology, Government of India.**

What is Genome?

- A genome is the complete set of **genetic information in an organism.**
- In living organisms, the genome is stored in long molecules of DNA called
- In humans, the genome consists of **23 pairs of chromosomes** located in the cell's nucleus, as well as a small chromosome in the cell's mitochondria.
- A genome contains all the information needed for an individual to develop and function.

EXERCISE KAVACH

The Andaman and Nicobar Command recently conducted a joint military exercise, 'KAVACH', involving assets of the Army, Navy, Air Force, and Coast Guard.



About Exercise KAVACH:

- It was conducted under the aegis of the Andaman and Nicobar Command (ANC), the only Joint Forces Command in the country.
- It was a tri-service exercise and **involved assets of the Indian Army, Indian Navy, Indian Air Force and Indian Coast Guard.**
- Naval warships, amphibious troops of the Army and different types of aircraft of the Indian Air Force were employed during the military drill.
- **Aim:** To enhance **operational synergy and joint warfighting capabilities** among the three services.
- The exercise involved the **synergised application of maritime surveillance assets, coordinated air and maritime strikes, air defence, submarine and landing operations**

WHAT IS JUICE (JUPITER ICY MOON EXPLORER) MISSION?

The European Space Agency (ESA) is in the final phase of launching the much-awaited JUICE (Jupiter Icy Moon Explorer) mission to explore Jupiter and three of its biggest moons.



About JUICE (Jupiter Icy Moon Explorer) Mission:

- It is a European Space Agency (ESA) mission to explore Jupiter and three of its icy moons: Europa, Callisto and Ganymede.
- **Objective:** The probe aims to explore the possibilities of life in space and the origins of Jupiter.
- The probe will take nearly **eight years to reach Jupiter.**
- It will **monitor Jupiter's complex magnetic, radiation, and plasma environment** in depth and its interplay with the moons.
- Approximately **four years after its arrival** at the Jupiter system, **JUICE will move into orbit around the gas giant's largest moon, Ganymede**, to conduct the most extensive exploration of this body, which is larger than the solar system's smallest planet, Mercury.
- It will become the **first probe to orbit a planetary moon other than Earth's.**
- **Features of the spacecraft:**
 - It has been **fuelled with mono-methyl hydrazine (MMH) fuel and mixed oxides of nitrogen (MON) oxidizer**, which ignites when the two come in contact. Juice will use this propellant to make critical course manoeuvres on its journey.
 - It will be **packed with 10 instruments** and will characterize Jupiter's ocean-bearing icy moons.
 - It will be **launched onboard the Ariane-5 rocket**, a workhorse for the European Space Agency.

[LIGO-INDIA: BUDGET IS CLEARED TO SET UP INDIA'S BIGGEST FACILITY TO PROBE THE UNIVERSE](#)

Why in News?

- Seven years after an in-principle approval, the government's final go-ahead to the **LIGO project** paves the way for construction of India's largest scientific facility **to probe the universe through the detection of gravitational waves.**

What are the Gravitational Waves?

- These are the **ripples in space-time** produced by the movement of large celestial bodies like stars and planets.
- These were postulated over 100 years ago in **Albert Einstein's General Theory of Relativity** that encapsulates the current understanding of how gravitation works.
- However, they were **first discovered** in 2015 by **two LIGOs** based in the United States.
- In 2017, this experimental verification of the century-old theory received the **Nobel Prize in Physics** (to Rainer Weiss, Barry C. Barish and Kip S. Thorne).
- Until now, at least 10 events producing gravitational waves have been detected.

What is LIGO (Laser Interferometer Gravitational-Wave Observatory)?

- It is an **international network of laboratories** meant to detect **gravitational waves**.
- Under this, two large observatories (~ 3000 Km apart) were built in the US (Hanford Site, Washington and Livingston, Louisiana) with the aim of detecting gravitational waves by **laser interferometry**.
- **Interferometry** is a technique which uses the interference of superimposed waves to extract information.
- Besides the US, such gravitational wave observatories are currently operational in **Europe and Japan**.
- LIGO-India will be the **fifth**, and possibly the final node of the planned network.

What is LIGO - India?

- It is a planned **advanced gravitational-wave observatory** (as part of the worldwide network), which received the Indian Government's in-principle approval in **2016**.
- The LIGO detector in India **would be similar to the two that are located in the US** and (like these) would have two perpendicularly-placed 4-km long vacuum chambers, that constitute the most sensitive interferometers in the world.
- It will be built by the Department of Atomic Energy (DAE), Department of Science and Technology (DST), **Government of India**, with an MoU with the **National Science Foundation (NSF), USA**, etc.

- LIGO-India is a **multidisciplinary mega-science project** that requires expertise from a variety of fields (laser, vacuum, optics, computer, etc.) and provides cutting edge research opportunities - giving a global role to India.
- To be located in **Hingoli district of Maharashtra**. LIGO-India is scheduled to begin its scientific runs from **2030**.
- It has taken several years for the final approval, with a budget of **Rs 2,600 crore**.
- It will be a unique platform that **brings together in India the frontiers of science and technology of the quantum and the cosmos**.

Why is a Fifth LIGO Observatory Needed?

- Extremely low strength of gravitational waves make their detection very difficult.
- Therefore, LIGO-India is part of the plan to **expand the network** of gravitational wave observatories **in order to increase the chances of detecting these waves** from anywhere in the observable universe.
- This will improve the **accuracy and quality** of information taken from them.

GOVT APPROVES REVISED DOMESTIC GAS PRICING GUIDELINES

Why in news?

- The Union Cabinet has approved revised domestic gas pricing guidelines. The price of natural gas will be 10 per cent of the monthly average of the Indian crude basket.

Existing Gas Pricing in India

- Much of the natural gas being produced in the country does not command a market-determined price — that is, it is not determined by buyers and sellers based on demand-supply dynamics in the market.
- Rather, as per the 2014 guidelines, a formula is used to fix the price of the fuel every six months.
- As per this formula, the domestic gas price is the weighted average price of four global benchmarks:
 - US-based Henry Hub,
 - Canada-based Alberta gas,
 - UK-based NBP, and

- **Russian gas.**

- The domestic price is based on the prices of these international benchmarks in the prior year, and kicks in with a quarter's lag. It applies for six months.
- So, the price applicable from April 1 to September 30, 2022 is based on benchmark prices from January to December 2021.

Criticism of this Formula:

- Domestic gas prices have been rising in the past couple of years but thanks to the formula, they are still cheaper than imported gas.
- Now, this acts as disincentive to local producers such as ONGC, Oil India and Reliance Industries who often find that the price is not worth their time and effort to increase output.
- This eventually leads to **increased gas imports at higher prices.**

News Summary: Govt Approves Revised Domestic Gas Pricing Guidelines

- The Union Cabinet approved significant changes in the pricing regime for domestic natural gas under the ambit of the **Administered price mechanism (APM)**.
 - Under the APM, the Indian government sets the price of natural gas **produced** by oil and gas companies.
 - The price of APM gas, which accounts for about two-thirds of India's natural gas production, has been determined as per the 'modified' Rangarajan formula since November 1, 2014.
 - These changes will mainly apply to gas produced by legacy fields, or nomination fields, of national oil companies Oil and Natural Gas Corporation (ONGC) Ltd and Oil India Ltd (OIL).
 - Nomination fields are acreages that the government awarded to ONGC and OIL before 1999, after which auctions became the basis of awarding oil and gas blocks.
 - **New Pricing mechanism based on recommendations of Kirit Parikh Panel**
 - The panel was constituted in September 2022 to:
 - delve into the extant gas pricing guidelines;
 - recommend changes to balance the interests of gas consumers and producers;
 - help India achieve its aim of increasing domestic gas output and substantially increasing the share of natural gas in the country's energy mix.

IDU MISHMI TRIBE

The recent announcement by the National Tiger Conservation Authority (NTCA) that the Dibang Wildlife Sanctuary would soon be notified as a tiger reserve has caused disquiet among the area's Idu Mishmi people.



About Idu Mishmi Tribe:

- **Who are they?** The Idu Mishmi is a sub-tribe of the larger Mishmi group (the other two Mishmi groups are Digaru and Miju) in Arunachal Pradesh and neighbouring Tibet.

Pradesh and neighbouring Tibet.

- They primarily live in Mishmi Hills, bordering Tibet in Arunachal Pradesh.
- Their ancestral homelands are spread over the districts of Dibang Valley and Lower Dibang Valley, as well as parts of Upper Siang and Lohit.
- They are known for their weaving and craftsmanship skills.
- They can be distinctively identified by their typical hairstyle, distinctive customs and artistic pattern embedded on their clothes.
- **Population:** The tribe is estimated to comprise around **12,000 people** (as per the census 2011).
- **Language:** Their language, called 'Idu Mishmi', is considered endangered by UNESCO.
- **Relation with nature:**
 - Traditionally animists, the tribe has strong ties with the region's rich flora and fauna.
 - Tigers are especially important to the Idu Mishmis — according to Idu mythology, they were born to the same mother, and thus, tigers are their "elder brothers".
 - While hunting has traditionally been a way of life, the Idu Mishmis also follow a strict belief system of myths and taboos — 'iyu-ena' — that restrict them from hunting many animals, including a complete prohibition on killing tigers.

CANNABIS CULTIVATION

Recently, a five-member committee of MLAs has been formed by the state government of Himachal Pradesh to conduct a thorough study of cannabis cultivation and submit a report within a month.



About Cannabis Cultivation:

- **What is cannabis?** Cannabis refers to a group of three plants with psychoactive properties, known as **Cannabis sativa, Cannabis indica, and Cannabis ruderalis**.
- Cannabis is made up of more than 120 components, which are known as cannabinoids but experts have a pretty good understanding of two of them, known as **cannabidiol (CBD) and tetrahydrocannabinol (THC)**.
- The Mexican term 'marijuana' is frequently used in referring to cannabis leaves or other crude plant material in many countries.
- In India farming of cannabis has **been legalised in Uttarakhand**, and controlled cultivation of cannabis is also being done in some districts of Gujarat, Madhya Pradesh and Uttar Pradesh.
- **Legal Provisions in India**
- The central law that deals with cannabis (weed or marijuana) in India is the **Narcotic Drugs and Psychotropic Substances Act, of 1985**.
- The NDPS Act prohibits the sale and production of cannabis resin and flowers, but the use of leaves and seeds of the cannabis plant is permitted
- The **states have the power** to regulate and **form the state rules** for it.

SUPPORT FOR POOR PRISONERS SCHEME: TO HELP POOR PAY BAIL AMOUNT, LEAVE JAIL

- The Ministry of Home Affairs (MHA) has decided to launch a **special scheme to provide financial support to poor** people who continue to be in jails because they are unable to afford the penalty or the bail amount.
- This will **enable poor prisoners**, the majority of whom belong to socially disadvantaged or marginalised groups with lower education and income level, **to get out of prison and decongest prisons**.

Why is the Share of Undertrial Burgeoning in Indian Jails?

- According to the National Crime Records Bureau (NCRB), among the 5,54,034 inmates across India's prisons (at the end of 2021), **1% were under-trials** and 22.2% were convicted by a court of law.
- According to the World Prison Brief, India currently has the **sixth highest share of pre-trial detainees** (after Liechtenstein, San Marino, Haiti, Gabon and Bangladesh) in the world.
- This large share of the under-trial prison population is not a recent phenomenon, but has **persisted for decades now** (57.6% in 1975).

What are the Steps taken by the Govt. to Address the Issue of Undertrials?

- Insertion of **Section 436A** in the Code of Criminal Procedure (CrPC)
 - It provides that in a case where punishment for the offence cannot be death and a person has undergone detention for a period extending up to one-half of the maximum period of imprisonment specified for the offence, he shall be released on bail.
- Insertion of a new chapter XXIA '**Plea Bargaining**' in the CrPC
- **Free legal aid** is being provided to poor prisoners through the **Legal Services Authority** at various levels

About the Support for Poor Prisoners Scheme:

- Under the scheme, the Government of India will **provide financial support to States** in order to extend relief to those poor prisoners who are unable to afford the penalty or the bail amount.
- To further strengthen the process, **technology driven solutions will be put in place** to ensure that benefits reach the poor prisoners -
 - Reinforcing the **E-prisons platform**;
 - Strengthening of **District Legal Services Authority** and
 - **Sensitisation and capacity building of stakeholders** to ensure that quality legal aid is made available to needy poor prisoners