

● POLITY

● ECONOMICS

● TECHNOLOGY

● ECOLOGY

## ECONOMICS AND DEVELOPMENT

## DOLLAR SAPS GOLD, SILVER

**NEWS IN GIST:** The price of precious metals – gold and silver fell in June after gold breached past the psychological \$2,000-mark in May to settle at \$1,927.80 per ounce by June and silver closing at \$22.99 per ounce in global markets. The price fall of precious metals in the global markets has been reflected in domestic commodity exchange – MCX too. The US Dollar continues to strengthen with U.S. Federal Reserve Chairman indicating the possibility of further interest rate hikes in the near future.

## ENVIRONMENT AND ECOLOGY

## INTERNATIONAL PLASTIC BAG FREE DAY BEING CELEBRATED TODAY

**Context:** International Plastic Bag Free Day is celebrated on July 3 every year.

**Purpose and Theme:** There is no specific theme for International Plastic Bag Free Day 2023. But the day aims for a plastic-free world and to encourage sustainable solutions to handle the plastic pollution.

**Background of International Plastic Bag Free Day**

- The first country in the world to ban thin single-use plastic bags was Bangladesh in 2002.
- In 2008, **Zero Waste Europe launched a campaign against single-use plastic bags** which was on 3 July. Later on it became a full-fledged **Bag Free World campaign**, a global movement aiming to reduce the use of single-use plastic bags that inspired other parts of the world to participate in Plastic Bag Free Day.
- In 2015, the European Union also passed certain directives to reduce the usage of single-use plastic bags.

**Problems with Plastic**

- Plastic bags take up to 1000 years to decompose completely and till then it continues to harm the health and environment.
- Plastic bags, made up from fossil fuels, are **significant source of greenhouse gas emissions**. According to a report from the United Nations Environment Programme (UNEP),
  - Annually almost **5 trillion single-use plastic bags** are used worldwide.
  - Every year, the world generates **300 million tonnes of plastic waste**.
  - By 2050, there may be more plastic in our oceans than fish.
- **Plastic bags break into smaller pieces called microplastics**. Microplastics are small plastic pieces less than five millimeters long which can be harmful to our ocean and aquatic life.

**Significance of International Plastic Bag Free Day**

- It aims to **create a collective consciousness** to take steps toward reducing reliance on plastic bags and promoting sustainable alternatives.
- The Day also **encourages behavioural change** against the use of plastic bags to achieve a cleaner and healthier environment.
- It also serves as a **reminder of the harmful effects of plastic bags** on the environment, wildlife and human health.

**India's Status**

- Sikkim, in 1998 became the first Indian state to ban disposable plastic bags.
- The Government has notified the **Plastic Waste Management Rules, 2016** and amendments to it in 2018 and 2021.
- **Government has also banned a select list of single-use plastic since July 2022**. Some of the single-use plastic items banned by the government include ear-buds with plastic sticks, balloons with sticks, balloons, candy sticks, cutlery, and crockery such as plates, cups, and glasses.
- As per a report by the Australia-based Minderoo Foundation **India's per capita waste generated from single-use plastic is 4 kg**.

*Single use plastics are those plastic items that are used once and discarded.*



**Alternatives to plastic bags**

- Reusable bags made of canvas, cotton, or other materials. These bags are strong, durable, and can be used multiple times.
- Paper bags, which are biodegradable and recyclable.
- Mesh bags, especially useful for carrying fruits and vegetables, are lightweight, and can be washed and reused several times.

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## INTERNAL SECURITY

## FOUR KILLED IN FRESH VIOLENCE IN MANIPUR

**NEWS IN GIST:** At least four men were killed in a fresh round of violence in Manipur on July 02, 2023. As many as 138 people have been killed and over 60,000 displaced since May 3, when the ethnic violence between the Kuki and Meitei communities erupted. Since the violence, the areas in the foothills, with adjacent Kuki and Meitei settlements, have been turned into buffer zones where Central forces have been deployed. The United People's Front (UPF) and Kuki National Organisation (KNO), the umbrella organisation of the 24 Kuki insurgent groups in a Suspension of Operations (SoO) pact with the government decided to lift the blockade at Kangpokpi with immediate effect to ensure uninterrupted supply of essential commodities in the State.

**DEMOGRAPHY:** Meitei and Meitei Pangals, who constitute roughly 64 % of the state's population predominantly reside in the Manipur valley, which constitute approximately 10 % of the geographical area. Tribes, predominantly the Kukis that make up remaining 35 % of the Manipur's population reside in hills surrounding the valley, that makes up remaining 90 % of the state's geographical area comprises, which are home to the recognized tribes. Out of

60 Assembly constituencies of the state, 40 are in the valley.

**ISSUE:** The Meitei's living in the Manipur plains have been demanding the status of Scheduled Tribes since 2012 under the aegis of the Scheduled Tribes Demand Committee of Manipur (STDCM). A single judge of the Manipur High Court passed an order asking the government to consider the demand of the Meitei community for ST status. The order has been strongly opposed by groups representing the state's tribal communities such as Kukis and Nagas, living in Hills. Besides, the Kukis and other tribals also point out the dominant representation of Meitei community in the State Legislature. Additionally, the Meitei language is already included in the Constitution, and sections of the Meitei community are already classified as Scheduled Castes or Other Backward Classes with access to opportunities associated with that status. An ethnic clash are due to longstanding tensions between hill and valley people, the Meitei demand for ST (Scheduled Tribe) status, and a recent order by the Manipur High Court.

## INTERNATIONAL RELATIONS

## INDIA, CHINA RAMP UP INFRA ON NORTH BANK OF PANGONG LAKE

**Context** There have been a number of infrastructure projects initiated around Pangong lake, since the stand-off began in 2020

India is building a black-topped road ( a bituminous material used especially for surfacing roads) on the north bank

China is building a bridge across glacial lake; both await 19th round of Corps Commander level talks to find a resolution to dispute

Three years after the violent clash between Indian and Chinese forces in Galwan followed by tanks facing each other around the Pangong Tso — a lake spanning eastern Ladakh and western Tibet — there is hectic activity in the area from both sides.

While China is rushing to complete a bridge across the Pangong Tso, connecting the north and south banks, India is also building a black-topped road on its side on the north bank.

Pangong Lake, situated at a height of almost 4,350m, is the world's highest saltwater lake.

These are among a number of infrastructure projects initiated on both sides since the stand-off, permanently altering the status quo on the ground in eastern Ladakh, even as the two sides await the 19th round of Corps Commander-level talks to find a resolution to their dispute in the region.

Construction of black-topped road towards Finger 4 on our side is on and is expected to be completed by 2025. There is major impetus on infrastructure, road networks, advanced landing grounds and so on.

In addition, construction work is at an advanced stage on the alternative axis to the critical Darbuk-Skyok-Daulat Beg Oldie road through the Saser La.

**Chinese construction**

On the Chinese side, work is now under way on the main bridge, while the secondary bridge has been completed.

A Chinese air defence site is located east of the Khurnak fort.

A 22-km tunnel is under construction along the G-0177 expressway at Yuli, connecting to the very important G-216 highway in Tibet.

As over one lakh troops continue to be deployed on either side of the lake since 2020, the Corps Commander-level talks remain gridlocked over two remaining friction points at Depsang and Demchok.



At both locations, the Chinese side has been blocking Indian patrols, the source said, while adding that there has been some climb-down on Chinese position during the talks.

**Indian Budget for BRO**

The budgetary allocation for the Border Roads Organisation has increased sharply over the past few years; in 2023-24, for instance, BRO's capital budget was ₹5,000 crore, 43% higher than the ₹3,500 crore allocated in 2022-23. Much of that has been spent on the India-China Border Roads (ICBR) plan.

The first source said that there has been significant progress under the second phase of the ICBR plan. It envisages the construction of over 1,400 km of strategic roads along the LAC.

The BRO is close to finishing some key infrastructure projects in the eastern sector, improving all-weather connectivity along the LAC.

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## SCIENCE AND TECHNOLOGY

# GENOME-SEQUENCING SCREENING FOR BABIES UNLOCKS BLUEPRINT OF HEALTH

**Context :**

Newborn screening programmes are now in practice in different countries, and **have been deployed in India as well.**

They are based on the fact that **an early diagnosis could allow use of effective treatments and save an infant from death or disability**

**What is Genome?**

A genome refers to all of the genetic material in an organism, and the human genome is mostly the same in all people, but a very small part of the DNA does vary between one individual and another. Every organism's genetic code is contained in its Deoxyribose Nucleic Acid (DNA), the building blocks of life.

In the U.S., healthcare workers screen for around 30 diseases, including treatable ones of the blood, the endocrine system, and metabolism.

Can help in curing disease affecting the baby is not common and known to many clinicians, and could be buried in medical textbooks or databases.

There are 6,000 or so genetic diseases, of which around 3,500 diseases have been documented, and a much smaller number have had their molecular and/or genetic defects mapped.

A significant number of diseases in the population are also treatable but are nevertheless prevalent.

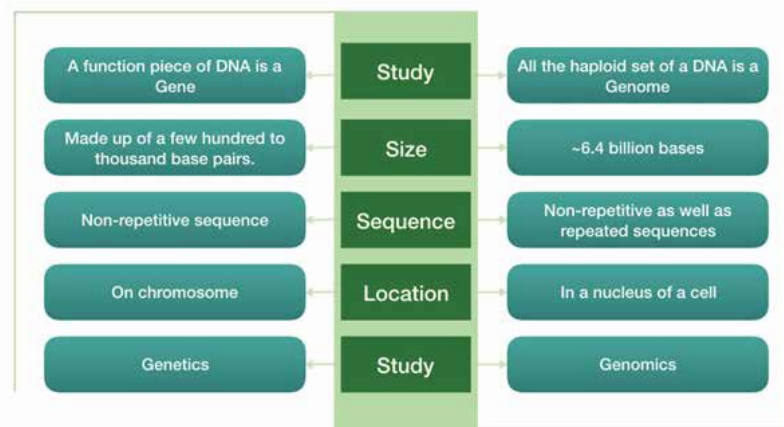
Genomic-sequencing is now available, accessible, and in many ways more affordable.

Sequencing is also a 'single' test, versus the multitude of tests performed as part of routine newborn-screening.

**Why is Genomic-sequencing important?**

The rarity of many genetic diseases, the narrow window of opportunity, the long diagnostic paths, and the unfortunate deaths of ill babies makes it very difficult to document and understand these diseases.

Researchers at the Rady Children's Institute, led by Stephen Kingsmore, earlier showed that whole-genome sequencing could provide a much higher number of positive cases with a diagnosis, around 40% as compared with standard genetic tests at 10%

**Need for speed**

A large study with more than 100 children with different disease complexities, and published in 2019, suggested a median time for sequencing, clinical interpretation and reporting of just over 20 hours, suggesting the approach could have far-reaching impact in clinical settings. With technological advances, including better AI-based tools to assist clinical decisions, rapid sequencing is likely to become a diagnostic mainstay for unwell infants in clinics.

**Ethics and hope**

The issue of disclosing and managing incidental and secondary findings raises concerns about privacy and the psychological impact on families.

The equitable distribution of benefits and burdens associated with accessing and utilising this technology also invoke issues of justice and fairness .

## SOCIAL JUSTICE

## MAKING IT COUNT

**NEWS IN GIST:** The decision to remove the disability-specific question from the National Family Health Survey (NFHS) raises concerns about the government's commitment to the disabled population. The Ministry of Health argues that disability data is already collected through other surveys, but the NFHS provides more comprehensive information that is crucial for understanding the lives and needs of the disabled. The inclusion of disability questions in the NFHS is important for better policy-making.

**PRESENT STATUS:** The Ministry of Health defends the exclusion of disability-related questions in NFHS-6, stating that the survey's primary focus is maternal and child health. The ministry argues that disability data does not change quickly and collecting it every three years is unnecessary. Activists,

however, call for comprehensive data on disabilities to improve care and express concerns about underestimating the prevalence of disability.

**PRESENT STATUS:** According to the 2011 Census, India has a differently abled population of 26.8 million, with a slight increase from 2001. Of this, 14.9 million are men and 11.9 million are women. Rural areas account for over 18 million disabled individuals, while urban areas have 8.1 million. Scheduled Castes and Scheduled Tribes constitute a significant proportion of the disabled population.

**CONSTITUTIONAL PROVISIONS:** The Constitution of India guarantees fundamental rights to all citizens, including the right to equality, freedom, and protection against exploitation. These rights also apply to persons with disabilities, even though they are not explicitly mentioned in the Constitution.



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