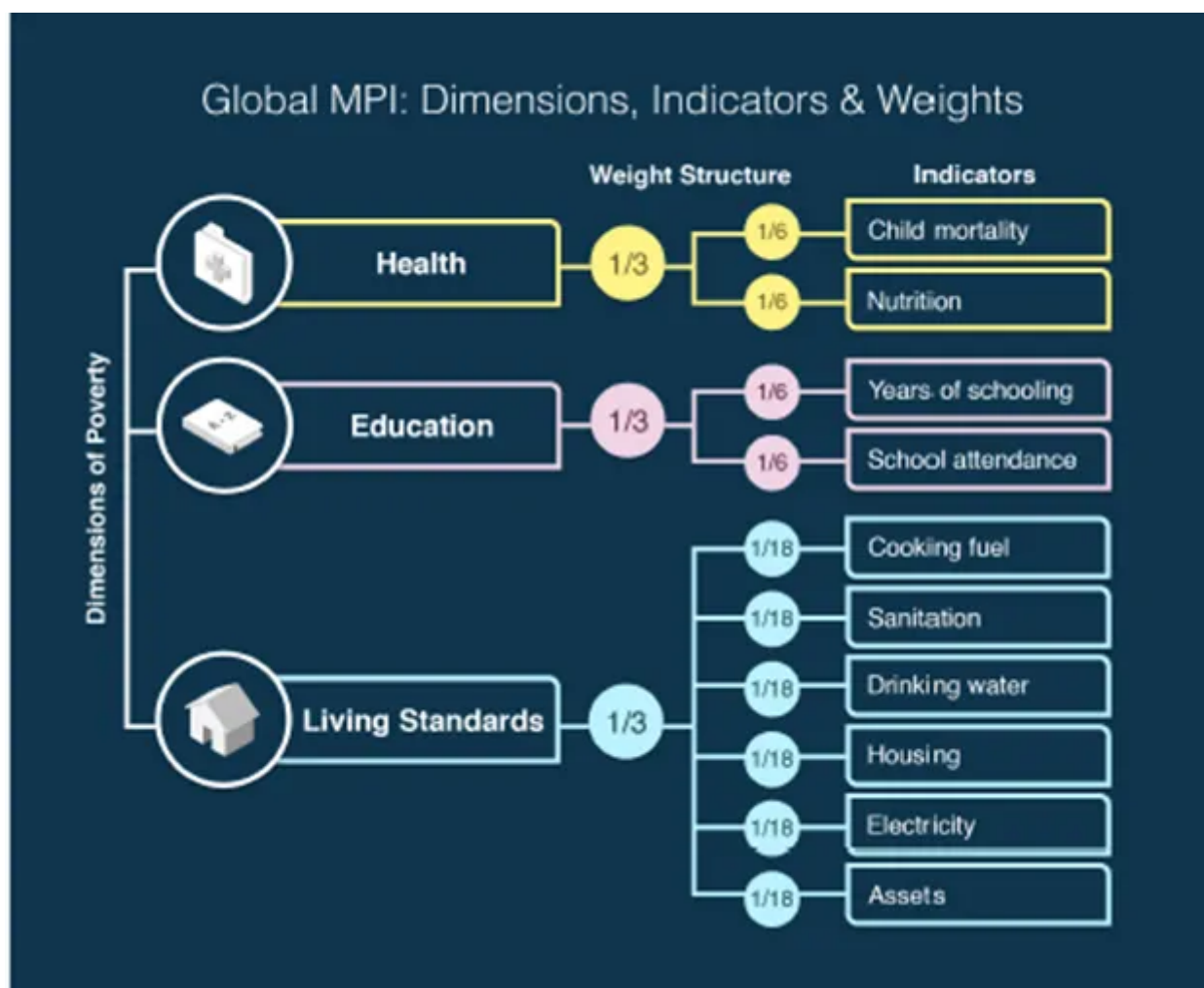


## Prelim Bits 12-07-2023 | UPSC Daily Current Affairs

### UN's Multidimensional Poverty Index

Some 415 million Indians escaped poverty between 2005-06 and 2019-21, according to the latest Multidimensional Poverty Index (MPI) highlighting the remarkable achievement by India.

- It is an international index released annually by United Nations.
- The index reflects the multiple deprivations that poor people face in the areas of education, health, and living standards.
- **Released by** -UN Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) since 2010.
- **Indicators**



- **Report Findings - India** - According to it, India has pulled 415 million Indians out of poverty between 2005-06 and 2019-21 with incidence falling from 55.1% to 16.4%.

Indicators	Declining Percentage
Nutrition indicator	From 44.3% to 11.8%
Child mortality	From 4.5% to 1.5%
Cooking fuel	From 52.9% to 13.9%
Sanitation	From 50.4% to 11.3%
Drinking water	From 16.4% to 2.7%
Electricity	From 29% to 2.1%
Housing	From 44.9% to 13.6%

- **Global Values**

- According to the report, 1.1 billion out of 6.1 billion people live in acute multidimensional poverty across 110 countries.
- *Sub-Saharan Africa* and *South Asia* are home to approximately *five out of every six* poor people.
- Children under the age of 18 account for half of MPI-poor people (566 million).
- Poverty predominantly affects *rural areas*, with 84% of all poor people living in rural areas.
- As per data collected in 2021/2022, some countries like Mexico, Madagascar, Cambodia, Peru, and Nigeria have persisted a momentum on poverty reduction even during the pandemic.
- 25 countries along with India, Cambodia, China, Congo, Honduras, Indonesia, Morocco, Serbia, and Vietnam have halved their MPI values.

## References

1. [The Hindu | 415 million Indians came out of multidimensional poverty](#)
2. [Down to Earth | India lifted 415 million people out of poverty](#)

## Director of Enforcement Directorate

*The Supreme Court quashed the Centre's order of granting third extension to Enforcement Directorate director Sanjay Kumar Mishra.*

## Enforcement Directorate

- It is a premier *financial investigation agency* of the Government of India.
- The Directorate of Enforcement was established in the year 1956 with its Headquarters at New Delhi
- **Ministry** - It is part of the *Ministry of Finance*.
- The Directorate of Enforcement is a multi-disciplinary organization mandated with investigation of offence of money laundering and violations of foreign exchange laws.
- It is composed of IAS, IPS and IRS officers, and also officers promoted from ED's own cadre.
- **Functions** - The statutory functions of the Directorate include enforcement of following Acts
  - The Prevention of Money Laundering Act, 2002 (PMLA)
  - The Foreign Exchange Management Act, 1999 (FEMA)

- The Fugitive Economic Offenders Act, 2018 (FEOA)
- It is also a sponsoring agency under Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA).

## Director of Enforcement Directorate

- The ED director is appointed as per provisions of the Central Vigilance Commission Act, 2003.
- The director of enforcement directorate is appointed by the central government.
- **Appointment Committee** - The Centre appoints the director on recommendation of a high level committee.
- **Term** - CBI and ED chiefs have fixed tenures of 2 years.
- Amendments enacted in 2021 to the Central Vigilance Commission Act (2003), the Delhi Special Police Establishment Act (1946) and the Fundamental Rules allow them a maximum 3 annual extensions.

## High level committee and its working

- A 5-member panel composed of the Central Vigilance Commissioner (chair) and Vigilance Commissioners had to recommend appointment of the ED director.
- The same committee extends the tenure, if an ED Director was worthy of an extension in service.
- Other committee members are secretaries in the members comprising of Finance (Revenue), Home and Personnel & Training ministries.
- In case of the CBI Director, a High-Level Committee of the Prime Minister, Opposition Leader and the Chief Justice of India had to recommend.

## References

1. [The Hindu | Supreme Court asks ED chief to quit](#)
2. [Hindustan Times | SC refuses Centre's 3rd tenure extension to ED](#)

## Underground Climate Change

*Underground climate change is worrying scientists and engineers involved with aspects of urban planning as it could adversely affect the durability of structures and infrastructures in cities.*

- **Underground climate change** - It is the impact due to rising subsurface temperatures because of human activity like basement parking, tunnel roads, subways, and underground rail, among others.
- This phenomenon is known as “underground climate change” or “subsurface heat islands”.
- It is an extension of the phenomenon of urban heat islands.

*Urban heat islands are urban regions which are significantly warmer than their rural surroundings due to human activities.*

- Researchers have found that the shallow subsurface beneath cities warms by 0.1 to 2.5 degrees Celsius per decade.
- Heat diffuses from buildings and underground transportation, warming the ground at an increasingly fast rate.
- The ground underneath cities absorbs and retains heat from various sources, including buildings, transport systems, industrial processes.
- It also includes waste heat from basements and other subterranean facilities.
- Over time, the accumulation of this heat can lead to an increase in subsurface temperatures.
- The heat trapped is affecting the soil by making it expand or contract.
- **Threat** - Underground climate change is a silent hazard, as no existing civil structure or infrastructure is designed to withstand these variations.
- **Effects**
  - **Environment and infrastructure**
  - This can lead to instability in building foundations, causing them to crack or move.
  - It can change the characteristics of the soil and rock that affects underground water resources.
  - **Health and ecological impacts**
  - It can cause serious health implications, such as heat stroke and respiratory problems.
- **Opportunity**
  - The heat generated can be captured and used as a source of geothermal energy.
  - By harnessing this waste heat, it's possible to reduce the impact of underground climate change while providing a sustainable source of energy.
- **Measures**
  - To minimize heat generation in urban constructions, materials with *lower thermal conductivity* can be used to improve the insulation of buildings, and capturing and using the waste heat.

## References

1. [New Indian Express | An underground heat threat to urban structures](#)

2. [Earth | Underground climate change](#)

## Lambani Art

*Lambani artisans set Guinness World Record for making highest number of embroidery patches at the G20 Culture Working Group meeting held at Bhubaneswar.*

- **About** - Lambani embroidery is a vibrant and intricate form of textile embellishment characterized by colourful threads, mirror work, and a rich array of stitch patterns.
- It is a traditional art form of *Hampi, Karnataka* predominantly upheld by the skilled women of the Lambani community.
- It is practised in several villages of Karnataka such as Sandur, Keri Tanda, Mariyammanahalli, Kadirampur, Sitaram Tanda, Bijapur, and Kamalapur.
- Lambani craft tradition involves skillfully *stitching together small pieces of discarded*



*fabric* to create a beautiful fabric.

- Lambani embroidery uses a total of 14 types of stitches.
- Most of the stitches follow a geometric pattern like squares, circles, triangles, rectangles, diagonal and parallel lines.
- When many lines of different stitches are arrayed together, the fabric becomes a festive array of colours and designs on its surface.
- The embroidery traditions of the Lambanis are shared in terms of technique and aesthetics with textile traditions across Eastern Europe, West, and Central Asia.



- **Lambani Tribes** - Lambanis, also called Lambadis or Banjaras, were nomadic tribes.
- The tribes spread across Sanduru, the Banjaras of Bellary and Bijapur in Karnataka, Hyderabad in Andhra Pradesh.
- Almost all communities of lambani are moved from Central Asia through Afghanistan or Kashmir into Rajasthan, Gujarat and the South of India.

*The Sandur Lambani embroidery got its **Geographic Indication (GI) tag** in 2010.*

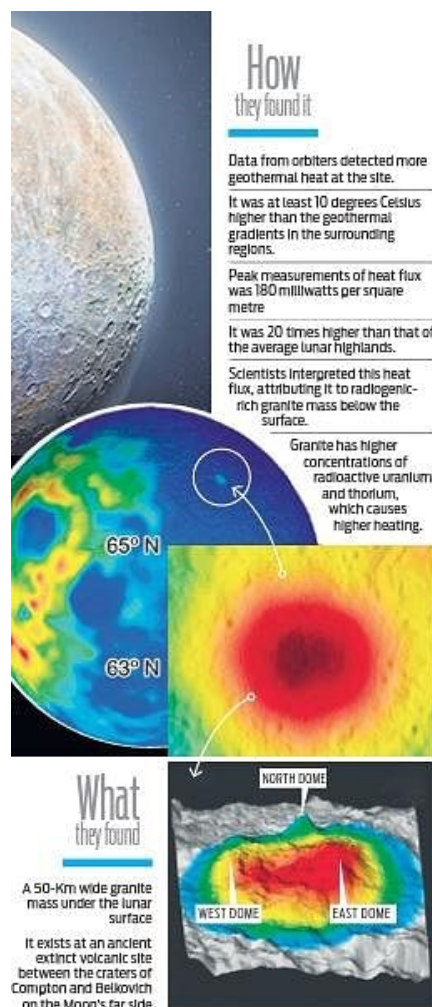
## References

1. [News on Air | Guinness World Record Created for Lambani Art](#)
2. [The Indian Express | Lambani artisans set Guinness World Record](#)

## Granite under moon's surface

*NASA scientists discover huge granite 'mass' buried on Moon based on the data gathered by the Chinese Chang'E-1 and Chang'E-2 lunar orbiters and NASA's Lunar Prospector and Lunar Reconnaissance Orbiters.*

- Scientists have discovered a mass of granite 50km in diameter below the thorium-rich feature and an extinct volcanic caldera between the craters Compton and Belkovich on the Moon's far side.
- The heat measurements revealed that the temperatures under the surface at the site were at least 10 degrees Celsius higher than the geothermal gradients in the surrounding regions.
- This heat flux is due to the radiogenic-rich (heat caused by radioactivity) granite mass below the surface.
- Granite is known to have higher concentrations of radioactive uranium and thorium than in other rocks in the lunar surface.



- A colossal granite formation, located beneath the lunar surface, is believed to have resulted from the cooling of molten magma that once fueled a volcano.
- This active volcano is estimated to have erupted over 3.5 billion years ago, during the Moon's early history.
- Given that the Moon is approximately 4.5 billion years old, this discovery provides valuable insights into its volcanic past.

*Granites are igneous rocks that form remnants of the underground plumbing systems of extinct volcanoes*

### Important Lunar Missions

Missions	Countries	Objective
Luna 2	Soviet Union	First spacecraft to impact the Moon's surface
Luna 3	Soviet Union	First pictures of the lunar farside.
Chang'E-1 & Chang'E-2	China	Lunar orbiters
Korea Pathfinder Lunar Orbiter	South Korea	Basic lunar exploration
Lunar Reconnaissance Orbiter	U.S.A	To study the moon's surface
Chandrayaan-1 & 2	India	To study lunar surface

### References

- [1. New Indian Express | Granite Moon](#)
- [2. India Today | Granite found on the Moon](#)